



# **SIR C R REDDY COLLEGE FOR WOMEN**

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)  
Vatluru (Post), Pedapadu Mandal, Eluru Dist., (A.P)

**Life Skill Course on**

**“Basics of Computer Applications”**

**Date: 21- 03- 2023 to 04 – 05 – 2023**

**Time: 8.30 am to 9.30 am**

**Venue: Seminar Hall & Computer Lab – 3**

**Organized by**

**DEPARTMENT OF COMPUTER SCIENCE**

**2022 – 2023**

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## Brief Note

- ❖ The Department of Computer Science organized a Life Skill Course on Basics of Computer Applications for I B.Sc. MPC and Life Science (CBZ, BZBT and ZFC) students.
- ❖ The objective of learning this course is to enable the students to study a Basics of Computer Applications and to enrich the practical knowledge on Basics of computer.
- ❖ Basics of Computer Applications Course include Basics of computer Hardware and Software, Tools of MS-Office to prepare basic documents, charts, spreadsheets and Presentations. MS-Office is productivity software created by Microsoft. First released in 1990, the Office suite has received several updates over the years. The latest, Office 2021, comes packed with new features and a seamless design.
- ❖ This course is conducted before the regular class work starts every day.
- ❖ This course is conducted from 21- 03- 2023 to 04 – 05 – 2023 (30 hours)
- ❖ The duration of the class is for one hour (8.30 am to 9.30 am).
- ❖ 103 students participated in this Life Skill Course.
- ❖ Course material was provided to every registered participant.
- ❖ During the course 1 Grand test was conducted and evaluated.
- ❖ Participation Certificates were issued to the eligible participants.

# About Course

## Course Description

This is a Life Skill Course that includes in-depth understanding of Basics of computer Hardware and Software, Tools of MS-Office to prepare basic documents, charts, spreadsheets and Presentations. This course helps you in learning MS Windows, MS-Word, MS-Excel, MS-PowerPoint.

This course aims at providing exposure to students in skill development towards basic office applications. In this course you will learn about how to apply skills and concepts for basic use of a computer. Creating personal, academic and business documents using MS office. Creating spreadsheets, charts and presentations. Analyzing data using charts and spreadsheets.

The course mainly focuses on the practical approach and expects you to try hands-on with the exercises to get completely proficient in working with.

## Prerequisites and Expected Skills

Basic computer skills like using a keyboard and mouse, opening and closing computer applications, and navigating file structures are prerequisites for this course.

## Course Duration

- ❖ This course is conducted from 21- 03- 2023 to 04 – 05 – 2023 (30 hours)
- ❖ The duration of the class is for one hour (8.30 am to 9.30 am).

## Criteria to get a Certificate

- ❖ 70% Course Attendance is Compulsory to get the Certificate
- ❖ Students who will get 40% marks in the examination are eligible to get Certificate
- ❖ Students who do not complete the course / leave it midway will not be awarded any certificate

# Learning Objectives and Outcomes

## Learning Objectives

This course aims at providing exposure to students in Life skills Course towards basic office applications. The objective of learning this course is to enable the students to study MS office and to enrich the practical knowledge in MS office.

- Overview of MS office
- To give basic information about the computer system.
- To give knowledge about computer hardware and computer software.
- To familiarize students with the use of MS Windows, Internet and E-mail.
- To familiarize students with the use of MS Office-MS Word, MS Excel & MSPowerPoint.

## Learning Outcomes

After successful completion of the course, student will be able to:

- Demonstrate basic understanding of computer hardware and software.
- Apply skills and concepts of basic use of a computer.
- Identify appropriate tools of the MS office to prepare basic documents, charts, spreadsheets and presentations.
- Create personal, academic and business documents using MS office.
- Create spreadsheets, charts and presentations.
- Analyze data using charts and spreadsheets.

## REPORT

Department of Computer Science organized a 30 days Life Skills Course on “Basics of Computer Applications” for I B.Sc MPC and Life Science (CBZ, BZBT and ZFC) students 21- 03- 2023 to 04 – 05 – 2023 (30 hours). A total of 72 students participated and benefited from the above program. The objective of learning this course is to enable the students to study MS office and to enrich the practical knowledge in MS office.

Ms M. Hemasri, Department of Computer Science gave an introductory talk and invited Sri Chalasani Viswanadharao Garu, Correspondent, Sir C R Reddy College for Women, Smt P. Sailaja Garu, Principal, Mr. K.V.V. Srinivas Garu, Head of the Dept and Resource person Mrs. N. Bharathi, Department of Computer Science, IQAC coordinator Ms. K. Jhansi Lakshmi Garu on to the Dias.

Ms N. Bharathi delivered her speech about importance of learning this certificate course. She said that students will learn about how to apply skills and concepts for basic use of a computer and also they will learn how to create personal, academic and business documents using MS office, creating spreadsheets, charts and presentations. She said that students will also know how to analyze data using charts and spreadsheets.

During this 30-day period, Ms. N. Bharathi have taught students basics of Computers, Block Diagram of a Digital Computer, features of MS-Word - MS-Word Window Components, Overview of Excel features- Features and creating a worksheet, selecting, entering and editing Text, numbers, inserting and changing rows and columns width and heights, formulae, Referencing cells, changing font sizes and colours, Insertion Auto fill sort.

Features of PowerPoint- Creating a presentation, Inserting and Deleting slides, Adding Clip Art/Pictures -Inserting Other Objects, Audio, and Video, Resizing and scaling of an Object, Slide Transition, Custom Animation.

They have furthered students' understanding of the Basics of Computer Applications course through practical applications, aided by faculty members Ms. M. Hemasri and Ms. E. Nissi from the Computer Science department. By the course's conclusion, students have acquired both theoretical knowledge and practical skills in MS Office.

After completing the course Dept of Computer Science has been Conducted Grand Test on Life Skills Course on Basics of Computer Applications on 5<sup>th</sup> May, 2023. The valedictory ceremony for this Life skills course Basics of Computer Applications is conducted on 6<sup>th</sup> May, 2023. Later certificates were distributed to all the students who have qualified in the Grand Test of this course.

The event was successfully coordinated by Mr. KVV. Srinivas, Head of the Dept and Ms. M. Hemasri, Faculty in Computer Science.

## Permission Letter

**SIR C R REDDY COLLEGE FOR WOMEN, ELURU**

### **Permission Letter**

**Date: 15-3-2023**

To  
The Principal,  
Sir C R Reddy College for women,  
Eluru.

Respected Madam,

**Sub: - Request to grant permission to arrange a Life Skills Course on "Basics of Computer Applications" for First year (MPC, ZFC, BZBT, CBZ) Students- Reg.**

\*\*\*\*\*

This is to bring to your kind notice that Department of Computer Science in association with IQAC is planning to conduct a Life Skills Course on "Basics of Computer Applications" from 21-3-2023 to 04-05-2023 for span of one hour (8.30 AM to 9.30 AM) for First B.Sc. ( MPC,BZBT,CBZ,ZFC ) students. N.Bharathi, MCA, Lecturer in Computer Science gave her concern to educate the students on the above said topic. In this context we request you to grant permission to conduct the Skill Development Course for First B.Sc. (MPC, CBZ, ZFC, and BZBT) Students.

Thanking you Madam,

*Permitted  
K. V. V.*

*K. V. V. C*  
Signature of HOD 2/3/23

# Brochure

**Start Date** 21<sup>st</sup> March 2023  
**Duration** 30 days  
**Time** 8.30 - 9.30 am  
**Venue** Seminar Hall & Computer Lab 3

## About Course

This is a Life Skill Course that includes in-depth understanding of Basics of Computers and Tools of MS Office to prepare basic documents, charts, spreadsheets and Presentations. This course helps you in learning MS Windows, MS-Word, Excel, PowerPoint.

This course aims at providing exposure to students in skill development towards basic office applications. In this course you will learn Creating personal, academic and business documents using MS Office. Creating spreadsheets, Charts & Presentations. Analyzing data using charts and spreadsheets.

## Faculty Information

Ms M Hema Sri M.Tech  
Smt E. Nissi M.C.A

## Instruction to Students

- 70% Course Attendance is Compulsory
- Students who will get 40% marks in the examination are eligible to get Certificate
- Students who do not complete the course / leave it midway will not be awarded any certificate.

Further Information, Contact  
**Ms M. Hema Sri, M.Tech**  
Course Coordinator, Ph: 7981392886



## SIR C.R.REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

Vatluru (Post), Pedapadu Mandal, Eluru Dist., (A.P)

An ISO - 9001:2015, 14001:2015, 50001:2018 Certified Institution

## Life Skills Course on Basics of Computer Applications

From 21st March 2023

Venue: Seminar Hall & Computer Lab 3

Time: 8.30 - 9.30 am



Organized by  
Department of Computer Science




## **Notice to Staff and Students**

### **SIR C R REDDY COLLEGE FOR WOMEN, ELURU**

#### **Notice**

**Date:16<sup>th</sup> MARCH 2023**

This is to inform that; Department of Computer Science is going to conduct a Life Skills Course on Basics of Computer Applications from 21-03-2023 to 04-05-2023 for a span of one hour (8.30 AM to 9.30 AM) for First B.Sc. (MPC, CBZ, BZBT, and ZFC) students. N.Bharathi, MCA, Lecturer in Computer Science, Sir C R Reddy College for Women will deliver her presentation. In this context, we request all the First B.Sc. (MPC, CBZ, BZBT, ZFC) students to apply for this course by 20-3-2023 and contact the HOD of Computer Science to register the course. Students are instructed to avail this opportunity without fail.

  
**Principal**  
PRINCIPAL  
Sir C.R.R. College for Women  
ELURU

# Inaugural function

## SIR C R REDDY COLLEGE FOR WOMEN

Date: 17<sup>th</sup> March 2023.

### NOTICE

This is to inform that the Department of Computer Science is going to conduct an Inaugural function for Life Skills Course on “Basics of Computer Applications “ on Tuesday 21-3 -2023 at 8.30 am . All staff and students are requested to attend the function and make it a big success.



Signature of Principal.  
PRINCIPAL  
Sir C.R.R. College for Women  
ELURU

# **SIR C. R. REDDY COLLEGE FOR WOMEN**

(Affiliated to AdikaviNannaya University, Rajahmahendravaram)  
Vatluru(Post), PedapaduMandal, EluruDist(AP)

## **Invitation**

*You are cordially invited to inaugurate*

### **Life Skill course on “Basics of Computer Applications**

**Chief Guest :** **Sri Chalasani Viswanadha Rao**  
Correspondent, Sir C R Reddy College for Women, Eluru

**Guest of honor :** **Smt P. Sailaja**  
Principal, Sir C R Reddy College for Women, Eluru

**Resource Person:** **N. Bharathi**  
Lecturer, Sir C R Reddy College for Women, Eluru

Date: Tuesday 21<sup>st</sup> March 2023

Venue : Seminar Hall

Time: 8.30 am to 9.30 am

**Organized by**

**Department of Computer Science**

**SIR C.R. REDDY COLLEGE FOR WOMEN, ELURU**

## Course Structure

### Curriculum for Life Skill course on “Basics of Computer Applications”

Eligibility: I B.Sc. IISem Students

Medium: English

Duration: 30 Hours

Time: 8.30 am to 9.30 am

Course Code : 22-06-02

S.No	Topic	Theory Hours	Practical Hours
1	<b>UNIT – I</b> <b>Basics of Computers:</b> Definition, Characteristics, Applications of Computer, Block diagram of Computer, Memories-Primary, Auxiliary, Cache Memory <b>MS Windows-</b> My computer, Documents, Pictures etc.	4	2
2	<b>UNIT – II</b> <b>MS-WORD :</b> Features and Components of MS-Word – creating, editing, formatting, printing a Documents, Headers and Footers-Insert/Draw Tables, Table Auto format, Page Borders and shading-Inserting Symbols, shapes ,Word art, Page numbers, mail merge.	6	3
3	<b>UNIT –III</b> <b>MS-Excel:</b> Features and creating a worksheet, selecting, entering and editing Text, numbers, inserting and changing rows and columns width and heights, formulae, Referencing cells, changing font sizes and colours, Insertion Auto fill sort. <b>MS-PowerPoint:</b> Features of PowerPoint –creating a presentation, Inserting and Deleting slides –Adding clip art, Inserting other objects, Audio, Video-Resizing and scaling an object-slide transition, custom animation.	8	5
Total Theory/Lecture Hours		<b>20Hrs</b>	
Total Practical Hours			<b>10Hrs</b>
<b>Total Hours</b>		<b>30Hrs</b>	

**Dates Conducted for Life Skill course on  
“Basics of Computer Applications”**

Duration: 30 Hours    Course Code : 22-06-02

Time: 8.30 am to 9.30 am

S.No	Topic	Theory Date Conducted	Practical Dates
1	<b>Basics of Computers:</b> Definition of Computer Characteristics of Computer	21-3-2023	27-3-2023
2	Applications of Computer Block diagram of Digital Computer - I/O Devices, hardware, software human ware	28-3-2023	29-3-2023
3	Application software, system software, Memories-Primary, Auxiliary and Cache Memory.	31-3-2023	1-4-2023
4	<b>MS Windows</b> – Desktop, Recycle bin, My Computer Documents, Pictures, Music, Videos, Task Bar, Control Panel.	3-4-2023	4-4-2023
5	<b>MS-Word</b> : Features of MS-Word - MS-Word Window Components - Creating, Editing	5-4-2023	6-4-2023
6	Formatting and Printing of Documents – Headers and Footers	10-4-2023	11-4-2023
7	Insert/Draw Tables, Table Auto format – Page Borders and Shading	12-4-2023	13-4-2023
8	Inserting Symbols, Shapes, Word Art, Page Numbers, Mail Merge.	15-4-2023	17-4-2023
9	<b>MS-Excel:</b> features – Creating a new worksheet, Selecting cells, Entering and editing Text.	18-4-2023	19-4-2023
10	Numbers, Inserting Rows/Columns–Changing column widths and row heights	20-4-2023	21-4-2023
11	Formulae, Referencing cells, Changing font sizes and colors, Insertion of Charts, Auto fill, Sort.	25-4-2023	26-4-2023
12	<b>MS-PowerPoint:</b> Features, Creating a Presentation - Inserting and Deleting Slides in a Presentation	27-4-2023	28-4-2023
13	Adding Clip Art/Pictures -Inserting Other Objects	29-4-2023	1-5-2023
14	Audio, Video - Resizing and scaling of an Object–Slide Transition–Custom Animation.	2-5-23	3-5-2023 4-5-2023

# Life Skill course on “Basics of computer Applications”

## Syllabus

Course Code : 22-06-02

### UNIT-I:

#### **Basics of Computers:**

Definition of a Computer-Characteristics of computers, Applications of Computers – Block Diagram of a Digital Computer – I/O Devices, hardware, software human ware, application software, system software, Memories-Primary, Auxiliary and Cache Memory.

**MS Windows** – Desktop, Recycle bin, My Computer, Documents, Pictures, Music, Videos, Task Bar, Control Panel.

### UNIT-II:

**MS-Word:** Features of MS-Word - MS-Word Window Components - Creating, Editing, Formatting and Printing of Documents – Headers and Footers – Insert/Draw Tables, Table Auto format – Page Borders and Shading–Inserting Symbols, Shapes, Word Art, Page Numbers, and Mail Merge.

### UNIT-III:

**MS-Excel :** Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Inserting Rows/Columns–Changing column widths and row heights, Formulae, Referencing cells, Changing font sizes and colors, Insertion of Charts, Auto fill, Sort.

**MS-PowerPoint:** Features of PowerPoint – Creating a Presentation - Inserting and Deleting Slides in a Presentation – Adding Clip Art/Pictures -Inserting Other Objects, Audio, and Video - Resizing and scaling of an Object–Slide Transition–Custom Animation.

# Life Skill Course on "Basics of Computer Applications"

## Registrations

**SIR C. R. REDDY COLLEGE FOR WOMEN, ELURU**  
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Vatluru (Post), Pedapadu Mandal, Eluru Dist., (A.P)  
An ISO – 9001:2015, 14001:2015, 50001:2018 Certified Institution

**DEPARTMENT OF COMPUTER SCIENCE**  
**Application for Value Added / Addon / Certificate Course**

Course Name : BASICS OF COMPUTER APPLICATIONS

Name of the Student : CHALLA DIVYA SRI

Father's Name : CHALLA DAVID RAJU

Class Studying : I BSC IZFC Roll No : 224058

Phone Number : 9490332586 / 7286068727

e-mail Id : divya.ch0209@gmail.com

Address : ARUGOLANU BAPULAPADU MANDEL  
DOOR NO: 4-110

**Declaration**  
I Promise to attend the classes regularly and follow the rules and regulation of the Course.

Place: ELURU

Date: 10.3.2023

N.Bh  
Program Coordinator

Ch Divya Sri  
Signature of the Student

**SIR C. R. REDDY COLLEGE FOR WOMEN, ELURU**  
(Affiliated to Adikavi Nannaya University, Rajamahendravaram)  
Vatluru (Post), Pedapadu Mandal, Eluru Dist., (A.P)  
An ISO – 9001:2015, 14001:2015, 50001:2018 Certified Institution

**DEPARTMENT OF Computer Science**  
**Application for Value Added / Addon / Certificate Course**

Course Name : Basics of Computer Applications

Name of the Student : BALINA DEVIKA

Father's Name : B. VENKATA RAVINDRA

Class Studying : 1<sup>st</sup> BSC (BZBT) Roll No : 222607

Phone Number : 9177873126

e-mail Id : Sree Lathitha kummasi@gmail.com

Address : Near Gopal vilas Gundgolalu

**Declaration**  
I Promise to attend the classes regularly and follow the rules and regulation of the Course.

Place: eluru

Date: 17.3.2023

N.Bh  
Program Coordinator

B. Devika  
Signature of the Student

## SIR C R REDDY COLLEGE FOR WOMEN, ELURU

### Life Skill course on “Basics of Computer Applications”

#### LIST OF STUDENTS REGISTERED 2022-2023

S.NO	Roll No	Name of the Student	Date of Registration
1.	222601	ALLE BHARGAVI	17-3-2023
2.	222607	BALINA DEVIKA	17-3-2023
3.	222608	BEESETTI MADHURI SRI VARSHA	17-3-2023
4.	222609	BOMIMISETTI SNEHA	17-3-2023
5.	222610	CHAVALA MANI DEEPIKA	17-3-2023
6.	222611	CHIDELLA RAMYA SAI PRIYA	17-3-2023
7.	222613	DORRAJU LEEPIKA LAKSHMI	17-3-2023
8.	222603	GEDDAM PRAVEENA	17-3-2023
9.	222614	GEDELA MEGHANA	17-3-2023
10.	222616	KANDAVALLI DEEPIKA	17-3-2023
11.	222618	KOMARAPURI BHAVANI	17-3-2023
12.	222619	KONAPALA VARDHINI SAI LAKSHMI	17-3-2023
13.	222621	MUDINURI JAHNAVI	17-3-2023
14.	222622	NERUSU LAKSHMI SAI PRASANNA	17-3-2023
15.	222604	PANTHULA LALITHA	17-3-2023
16.	222623	PAVULURU BABY RAJA SRI	17-3-2023
17.	222624	POTHUNURI LAKSHMI SIVANI	17-3-2023
18.	222625	POTHURI SUSHMA SRI	17-3-2023
19.	222627	PULAVARTHI JAHNAVI	17-3-2023
20.	222629	REKAPALLI DURGA PRAVALLIKA	17-3-2023
21.	222630	ROMPICHARLA NAMITHA	17-3-2023
22.	222631	SHAIK NASRIN	17-3-2023
23.	222633	TELLA VIJAYA	17-3-2023
24.	222635	VAKKALAGADDA JITHAPRAGNA	17-3-2023
25.	224011	ALAPATI SAISREE	17-3-2023
26.	224012	BEZAWADA LAVANYA	17-3-2023
27.	224013	BUDDALA LAKSHMI PHANI DEVI	17-3-2023



28.	224015	DAMESETTI SIVA TULASI	17-3-2023
29.	224016	DUKKIPATI DIVYA	17-3-2023
30.	224018	GARIKIPATI DURGA SATWIKA	17-3-2023
31.	224019	GORIPARTHI NIHARIKA	17-3-2023
32.	224001	GURINDAGUNTA PUJITHA	17-3-2023
33.	224021	JAGANI PUSHPA HASINI	17-3-2023
34.	224023	KISHTARAPU KAVYA	17-3-2023
35.	224024	KOMIRIPALEPU GAYATHRI	17-3-2023
36.	224025	KOTARI SRI SAI PUJITHA	17-3-2023
37.	224022	KOTHAPALLI DURGA ANJANI KUMARI	17-3-2023
38.	224028	MATTA MEGHANA	17-3-2023
39.	224002	JAJULA RAMYA SRI	17-3-2023
40.	224005	MUNGARA DURGA MAHESWARI	17-3-2023
41.	224006	PAKALAPATI SAI SIRI	17-3-2023
42.	224020	GUNNAMPALLI RASHMI	17-3-2023
43.	224008	SEELAM BHANU	17-3-2023
44.	224009	SODHEM SWAPNA	17-3-2023
45.	224031	VATTI GEETHIKA	17-3-2023
46.	224033	YANDRA KAVERI	17-3-2023
47.	224051	ALLE VIJAYA MEGHANA	17-3-2023
48.	224069	SHAIK NAGEENA SULTHANA	17-3-2023
49.	224059	CHANDINI PINGULA	17-3-2023
50..	224060	CHINNALA KALYANI	17-3-2023
51..	224052	CHINTHADA PALLAVI	17-3-2023
52.	224062	DOWLURI SUDHA RANI	17-3-2023
53.	224064	KONDA SAI PALLAVI	17-3-2023
54.	224065	KURAMA PARIMALA	17-3-2023
55.	224053	MARRI VALLI PADMINI	17-3-2023
56.	224054	PEDAMURTHI SRAVANI SANDHYA	17-3-2023
57.	224067	PEDDIBOYINA HEMASRI	17-3-2023
58.	224055	RAMESWARAPU LIKHITHA	17-3-2023
59.	224070	SODEM RENUKA	17-3-2023
60.	224071	THOTA DEEPIKA	17-3-2023

61.	224056	YARRA ANJALI	17-3-2023
62.	224058	CHALLA DIVYA SRI	10-3-2023
63.	221002	AREPALLI SRUJANA	17-3-2023
64.	221004	BUGGALA GEETHA GAYATRI	17-3-2023
65.	221005	CHINTHADA DEVI	17-3-2023
66.	221006	DONGA VARALAKSHMI	17-3-2023
67.	221007	KADAGALA LAKSHMI KRUPA	17-3-2023
68.	221008	KOTTHALA SRISHA	17-3-2023
69.	221001	MORU PAVANI	17-3-2023
70.	221009	NAGA VENKATA DANA LAKSHMI	17-3-2023
71.	221012	PENTAPATI SRUJANA	17-3-2023
72.	221013	VEERAVALLI SIRISHA	17-3-2023

# Life Skill course on “Basics of Computer Applications”

## Study Material

### UNIT-I BASICS OF COMPUTER APPLICATIONS

#### What is a Computer?

A Computer can be defined as an electronic device that is designed to accept data, perform the required mathematical and logical operations at high speed, and output the result.

Computer is an electronic device that receives input (data and instructions), stores or processes the input as per user instructions and provides output in desired format.

Computer input is called data and the output obtained after processing it, based on user’s instructions is called information. Raw facts and figures which can be processed using arithmetic and logical operations to obtain information are called data.

**The basic parts of a computer are as follows:**

- **Processor:** It executes instructions from software and hardware.
- **Memory:** It is the primary memory for data transfer between the CPU and storage.
- **Motherboard:** It is the part that connects all other parts or components of a computer.
- **Storage Device:** It permanently stores the data, e.g., hard drive.
- **Input Device:** It allows you to communicate with the computer or to input data, e.g., a keyboard.
- **Output Device:** It enables you to see the output, e.g., monitor.

#### Computer Components

A Computer is a combination of HARDWARE and SOFTWARE, which are used for processing and storing data.

##### Hardware:

Computer hardware refers to the physical parts or components of a computer which can be touched. Examples: Monitor, Mouse, Keyboard, Hard disk (HDD), graphic cards, sound cards, motherboard etc.

##### Software:

Software refers to the list of instructions (called program) written for a computer to perform a certain task.



Basic parts of a Computer

There are two types of Software

1. System Software
2. Application Software

**System Software:** It refers to a set of programs responsible for controlling, integrating and managing the individual hardware components of a computer system. Example: MS Windows, UNIX, Device Drivers etc.

**Application Software:** It is computer software designed to help the user to perform specific tasks. Example: MS-Office, Browsers, Photoshop etc.

## Characteristics of Computers

Today, computers have become a crucial part of our everyday lives. Computers are basically meant to solve problems quickly and accurately.

The important characteristics of a computer are discussed in the following

- Speed
- Accuracy
- Automation
- Diligence
- Versatile
- Memory
- No IQ
- Economical
- Reliability

**Speed:** Computers can perform millions of operations per second. The speed of computers is usually given in nanoseconds and picoseconds, where 1 nanosecond= $1 \times 10^{-9}$  seconds and 1 picosecond= $1 \times 10^{-12}$  seconds. With the introduction of very fast processing units speed of a computer is increasing day by day.

**Accuracy:** A computer is a very fast, reliable and robust electronic device. It always gives accurate results, provided the correct data and set of instructions are input to it. Hence, in the event of error, only the user who has fed the incorrect data or program needs to be held responsible. This clearly means that the output generated by a computer depends on the given instructions and input data.

**Automation:** Besides being very fast and accurate, computers are automatable devices that can perform a task without any user intervention. The user just needs to assign the task to the computer, after which it automatically controls different devices attached to it and executes the program instructions.

**Diligence:** Unlike humans, computers never get tired of a repetitive task. It can continually work for hours without creating errors. Even if a large number of executions are needed, each and every execution requires the same duration, and is executed with same accuracy.

**Versatile:** Versatility is the quality of being flexible. Today, computers are used in our daily life in different fields. For example, they are used as personal computers (PCs) for home use, for business-oriented tasks, weather forecasting, space exploration, teaching, railways, banking, medicine, and so on, indicating that computers can perform different tasks simultaneously.

**Memory:** Computers also have memory. Computers have internal or primary memory (storage space) as well as external or secondary memory. While the internal memory of computers is very expensive and limited in size, the secondary storage is cheaper and of bigger capacity.

The computer stores a large amount of data and programs in the secondary storage space. The stored data and programs can be retrieved and used whenever required. Secondary memory is the key for data storage. Some examples of secondary memory include floppy disks, optical disks (CDs and DVDs), hard disk drives (HDDs), pen drives, etc.

When data and programs have to be used, they are copied from the secondary memory into the internal memory, often known as random access memory (RAM).

**No IQ:** Although the trend today is to make computers intelligent by inducing artificial intelligence (AI) in them, they still do not have any decision-making abilities of their own. Thus, their IQ level is zero. They need guidance to perform various tasks.

**Economical:** Today, computers are considered as short-term investments for achieving long-term gains. Using computers also reduces manpower requirements and leads to an efficient way of performing various tasks. Hence, computers save time, energy, and money. When compared to other systems, computers can do more work in lesser time.

**Reliability:** They are reliable machines. Because of their reliability many organizations, institutions, companies rely on them hugely. They can store and retrieve large amount of data and perform operations with accuracy and speed.

### Applications of Computer:

Computers are playing a vital role in almost every field and making our day-to-day tasks more manageable. Computers were only used to perform complex numerical calculations in a previous time, but they have reached too far and now perform many different roles.

Because of their characteristics and powerful functionalities, computers are used in various fields, such as homes, businesses, government offices, research organizations, educational institutions, medical, entertainment, etc. Computers have taken industries and businesses to a whole new level.



- **Business:** Currently, computers can be seen in almost every business. Computers are almost part of a business setup because they increase productivity and help race in a competitive environment. In businesses, computers are primarily used to store and manage accounts and personal data, maintain projects, track inventory status, and make reports and presentations. Besides, computers are best suited for transaction processing because they are more accurate and faster than humans. Computers also help people analyze their investment, expenses, profits, sales and many other aspects of the business.
- **Science:** Scientists are amongst one of those people who use computers as their primary work tool. In science, research and engineering, computers are best suited for collecting, analyzing, categorizing, and storing the data. They also help scientists to exchange data with each other both internally and internationally. Computers enable

scientists from different locations (such as different countries) to work together on the same project with cloud support. Besides, computers play a crucial role in launching, maintaining, controlling spacecraft, and operating many other technologies.

- **Government:** In the government sector, computers are beneficial. They are getting used to performing various functions in different departments and improving their services' quality, efficiency, and productivity. Some examples of such services are city planning, traffic control, law enforcement, infrastructure developments, and tourism. In most cases, the primary purposes of using computers are performing data processing tasks, maintaining citizens' database, and promoting a paperless environment. Apart from this, computers are playing a crucial role in the country's defense system. They are helping in missile development, rocket, satellite launches, etc.
- **Health and Medical:** Computers are radically changing the methods of diagnosis in hospitals. They are used for maintaining patients' information, records, live monitoring of patients, X-rays, and more. Everything is being digitized with the help of computers. Computers help configure lab-tools, monitor heart rate, and blood pressure, etc. Doctors get extra advantages in treating patients with proper drugs and medicines. Additionally, computers enable doctors to exchange patient's data easily with other medical specialists. Besides, advanced surgical devices are based on robotics that helping surgeons to conduct complex operations and surgeries remotely.
- **Education:** Computers are broadly getting used in the education field. They help people get different educational materials (such as images, videos, e-books, etc.) in one place. All such information can be accessed through the Internet. Additionally, computers are best suited for online classes, online tutoring, online examinations, and creating assignments and projects. Apart from this, they can also be used to maintain and monitor student performance and other information.
- **Industry:** Computers are used in industries to perform various tasks, such as maintaining inventory, interior designing, designing samples or virtual products, communicating over video conferencing, and more. Online marketing has made it easier for people to buy products in rural areas. Online trading in stock markets has also seen a significant revolution due to its easy participation potential. Computers have enabled people from different levels of different locations to participate easily in stock marketing.
- **Banking:** Banking has become so advanced in the past few years. Most countries use online banking systems where customers can access their data directly using computers and the Internet. People can check their account balance, transfer money, and pay online bills, including credit cards. Besides, Banks use computers to perform transactions and store customer data, transaction records, etc. Banks have reduced the number of manual errors, number of employees, and costs to a great extent by using computers. ATMs are the best example of computers that are helping people to withdraw and deposit the money themselves.
- **Entertainment:** Computers nowadays are one of the best mediums for entertainment. Computers can be used to watch movies, play games, listen to music, etc. Computers combined with MIDI instruments can be used to record audio through artificial instruments. Besides, people can also enjoy recording their videos with webcam and apply several entertaining AI effects. Several Photo editor programs are also available with fabulous powerful features.
- **Training:** Most companies use computers to provide training to their employees. Computer-based training helps companies save their time, money, and increase productivity. Also, computer-based training can be used to train employees for large distances in various locations. This will eliminate travel time and costs, making the training process much more comfortable and smoother.

- **Arts:** Computers have become part of art, photography, dance, and culture. Computers with advanced features allow users to draw their projects directly on it. Besides, people can use computers to digitize their photos. There are several photo editor software that can help people edit and customize their photos. Apart from this, the dance's movements and steps can be shown live with animations' help.
- **Sports:** In today's technologically developed world, computers are being used in almost every sport. There are many sports activities where computers are making things possible. In sports, computers are mainly used to maintain scoreboards, records, and other statistics. Furthermore, they are used to analyze player movements and make various in-game decisions. Computers help make complex in-game decisions (especially in umpiring), which cannot be seen by human eyes.
- **Robotics:** Robotics is one of the emerging fields of technology that uses computers for science and engineering as well as designing machines. These machines can be virtual (such as software bots) and physical ones that can reduce or eliminate human workload. Additionally, some machines can perform heavy tasks that humans cannot complete, or that may take a long time to complete. Car manufacturing was one of the first examples where robots helped to assemble car parts and perform many other heavy tasks. However, nowadays, robots are beneficial in many fields, such as exploring areas where conditions are difficult for humans, helping the military, helping law enforcement and helping health professionals, etc.
- **Safety and Security:** Computers are capable of working together with different equipment, tools, and technologies. When it comes to safety, computers are widely being used with the security camera. Almost every private and government organizations are equipped with security cameras to monitor people and goods. Also, these cameras are helping security intelligence agencies to identify terrorists or criminals in public places. Computers attached with a fingerprint scanner and face-recognition technology have made it harder for fraudsters to use fake identities and take government benefits using someone else's identity. Security systems have become so powerful with the introduction of computer technology and the Internet.
- **Publishing:** Computers are one of the first choices when it comes to publication. Computers are mainly used for designing newsletters, novels, posters, magazines, or newspapers, etc. They are suitable for almost every type of publication. Computers can be seen in both types of publishing methods, either its hard-copy or e-books. Apart from this, computers play a vital role in blogging and writing articles on websites.
- **Weather Forecasting:** Weather forecasting is never easy for humans because it depends on many factors that are continually changing. It is almost impossible for humans to predict the weather without using a computer. The weather forecasting process involves complex computation and monitoring of data from satellites and many other technological devices. The computer has made it a little easier to predict weather conditions because it can process information from different sources and make complex calculations related to it, which are necessary for forecasting. Computers process enormous amounts of meteorological information during weather forecasting.
- **Communication:** Computers have become one of the primary sources of communication. Modern computers come with a built-in webcam and microphone to make use of communication easier. People can use software like Skype and Hangout to connect with other people over the Internet. Because of the videoconferencing feature, people can connect with audio and video. Computers help families connect to their relatives, businesses to organize meetings, and companies to take interviews, between two different locations that are too far. Apart from this, older communications methods such as emails are also still used widely.

## Block diagram of Computer:

A computer is an electronic device that basically performs five major operations:

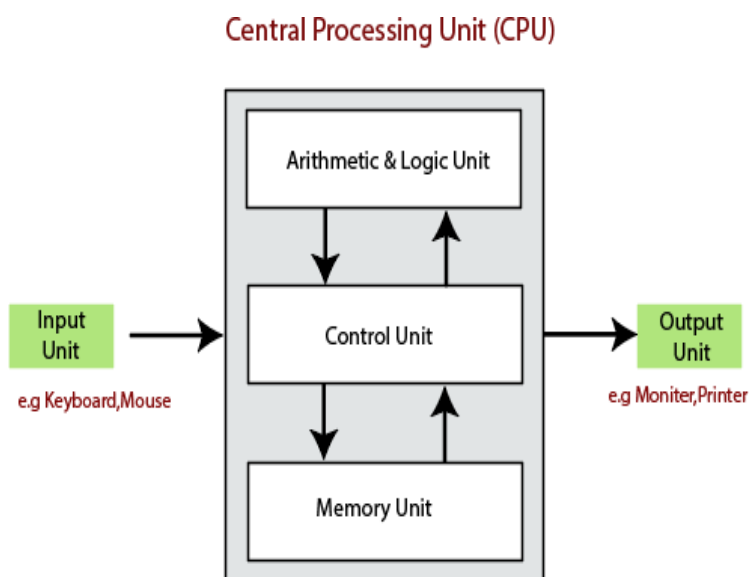
- Accepting data or instructions (input)
- Storing data
- Processing data
- Displaying results (output)
- Controlling and coordinating all operations inside a computer

Below figure shows the interaction between the different units of a computer system.

### Input

All the data received by the computer goes through the input unit. The input unit comprises different devices like a mouse, keyboard, scanner, etc. In other words, each of these devices acts as a mediator between the users and the computer.

The data that is to be processed is put through the input unit. The computer accepts the raw data in binary form. It then processes the data and produces the desired output.



The 3 major functions of the input unit are-

- Take the data to be processed by the user.
- Convert the given data into machine-readable form.
- And then, transmit the converted data into the main memory of the computer. The sole purpose is to connect the user and the computer. In addition, this creates easy communication between them.

- **CPU – Central Processing Unit**

Central Processing Unit or the CPU is the brain of the computer. It works the same way a human brain works. As the brain controls all human activities, similarly the CPU controls all the tasks.

Moreover, the CPU conducts all the arithmetical and logical operations in the computer. Now the CPU comprises of two units, namely ALU (Arithmetic Logic Unit) and CU (Control Unit). Both of these units work in sync. The CPU processes the data as a whole.

- **ALU – Arithmetic Logic Unit**



The Arithmetic Logic Unit is made of two terms, arithmetic and logic. There are two primary functions that this unit performs.

1. Data is inserted through the input unit into the primary memory. Performs the basic arithmetical operation on it. Like addition, subtraction, multiplication, and division. It performs all sorts of calculations required on the data. Then sends back data to the storage.
2. The unit is also responsible for performing logical operations like AND, OR, Equal to, Less than, etc. In addition to this it conducts merging, sorting, and selection of the given data.

- **CU – Control Unit**

The control unit as the name suggests is the controller of all the activities or tasks and operations. All this is performed inside the computer.

The memory unit sends a set of instructions to the control unit. Then the control unit in turn converts those instructions. After that these instructions are converted to control signals.

These control signals help in prioritizing and scheduling activities. Thus, the control unit coordinates the tasks inside the computer in sync with the input and output units.

- **Memory Unit**

All the data that has to be processed or has been processed is stored in the memory unit. The memory unit acts as a hub of all the data. It transmits it to the required part of the computer whenever necessary.

The memory unit works in sync with the CPU. This helps in faster accessing and processing of the data thus, making tasks easier and quicker.

There are two types of computer memory-

1. **Primary memory** – This type of memory cannot store a vast amount of data. Therefore, it is only used to store recent data. The data stored in this is temporary. It can get erased once the power is switched off. Therefore, is also called temporary memory or main memory.

RAM stands for Random Access Memory. It is an example of primary memory. This memory is directly accessible by the CPU. It is used for reading and writing purposes. For data to be processed, it has to be first transferred to the RAM and then to the CPU.

2. **Secondary memory** – As explained above, the primary memory stores temporary data. Thus it cannot be accessed in the future. For permanent storage purposes, secondary memory is used. It is also called permanent memory or auxiliary memory. The hard disk is an example of secondary memory. Even in a power failure data does not get erased easily.

## Output

There is nothing to be amazed by what the output unit is used for. All the information sent to the computer once processed is received by the user through the output unit. Devices like printers, monitors, projectors, etc. all come under the output unit.

The output unit displays the data either in the form of a soft copy or a hard copy. The printer is for the hard copy. The monitor is for the display. The output unit accepts the data in binary form from the computer. It then converts it into a readable form for the user.

## Input/output Devices:

An input/output device, often known as an IO device, is any hardware that allows a human operator or other systems to interface with a computer. Input/output devices, as the name implies, are capable of delivering data (output) to and receiving data from a computer (input). An input/output (I/O) device is a piece of hardware that can take, output, or process data. It receives data as input and provides it to a computer, as well as sends computer data to storage media as a storage output.

## Input Devices

Input devices are the devices that are used to send signals to the computer for performing tasks. The receiver at the end is the CPU (Central Processing Unit), which has work to send signals to the output devices.

Some of the input devices are described below.

**Keyboard:** The keyboard is the most frequent and widely used input device for entering data into a computer. Although there are some additional keys for performing other operations, the keyboard layout is similar to that of a typical typewriter.



**Mouse:** The most common pointing device is the mouse. The mouse is used to move a little cursor across the screen while clicking and dragging.

A mouse is an input device that lets you move the mouse on a flat surface to control the coordinates and movement of the on-screen cursor/pointer. The left mouse button can be used to select or move items, while the right mouse button when clicked displays extra menus.



- **Joystick:** A joystick is a pointing device that is used to move the cursor on a computer screen. A spherical ball is attached to both the bottom and top ends of the stick. In a socket, the lower spherical ball slides. You can move the joystick in all four directions.=



- **Track Ball:** Track Ball is an accessory for notebooks and laptops, which works on behalf of a mouse. It has a similar structure to a mouse. Its structure is like a half-inserted ball and we use fingers for cursor movement. Different shapes are used for this like balls, buttons, or squares.



**Scanner:** A scanner is an input device that functions similarly to a photocopier. It's employed when there's information on paper that needs to be transferred to the computer's hard disc for subsequent manipulation. The scanner collects images from the source and converts them to a digital format that may be saved on a disc. Before they are printed, these images can be modified.



**Optical Mark Reader (OMR):** An Optical Mark Reader is a device that is generally used in educational institutions to check the answers to objective exams. It recognizes the marks present by pencil and pen.



**Optical Character Reader (OCR):** OCR stands for optical character recognition, and it is a device that reads printed text. OCR optically scans the text, character by character turns it into a machine-readable code, and saves it to the system memory.



**Magnetic Ink Card Reader (MICR):** It is a device that is generally used in banks to deal with the cheques given to the bank by the customer. It helps in reading the magnetic ink present in the code number and cheque number. This process is very fast compared to any other process.



**Bar Code Reader:** A bar code reader is a device that reads data that is bar-coded (data that is represented by light and dark lines). Bar-coded data is commonly used to mark things, number books, and so on. It could be a handheld scanner or part of a stationary scanner. A bar code reader scans a bar code image, converts it to an alphanumeric value, and then sends it to the computer to which it is connected.



**Web Camera:** Because a web camera records a video image of the scene in front of it, a webcam is an input device. It is either built inside the computer (for example, a laptop) or attached through a USB connection. A webcam is a computer-connected tiny digital video camera. It's also known as a web camera because it can

take images and record video.

**Digitizer:** Digitizer is a device that is used to convert analog signals to digital signals. It converts signals into numeric values. An example of a Digitizer is Graphic Tablet, which is used to convert graphics to binary data.



**Microphone:** The microphone works as an input device that receives input voice signals and also has the responsibility of converting it also to digital form. It is a very common device that is present in every device which is related to music.



## Output Devices

Output Devices are the devices that show us the result after giving the input to a computer system. Output can be of many different forms like image, graphic audio, video, etc. Some of the output devices are described below.

**Monitor:** Monitors, also known as Visual Display Units (VDUs), are a computer's primary output device. It creates images by arranging small dots, known as pixels, in a rectangular pattern. The amount of pixels determines the image's sharpness.



The two kinds of viewing screens used for monitors are described below.

- **Cathode-Ray Tube (CRT) Monitor:** Pixels are minuscule visual elements that make up a CRT display. The higher the image quality or resolution, the smaller the pixels.
- **Flat-Panel Display Monitor:** In comparison to the CRT, a flat-panel display is a type of video display with less volume, weight, and power consumption. They can be hung on the wall or worn on the wrist.

**Printer:** Printers are output devices that allow you to print information on paper. There are certain types of printers which are described below.

- Impact Printers
- Character Printers
- Line Printers
- Non-Impact Printers
- Laser Printers
- Inkjet Printers



**Speakers:** Speakers are devices that produce sound after getting a command from a computer. Nowadays, speakers come with wireless technology also like Bluetooth speakers.



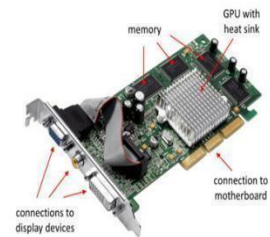
**Plotter:** Plotter is a device that helps in making graphics or other images to give a real view. A graphic card is mandatorily required to use these devices. These are the pen-like devices that help in generating exact designs on the computer.



**Braille Reader:** Braille Reader is a very important device that is used by blind users. It helps people with low vision or no vision to recognize the data by running their fingers over the device to understand easily. It is a very important device for blind persons as it gives them the comfort to understand the letters, alphabets, etc. which helps them in study.



**Video Card:** A video Card is a device that is fitted into the motherboard of the computer. It helps in improvising digital content in output devices. It is an important tool that helps people in using multiple devices.



**Global Positioning System (GPS):** Global Positioning System helps the user in terms of directions, as it uses satellite technology to track the geometrical locations of the users. With continuous latitudinal and longitudinal calculations, GPS gives accurate results. Nowadays, all smart devices have inbuilt GPS.



**Headphones:** Headphones are just like a speaker, which is generally used by a single person or it is a single-person usable device and is not commonly used in large areas. These are also called headsets having a lower sound frequency.



## Hardware Software Humanware:

There are three major components of a computer system:

- Hardware
- Software
- Humanware

While **hardware** and **software** components co-exist to make up the actual computer, the *Humanware* component adds in the human face to bring the complete computer into a functional and productive existence. When installed separately, each may be useful to an extent but incapable of achieving complete computing potential. Hardware and software need the human factor in order to make input and connectivity possible.



**Hardware:** Hardware in the context of technology refers to the elements that make up a computer or electronic system and everything else involved that is physically tangible. This

includes the monitor, hard drive, memory and the CPU. Hardware works hand-in-hand with firmware and software to make a computer function.

Hardware is an encompassing term that refers to all the physical parts that make up the computer and ensure that it is functional are called components, while external hardware devices that are not essential to a computer's functions are called peripherals.

Hardware is only one part of a computer system, there is also firmware, which is embedded into the hardware and directly controls it. There is also software, which runs on top of the hardware and makes use of the firmware to interface with the hardware.

**Software:** Computer software, or simply software, is a collection of data or computer instructions that tell the computer how to work. This is in contrast to physical hardware, from which the system is built and actually performs the work. In computer science and software engineering, computer software is all information processed by computer systems, programs and data. Computer software includes computer programs, libraries and related non-executable data, such as online documentation or digital media. Computer hardware and software require each other and neither can be realistically used on its own.

Software is often divided into three categories:

**System Software:** System Software serves as a base for application software. System software includes device drivers, operating systems (Oss), compilers, disk formatters, text editors and utilities helping the computer to operate more efficiently. It is also responsible for managing hardware components and providing basic non-task-specific functions. The system software is usually written in C programming language.

**Programming Software:** Programming software is a set of tools to aid developers in writing programs. The various tools available are compilers, linkers, debuggers, interpreters and text editors.

**Application Software:** Application Software is intended to perform certain tasks. Examples of application software include office suites, gaming applications, database systems and educational software. Application Software can be a single program or a collection of small programs. This type of software is what consumers most typically think of as "Software".

**Humanware:** Humanware is hardware and software that emphasizes user capability and empowerment and the design of the user interface. The process of building Humanware generally consists of these steps:

1. Define users (age, mind-set, environmental context, previous product experience and expectations, and so forth) and what they really want to do.
2. Identify tasks they will need to do or capabilities they will want.
3. Specify usability objectives (if possible, these should be measurable, such as how long to do something or how many mouse clicks to get to a specified task point) for each task or capability.
4. Build a prototype of the user interface (it can be a paper or simulated prototype if time is short).
5. Test and verify or correct the prototype.
6. Provide the prototype and usability objectives to the program designers and coders.
7. Test the code against the prototype and objectives and, if necessary, redesign or recode the software.
8. Test the product with users or valid test subjects and revise as necessary.
9. Get feedback from users and continually improve the product.

## Memory:

A memory is used to store data and instructions. Computer memory is the storage space in the computer, where data is to be processed and instructions required for processing are stored. The memory is divided into large number of small parts called cells. Each location or cell has a unique address, which varies from zero to memory size minus one. For example, if the computer has 64k words, then this memory unit has  $64 * 1024 = 65536$  memory locations. The address of these locations varies from 0 to 65535.

Memory is primarily of three types –

- Cache Memory
- Primary Memory/Main Memory
- Secondary Memory(Auxiliary Memory)

### Cache Memory

Cache memory is a very high speed semiconductor memory which can speed up the CPU. It acts as a buffer between the CPU and the main memory. It is used to hold those parts of data and program which are most frequently used by the CPU. The parts of data and programs are transferred from the disk to cache memory by the operating system, from where the CPU can access them.



### Advantages

The advantages of cache memory are as follows

- Cache memory is faster than main memory.
- It consumes less access time as compared to main memory.
- It stores the program that can be executed within a short period of time.
- It stores data for temporary use.

### Disadvantages

The disadvantages of cache memory are as follows –

- Cache memory has limited capacity.
- It is very expensive.

### Primary Memory (Main Memory)

Primary memory holds only those data and instructions on which the computer is currently working. It has a limited capacity and data is lost when power is switched off. It is generally made up of semiconductor device. These memories are not as fast as registers. The data and instruction required to be processed resides in the main memory. It is divided into two subcategories RAM and ROM.



### Characteristics of Main Memory

- These are semiconductor memories.
- It is known as the main memory.
- Usually volatile memory.

- Data is lost in case power is switched off.
- It is the working memory of the computer.
- Faster than secondary memories.
- A computer cannot run without the primary memory.

## Secondary Memory

This type of memory is also known as external memory or non-volatile. It is slower than the main memory. These are used for storing data/information permanently. CPU directly does not access these memories; instead they are accessed via input-output routines. The contents of secondary memories are first transferred to the main memory, and then the CPU can access it. For example, disk, CD-ROM, DVD, etc.



## Characteristics of Secondary Memory

- These are magnetic and optical memories.
- It is known as the backup memory.
- It is a non-volatile memory.
- Data is permanently stored even if power is switched off.
- It is used for storage of data in a computer.
- Computer may run without the secondary memory.
- Slower than primary memories.

## MS WINDOWS

Microsoft Windows is a group of Operating systems manufactured by Microsoft. Windows is available in 32 and 64-bit versions and offers a graphical user interface (GUI), multitasking functionalities, virtual memory management capabilities, and support for several peripheral devices.

**Desktop:** A desktop is a computer display area that represents the kinds of objects one might find on top of a physical desk, including documents, phone books, telephones, reference sources, writing and drawing tools, and project folders.

**Recycle bin:** Recycle bin is a file or folder for windows that temporarily stores all deleted files, folders, and paper. It's on the desktop with windows.

**My Computer:** My Computer is a feature of Microsoft Windows that was originally introduced in Windows 95 and is available in all subsequent versions. It allows you to browse and organize the files on your computer drives. My Computer folder is a gateway to all the data stored on the computer, attached devices, and the network as well as a shortcut to most of your system information.



**Documents:** A document is a record of some information that can be used as reference, further analyses or study. When created with a computer application such as a spreadsheet or word processor, a document is a unit of saved work. Also, each digital document is saved as a file



with a unique name that differentiates it from all other documents.

**Pictures:** A computer image is a picture composed of an array of elements called pixels. An image is a picture that was created or copied and stored in electronic form.



**Music:** Musical applications of digital computers can be grouped into five basic categories: data processing and information retrieval, including library applications and abstracting; processing of music notation and music printing; acoustical, theoretical, and musicological research; **music composition**; and sound synthesis.

**Videos:** Video is an electronic medium for the recording, copying, playback, broadcasting, and display of moving visual media. Video is an all-round and engaging content format that helps us in many different areas, such as advertisement, entertainment, keep a record, etc. It can be shared easily across multiple platforms, which provides us a real-life picture of what is going on.

**Taskbar:** A taskbar is a toolbar provided by an operating system to launch, monitor and manipulate software. Typically, the taskbar is at the bottom of the desktop, but you can also move it to either side or the top of the desktop. It is used to access the start menu by clicking on it. Right clicking on it also gives you options like Programs and features, Mobility center, Power options, Event viewer, System, Device manager, Network connections, Disk management etc.



**Control Panel:** The Control Panel is a component of Microsoft Windows that provides the ability to view and change system settings. It consists of a set of applets that include adding or removing hardware and software, controlling user accounts, changing accessibility options, and accessing networking settings.



### Features of control panel:

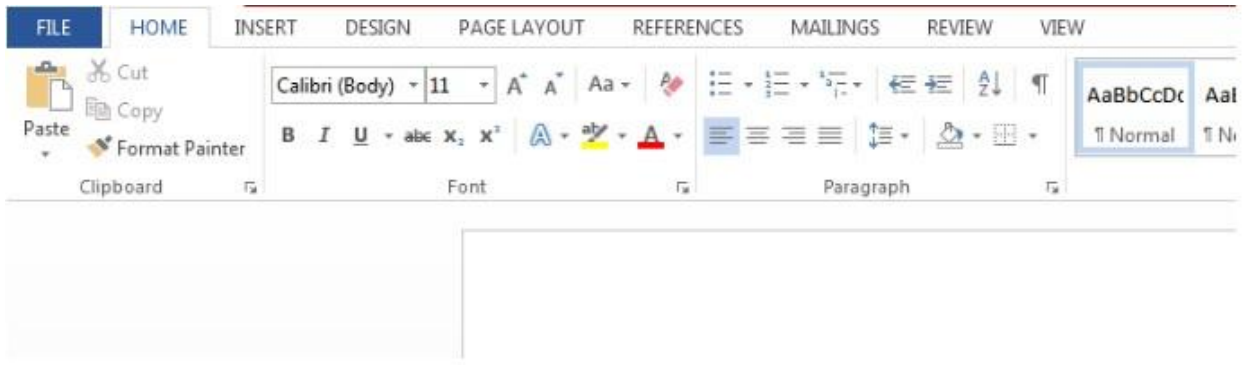
Following are the features of Control panel

- System and Security
- Network and Internet
- Hardware and Sound
- Programs
- User Accounts
- Appearance and Personalization
- Clock and Region
- Ease of Access

# MS WORD

## Features of MS Word

The image given below shows the different elements and categories which are available in MS Word doc:



### Home

This has options like font color, font size, font style, alignment, bullets, line spacing, etc. All the basic elements which one may need to edit their document are available under the Home option.

### Insert

Tables, shapes, images, charts, graphs, header, footer, page number, etc. can all be entered in the document. They are included in the “Insert” category.

### Design

The template or the design in which you want your document to be created can be selected under the Design tab. choosing an appropriate tab will enhance the appearance of your document.

### Page Layout

Under the Page Layout tab comes options like margins, orientation, columns, lines, indentation, spacing, etc.

### References

This tab is the most useful for those who are creating a thesis or writing books or lengthy documents. Options like citation, footnote, table of contents, caption, bibliography, etc. can be found under this tab.

### Review

Spell check, grammar, Thesaurus, word count, language, translation, comments, etc. can all be tracked under the review tab. This acts as an advantage for those who get their documents reviewed on MS Word.

## MS Word Window Components

Let us understand the various important parts of this window.

### File Tab

The File tab replaces the Office button from Word 2007. You can click it to check the backstage view. This is where you come when you need to open or save files, create new documents, print a document, and do other file-related operations.

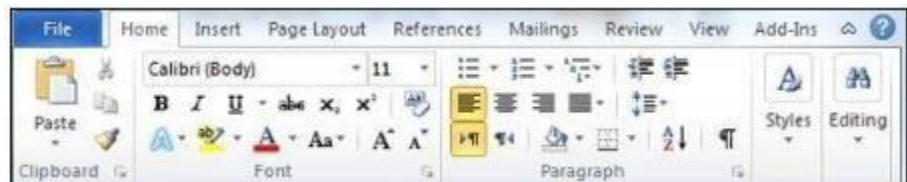
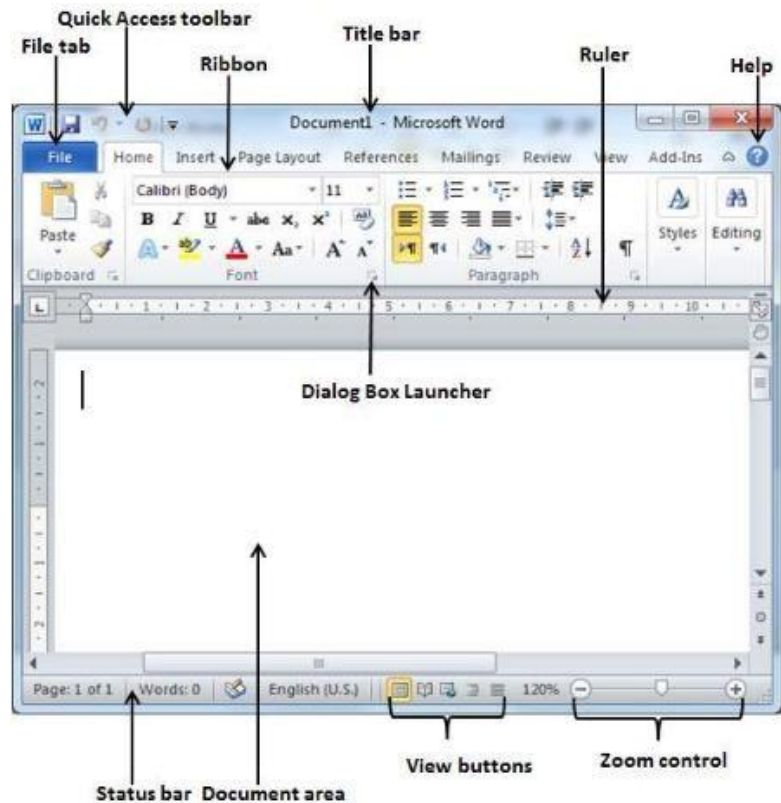
### Quick Access Toolbar

This you will find just above the File tab. This is a convenient resting place for the most frequently used commands in Word. You can customize this toolbar based on your comfort.

### Ribbon

Ribbon contains commands organized in three components –

- **Tabs** – these appear across the top of the Ribbon and contain groups of related commands. Home, Insert, Page Layout is examples of ribbon tabs.
- **Groups** – they organize related commands; each group name appears below the group on the Ribbon. For example, group of commands related to fonts or group of commands related to alignment, etc.
- **Commands** – Commands appear within each group as mentioned above.



## **Rulers**

Word has two rulers - a horizontal ruler and a vertical ruler. The horizontal ruler appears just beneath the Ribbon and is used to set margins and tab stops. The vertical ruler appears on the left edge of the Word window and is used to gauge the vertical position of elements on the page.

## **Help**

The Help Icon can be used to get word related help anytime you like. This provides nice tutorial on **various subjects related to word**.

## **Zoom Control**

Zoom control lets you zoom in for a closer look at your text. The zoom control consists of a slider that you can slide left or right to zoom in or out; you can click the + button to increase and –button to decrease the zoom factor.

## **View Buttons**

The group of five buttons located to the left of the Zoom control, near the bottom of the screen, lets you switch through the Word's various document views.

**Print Layout view** – This displays pages exactly as they will appear when printed.

**Full Screen Reading view** – This gives a full screen view of the document.

**Web Layout view** – This shows how a document appears when viewed by a Web browser, such as Internet Explorer.

**Outline view** – This lets you work with outlines established using Word's standard heading styles.

**Draft view** – This formats text as it appears on the printed page with a few exceptions. For example, headers and footers aren't shown. Most people prefer this mode.

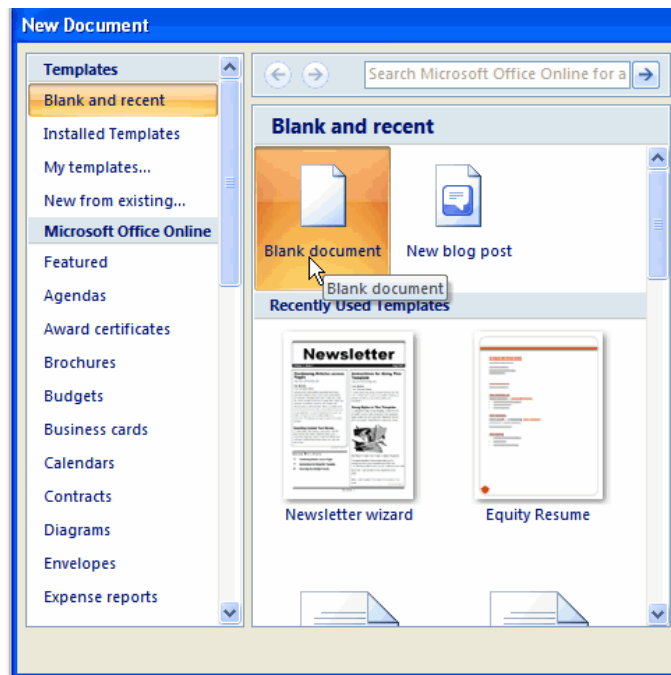
## Document Area

This is the area where you type. The flashing vertical bar is called the insertion point and it represents the location where text will appear when you type.

## Status Bar

This displays the document information as well as the insertion point location. From left to right, this bar contains the total number of pages and words in the document, language, etc.

You can configure the status bar by right-clicking anywhere on it and by selecting or deselecting options from the provided list.



## Dialog Box Launcher

This appears as very small arrow in the lower-right corner of many groups on the Ribbon. Clicking this button opens a dialog box or task pane that provides more options about the group.

### Creating a MS-word Document

#### To create a new blank document:

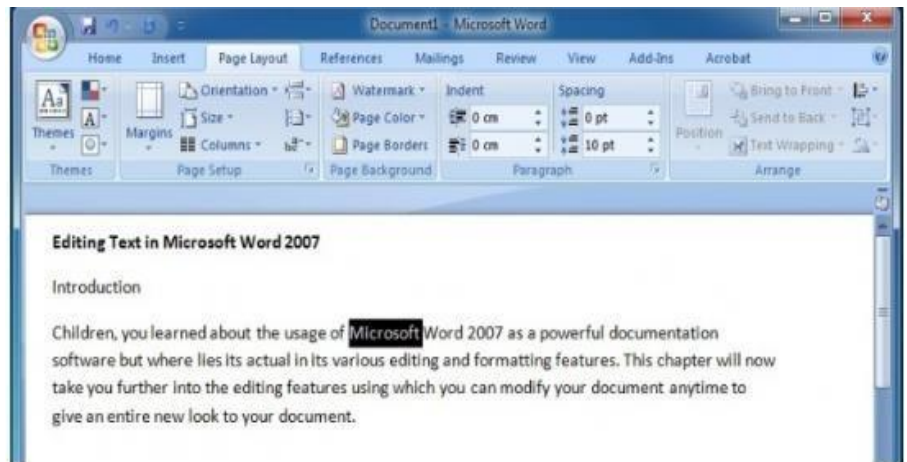
- Click the Microsoft Office button.
- Select New. The New Document dialog box appears.
- Select Blank document under the Blank and recent section. It will be highlighted by default.
- Click Create. A new blank document appears in the Word window.

## Editing MS-word document

To edit text is by selecting it and then typing over it to replace it.

- Select Text
- Selecting text is a very important skill in Word. Whenever you want to edit or format text, you first need to select it. There are multiple ways to select text, letting you select a small amount to entire paragraphs at once.
- Click and drag across the text you want to select.
- You can select any amount of text with this method, from a single character to your entire document.
- Here are some other ways to select text:

- Press and hold down the Shift key, and move the insertion point either with your mouse or the arrow keys to select text.
- Double-click a single word to select it.
- Press the Ctrl key and click in a sentence to select it.
- Triple-click in a paragraph, or double-click in the left margin next to a paragraph, to select it.
- Click in the left margin to select an entire line, or click and drag in the left margin to select multiple lines.
- Press Ctrl + A to select everything in the document.



## Editing a Document

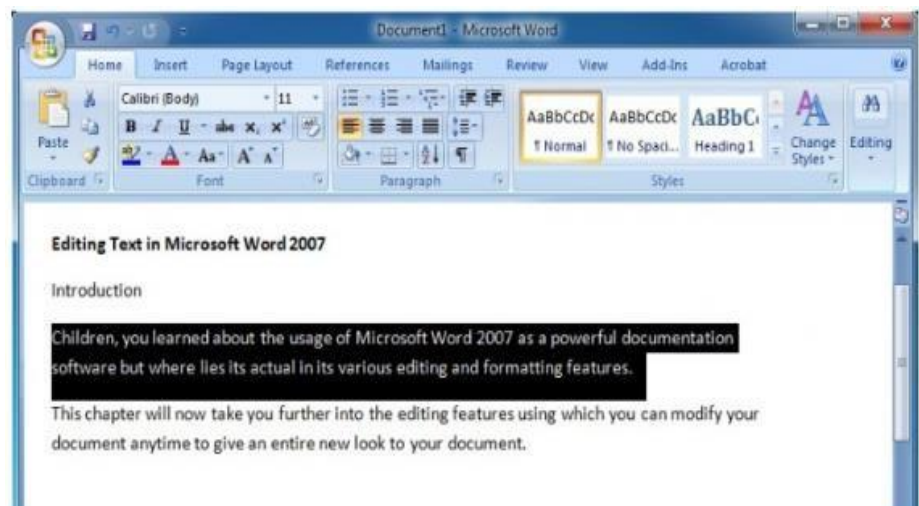
Making changes in a document like inserting or deleting text, copying or moving text, replacing text, etc. is called text editing. To make changes in the block of text, it is necessary to select it. You can select a word, line, paragraph or entire document text.

### To Select a Word

place the mouse pointer on the word to be selected and double click the left mouse button to select that word. The selected word will appear in reverse color.

### To select a paragraph

keep the mouse pointer anywhere within the paragraph and triple click



left mouse button to select that paragraph.

Bring the mouse pointer to the left side of the paragraph and double click left mouse button.

### To Select a Large Block of Text

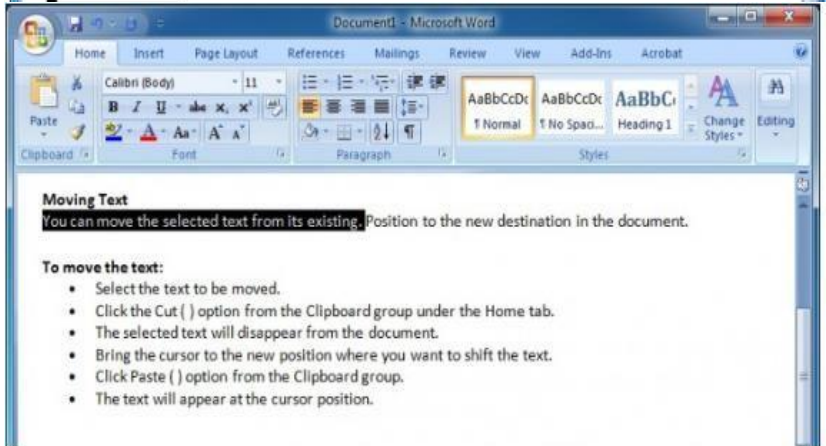
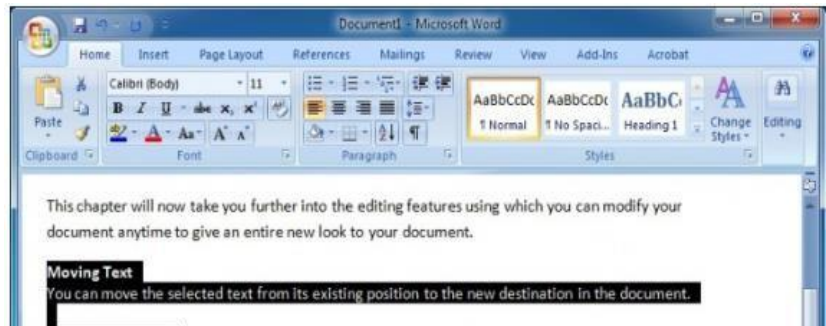
Click at the beginning of the text, hold down the Shift Key and click at the end of the text.

### To Select a Sentence

Hold down the Ctrl key on the keyboard and click left mouse button to select the sentence

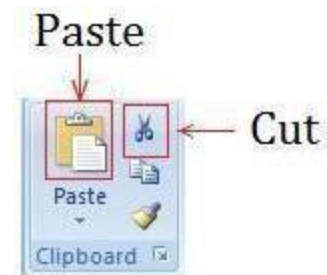
### Moving Text

you can move the selected text from its existing position to the new destination in the document.



### To move the text:

- Select the text to be moved.
- Click the Cut option from the Clipboard group under the Home tab.  
The selected text will disappear from the document.
- Bring the cursor to the new position where you want to shift the text.
- Click Paste option from the Clipboard group.
- The text will appear at the cursor position.
- To Copying Text To copy the text:
  - Select the text to be copied.
  - Click Copy option in the clipboard group under the Home Tab.
  - Bring the cursor to the new location where you want to copy the text.
  - Click paste option in the clipboard group.

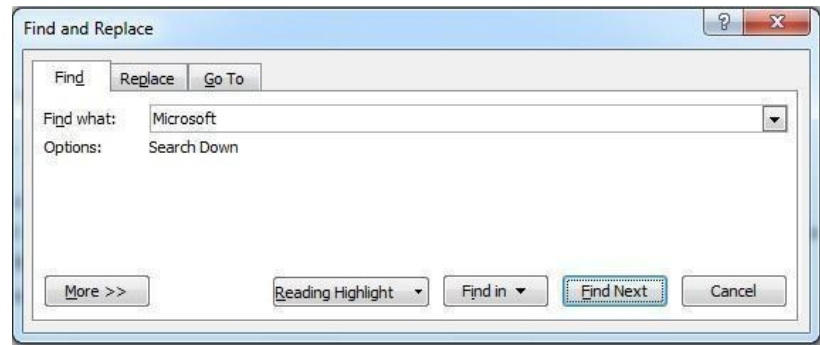


### Finding Text

If you want to search any word or text in your document at different locations:



- Click Find option in the Editing group under Home Tab to open Find and Replace dialog box.



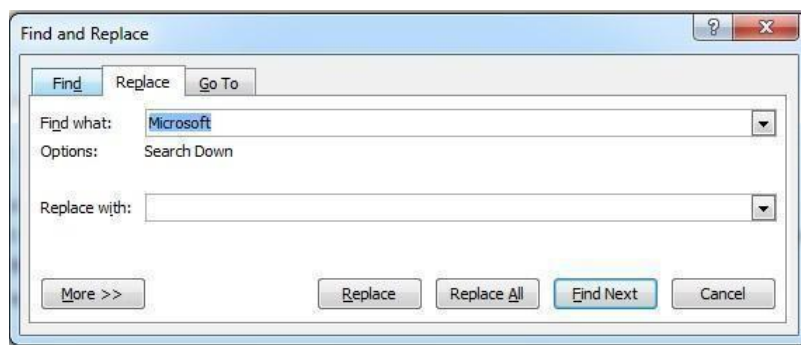
- In the Find what text box, type the word you want to search.
- Now click the Find Next button. The pointer will move to the first occurrence of that word.
- Use Find Next button to locate other occurrences of the same word in the document.

**Replacing Text** - you can also replace a particular word or text after finding it in your document with a new word or text:



- Click Replace option in the Editing group under the Home tab.
- Find and Replace dialog box will appear.
- Type the text or word that you want to change in the Find What box.
- Type the New word or text in the Replace with box.

- Click Find Next button to search the word and then click Replace button to change it with the new word.
- Replace all button will change the word at once for all the occurrences.



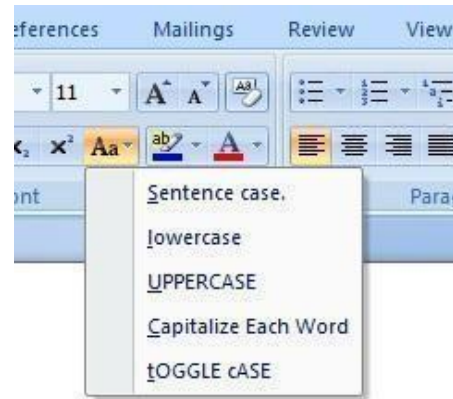


## Changing Case

You can also change the case of selected text in your document as per the need. There are five change cases

Options available in word:

1. Sentence case: First letter of the sentence is in upper case whereas rests are in lowercase.
2. Lowercase: All the letters are in lowercase.
3. UPPERCASE: All the letters are in UPPERCASE.
4. Capitalize each word: First letter of each word is in uppercase.
5. TOGGLE case: Case reversed for all the characters.

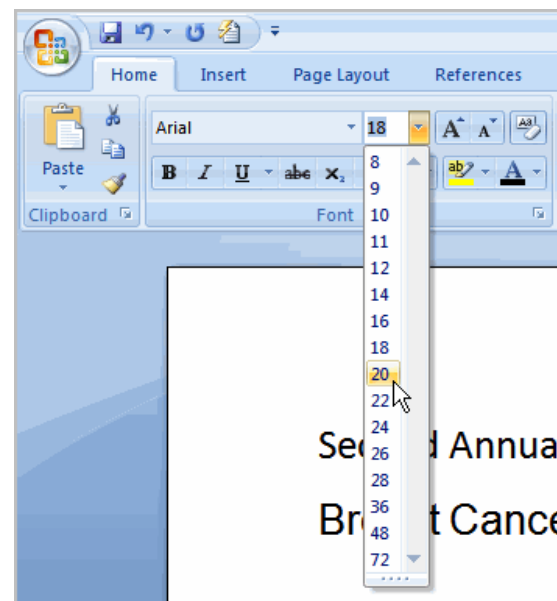


### To change the text case:

Select the text, whose case has to be changed.  
Click change case option in the Font group under Home Tab.

Change Case list appears.

Select your option by clicking on it.



## Formatting

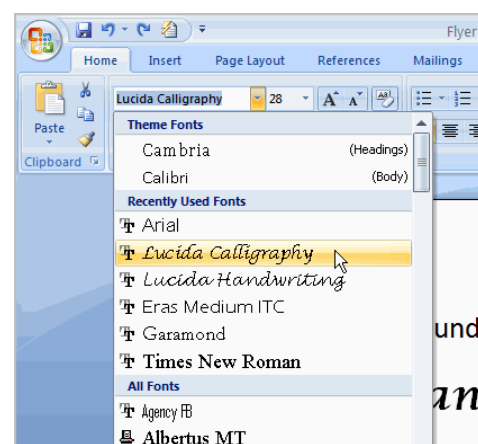
### To format font size:

- Select the text you want to modify.
- Left-click the drop-down arrow next to the font size box on the Home tab. The font size drop-down menu appears.
- Move your cursor over the various font sizes. A live preview of the font size will appear in the document.

- Left-click the font size you want to use. The font size will change in the document.

### To format font style:

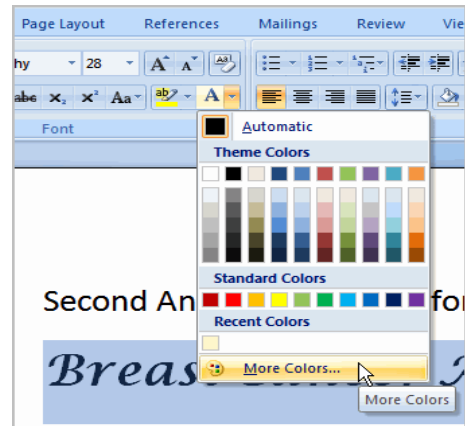
- Select the text you want to modify.
- Left-click the drop-down arrow next to the font style box on the Home tab. The font style drop-down menu appears.



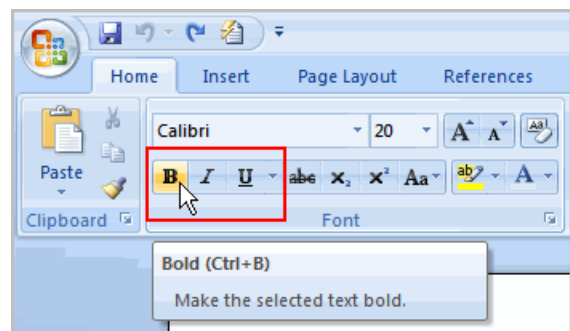
- Move your cursor over the various font styles. A live preview of the font will appear in the document.
- Move your cursor over the various font styles. A live preview of the font will appear in the document.
- Left-click the font style you want to use. The font style will change in the document.

**To format font color:**

- Select the text you want to modify.
- Left-click the drop-down arrow next to the font color box on the Home tab. The font color menu appears.
- Move your cursor over the various font colors. A live preview of the color will appear in the document.



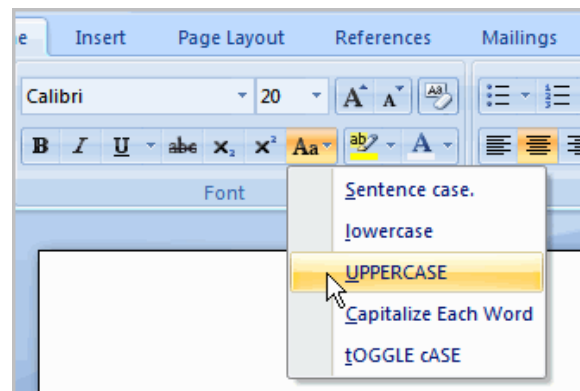
- Left-click the font color you want to use. The font color will change in the document.
- To use the Bold, Italic, and Underline commands:



- Select the text you want to modify. Click the Bold, Italic, or Underline command in the Font group on the Home tab

**To change the text case:**

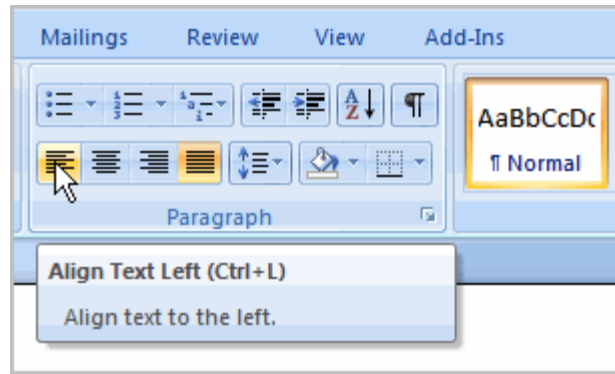
- Select the text you want to modify.
- Click the Change Case command in the Font group on the Home tab.



- Select one of the case options from the list.

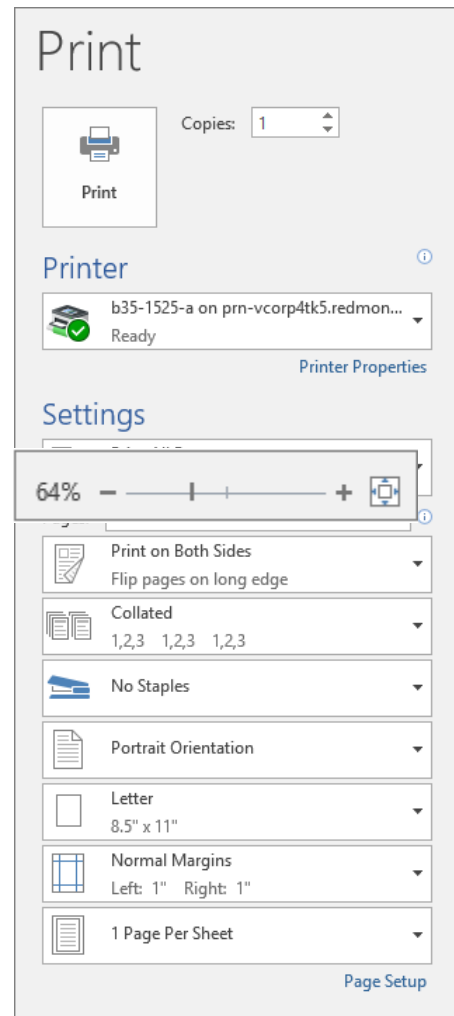
### To change text alignment:

- Select the text you want to modify.
- Select one of the four alignment options from the Paragraph group on the Home tab.
- Align Text Left: Aligns all of the selected text to the left margin
- Center: Aligns text an equal distance from the left and right margins
- Align Text Right: Aligns all of the selected text to the right margin
- Justify: Aligns text equally to the right and left margins; used in many books, newsletters, and newspapers



### Printing of Document

- Before you print, you can preview your document and specify which pages you want to print.
- Preview your document
- Select File > Print.
- To preview each page, select the forward and backward arrows at the bottom of the page.
- If the text is too small to read, use the zoom slider at the bottom of the page to enlarge it.
- Choose the number of copies, and any other options you want, and select the Print button.



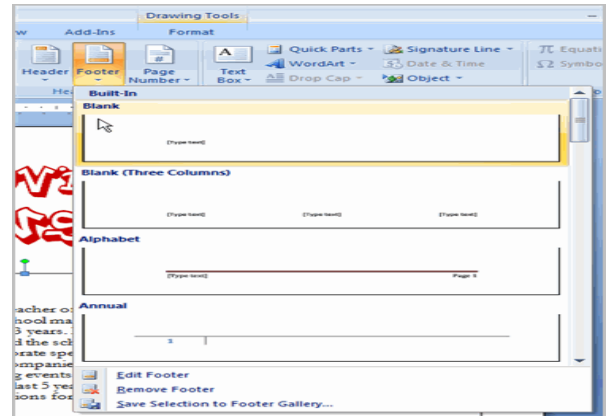
### Headers and footers

- To insert a header or footer:
- Select the Insert tab.
- Click either the Header or Footer command. A menu appears with a list of built-in options you can use.

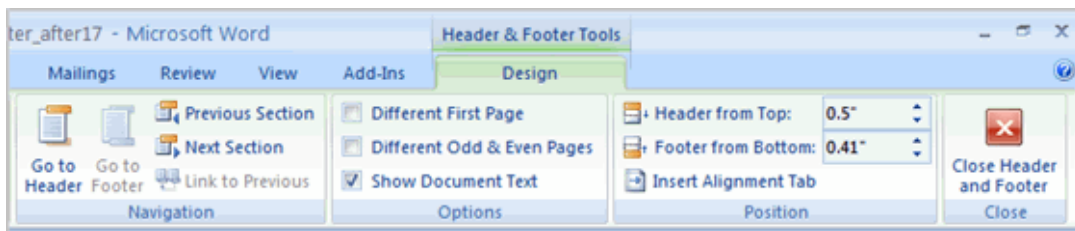
- Left-click one of the built-in options, and it will appear in the document.

OR

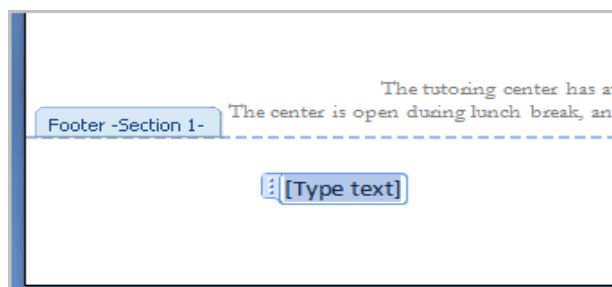
- Left-click Blank to select it.



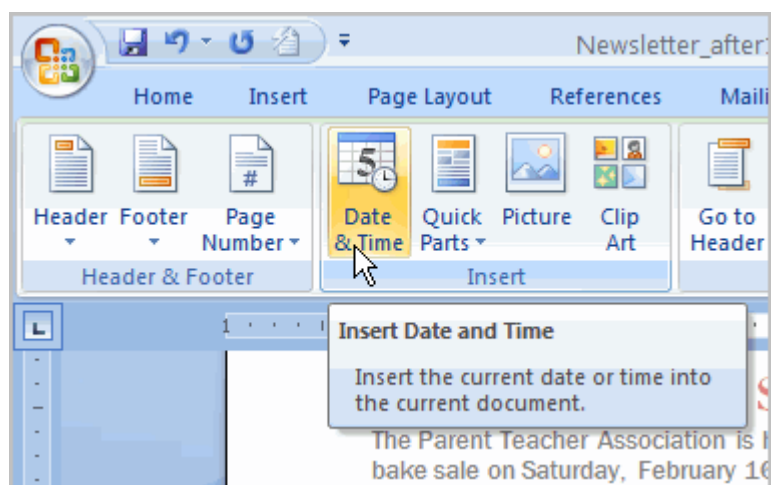
The Design tab with Header and Footer tools is active.



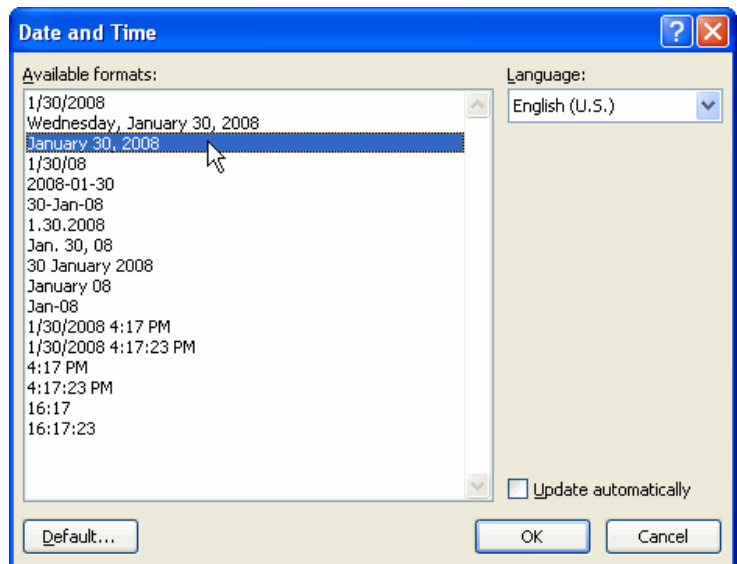
Type information into the header or footer.



- To insert the date or time into a header or footer:
- With the header or footer section active, click the Date & Time command. Select a date format in the dialog box that appears.



- Click OK. The date and time now appear in the document. Other header and footer options
- There are many other header and footer options you can use to design these sections of your document. From the Header and Footer Tools Design tab, you can see all of your design options

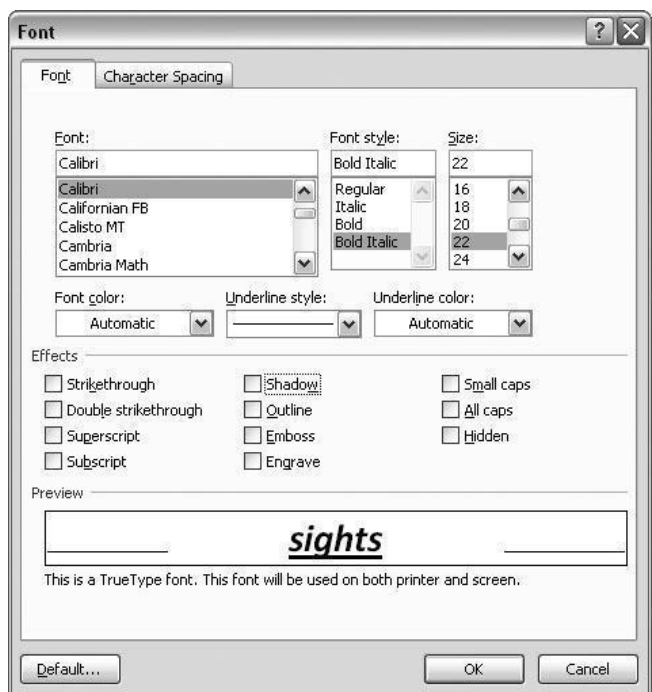


### Character Formatting

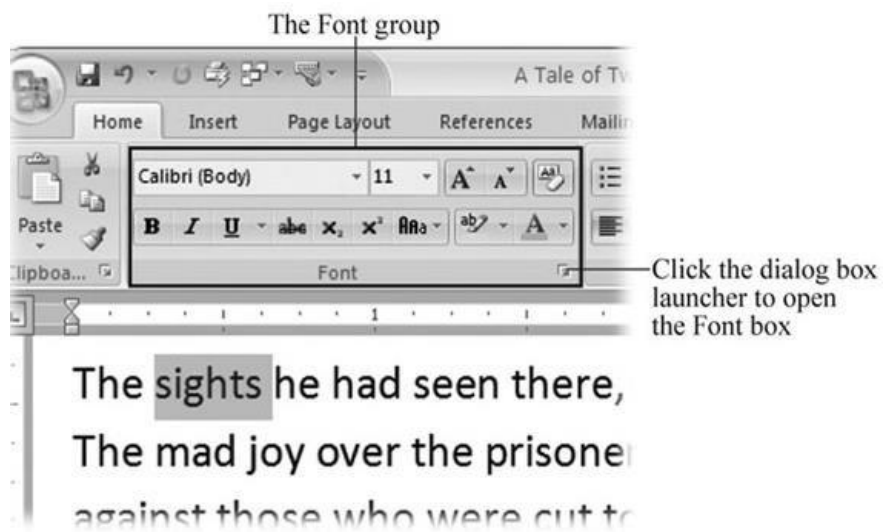
Use the Font dialog box (Alt+H, FN) to format characters. Letters, numbers, and punctuation marks are all printable characters and, as such, you can format them. Once you select a character or a group of characters, you can apply any of the formatting commands on the Home tab's Font group (Alt+H). You can choose a font and a size for any character in your document. You can make characters bold, underlined, superscript, or change them to just about any color of the rainbow.

Here are the steps:

- Select a group of characters, as shown in Figure

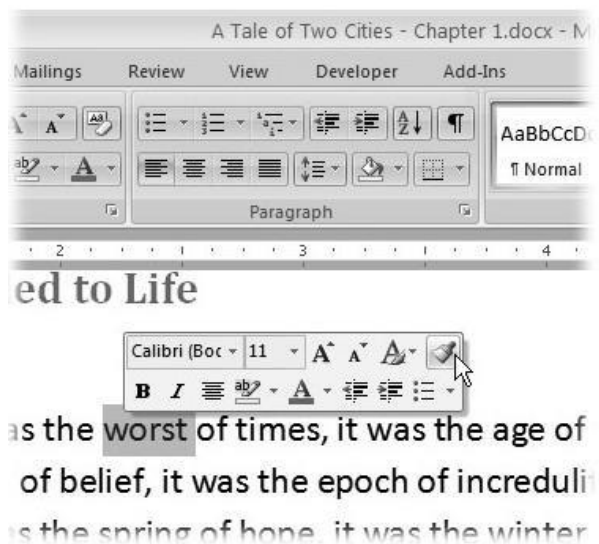


- The Font group on the Home tab holds most of the common character formatting commands. Choices you make here apply to text you've selected (like the word "sights" in this example). If you don't see the command you



need, in the lower-right corner, click the dialog box launcher to open the Font dialog box

- GO to Home → Font Or the Font dialog box (click the little launcher button as shown in above Figure or press Alt+H, FN) and make your formatting choices.
- If you can't find the command you want on the ribbon, or if you want to make several character formatting changes at once, then open the Font box as shown in below figure.

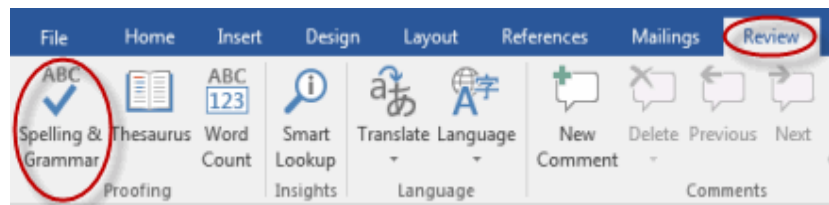


Open the Font box (Alt+H+FN) to change the typeface, style, size, color, and other effects. Like many dialog boxes, the Font box gives you access to more commands than you find on the ribbon.

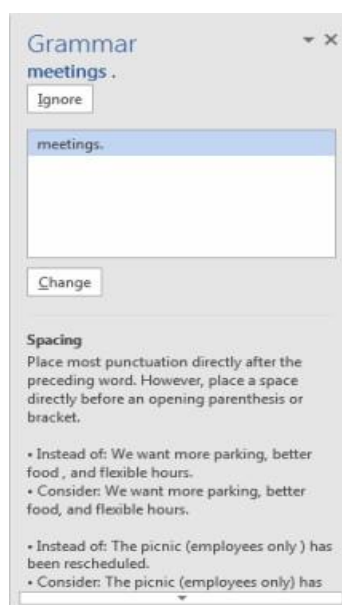
**Formatting with the Mini Toolbar :** The mini-toolbar gives you access to the most commonly used commands. It just so happens that most of these commands are character formatting commands.

### Using Spelling and Grammar Check

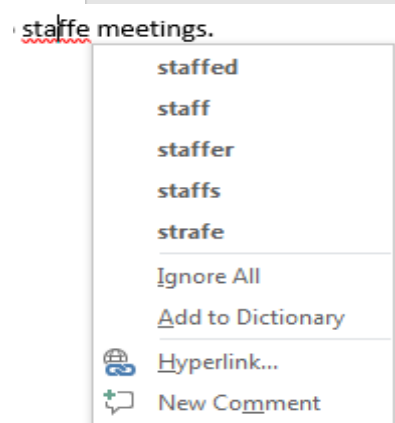
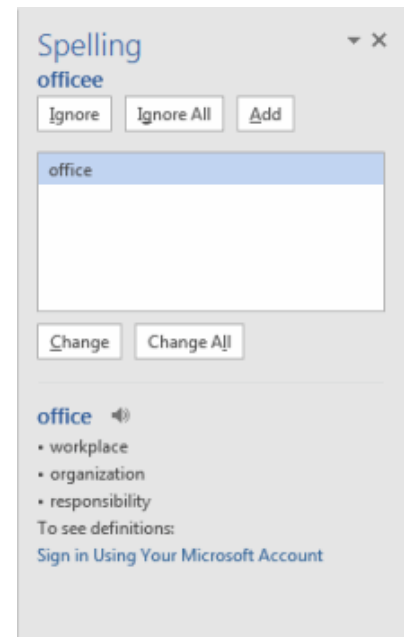
It is important to always check your documents for spelling and grammar mistakes before distribution. Fortunately, Word makes it easy.



- This feature works the same in all modern versions of Microsoft Word.

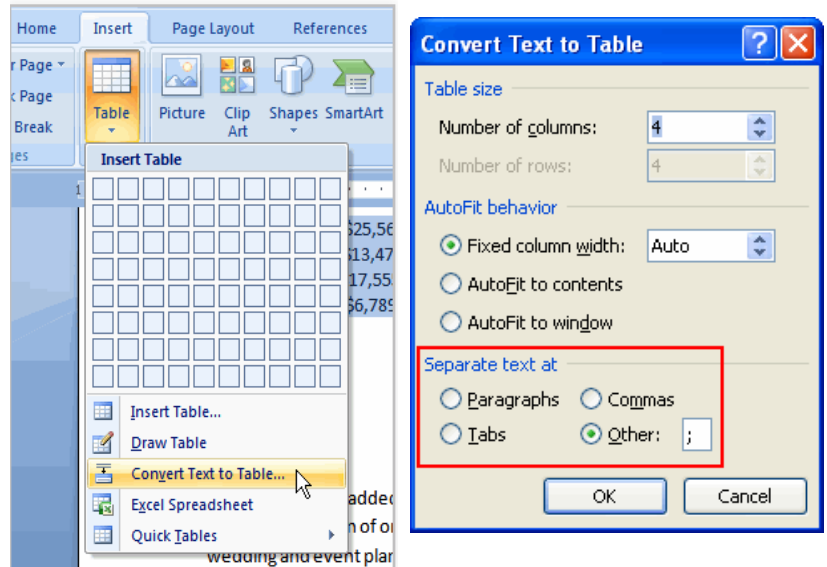


- From the Proofing group on the Review tab, select Spelling & Grammar.
- Microsoft Word will look for spelling and grammar errors starting from the location of your cursor in the document.
- If Word finds a spelling error, a navigation pane similar to the one below will appear:
  - 
  - 
  - You then have the following options:
  - Ignore. To leave the text as is in a specific instance, but be notified if Microsoft Word finds the same thing again, click Ignore.
  - Ignore All. To leave the text as is in this and future instances, click Ignore All.
  - Add. Adding a word to your dictionary will prevent Microsoft Word from ever noting this word as being misspelled again.
  - Change. To correct only this instance of the misspelling, click Change.
  - Change All. To correct all instances of the misspelling throughout the document, click Change All.
- If Word finds a grammar error, a dialog box similar to the one below will appear
- Ignore. To leave the text as is in a specific instance, but be notified if Microsoft Word finds the same thing again, click Ignore.
- Change. To accept Word's suggested correction, click Change.
- At the bottom of the pane, you will see an explanation of the grammar error that Word has detected.
- A useful feature when checking spelling and grammar is Word's AutoCorrect feature. When Word indicates a word in a document may be misspelled or incorrect, with a squiggle under it, you can right-click the word to see suggestions. If a suggestion is correct, simply select it to replace the word.



## Insert / Draw and modify tables

- To convert existing text to a table:
- Select the text you want to convert.
- Select the Insert tab.
- Click the Table command.
- Select Convert Text to Table from the menu. A dialog box appears.
- Choose one of the options in the Separate text at section. This is how Word knows what text to put in each column.
- Click OK. The text appears in a table.



**By Salesperson**  
Current Salespeople & Monthly Ad Sales (Print, TV, Web)

Insertion point is in FIRST row so we can add a new row ABOVE it.

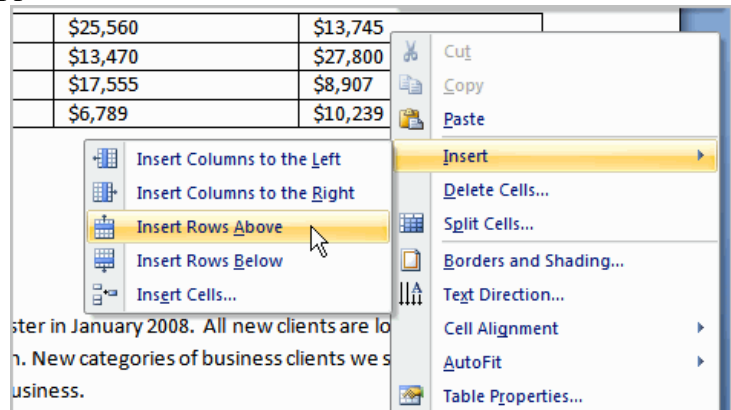
Jim M.	\$10,252	\$25,560	\$13,745
Beth W.	\$5,550	\$13,470	\$27,800
Luiz D.	\$8,547	\$17,555	\$8,907
Alice S.	\$13,578	\$6,789	\$10,239

### To add a row above an existing row:

- Place the insertion point in a row below the location where you want to add a row.
- Right-click the mouse. A menu appears.
- Select Insert

### Insert Rows Above:

- A new row appears above the insertion point.



### To add a column:

- Place the insertion point in a column adjacent to the location where you want the new column to appear.
- Right-click the mouse. A menu appears.

**By Salesperson**  
Current Salespeople & Monthly Ad Sales (Print, TV, V

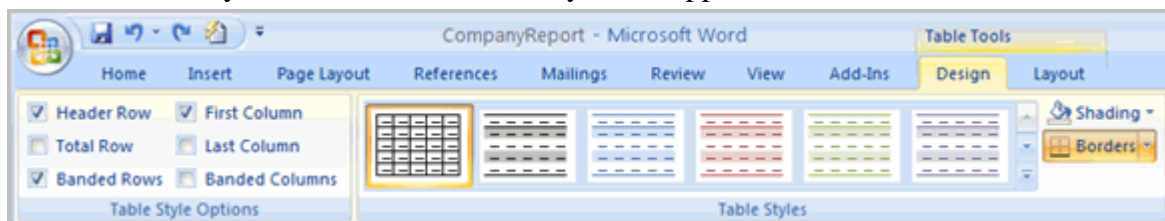
Jim M.	\$10,252
Beth W.	\$5,550
Luiz D.	\$8,547
Alice S.	\$13,578



- Select Insert → Insert Columns to the Left or Insert Columns to the Right. A new column appears.
- To delete a row or column:
- Select the row or column.
- Right-click your mouse and a menu appears.
- Select Delete Columns or Delete Rows.
- To apply a table style:
- Select the table. A Table Tools Design tab now appears on the Ribbon.
- Select the Design tab to access all of the Table Styles and Options.
- Click through the various styles in the Table Styles section.

Left-click

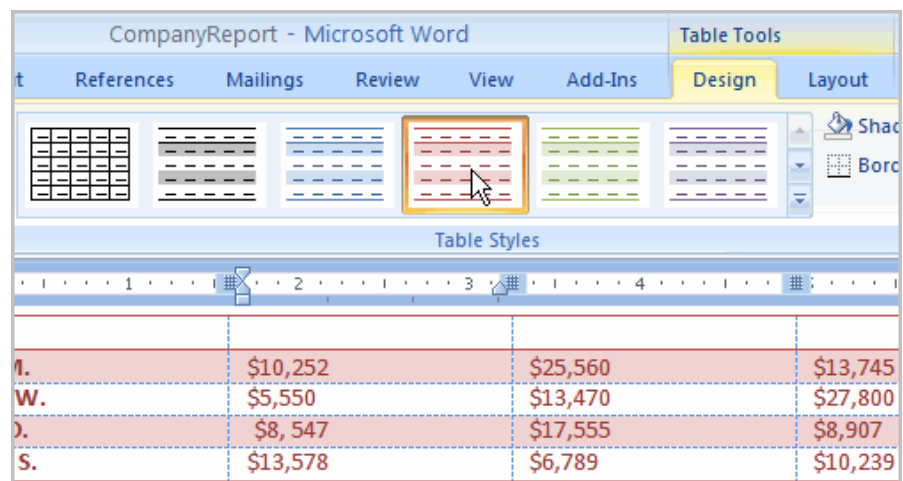
- Click a style to select it. The table style will appear in the document.



- You can modify which table styles are displayed.
- In the Table Styles Options, you can select and deselect various table options. For example, you can select banded rows, and only tables with banded rows will appear in the Tables Styles section.

### To insert a blank table:

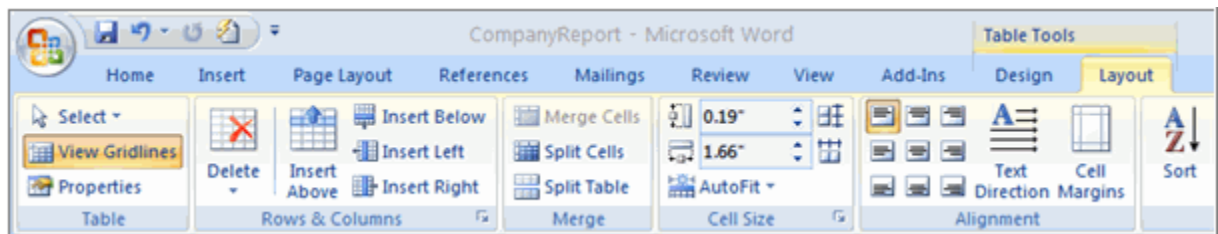
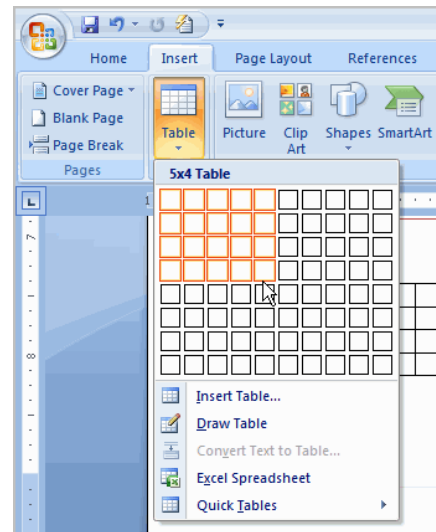
- Place your insertion point in the document where you want the table to appear.
- Select the Insert tab.
- Click



the Table command.

- Drag your mouse over the diagram squares to select the number of columns and rows in the table.
- Left-click your mouse and the table appears in the document.

- Enter text into the table.
- Modifying a table using the layout tab
- When you select a table in Word 2007, Design and Layout tabs appear under Table Tools on the Ribbon. Using commands on the Layout tab, you can make a variety of modifications to the table, including:
  - Adding and deleting columns
  - Adding and deleting rows
  - Changing the cell size
  - Aligning cell text
  - Changing text direction
  - Merging and splitting cells



### Table auto format

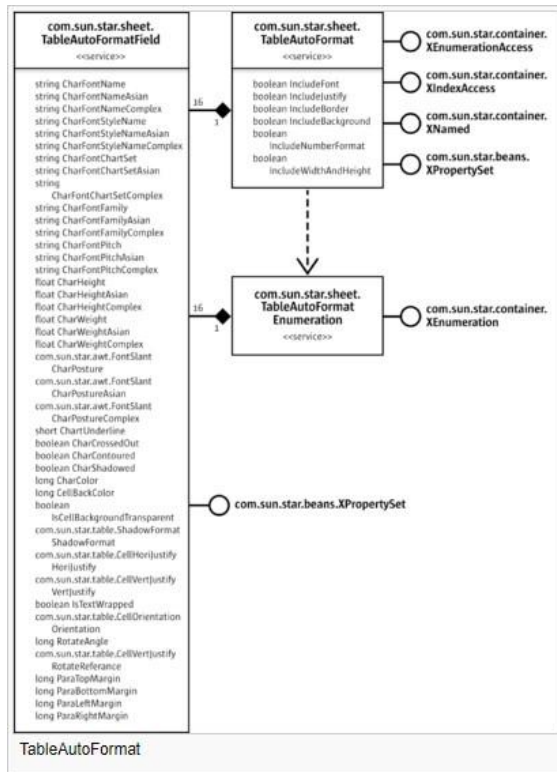
Table auto formats are used to apply different formats to a cell range. A table auto format is a collection of cell styles used to format all cells of a range. The style applied is dependent on the position of the cell.

The table auto format contains separate information about four different row types and four different column types:

- First row (header), first data area row, second data area row, last row (footer)
- First column, first data area column, second data area column, last column
- The row or column types for the data area (between first and last row/column) are repeated in sequence. Each cell of the formatted range belongs to one of the row types and column types, resulting in 16 different auto-format fields. In the example below, the highlighted cell has the formatting of the first data area row and last column field.

Additionally, this example shows the indexes of all the auto format fields. These indexes are used to access the field with the interface [com.sun.star.container.XIndexAccess](#).

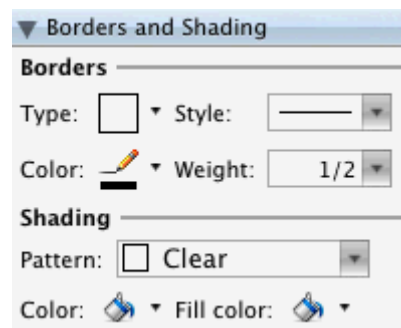
	First column	Second data area column	First data area column	Last Column
First row (header)	0	2	1	3
First data area row	4	6	5	7
Second data area row	8	10	9	11
Last row (footer)	12	14	13	15



A table auto format is represented by the service [com.sun.star.sheet.TableAutoFormat](#). It contains exactly 16 auto format fields (service [com.sun.star.sheet.TableAutoFormatField](#)). Each auto format field contains all properties of a single cell.

### Page Borders and Shading Toolbar


The Borders and Shading toolbar allows you to customize aspects of the border and cells. This includes the type, style, color, weight, shading, and background color.



## Adding Borders and Shading


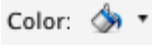

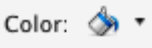
- Select the paragraph(s) to which you want to add shading and/or border(s).
- To add a border,

Name	Image	Description
Type Menu		Allows you to select the type of border.
Style Button	Style:	Allows you to select the style of border.
Color Button	Color:	Allows you to select the color of the border.
Weight Button	Weight:	Allows you to select the thickness of the border.
Pattern Menu		Allows you to select the degree of shading applied to the selected cells.
Shading Color Button	Color:	Allows you to select the color of the shading of the selection.
Background Color Button	Fill color:	Allows you to select the color of the background of the selection.

click Type  » select the desired border option.

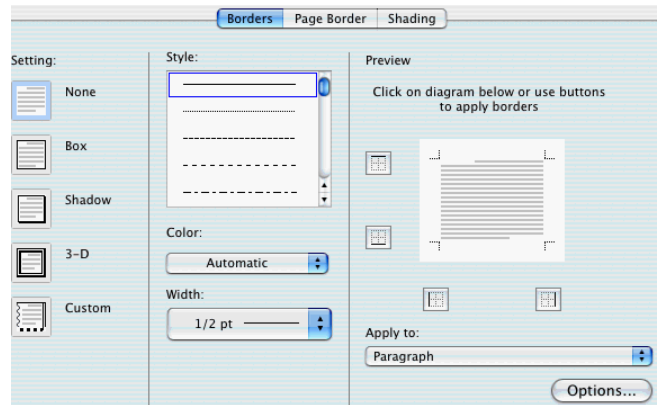
- To add shading, click the ▼ next to Color  » select the desired shading option.

## Removing Borders and Shading

- Select the paragraph containing the border or shading you want to remove.
- To remove the border, click Type  » select No Border.
- To remove the shading, click the ▼ next to Color  » select No Fill.
- Modifying Borders and Shading
- Select the paragraph containing the border or shading you want to modify.
- To modify the border, click Type  » select the desired border option.
- To modify the shading, click the ▼ next to Color  » select the desired shading option.

## Borders and Shading Options: Dialog Box Option

- To view the Borders and Shading dialog box:
- Select the paragraph(s) to which you want to add shading and/or border(s).
- From the Format menu, select Borders and Shading...
- The Borders and Shading dialog box appears.



## Adding Borders

- Select the paragraph(s) to which you want to add border(s).
- Open the Borders and Shading dialog box.
- Select the Borders tab.
- From the Style scroll box, select the desired border style.
- From the Color pull-down list, select the desired border color.
- From the Width pull-down list, select the desired border width.
- Click OK.

## Modifying Borders

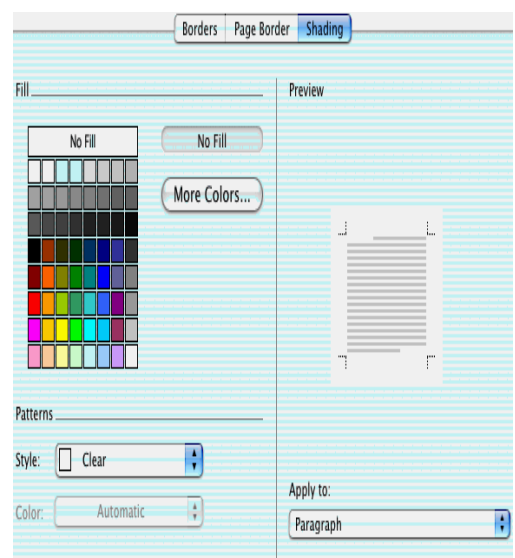
- Select the paragraph containing the border you want to modify.
- Open the Borders and Shading dialog box.
- Select the Borders tab » select the desired border option.
- Click OK.

## Removing Borders

- Select the paragraph containing the border you want to remove.
- Open the Borders and Shading dialog box.
- Select the Borders tab.
- Under Setting, select None.
- Click OK.

## Adding Shading

- Select the paragraph(s) to which you want to add shading.
- Open the Borders and Shading dialog box.
- Select the Shading tab.
- From the Fill box, select the desired fill effect.
- (Optional) Under Patterns, from the Style pull-down list, select the desired pattern style.



(Optional) Under Patterns, from the Color pull-down list, select the desired pattern color.

Click OK.

### Modifying Shading

- Select the paragraph containing the shading you want to modify.
- Open the Borders and Shading dialog box.
- Select the Shading tab » select the desired shading option.

Click OK.

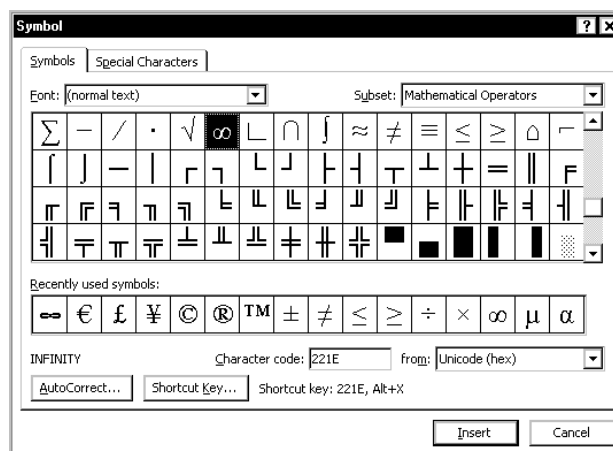
### Removing Shading

- Select the paragraph containing the shading you want to remove.
- Open the Borders and Shading dialog box.
- Select the Shading tab.
- From the Fill box, select No Color.
- In the Patterns section, from the Style pull-down list, select Clear.
- Click OK.

### Inserting Symbols, Shapes, Word Art

#### Inserting Symbols

- Place the insertion point where the symbol will be inserted
- From the Insert tab, in the Symbols group, click SYMBOL
- Select one of the symbol options Word provides  
OR  
Select More Symbols...
- The Symbol dialog box appears.
- Select the Symbols tab
- Select the desired symbol
- NOTE: If you do not see the desired symbol, from the Font pull-down list, select another font.
- Click INSERT  
the symbol appears in your document.
- Repeat steps 4-5 until you insert all symbols you want
- Click CLOSE

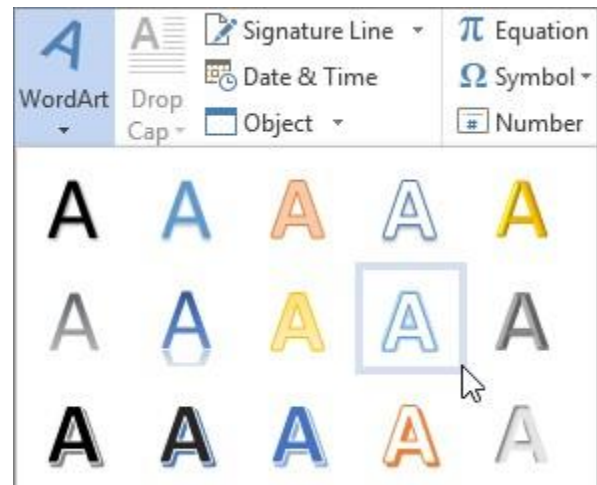


## Insert WordArt

WordArt is a quick way to make text stand out with special effects. You begin by picking a WordArt style from the WordArt gallery on the Insert tab, and then customize the text as you wish.

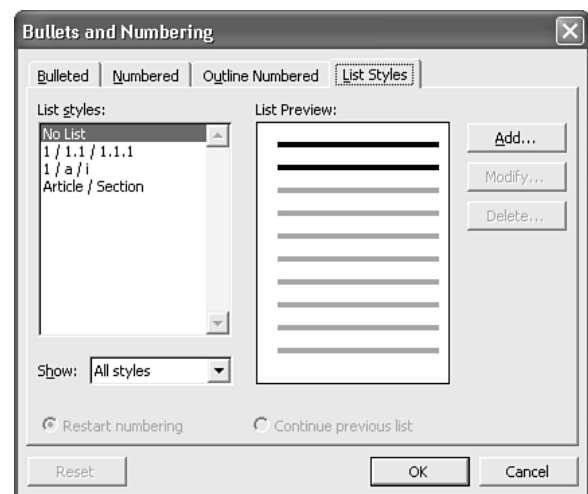
Click Insert > WordArt, and pick the WordArt style you want.

*Happy Birthday!*



## Insert page numbers

- Select Insert > Page Number, and then choose the location and style you want.
- If you don't want a page number to appear on the first page, select Different First Page.
- If you want numbering to start with 1 on the second page, go to Page Number > Format Page Numbers and set Start at to 0.
- When you're done, select Close Header and Footer or press Esc.
- Using List Styles
- Word allows you to create custom lists using the List Styles feature. You can easily create and reuse lists of any kind, both ordered lists (such as the alphabetical and numerical lists available in Outline Numbering) and unordered lists (such as lists that use different symbols or icons).
- Word provides three predefined list styles:
  - 1 / 1.1 / 1.1.1 (for purely numeric sequences)
  - 1 / a / i (for sequences mixing numbers and letters)



Article / Section (for sequences such as are commonly used in legal documents)

Each of these list styles corresponds to options you've already seen in the Outline Numbered tab of the Bullets and Numbering dialog box. To use one of these sequences, do the following:

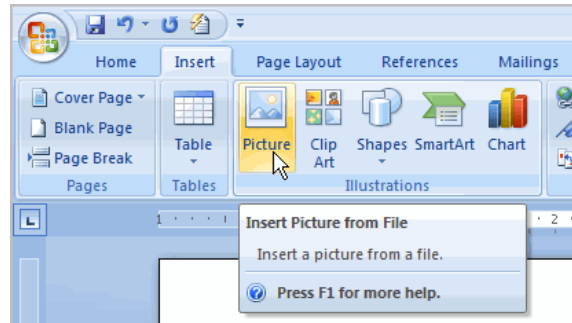
- Select the paragraphs you want to apply a list style to.
- Choose Format, Bullets and Numbering.

- Click the List Styles tab
- Select a list style from the List Styles scroll box. Word previews the list style you've chosen in the List Preview box.
- Click OK. Word applies the list style you've chosen.

### Inserting and modifying pictures

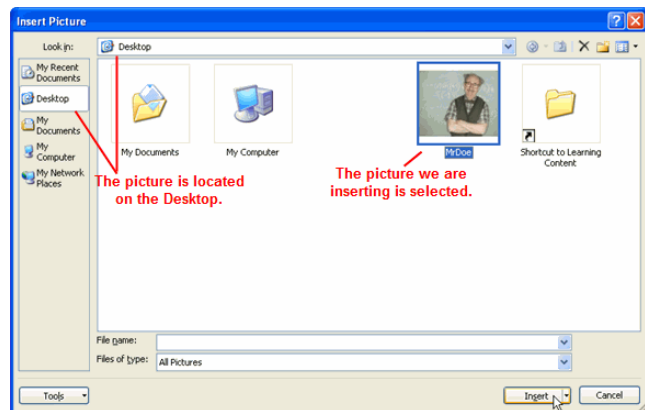
#### To insert a picture:

- Place your insertion point where you want the image to appear.

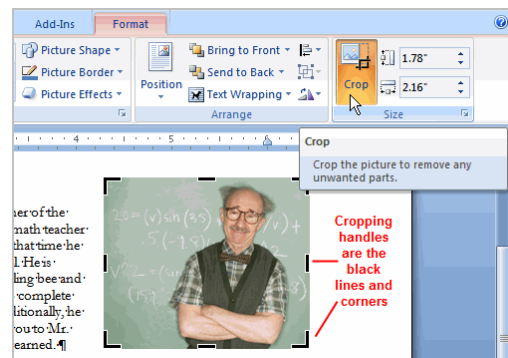


- Select the Insert tab.
- Click the Picture command in the Illustrations group. The Insert Picture dialog box appears.

- Select the image file on your computer.



- Click Insert, and it will appear in your document.
- Left-click a corner sizing handle, and while holding down the mouse button resize the image. The image retains its proportions.
- To crop an image:
- Select the image.
- Select the Format tab.

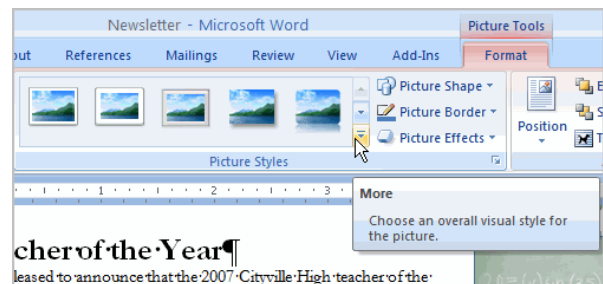
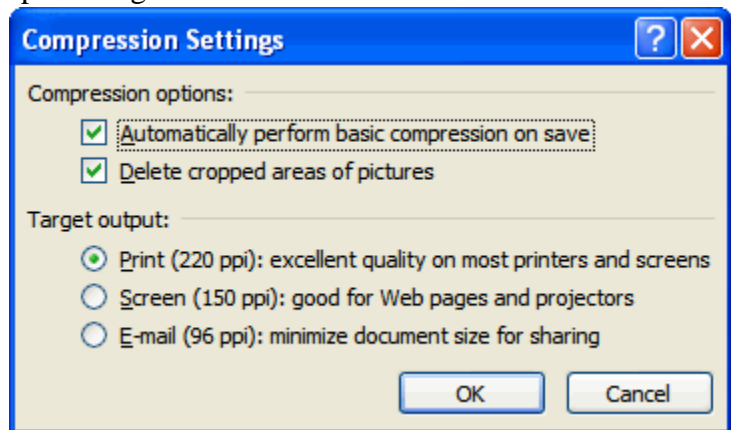




- Click the Crop command. The black cropping handles appear.
- Left-click and move a handle to crop an image.
- Click the Crop command to deselect the crop tool.
- Corner handles will crop the image proportionally.

### To compress a picture:

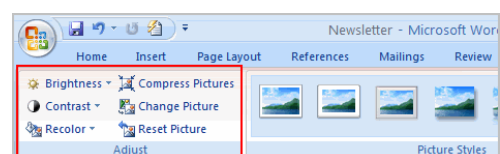
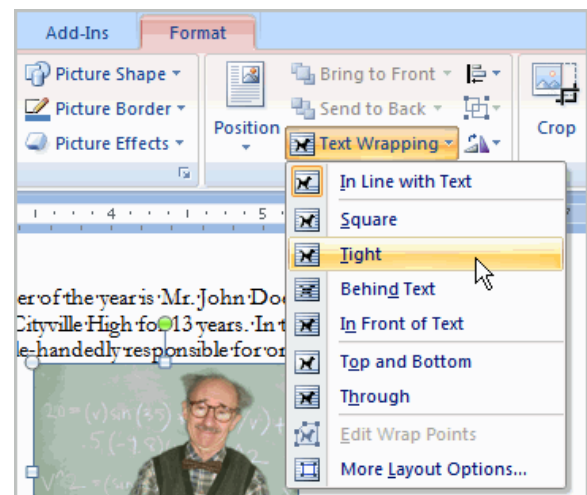
- Select the picture.
- Select the Format tab.
- Click the Compress Pictures command in the Adjust Pictures group. A dialog box appears.
- Click the Options button to access the Compression Setting dialog box.
- Choose the target output.
- Change any of the default picture settings you want.
- Click OK in the Compression Settings dialog box.
- Click OK in the Compress Pictures dialog box.
- To apply a picture style:
- Select the picture.
- Select the Format tab.
- Click the More drop-down arrow to display all of the picture styles.
- Hover over a picture style to display a live preview of the style in the document.



- Left-click a style to select it.

### To wrap text around an image:

- Select the image.
- Select the Picture Tools Format tab.
- Click the Text Wrapping command in the Arrange group.
- Left-click a menu option to select it. In this example, we selected Tight.
- Move the image around to see how the text wraps for each setting.

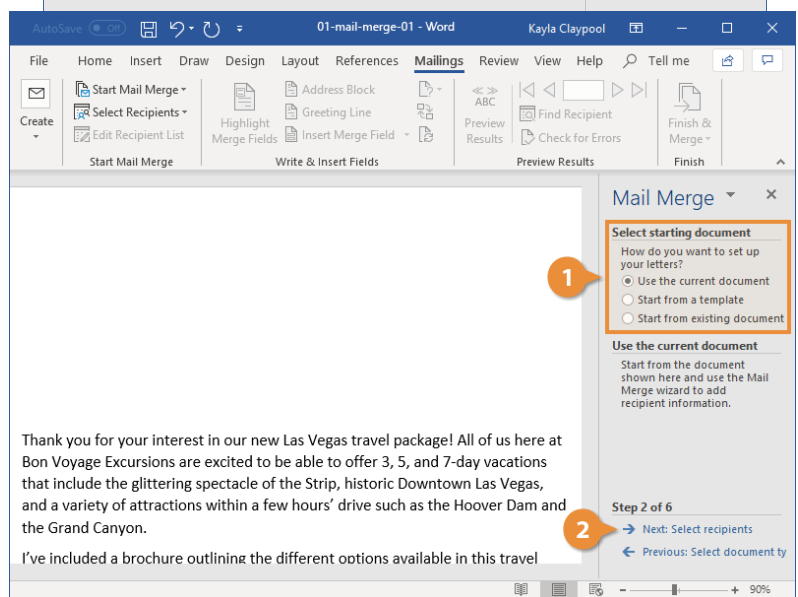
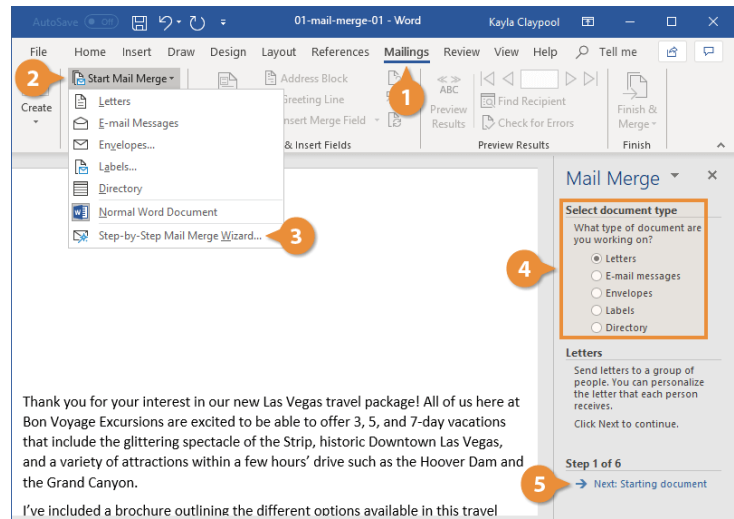


- The Position button has predefined text wrapping settings. The Position button is located to the left of the Text Wrapping button.
- Click the Position button, and a drop-down list of text wrapping options will appear. Hover over an option to see what it does.
- Other picture tools
- Change Picture: Selects a new picture from your computer
- Reset Picture: Reverts to original image
- Brightness: Adjusts the brightness of an image
- Color: Adjusts the contrast of an image from light to dark
- Recolor: Modifies the color in a variety of ways, including black and white, sepia, pink, and purple

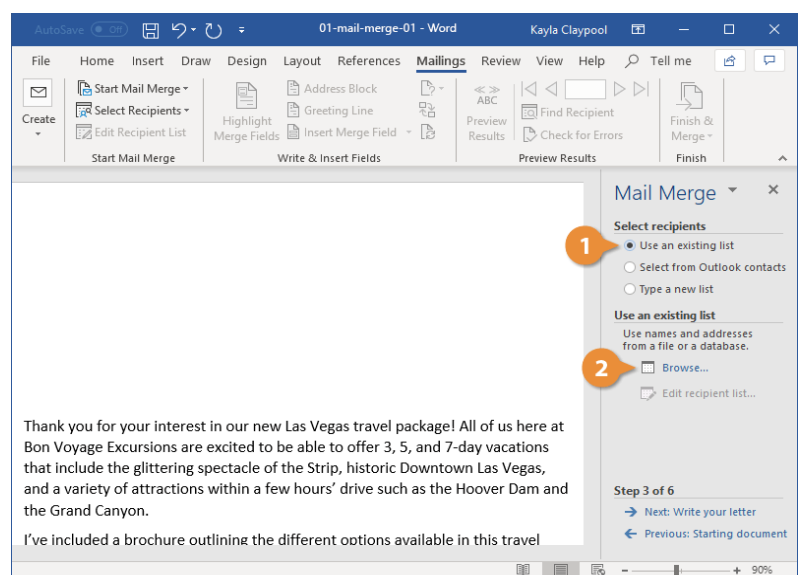
## Mail Merging

### Set up and Choose Document Type

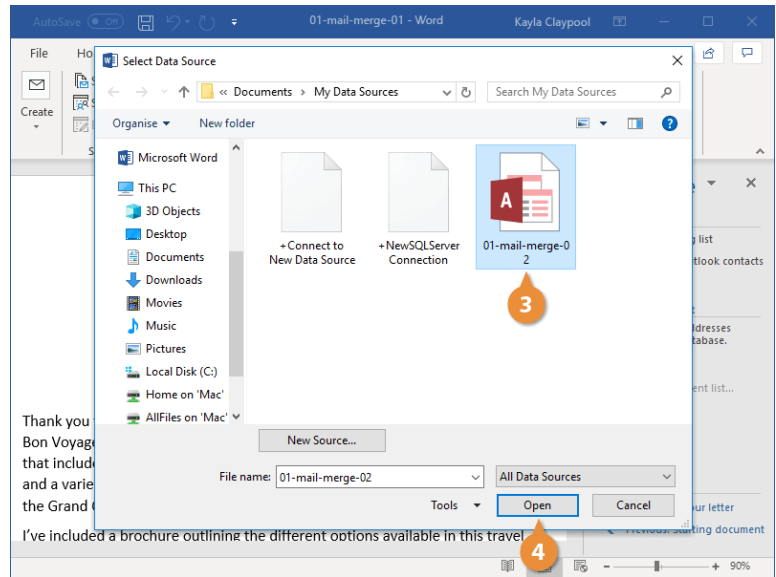
- Click the Mailings tab.
- Click the Start Mail Merge button.



- Select Step-by-Step Mail Merge Wizard
- The Mail Merge pane appears on the right, ready to walk you through the mail merge.
- Select a type of document to create.
- Click Next: Starting document.

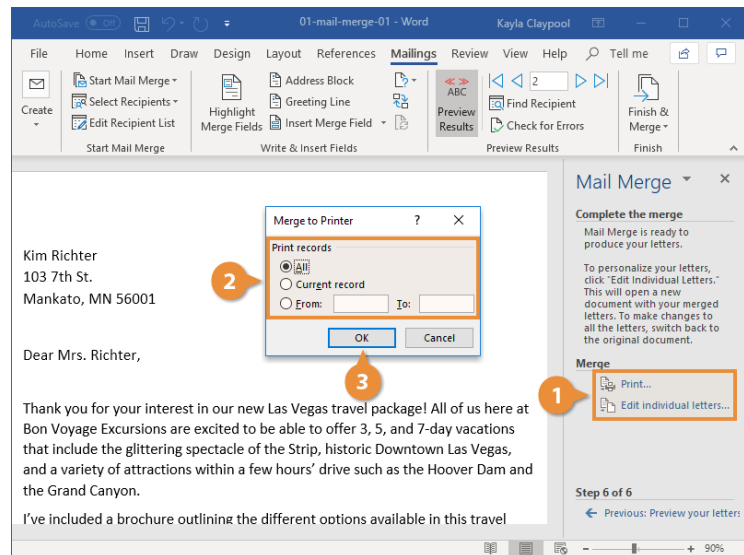


- Select a Document
- Select a starting document.
- Click Next: Select recipients.



- Select Recipients
- Select Use an existing list.
- Click Browse.

- Select your data file.
- Click Open.
- Next step is Write Your Letter and Preview
- Your Mail Merge



- Complete the Merge
- Select the option you want to use to finish the mail merge.
- Select the records you want to merge.
- Click OK.

## UNIT-II

### MS-Excel

#### Features of MS-Excel:

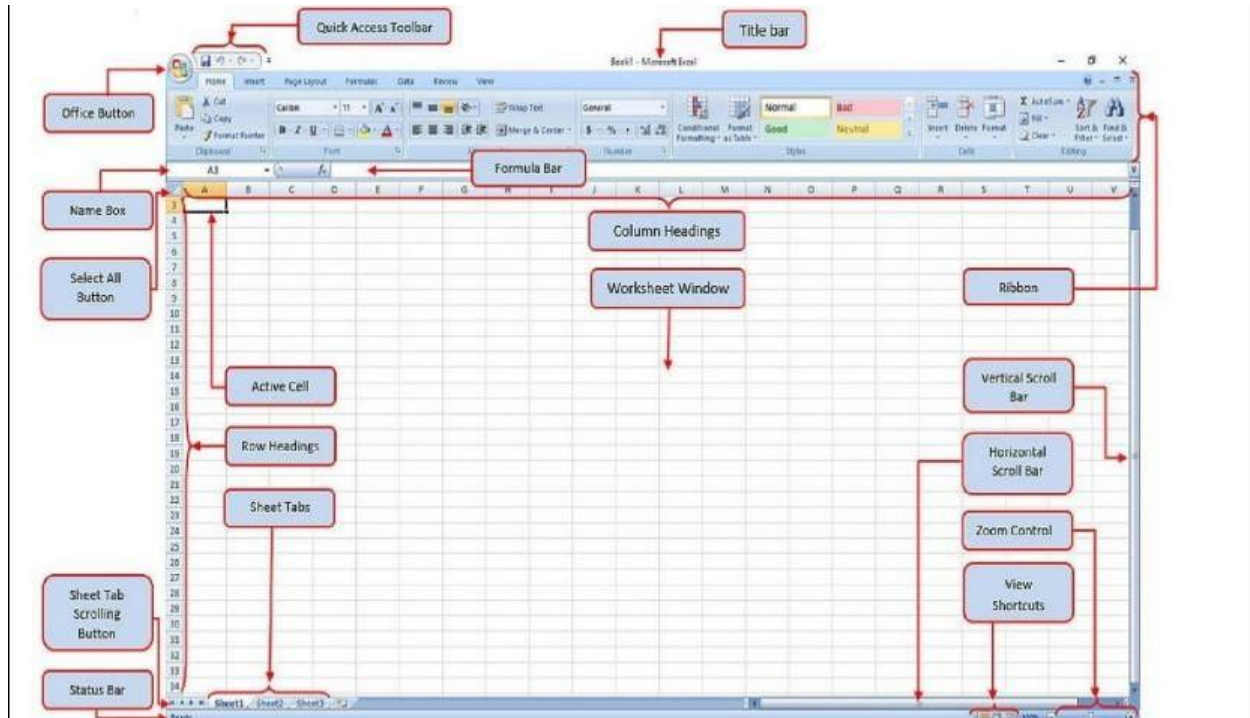
Microsoft excel is an integrated electronic spread sheet program developed by Microsoft corporation. It includes the following features.

- **Autocalc:** This feature is very useful to sum a group of numbers is selected them. Their sum will automatically appear in the status area.
- **Auto complete:** Excel now intelligence to anticipate what you are going to type! Based upon entries you've already made, AutoComplete will try to figure out what you intended to type, once you've entered few letters.
- **Autocorrect:** Excel can support automatically correct mistakes.
- **Better Drag-and-Drop:** Do you want to move a group of cells? Excel's drag and drop feature lets you reposition selected portion of your spreadsheet by simply dragging them with your mouse.
- **Cell tips and Scroll Tips:** To help you get around better with mouse, Excel now includes scroll tips. When you click and drag a scroll bar, a small window tells you what row or column you are heading for.
- **Number Formatting:** It's easy to format numbers with Excel's new number formatting feature. Select your numbers and choose cells command from format menu.
- **Templates and Template wizard:** Excel's template facility has been greatly enhanced. You can choose from a variety of elegantly designed templates for your home or business. You can even have a template wizard link your worksheets to a database.
- **Shared Lists:** you can now have worksheets that are shared simultaneously over a network.
- **Conditional Formatting:** Conditional formatting helps users to quickly focus on important aspects of a spreadsheet or to highlight errors and to identify important patterns in data.
- **Sorting and Filtering:** Excel spreadsheets help us make sense of large amounts of data. To make it easier to find what you need, you can reorder the data or pick out just the data you need, based on parameters you set within Excel. Sorting and filtering your data will save you time and make your spreadsheet more effective.
- **Excel Charts:** Excel charts help you communicate insights & information with ease. By choosing your charts wisely and formatting them cleanly, you can convey a lot.

#### Parts of MS-Excel window: office 2007 and its parts

- **Quick Access Toolbar** – Collection of buttons that provide one click access to commonly used commands such as Save, Undo or Redo. You can also customize this according to your preference.
- **Title bar** – A bar the display the name of active workbook
- **Ribbon** – The main set of commands and controls organized task in Tabs and groups, you can also customize the ribbon according to your preference.

- **Column Headings** – The letters that appear along the top of the worksheet to identify the different columns in the worksheet.



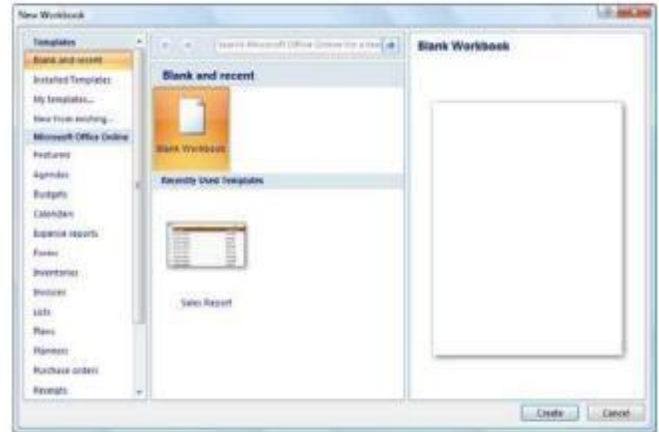
- **Worksheet Window** – A window that displays an Excel worksheet, basically this is where you work all the tasks.
- **Vertical Scroll bar** – Scroll bar to use when you want to scroll vertically through the Worksheet window. **Horizontal Scroll bar** – Scroll bar to use when you want to scroll horizontally through the worksheet window.
- **Zoom Controls** – Used for magnifying and shrinking of the active worksheet.
- **View Shortcuts** – Buttons used to change how the worksheet content is displayed. Normal, Page Layout or Page Break Preview.
- **Sheet Tabs** – Tabs that display the name of the worksheet in the workbook, by default its name sheet 1, sheet 2, etc. You can rename this to any name the best represent to your sheet.
- **Sheet Tab Scrolling Buttons** – Buttons to scroll the sheet tabs in the workbook
- **Row Headings** – The number that appears on the left of the worksheet window to identify the Different rows.
- **Select All Button** – A button that selects all the cells in the active worksheet
- **Active Cell** – The cell selected in the active worksheet
- **Name Box** – A box that displays the cell reference of the active cell
- **Formula Bar** – A bar that displays the value or formula entered in the active cell
- **Office Button/File Tab** – It provides access to workbook level features and program settings. You will notice that in Excel 2007 there is a circle.

## Creating a New Workbook

- Click the Office Button and select New. The New Workbook dialog box appears. By default, the Blank Workbook option is already selected.
- Make sure the Blank Workbook option is selected and click Create. The new blank workbook appears in the Excel application screen. Other Ways to Create a Blank Workbook:
- Double-click the Blank Workbook option. Or press +.

## Create a workbook from a template

- Click the Office Button and select New. The New Workbook dialog box appears. There are several ways you can create a new workbook from a template.
- Different categories are listed here:
- Blank and recent: This category is selected by default. Select a template in the Recently Used Templates area and click Create.
- Installed Templates: Click this category to view templates that were installed on your computer with Microsoft Office. Select the template from which you want to create a new workbook and click Create.
- My templates: Select My Templates to open a dialog box that displays templates you have created and saved on your computer.
- New from existing: Select New from Existing to open a dialog box that allows you to browse for a workbook on your computer that you want to base a new workbook on. This is essentially like creating a copy of an existing file.
- Microsoft Office Online: Click a category to view templates that you can download from Office Online. Find the template you want to download and click Download



## Entering and Editing data

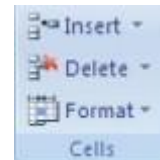
You can enter data in one cell, in several cells at the same time, or on more than one worksheet at the same time. The data that you enter can be numbers, text, dates, or times. You can format the data in a variety of ways. And, there are several settings that you can adjust to make data entry easier for you.

- Enter text or a number in a cell
- On the worksheet, click a cell.
- Type the numbers or text that you want to enter, and then press Enter or Tab.
- To enter data on a new line within a cell, enter a line break by pressing

- Alt+Enter Editing text or a number in a cell
- Double click the cell containing the data you want to edit.
- Make any changes to the cell contents.
- Press enter key. The change will accept. To cancel your changes, press Esc key.

### Change the width of a column

- Click the cell for which you want to change the column width.
- On the Home tab, in the Cells group, click Format
- Under Cell Size, do one of the following:
  - To fit all text in the cell, click AutoFit Column Width.
  - To specify a larger column width, click Column Width, and then type the width
  - That you want in the Column width box.



If there are multiple lines of text in a cell, some of the text might not be displayed the way that you want. You can display multiple lines of text inside a cell by wrapping the text.

### Wrap text in a cell

- Click the cell in which you want to wrap the text.
- On the Home tab, in the Alignment group, click Wrap Text.



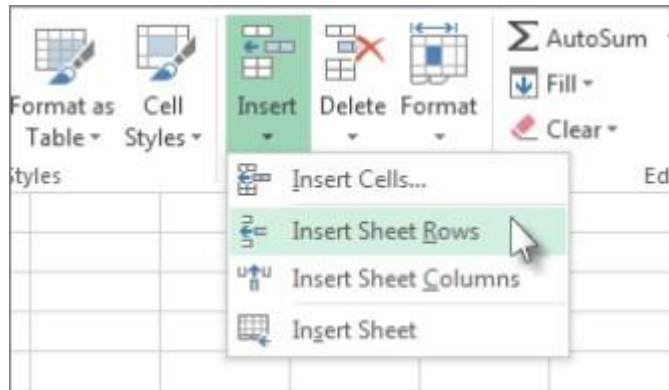
### Saving and Printing

- Saving Worksheets and Workbooks
- When you open up Excel it creates a workbook (the master document), which is composed of one or more worksheets.
- You should save the workbook on your diskette with a name that identifies it as your class or project workbook, e.g. for Economics 102 I might use ecn102cam, by choosing Office Button and Save As.
- You can save each class session and homework on a separate worksheet within this workbook. When you first open the workbook it puts you in Sheet1. You can rename this to e.g. intro by double-clicking on the Sheet1 tab at the bottom of the screen and typing intro at the rename prompt. Sheet2 might become Ass2 etc.  
Save results frequently.
- Printing
- Use print preview to change many default print settings and see what you'll print. Also, select a specific range of cells to print, and print a table in a worksheet.
- Print a part of a worksheet:
  - Click the worksheet, and select the range of data that you want to print.
  - Click FILE > Print. You can also press Ctrl+P.
  - Under Settings, click the arrow next to Print Active Sheets and select Print Selected Table.

- Click the Print button. If a worksheet has defined print areas, Excel will print only those print areas. If you don't want to print only a defined print area, check the Ignore print area box.
- Print an Excel table:
- Click a cell within the table to enable the table.
- Click FILE > Print. You can also press Ctrl+P.
- Under Settings, click the arrow next to Print Active Sheets and select Selected Table. Click the Print button

### 3. Print gridlines in a worksheet:

- Select the worksheet or worksheets that you want to print.
- On the PAGE LAYOUT tab, in the Sheet Options group, check the Print box under Gridlines.
- Click FILE > Print. You can also press Ctrl+P.



## Inserting Rows/Columns

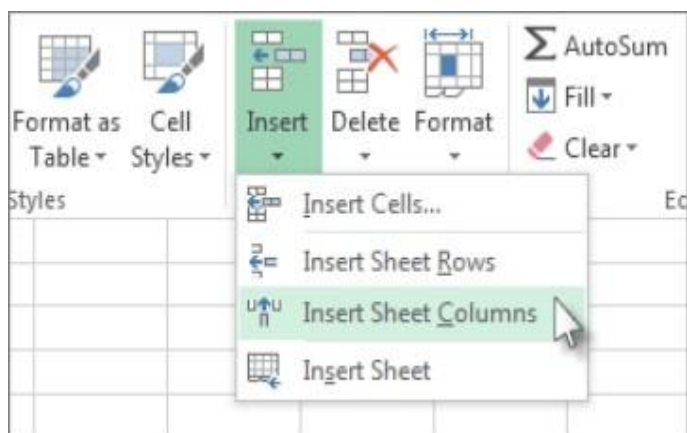
You can insert blank cells above or to the left of the active cell on a worksheet. When you insert blank cells, Excel shifts other cells in the same column down or cells in the same row to the right to accommodate the new cells. Similarly, you can insert rows above a selected row and columns to the left of a selected column. You can also delete cells, rows, and columns.

### To Inserting Rows:

To insert a single row, select either the whole row or a cell in the row above which you want to insert the new row. For example, to insert a new row above row 5, click a cell in row 5.

- Right-click the selected cells and then click Insert.
- On the Home tab, in the Cells group, click the arrow under Insert, and then click Insert Sheet Rows

- To Inserting Columns:
- To insert a single column, select the column or a cell in the column immediately to the right of where you want to insert the new column. For example, to insert a new column to the left of column B, click a cell in column B.

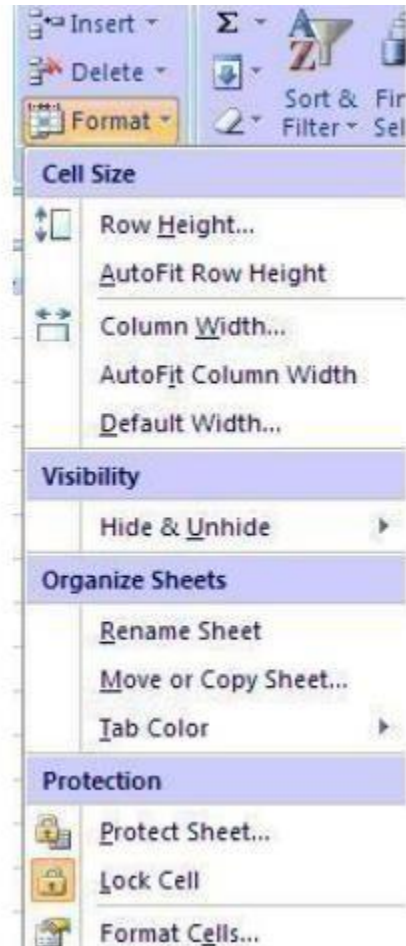




- Right-click the selected cells and then click Insert
- On the Home tab, in the Cells group, click the arrow under Insert, and then click Insert Sheet Columns.

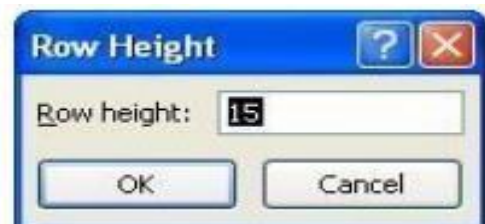
### Changing column widths and row heights

- To change column widths:
- Select the column or columns that you want to change.
- On the Home tab, in the Cells group, click Format.
- Under Cell Size, click Column Width.
- In the Column width box, type the value that you want.



### To Change Row Height:

- Select the row or rows that you want to change.
- On the Home tab, in the Cells group, click Format.
- Under Cell Size, click Row Height.
- In the Row height box, type the value that you want.



### Formulae and functions:

- Formula is an expression that calculates the value of a cell.

For example, =A2+A2+A3+A4 is a formula that adds up the values in cells A2 to A4.

- Function is a predefined formula already available in Excel. Functions perform specific calculations in a particular order based on the specified values, called arguments, or parameters.

For example, instead of specifying each value to be summed like in the above formula, you can use the SUM Function to add up a range of cells: =SUM (A2:A4)

**You can find all available Excel functions in the Function Library on the Formulas tab:**



**Meaning and advantages of functions**

**Different types of functions available in Excel**

➤ **Mathematical Functions:**

- SUM - Adds up all the values in a range
- SUMIF - Adds all the values in a range that meet specific criteria
- ROUND - Round a number to a specified number of digits
- ROUNDUP - Round a number up to a specified number of digits
- ROUNDDOWN - Round a number down to a specified number of digits
- CEILING - Round a number up to a multiple of significance
- FLOOR - Round a number down to a multiple of significance

➤ **Statistical Functions:**

- COUNT - Counts all the values in a range
- AVERAGE - Calculates the average number from a range of values
- MAX - Finds the maximum value in a range
- MIN - Finds the minimum value in a range
- COUNTA - Counts all non-empty cells in a range
- COUNTBLANK - Counts all blank cells in a range
- COUNTIF - Counts all the cells in a range that meet specific criteria
- LARGE - Return a value dependent upon its ranking in a range of values in descending order
- SMALL - Return a value dependent upon its ranking in a range of values in ascending order
- Text Functions
- LEN - Returns the length, in number of characters, of the contents of a cell
- REPT - Repeats a character a specified number of times
- TRIM - Remove unwanted spaces from cells

- LEFT - Extracts a specific number of characters from the start of a cell
- RIGHT - Extracts a specific number of characters from the end of a cell
- MID - Extracts a specific number of characters from the middle of a cell
- UPPER - Converts the contents of a cell to uppercase
- LOWER - Converts the contents of a cell to lowercase
- PROPER - Converts the contents of a cell to proper case
- REPLACE - Replace existing characters in a cell with a different set of characters.

➤ **Financial Functions**

- PMT - Calculates loan repayments based on constant payments and a constant interest rate
- RATE - Returns the interest rate per period of a loan or investment
- PV - Returns the present value of an investment based on a constant interest rate and payments
- FV - Returns the future value of an investment based on constant payments and a constant interest rate
- IPMT - Calculates the interest paid during a period of a loan
- Lookup and Reference Functions:
- VLOOKUP - Looks vertically down a list to find a record and returns information related to that record
- HLOOKUP - Looks horizontally across a list to find a record and returns information related to that record
- MATCH - Returns the position of a value in a list
- INDEX - Returns an item from a specific position in a list
- INDIRECT - Allows you to use a cell reference entered as a text string
- OFFSET - Returns a value from a cell, or range of cells that are a specified number of rows and columns from another cell
- CHOOSE - Returns a value from a list of values based on a specified position
- ADDRESS - Returns a text representation of a cell address from specified row and column numbers
- Logical Functions
- IF - Tests a condition and takes an alternative action depending on the result
- AND - Test up to 30 conditions using logical And
- OR - Test up to 30 conditions using logical Or
- IFERROR - Performs a specified action if a formula evaluates to an error, and displays the formula result if not
- Date & Time Functions
- TODAY - Returns the current date
- NOW - Returns the current date and time
- DATE - Returns the sequential serial number for the specified date and formats the result as a date
- DAY - Returns the day corresponding to a date represented by a number between 1 and 31
- MONTH - Returns the month corresponding to a date represented by a number between 1 and 12

- YEAR - Returns the year corresponding to a date represented by a number in the range 1900 to 9999
- WORKDAY - Returns the date a specified number of working days before or after a date
- WEEKDAY - Returns the day of the week corresponding to a specified date

### Date and Time Functions:

**Get the Current Date:** To calculate the current date, use the TODAY function. It will automatically update, if you open the workbook on a different day.

=TODAY ()

NOTE: To enter the current date as a static value, that will not update, use the shortcut key: Ctrl +;

A screenshot of an Excel spreadsheet. Cell A2 contains the formula =TODAY(). Below it, a table shows the result of the function:

	A
1	Current Date
2	2/27/2016

### Get Year, Month, Week or Day

**Number:** If a cell contains a date and time, you can use the following functions to extract the year, month number, or day number from the date. In this example, the date is in cell A2

Year: =YEAR (A2)

Month: =MONTH (A2)

Week: = WEEKNUM (A2)

Day: = DAY (A2)

NOTE: If the result looks like a date, instead of a number, change the cell's number format to General

A screenshot of an Excel spreadsheet. Cell B2 contains the formula =YEAR(A2). Below it, a table shows the result of the function:

	A	B	C	D
1	Current Date	Year	Month	Day
2	2/27/2016	2016	2	27

A screenshot of an Excel spreadsheet. Cell C2 contains the formula =TEXT(A2,"mmmm"). Below it, a table shows the result of the function:

	A	B	C
1	Date	Month Short	Month Long
2	3/1/2016	Mar	March
3		Weekday Short	Weekday Long
4		Tue	Tuesday

### Get Month or Day Name:

If a cell contains a date, you can extract parts of that date as text. For example, show the month name, or the weekday name of the date. In this example, the date is in cell A2. Month Name (short): =TEXT (A2,"mmm")

Month Name (long): =TEXT (A2,"mmmm")

Weekday Name (short): =TEXT (A2,"ddd")

Weekday Name (long): =TEXT (A2,"dddd")

Function

Description

DATE function	Returns the serial number of a particular date
DATEDIF function	Calculates the number of days
DAY function	converts a serial number to a day of the month
DAYS360 function	Calculates the number of days between two dates based on a 360-day year
EDATE function	Returns the serial number of the date that is the indicated number of months before or after the start date
EOMONTH function	Returns the serial number of the last day of the month before or after specified number of months
HOUR function	converts a serial number to an hour

### Excel Engineering Functions

<b>Converting Between Units of Measurement</b>	
<b><u>CONVERT</u></b>	Converts a number from one measurement system to another
<b>Converting Between Bases</b>	
<b><u>BIN2DEC</u></b>	Converts a binary number to a decimal
<b><u>BIN2HEX</u></b>	Converts a binary number to hexadecimal
<b><u>BIN2OCT</u></b>	Converts a binary number to octal
<b><u>DEC2BIN</u></b>	Converts a decimal number to binary
<b><u>DEC2HEX</u></b>	Converts a decimal number to hexadecimal
<b><u>DEC2OCT</u></b>	Converts a decimal number to octal
<b><u>HEX2BIN</u></b>	Converts a hexadecimal number to binary
<b><u>HEX2DEC</u></b>	Converts a hexadecimal number to a decimal
<b><u>HEX2OCT</u></b>	Converts a hexadecimal number to octal
<b><u>OCT2BIN</u></b>	Converts octal number to binary
<b><u>OCT2DEC</u></b>	Converts octal number to a decimal
<b><u>OCT2HEX</u></b>	Converts octal number to hexadecimal

### Database functions

All of the database functions search a specified database for records that match specified criteria. Some of the database functions then perform calculations on data in a specified field of the matching records.

**The following are the database functions.**

<u>DAVERAGE</u>	<u>DGET</u>	<u>DPRODUCT</u>	<u>DSUM</u>
<u>DCOUNT</u>	<u>DMAX</u>	<u>DSTDEV</u>	<u>DVAR</u>
<u>DCOUNTA</u>	<u>DMIN</u>	<u>DSTDEVP</u>	<u>DVARP</u>

## The Different Types of Operators in Excel

Type	Character	Operation	Example
Arithmetic	+ (plus sign)	Addition	=A2+B3
	- (minus sign)	Subtraction or negation	=A3-A2 or -C4
	* (asterisk)	Multiplication	=A2*B3
	/	Division	=B3/A2
	%	Percent (dividing by 100)	=B3%
	^	Exponentiation	=A2^3
Comparison	=	Equal to	=A2=B3
	>	Greater than	=B3>A2
	<	Less than	=A2<B3
	>=	Greater than or equal to	=B3>=A2
	<=	Less than or equal to	=A2<=B3
Text	&	Concatenates (connects) entries to produce one continuous entry	=A2&" "&B3t
Reference	: (colon)	Range operator that includes	=SUM(C4:D17)

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	, (comma)	Union operator that combines multiple references into one reference	=SUM(A2,C4:D17,B3)
--	-----------	---	--------------------

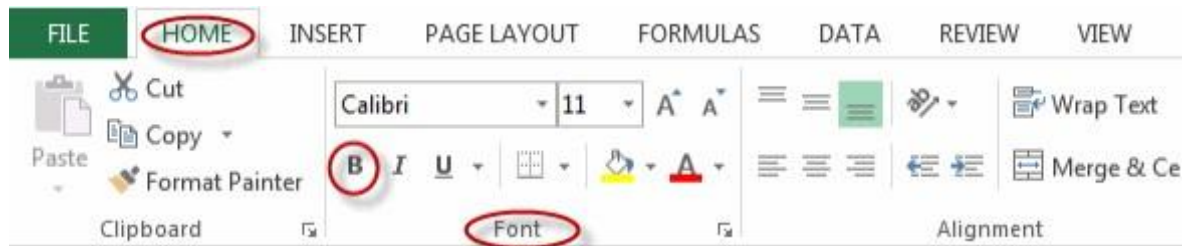
## Formatting a Worksheet

### The Font Group

#### Bold, Italicize and Underline Text

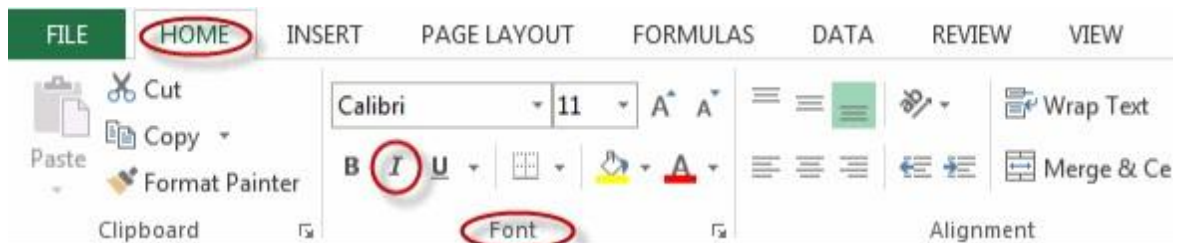
### To bold text in Microsoft Excel:

1. Select the cell or cells in which you wish to bold the text.
2. On the HOME tab, in the Font group, click the bold command.



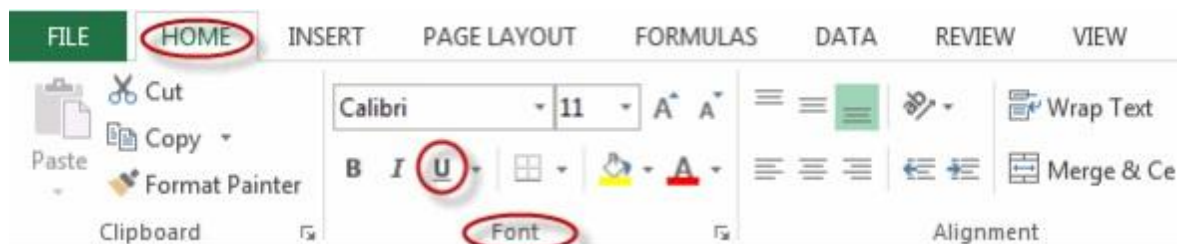
### To italicize text in Microsoft Excel:

1. Select the cell or cells in which you wish to italicize the text.
2. On the HOME tab, in the Font group, click the Italic command.



### To underline text in Microsoft Excel:

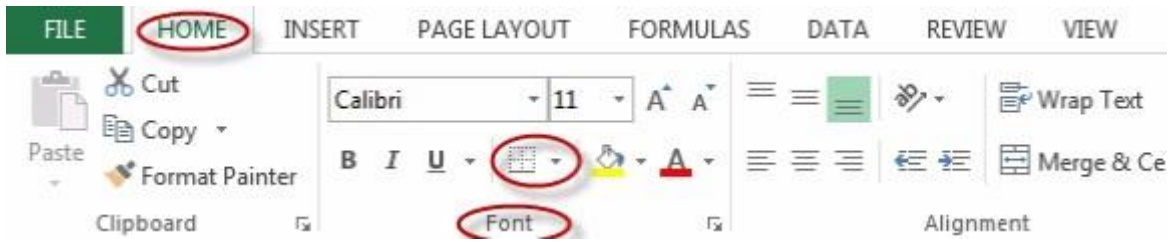
1. Select the cell or cells in which you wish to underline the text.
2. On the HOME tab, in the Font group, click the Underline command.



### Add Borders to Cells

#### To add borders to cells in Microsoft Excel:

1. Select the cell or cells to which you wish to add borders.
2. On the HOME tab, in the Font group, click the arrow to the right of the Borders command.



Select the type of border you wish to add from the drop down menu:

### Change Text and Cell Colors

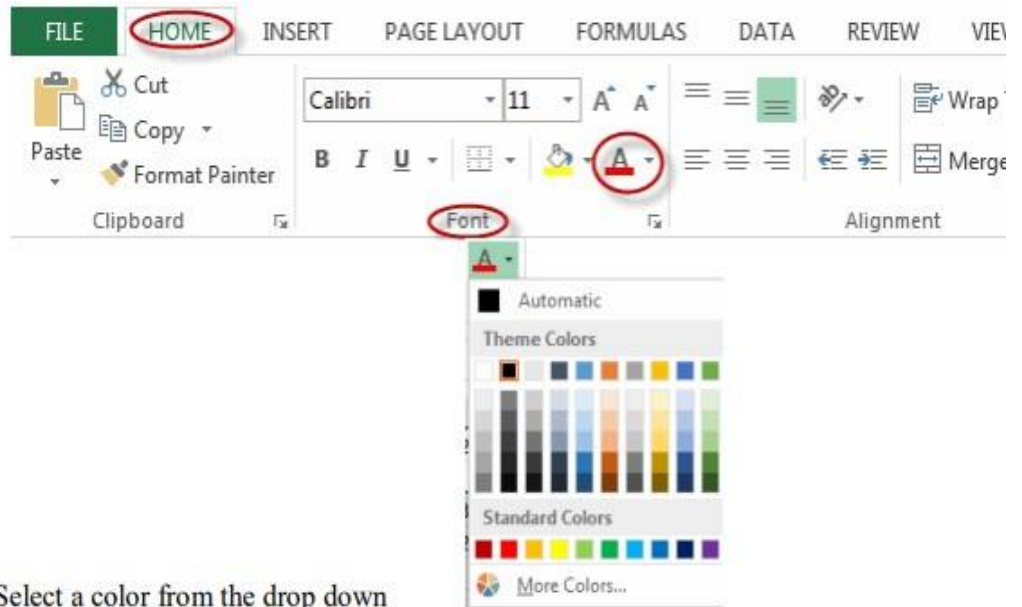
**To change the color of text in cells in Microsoft Excel:**

1. Select the cell or cells in which you wish to change the color of the text.

2. On the HOME tab, in the Font group, click the arrow to the right of the Font Color command.

3. Select a color from the drop down

to the right of the Font Color command.

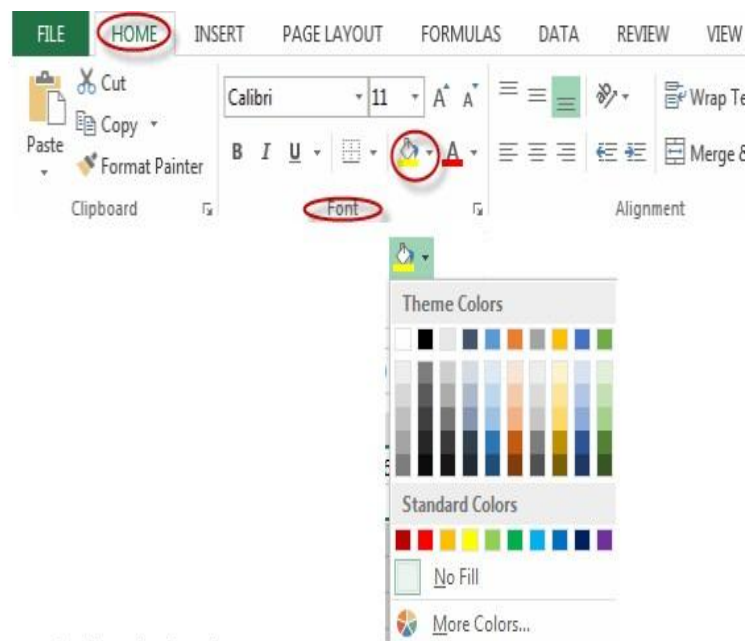


**To change the fill (i.e., background) color of cells in Microsoft Excel:**

1. Select the cell or cells in which you wish to change the fill color.

2. On the HOME tab, in the Font group, click the arrow to the right of the Fill Color command.

3. Select a color from the drop down menu





## Set Font and Font Size

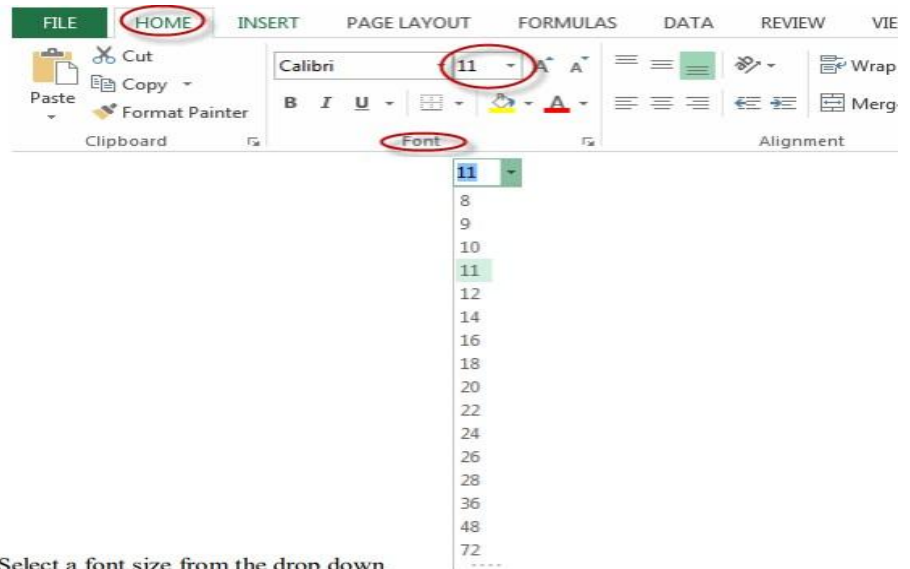
### To change the font of text or numbers in cells in Microsoft Excel:

1. Select the cell or cells in which you wish to change the font.
2. On the HOME tab, in the Font group, click the arrow to the right of the Font command.

### To change the size of the font of text or numbers in cells in Microsoft Excel:

1. Select the cell or cells in which you wish to change the font size.

2. On the HOME tab, in the Font group, click the arrow to the right of the Font Size command.



3. Select a font size from the drop down

## Referencing cells

There are three kinds of cell references that you can use in Excel:

- Relative Cell References
- Absolute Cell References
- Mixed Cell References
- Relative Cell References in Excel

	A	B	C	D
1	<b>Item</b>	<b>Price</b>	<b>Quantity</b>	<b>Total</b>
2	Item A	15	15	
3	Item B	20	20	
4	Item C	12	18	
5	Item D	18	8	
6	Item E	8	10	
7	Item F	10	20	
8	Item G	20	10	

Suppose I have a data set shown beside:

To calculate the total for each item, we need to multiply the price of each item with the quantity of that item.

For the first item, the formula in cell D2 would be B2\* C2 (as shown below):

	A	B	C	D
1	<b>Item</b>	<b>Price</b>	<b>Quantity</b>	<b>Total</b>
2	Item A	15	15	225
3	Item B	20	20	
4	Item C	12	18	
5	Item D	18	8	
6	Item E	8	10	
7	Item F	10	20	
8	Item G	20	10	

Now, instead of entering the formula for all the cells one by one, you can simply copy cell D2 and paste it into all the other cells (D3:D8). When you do it, you will notice that the cell reference automatically adjusts to refer to the corresponding row. For example, the formula in cell D3 becomes B3\*C3 and the formula in D4 becomes B4\*C4.

These cell references that adjust it when the cell is copied are called relative cell references in Excel.

When to Use Relative Cell References - Relative cell references are useful when you have to create a formula for a range of cells and the formula needs to refer to a relative cell reference.

### Absolute Cell References in Excel

Absolute cell references don't change when you copy the formula to other cells.

For example, suppose you have the data set as shown below where you have to calculate the commission for each item's total sales.

The commission is 20% and is listed in cell G1.

To get the commission amount for each item sale, use the following formula in cell E2 and copy for all cells:

=D2\*\$G\$1

	A	B	C	D
1	<b>Item</b>	<b>Price</b>	<b>Quantity</b>	<b>Total</b>
2	Item A	15	15	225
3	Item B	20	20	
4	Item C	12	18	
5	Item D	18	8	
6	Item E	8	10	
7	Item F	10	20	

	A	B	C	D	E	F	G
1	<b>Item</b>	<b>Price</b>	<b>Quantity</b>	<b>Total</b>	<b>Commission</b>		20%
2	Item A	15	15	225			
3	Item B	20	20	400			
4	Item C	12	18	216			
5	Item D	18	8	144			

	A	B	C	D	E	F	G
1	<b>Item</b>	<b>Price</b>	<b>Quantity</b>	<b>Total</b>	<b>Commission</b>		20%
2	Item A	15	15	225	45		
3	Item B	20	20	400	80		
4	Item C	12	18	216	43.2		
5	Item D	18	8	144	28.8		
6	Item E	8	10	80	16		
7	Item F	10	20	200	40		
8	Item G	20	10	200	40		

Note that there are two dollar signs (\$) in the cell reference that has the commission – \$G\$2.

A dollar symbol, when added in front of the row and column number, makes it absolute (i.e., stops the row and column number from changing when copied to other cells).

### When to Use Absolute Cell References

Absolute cell references are useful when you don't want the cell reference to change as you copy formulas. This could be the case when you have a fixed value that you need to use in the formula (such as tax rate, commission rate, number of months, etc.)

### Mixed Cell References

There can be two types of mixed cell references:

The row is locked while the column changes when the formula is copied.

The column is locked while the row changes when the formula is copied.

Let's see how it works using an example.

Below is a data set where you need to calculate the three tiers of commission based on the percentage value in cell E2, F2, and G2.

	A	B	C	D	E	F	G
1					<b>Commission</b>		
2					10%	15%	20%
3	<b>Item</b>	<b>Price</b>	<b>Quantity</b>	<b>Total</b>	<b>Tier 1</b>	<b>Tier 2</b>	<b>Tier 3</b>
4	Item A	15	15	225			
5	Item B	20	20	400			
6	Item C	12	18	216			
7	Item D	18	8	144			
8	Item E	8	10	80			
9	Item F	10	20	200			
10	Item G	20	10	200			

Now you can use the power of mixed reference to calculate all these commissions with just one formula.

**Enter the below formula in cell E4 and copy for all cells.**

**= $\$B4*\$C4*E\$2$**

E4							
= \$B4*\$C4*E\$2							
	A	B	C	D	E	F	G
1					<b>Commission</b>		
2					10%	15%	20%
3	<b>Item</b>	<b>Price</b>	<b>Quantity</b>	<b>Total</b>	<b>Tier 1</b>	<b>Tier 2</b>	<b>Tier 3</b>
4	Item A	15	15	225	22.5	33.75	45
5	Item B	20	20	400	40	60	80
6	Item C	12	18	216	21.6	32.4	43.2
7	Item D	18	8	144	14.4	21.6	28.8
8	Item E	8	10	80	8	12	16
9	Item F	10	20	200	20	30	40
10	Item G	20	10	200	20	30	40

The above formula uses both kinds of mixed cell references (one where the row is locked and one where the column is locked).

**\$B4 (and \$C4)** – In this reference, the dollar sign is right before the Column notation but not before the Row number. This means that when you copy the formula to the cells on the right, the reference will remain the same as the column is fixed.

**E\$2** – In this reference, the dollar sign is right before the row number, and the Column notation has no dollar sign. This means that when you copy the formula down the cells, the reference will not change as the row number is locked. However, if you copy the formula to the right, the column alphabet would change as it's not locked.

### Auto fill

Auto fill is one of the feature present in the MS excel. When you're typing a day, month, year and number the automatic

	A	B	C	D	E	F	G	H	I
1	1	5	1000	Jan	8:00 AM	Monday			
2	3	10	2000	Feb	9:00 AM				
3	5	15	3000	Mar	10:00 AM				
4	7	20	4000	Apr	11:00 AM				
5	9	25	5000	May	12:00 PM				
6	11	30	6000	Jun	1:00 PM				
7	13	35	7000	Jul	2:00 PM				
8	15	40	8000	Aug	3:00 PM				
9	17	45	9000	Sep	4:00 PM				
10	19	50	10000	Oct	5:00 PM				
11									
12									

series will be appeared by dragging it. This feature is called Auto fill. For Example if your typed “Jan” and then dragged then it displays months form” Jan to Dec” like.

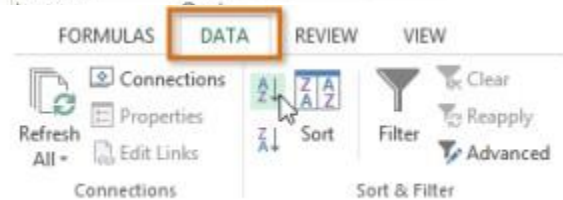
### Sort:

- When sorting data, it's important to first decide if you would like the sort to apply to the entire worksheet or just a cell range.
- Sort sheet organizes all of the data in your worksheet by one column.
- Sort range sorts the data in a range of cells, which can be helpful when working with a sheet that contains several tables. Sorting a range will not affect other content on the worksheet.
- To sort a sheet:
- In our example, we'll sort a T-shirt order form alphabetically by Last Name (column C).
- Select a cell in the column you wish to sort by. In our example, we'll select cell C2.

	A	B	C	D	E	F
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method	
2	105	Christiana	Chen	Medium	Cash	
3	105	Melissa	White	Small	Debit Card	
4	105	Esther	Yaron	Small	Check	
5	135	Anisa	Naser	Small	Check	
6	135	Chantal	Weller	Medium	Cash	
7	220-A	Juan	Flores	X-Large	Pending	
8	220-B	Mallik	Reynolds	Small	Cash	
9	220-B	Avery	Kelly	Medium	Debit Card	
10	105	Derek	MacDonald			

Select

the Data tab on the Ribbon, then click the Ascending command to Sort A to Z or the Descending command to Sort Z to A. In our example, we'll click the Ascending command.



The worksheet will be sorted by the selected column. In our example, the worksheet is now sorted by last name.

	A	B	C	D	E	F
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method	
2	110	Kris	Ackerman	Large	Money Order	
3	105	Nathan	Albee	Medium	Check	
4	220-B	Samantha	Bell	Medium	Check	
5	110	Matt	Benson	Medium	Money Order	
6	105	Christiana	Chen	Medium	Cash	
7	110	Gabriel	Del Toro	Medium	Cash	
8	220-A	Brigid	Ellison	Small	Cash	
9	220-A	Juan	Flores	X-Large	Pending	
10	220-B	Tyrese	Hanlon	X-Large	Debit Card	

## Filtering Data

If your worksheet contains a lot of content, it can be difficult to find information quickly. Filters can be used to narrow down the data in your worksheet, allowing you to view only the information you need.

### To filter data:

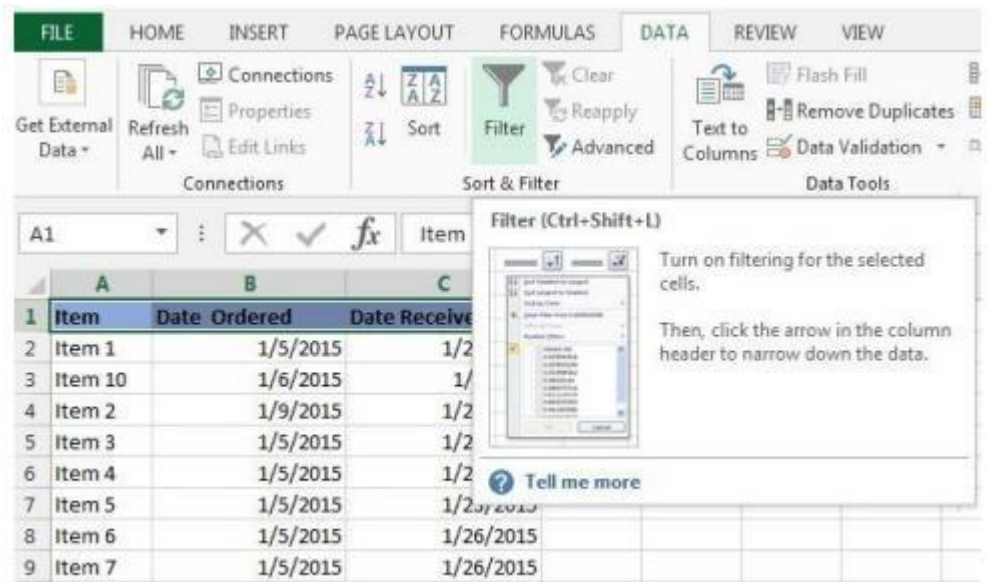
1. In order for filtering to work correctly, your worksheet should include a header row, which is used to identify the name of each column.
2. Select the Data tab, and then click the Filter command.

3. A drop-down arrow will appear in the header cell for each column.

4. Click the drop-down arrow for the column you wish to filter.

5. The Filter menu will appear.

6. Uncheck the box next to Select All to quickly deselect all data.



7. Check the boxes next to the data you wish to filter, and then click OK

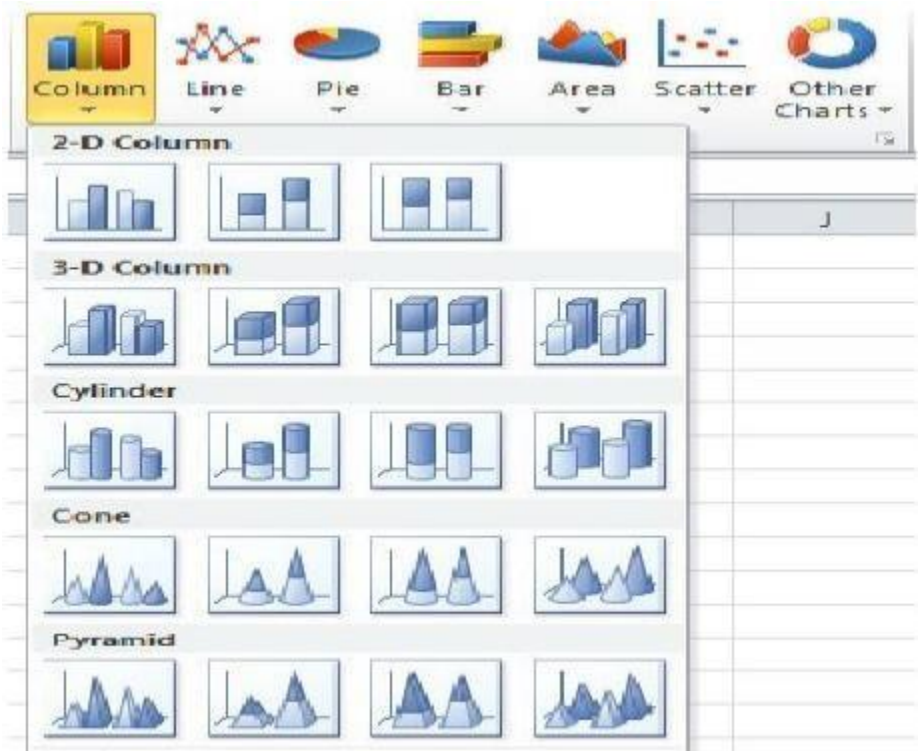
**To remove all filters from your worksheet, click the Filter command on the Data tab.**

### Different types of charts in excel

Excel has several different types of charts, allowing you to choose the one that best fits your data. In order to use charts effectively, you'll need to understand how different charts are used.

#### Types of Charts:

- Column charts use vertical bars to represent data. They can work with many different types of data, but they're most frequently used for comparing information.
- Line charts are ideal for showing trends. The data points are connected with lines, making it easy to see whether values are increasing or decreasing over time.
- Pie charts make it easy to compare proportions. Each value is shown as a slice of the pie, so it's easy to see which values make up the percentage of a whole.



- Bar charts work just like Column charts, but they use horizontal bars instead of vertical bars.
- Area charts are similar to line charts; except that the areas under the lines are filled in.
- Surface charts allow you to display data across a 3D landscape. They work best with large data sets, allowing you to see a variety of information at the same time.

## Chart operations

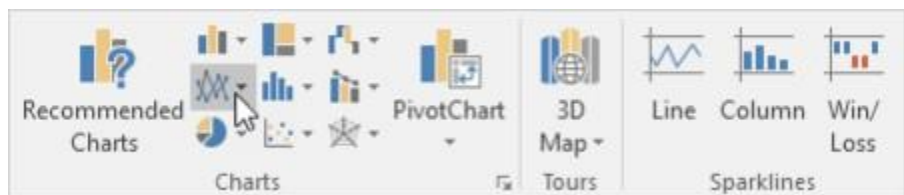
### Create a Chart:

To create a line chart, execute the following steps.

- Select the range A1:D7.

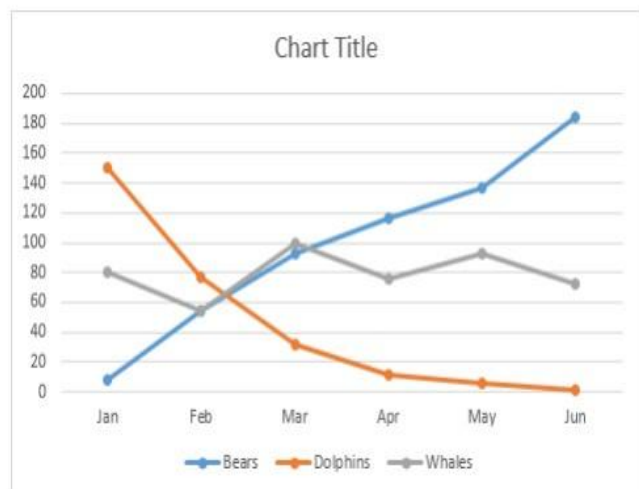
	A	B	C	D	E
1	Month	Bears	Dolphins	Whales	
2	Jan	8	150	80	
3	Feb	54	77	54	
4	Mar	93	32	100	
5	Apr	116	11	76	
6	May	137	6	93	
7	Jun	184	1	72	
8					

- On the Insert tab, in the Charts group, click the Line symbol.



Result:

- Click Line with Markers.



## 2.13 Graphs

### What is a Graph in Excel?

In simple terms, a graph is a visual element that represents data in a [worksheet](#).



### What are the Types of Graphs Available in Excel?

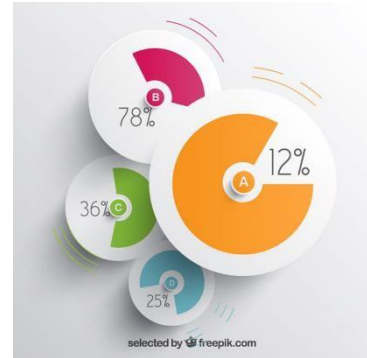
Excel has most of the common graphs that are used for statistics. The types of graphs in Excel include:

#### 1. Bar/Column Graphs

A bar graph shows information about two or more groups. Bar graphs are mainly used to make comparisons across a range.

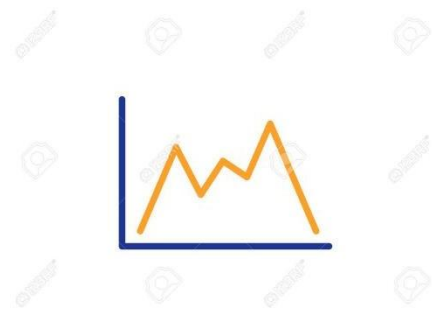
#### 2. Pie Graphs

A pie chart is nothing but a circular graph representing data in the form of a pie/circle. It is divided into different sections, each one representing a proportion of the whole.

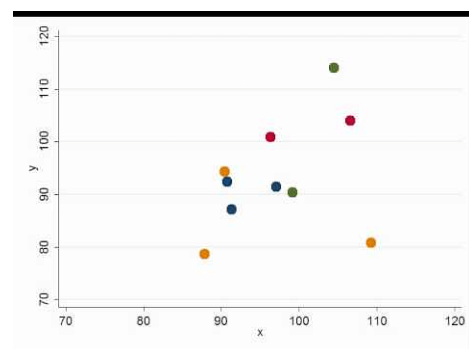


#### 3. Line Graphs

A line graph is formed by connecting a series of values/data points using straight lines. A line graph can be used when you want to check whether the values are increasing or decreasing over some time.



**4. Scatter Plot:** A scatter plot, also called a coordinate graph, uses dots to represent the data values for two different variables, one on each axis.

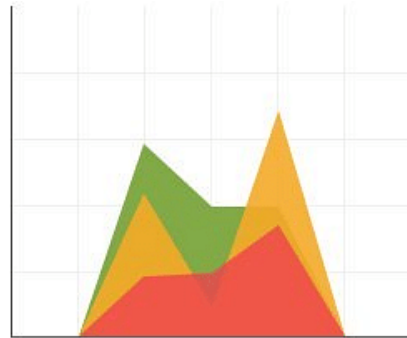




This graph is used to find a pattern/ relationship between two sets of data.

## 5. Area Chart

An area chart depicts the change of two or more data points over time. They are similar to the line charts, except the area [charts](#) are filled with color below the line. This chart is useful to visualize the area of various series relative to each other.



### How to Make a Graph in Excel

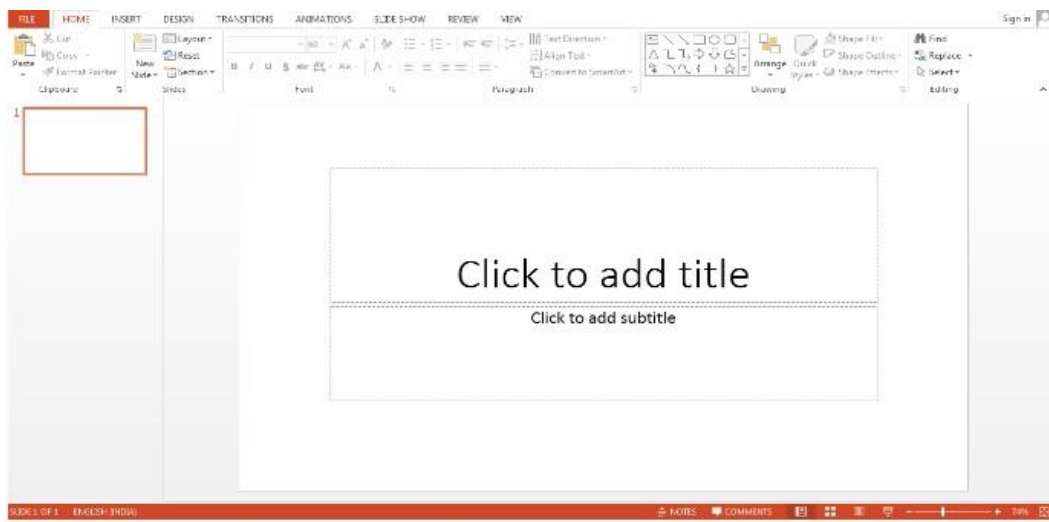
- You must select the data for which a chart is to be created.
- In the INSERT menu, select Recommended Charts.
- Choose any chart from the list of charts Excel recommends for your data on the Recommended Charts tab, and click it to preview how it will look with your data.
- Please click on All Charts if you are unable to locate a chart you like.
- Click on the chart that you prefer and then click OK.
- You can add chart elements such as axis titles or data labels, customize the appearance of the chart, or change the data displayed in the chart by clicking on Chart Elements, Chart Styles, and Chart Filters in the upper-right corner of the chart.
- Click on the chart TOOLS tab on the ribbon to add additional design and formatting capabilities and then click the options you desire under the DESIGN and FORMAT tab

# Unit -III

## MS-PowerPoint

**PowerPoint (PPT)** is a powerful, easy-to-use presentation graphics software program that allows you to create professional-looking electronic slide shows.

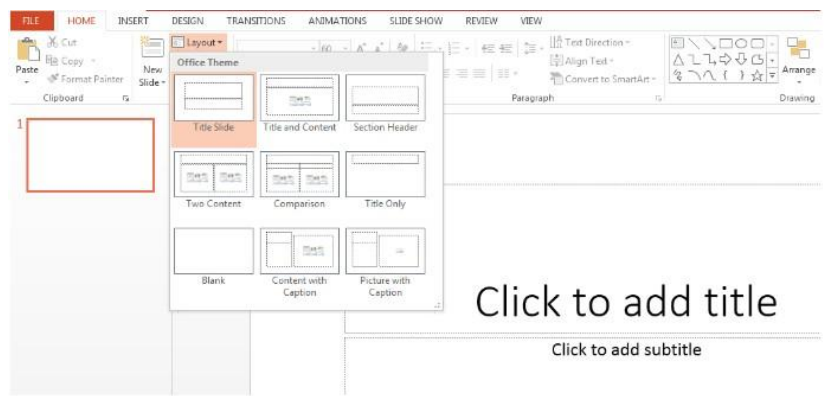
The image given below shows the main page of MS PowerPoint, where a person lands when the program is opened on a computer system:



### Features of MS PowerPoint

There are multiple features that are available in MS PowerPoint which can customize and optimize a presentation. The same have been discussed below.

- Slide Layout
- Multiple options and layouts are available based on which a presentation can be created. This option is available under the “Home” section and one can select from the multiple layout options provided.



- The image below shows the different slide layout options which are available for use:

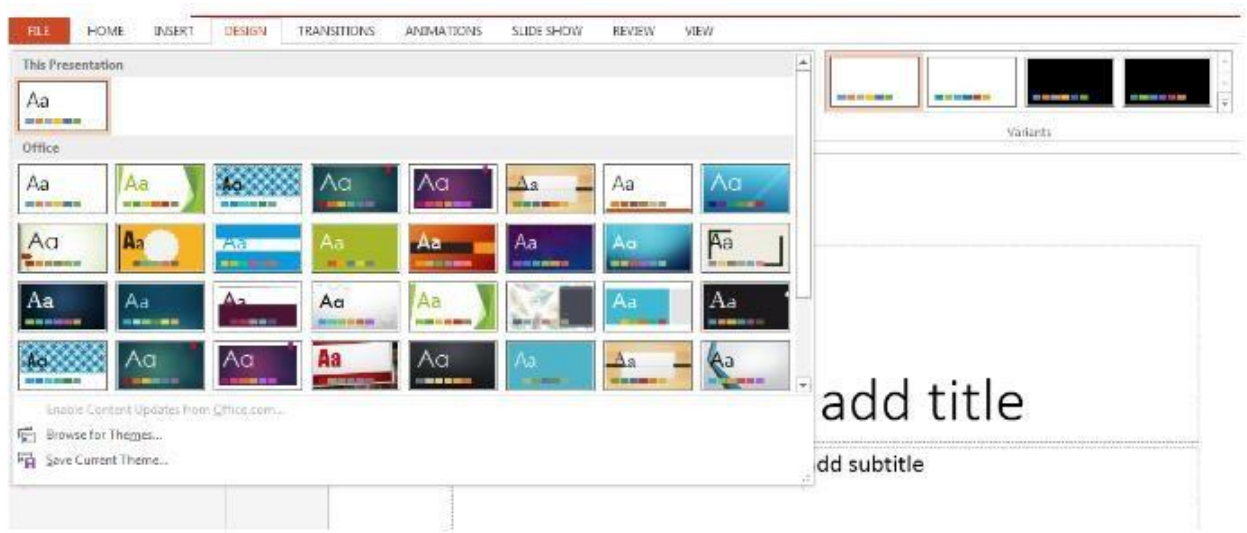
- Insert – Clipart, Video, Audio, etc.
- Under the “Insert” category, multiple options are available where one can choose what feature they want to insert in their presentation. This may include images, audio, video, header, footer, symbols, shapes, etc.

- The image below shows the features which can be inserted:



- Slide Design
- MS PowerPoint has various themes using which background color and designs or textures can be added to a slide. This makes the presentation more colorful and attracts the attention of the people looking at it.
- This feature can be added using the “Design” category mentioned on the homepage of MS PowerPoint. Although there are existing design templates available, in case someone wants to add some new texture or color, the option to customize the design is also available. Apart from this, slide designs can also be downloaded online.

Refer to the below for slide design:



## Animations

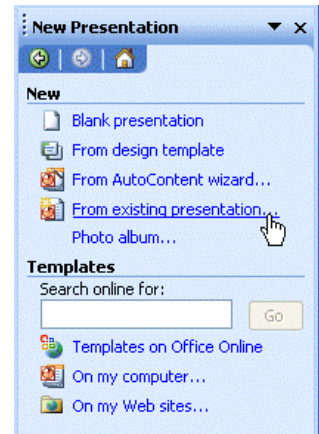
During the slide show, the slides appear on the screen one after the other. In case, one wants to add some animations to the way in which a slide presents itself, they can refer to the “Animations” category.

**The different animation styles available on PowerPoint are:**

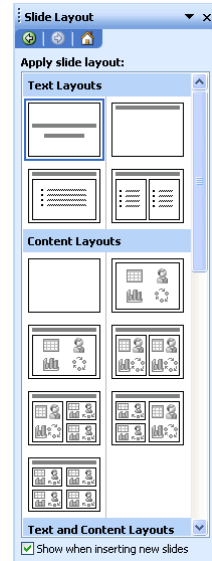


## Creating and Opening a presentation

- Start PowerPoint.
- In the task pane, click from existing presentation and select the presentation you want to open.



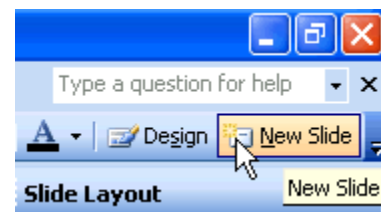
- OR
- Choose File → Open.
- Navigate to the file you want to open.
- Inserting and deleting a slide
- Inserting a new slide
- Click Insert → New Slide (Ctrl+M).
- Move your arrow pointer over layouts, or use the scroll bar and choose a slide layout

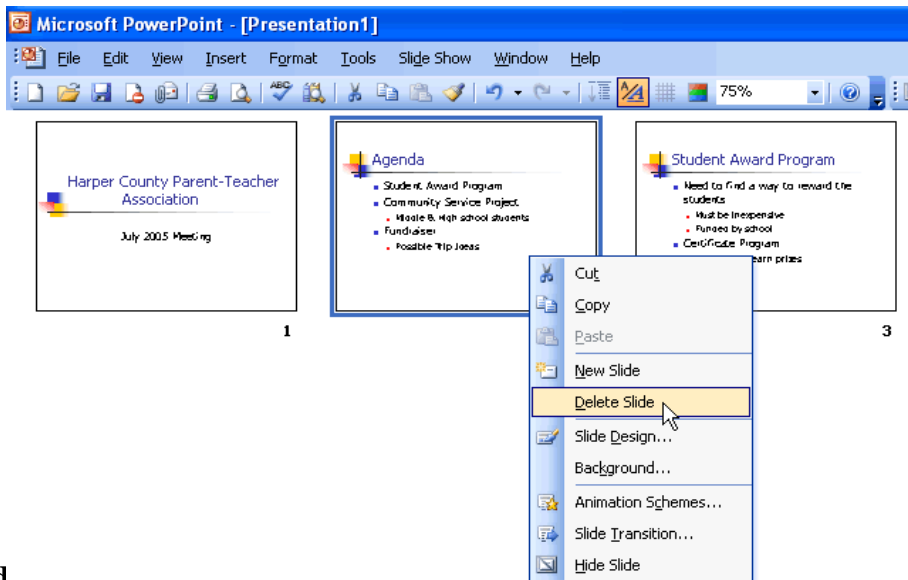


- A gray bar appears on the right.
- Click the down-pointing arrow, and choose Insert New Slide OR
- Click the New Slide button at the top of the screen.

## Inserting and Deleting a slide

- Move your arrow pointer over layouts, or use the scroll bar and choose a design layout.
- A gray bar appears on the right.
- Click the down-pointing arrow, and choose Insert New Slide.
- Deleting a slide
- Click the slide.
- Press Delete on your keyboard OR
- Right-click the slide you want to delete in the pane to the left → Delete Slide.

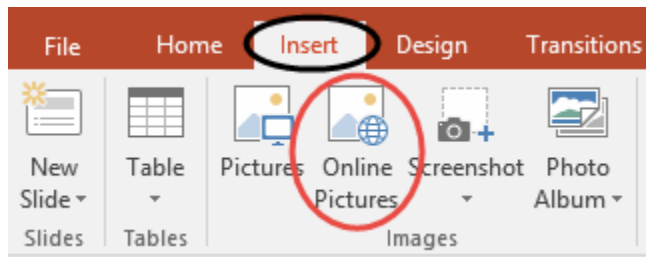




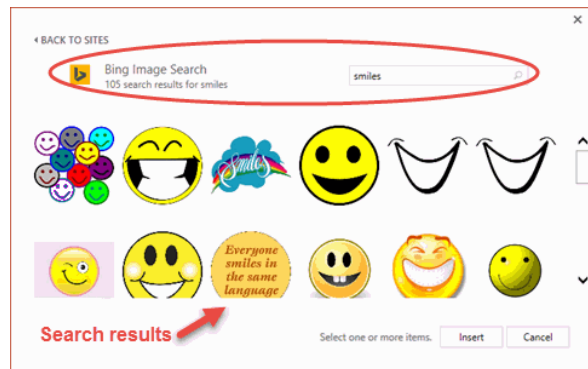
**Art/Pictures**

Click in the slide where you want to insert a clip art file.

On the Insert tab, in the Images group, click Online Pictures. (In PowerPoint 2007/2010, this option is called Clip Art.)

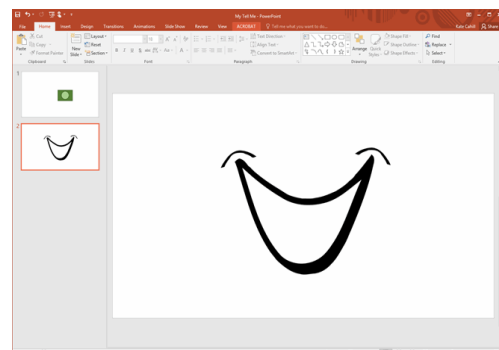
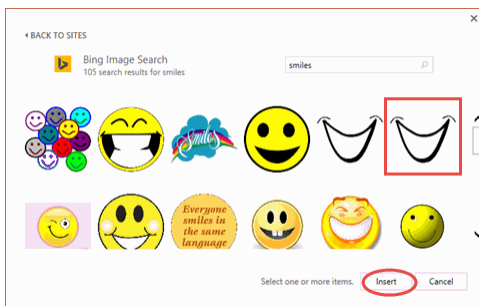


In the Insert Pictures dialog box (Clip Art task pane in PowerPoint 2007/2010), enter your search terms in the Bing.com field and press Enter.



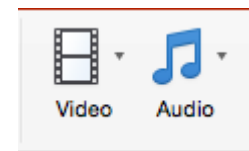
Your search results load in the task pane.

Locate the clip art you want to insert in your slide and double-click on it or click the item and select Insert.



## Inserting Audio and Video

- To insert a sound or video, go to the Insert Ribbon and click on the Video or Audio icon and choose Video or Audio from File.



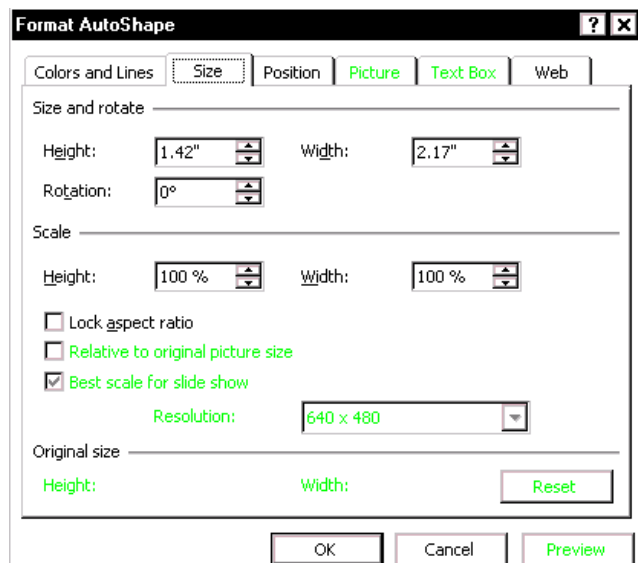
- Navigate to the correct clip, and click the OK button.
- Once audio is inserted, an audio button will appear, allowing sound to play when it is clicked on.



## Resizing and Scaling of an objects

- Resize a picture, shape, text box, or other object
- After selecting an object, maybe a picture or a text box, you have a number of options for resizing the object.
- Resize by dragging:
- Select the object, move the mouse pointer over one of the handles and then click and drag the mouse.
- Dragging while keeping the center in the same place:
- Select the object.
- Hold down CTRL.
- Move the mouse pointer over one of the handles and then click and drag the mouse.
- Release the mouse button before you release CTRL.
- Dragging while maintaining the object's proportions:
- Select the object.
- Hold down SHIFT.
- Move the mouse pointer over one of the corner handles and then click and drag the mouse.
- Release the mouse button before you release SHIFT.
- Dragging while maintaining the proportions and keeping the center in the same place:
- Hold down CTRL+SHIFT
- Move the mouse pointer over one of the handles and then click and drag the mouse.
- Release the mouse before you release CTRL+SHIFT.
- Note: You can override the settings to snap to ruler marks, guides, and objects by holding down ALT while you drag the mouse.
- Manually setting the object to a specific height and width:
- Right-click the object:
- On the shortcut menu, click Format<object type>.
- In the dialog box, click the Size tab.
- Under Size and rotate, enter measurements for the height and width of the object.
- Manually setting the object to a specific proportion:
- Right-click the object.
- On the shortcut menu, click Format<object type>.

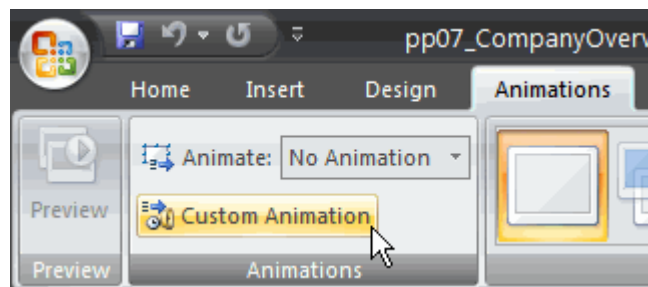
- In the dialog box, click the Size tab.
- Under Scale, enter the percentage of the original height or width you want the object resized to.
- Scaling Objects
- The Scale command allows you to enlarge or reduce an AutoShape or image by very precise amounts while retaining its original proportions.
- Select the object to be scaled.
- From the Format menu, select the option according to the object selected  
For shapes, select AutoShape...  
For images, select Picture...  
The Format AutoShape or Format Picture dialog box appears, respectively.
- Select the Size tab.



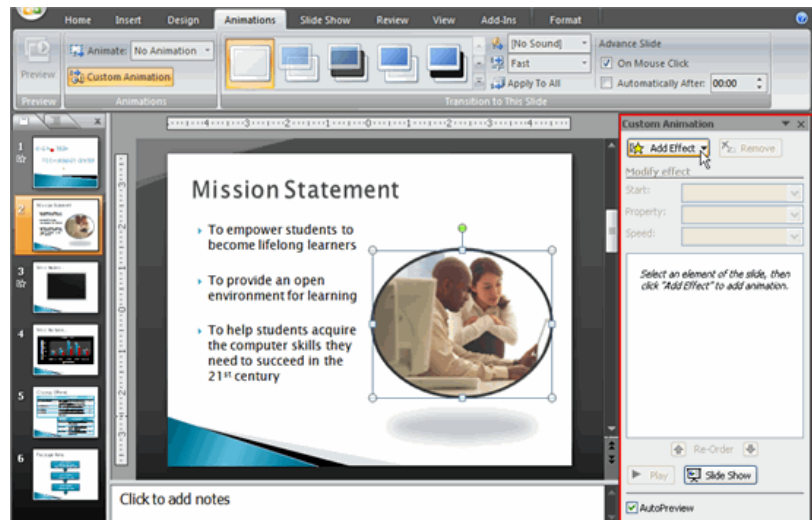
- Under Scale, in the Height and Width text boxes, type the desired percentage of scaling  
If you want to enlarge the object, type a number greater than 100.  
If you want to reduce the size of the object, type a number less than 100.
- To maintain the formatted height and width percentages whenever you resize the object, select Lock aspect ratio
- To find the percentage relative to the size of the original object, select Relative to original picture size
- To find the best size of your object compared to the slide, select Best scale for slide show
- To preview the changes, click PREVIEW
- To accept the changes, click OK  
OR  
To go back to the original proportions, click RESET

### Adding Custom Animation

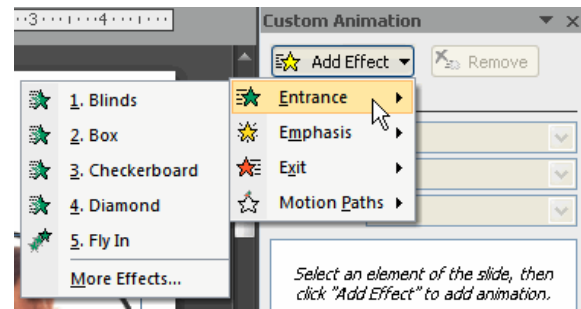
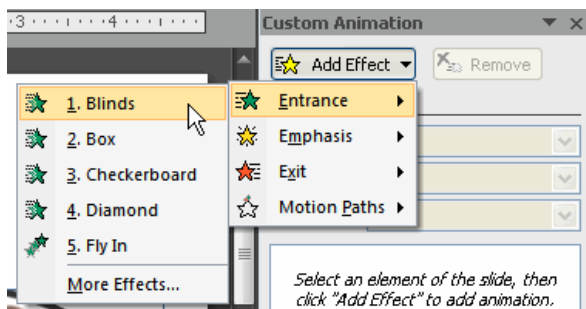
- Select the text or object on the slide you want to animate.
- Select the Animations tab.
- Click Custom Animation in the Animations group. The Custom Animation task pane will appear on the right.



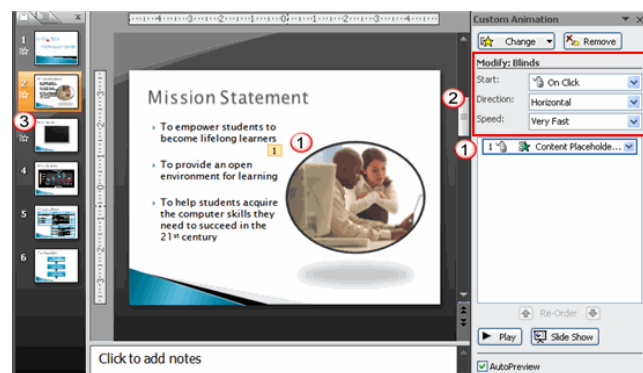
- Click Add Effect in the task pane to add an animation effect to the selected text or object.



- Select Entrance, Emphasis, Exit, or Motion Path to display a submenu of animation effects for the category.
- Entrance: Changes how the selected item appears on the page
- Emphasis: Draws attention to the selected item while the slide is displayed
- Exit: Changes the way the selected item disappears from the slide
- Motion Path: Animates the selected item so it moves to a specific place on the screen
- Select an animation effect to apply it.



- The animation will display on the selected item on the slide and will appear listed in the Custom Animation task pane.
- A number label appears on the slide next to the animated object. A matching number label also appears next to the animation in the Custom Animation task pane list.



- Drop-down menus appear at the top of the Custom Animation task pane. You can define the animation effect in greater detail here.
- The star Play Animations icon appears beneath the slide on the Slides tab in the task pane on the left. It indicates that the slide has an animation effect.

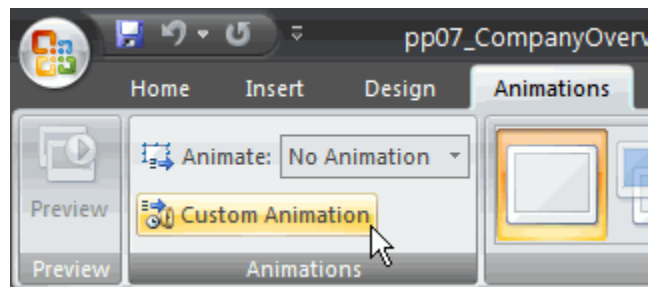


## Using Slide Transitions

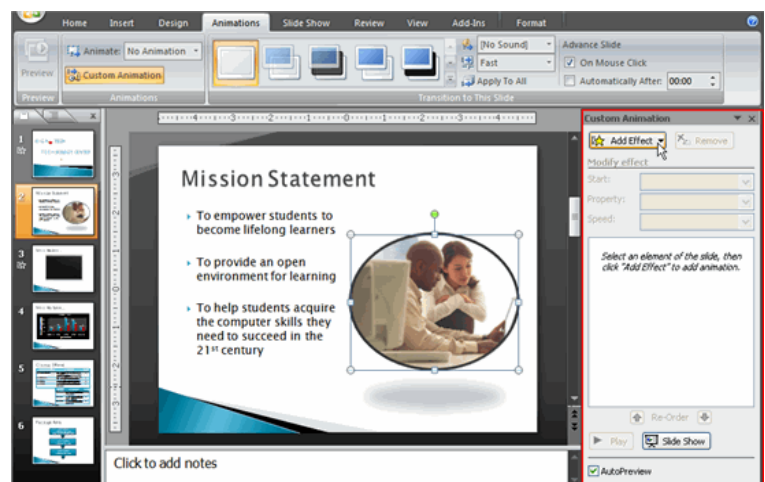
- Slide transitions are the animation-like effects that happen when you move from one slide to the next during a presentation. Add slide transitions to bring your PowerPoint presentation to life.
- Select the slide you want to add a transition to.
- Select the Transitions tab and choose a transition.
- Select a transition to see a preview.
- Select Effect Options to choose the direction and nature of the transition.
- Note: Not every transition has Effect Options.
- Select Preview to see what the transition looks like.

**To remove a transition, select Transitions > None.**

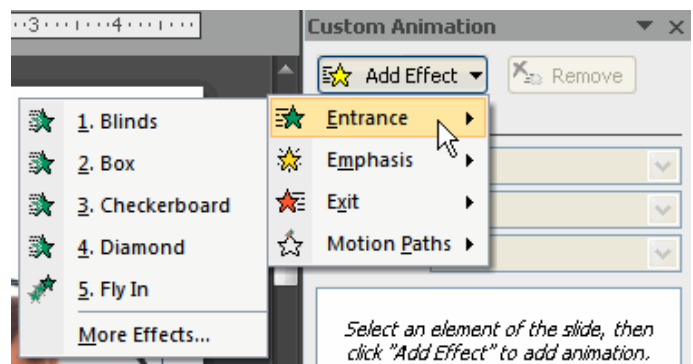
- Adding Custom Animation: To apply a custom animation effect:
- Select the text or object on the slide you want to animate.
- Select the Animations tab.
- Click Custom Animation in the Animations group. The Custom Animation task pane will appear on the right.



Click Add Effect in the task pane to add an animation effect to the selected text or object.



Select Entrance, Emphasis, Exit, or Motion Path to display a submenu of animation effects for the category.



**Life Skill course on “Basics of Computer Applications”**  
**Exam Notices, Question Papers with Key, Valued Answer Scripts**

**SIR C R REDDY COLLEGE FOR WOMEN, ELURU**

**Notice for Grand Test**

**Date: 28<sup>th</sup> April 2023.**

**NOTICE**

This is to inform that Department of computer Science is going to conduct a grand test for Life Skill course on “Basics of Computer Applications” on Friday, 5<sup>th</sup> May 2023 from 8.30 am to 9.30 am. All the registered participants must attend this exam without fail.

Type of Exam: MCQs (Multiple Choice Questions)



Max. Marks : 50 marks

Time : 1 hr

K. V. V. C. 28/4/23  
HOD,

Dept. of Computer Science.

# Question Paper

 (Estd : 1987)	<b>SIR C R REDDY COLLEGE FOR WOMEN</b> (Affiliated to ADIKAVI NANNAYA UNIVERSITY, Rajamahendravaram) An ISO - 9001:2015, 14001:2015, 50001:2018 Certified Institution UGC 2(f) certified institution Vatluru, Eluru - 534007	 2018
e-mail : sirccrrwomen.principal@gmail.com		Website : www.sirccrrwomen.ac.in
		Phone : 08812-231192

## DEPARTMENT OF COMPUTER SCIENCE Life Skill Course on Basics of Computer Applications

### Grand Test

Roll No.: \_\_\_\_\_

Student Name: \_\_\_\_\_

Class: \_\_\_\_\_

Marks Obtained:

Maximum Marks: 50

Time: 1 hour

- Physical parts of a computer are known as \_\_\_\_\_. [     ]  
A) Software    B) Hardware    C) Operating System    D) System unit
- \_\_\_\_\_ is a place where processing takes place [     ]  
A) Box    B) CPU    C) Monitor    D) System unit
- Processor is fixed on the \_\_\_\_\_. [     ]  
A) Fan    B) Chipboard    C) Motherboard    D) Expansion slot
- There are \_\_\_\_\_ types of memory. [     ]  
A) Two    B) Three    C) One    D) Four
- The input device to be used to get a printed diagram into a computer is \_\_\_\_\_ [     ]  
A) Touch pad    B) Scanner    C) Mouse    D) Printer
- The basic operation performed by a computer is [     ]  
A) Storage and retrieval operations    B) Logic operations  
C) Arithmetic operations    D) All of the above
- A Processor is also known as \_\_\_\_\_. [     ]  
A) CPU    B) UPS    C) UPC    D) PUS

8. Which of the following part of the CPU controls the sequence of the instructions? [     ]  
 A) AU                      B) CU                      C) LU                      D) ALU
9. RAM stands for [     ]  
 A) Random Access Memory                      B) Random Analysis  
 C) Read Able Memory                      D) Random Available Memory
10. ROM stores data [     ]  
 A) Permanently              B) Temporarily              C) Partially                      D) Fully
11. A video game is played by using \_\_\_\_\_ card. [     ]  
 A) Sound                      B) Modem                      C) Graphics                      D) Network information
12. Barcode Reader is a/an \_\_\_\_\_ device. [     ]  
 A) Output                      B) Input                      C) Display                      D) Storage
13. Which is used in security system and criminal investigations [     ]  
 A) Fingerprint Reader              B) Robots              C) Sound card                      D) Barcode Reader
14. \_\_\_\_\_ is the set of instruction given to the computer to perform a specific task. [     ]  
 A) Monitor                      B) Hardware                      C) Software                      D) Printer
15. \_\_\_\_\_ is the most famous type of Operating System for personal computer [     ]  
 A) Linux                      B) Unix                      C) Microsoft Windows                      D) Mac OS
16. System software that helps Operating System to communicate with a device is called [     ]  
 A) Operating system      B) Device Driver              C) Utility                      D) Graphics Software
17. \_\_\_\_\_ creates a link between a user and the computer [     ]  
 A) Device Driver              B) Utilities                      C) Operating System      D) Image Viewer
18. A mouse is a part of a \_\_\_\_\_ [     ]  
 A) washing machine      B) computer                      C) fan                      D) Video game
19. \_\_\_\_\_ is graphical objects used to represent commonly used application. [     ]  
 A) Windows                      B) Icons                      C) Drivers                      D) GUI

20. File \_\_\_ shrinks the size of a file so it requires less storage space. [ ]  
A) Compression B) Defragmenting C) Synthesizing D) Scanning
21. Microsoft Word is a \_\_\_\_\_. [ ]  
A) Computer Hardware Program B) Computer Non-application Program  
C) Computer Application Program D) None of the above
22. What is MS Word used for? [ ]  
A) Design Pictures B) Design Videos C) Paint D) Design Texts
23. Documents can be \_\_\_ with MS Word. [ ]  
A) Created B) Edited C) Saved D) All of the above
24. Which of the following option is provided by Office Button? [ ]  
A) Open B) Save C) Print D) All of the above
25. The file that is linked with an e-mail and sent to the receiver of the e-mail is referred to as \_\_\_\_\_. [ ]  
A) Annexure B) Appendage C) Attachment D) Add-on
26. Which of the following tab is the default in MS Word? [ ]  
A) Home B) Insert C) Page Layout D) Reference
27. Which is not an edition of MS Word? [ ]  
A) MS Word 2007 B) MS Word 2003  
C) MS Word 2200 D) MS Word 2010
28. Which of the following tools can be used in MS Word? [ ]  
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29. What is the function of the spelling and grammar tool? [ ]  
A) Corrects Spelling Errors as You Type B) Indicates Grammatical Errors  
C) Identifies Words with Capitalization Problems D) All Of Above

30. To move data from one part of the document to another, following is used. [     ]  
A) Cut and Delete                      B) Cut and Paste  
C) Copy and Paste                      D) Copy and Undo
31. Go to end of a document, press \_\_\_\_\_ [     ]  
A) Num Lock      B) Tab              C) End              D) Home
32. Which of the following options is used to display information such a title, page number of the document? [     ]  
A) Auto Correct    B) Header and Footer    C) Thesaurus      D) Insert Table
33. \_\_\_\_\_ appears at the bottom of the Excel window. [     ]  
A) Title bar              B) Formula bar      C) Work sheet tabs      D) Name box
34. What are the basic rectangular building blocks of a spreadsheet? [     ]  
A) Cells                  B) Zoom slider      C) Help button      D) All of these
35. Excel is a program that is used to prepare a \_\_\_\_\_ [     ]  
A) Slide presentation                  B) Spreadsheet  
C) Text document                      D) Database
36. Which bar show the used formula of selected active cell? [     ]  
A) Formula bar    B) Ribbon              C) Menu bar          D) Scroll bar
37. In which tab wrap text feature is present in MS Excel 2007? [     ]  
A) Formulas          B) View                  C) Insert              D) Home
38. Which of the following identifies a cell in Excel? [     ]  
A) Address              B) Formula              C) Name              D) Label
39. Which term is used to join the selected cells in to one cell? [     ]  
A) Filter                  B) Wrap                  C) Pivot              D) Merge

40. A (n) \_\_\_\_\_ is a series of two or more adjacent cells in a column or row or rectangular group of cells. [     ]
- A) List                    B) Section                    C) Range                    D) Area
41. What is the extension of saved file in MS Excel? [     ]
- A) .xls                    B) .xks                    C) .xos                    D) .xbs
42. Which command is used to close the window of Excel? [     ]
- A) Alt+ F4                    B) Ctrl + W                    C) Ctrl +R                    D) Ctrl+ C
43. \_\_\_\_\_ is a presentation program. [     ]
- A) U-torrent                    B) Mozilla Firefox  
C) MS PowerPoint                    D) Slide Panel
44. The slide that is used to introduce a topic and set the tone for the presentation is called the \_\_\_\_\_. [     ]
- A) Title slide                    B) Bullet slide                    C) Table slide                    D) Graph slide
45. The PowerPoint view that displays only text (title and bullets) is [     ]
- A) Outline view                    B) Notes page view  
C) Slide sorter                    D) Slide show
46. What is the default PowerPoint standard layout? [     ]
- A) Blank                    B) Title slide                    C) Title only                    D) Comparison
47. To center the selected text, the shortcut key is \_\_\_\_\_ [     ]
- A) Ctrl+ C                    B) Ctrl+ E                    C) Ctrl+ O                    D) Ctrl+ U
48. Which key helps to move to the beginning of a line? [     ]
- A) Page Up                    B) Page Down                    C) Home                    D) Insert
49. Which of the following is the file extension of the PowerPoint application? [     ]
- A) .ppt                    B) .jpg                    C) .html                    D) .docs
50. Which of the following is called as page to create a presentation in PowerPoint? [     ]
- a) Sheet                    B) Slide                    C) Paper                    D) None of the above

# Key

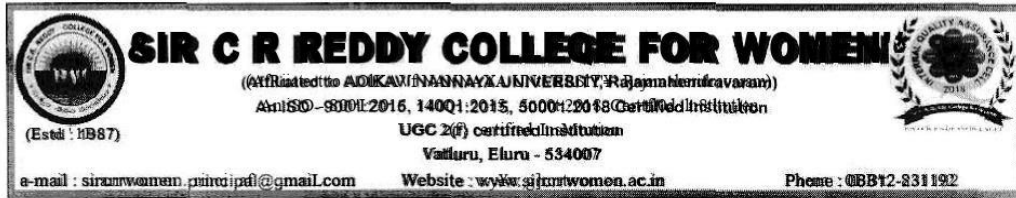
**SIR C R REDDY COLLEGE FOR WOMEN, ELURU**  
**Life Skills Course on Basics of Computer Applications**  
**Grand Test**

## ANSWER KEY

- |       |       |
|-------|-------|
| 1. B  | 26. A |
| 2. B  | 27. C |
| 3. C  | 28. D |
| 4. A  | 29. D |
| 5. B  | 30. B |
| 6. D  | 31. C |
| 7. A  | 32. B |
| 8. B  | 33. C |
| 9. A  | 34. B |
| 10. A | 35. A |
| 11. A | 36. D |
| 12. B | 37. A |
| 13. A | 38. D |
| 14. C | 39. C |
| 15. C | 40. A |
| 16. B | 41. A |
| 17. C | 42. C |
| 18. B | 43. A |
| 19. D | 44. A |
| 20. A | 45. B |
| 21. C | 46. B |
| 22. D | 47. C |
| 23. D | 48. A |
| 24. D | 49. B |
| 25. C | 50. B |



## Valued Answer Scripts



### DEPARTMENT OF COMPUTER SCIENCE Life Skills Course on Basics of Computer Applications

#### Grand Test

Roll No.: 224011 REG NO: - 223307110131  
Student Name: A. SAISREE  
Class: ICB2

Marks Obtained:

38  
50  
NH  
6/5/

Maximum Marks: 50

Time: 1 hour

- Physical parts of a computer are known as \_\_\_\_\_  
A) Software B) Hardware C) Operating System D) System unit'
- \_\_\_\_\_ is a place where processing takes place  
A) Box B) CPU C) Monitor D) System unit [ B ]
- Processor is fixed on the \_\_\_\_\_  
A) Fan B) Chipboard C) Motherboard D) Expansion slot [ ]
- There are \_\_\_\_\_ types of memory.  
A) Two B) Three C) One D) Four ' '
- The input device to be used to get a printed diagram into a computer is  
A) Touch pad B) Scanner C) Mouse D) Printer [ B ]
- The basic operation performed by a computer is  
A) Storage and retrieval operations B) Logic operations  
C) Arithmetic operations D) All of the above E D I
- A Processor is also known as \_\_\_\_\_  
A) CPU B) UPS C) WC D) PUS [ A ]

8. Which of the following part of the CPU controls the sequence of the instructions?  
 A) AU                      B) CU                      C) LU                      D) ALU                      [ B ] ✓
9. RAM stands for  
 A) Random Access Memory                      B) Random Analysis  
 C) Read Able Memory                      D) Random Available Memory                      [ A ] ✓
10. ROM stores data  
 A) Permanently                      B) Temporarily                      C) Partially                      D) Fully                      [ A ] ✓
11. A video game is played by using \_\_\_\_\_ card.  
 A) Sound                      B) Modem                      C) Graphics                      D) Network information                      [ B ] ✗
12. Barcode Reader is a/an \_\_\_\_\_ device.  
 A) Output                      B) Input                      C) Display                      D) Storage                      [ C ] ✗
13. Which is used in security system and criminal investigations  
 A) Fingerprint Reader                      B) Robots                      C) Sound card                      D) Barcode Reader                      [ A ] ✓
14. \_\_\_\_\_ is the set of instruction given to the computer to perform a specific task. [ C ]  
 A) Monitor                      B) Hardware                      C) Software                      D) Printer                      ✓
15. \_\_\_\_\_ is the most famous type of Operating System for personal computer [ C ]  
 A) Linux                      B) Unix                      C) Microsoft Windows                      D) Mac OS                      ✓
16. System software that helps Operating System to communicate with a device is called  
 A) Operating system                      B) Device Driver                      C) Utility                      D) Graphics Software                      [ D ] ✗
17. \_\_\_\_\_ creates a link between a user and the computer [ A ] ✗  
 A) Device Driver                      B) Utilities                      C) Operating System                      D) Image Viewer
18. A mouse is a part of a \_\_\_\_\_ [ B ] ✓  
 A) washing machine                      B) computer                      C) fan                      D) Video game
19. \_\_\_\_\_ is graphical objects used to represent commonly used application.  
 A) Windows                      B) Icons                      C) Drivers                      D) GUI                      [ A ] ✗

20. File \_\_\_ shrinks the size of a file so it requires less storage space. [ D ] X  
A) Compression B) Defragmenting C) Synthesizing D) Scanning

21. Microsoft Word is a \_\_\_\_\_. [ C ]  
A) Computer Hardware Program B) Computer Non-application Program  
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26. Which of the following tab is the default in MS Word? [ A ]  
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27. Which is not an edition of MS Word? [ C ]  
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30. To move data from one part of the document to another, following is used. [ C ] ~~X~~
- A) Cut and Delete                      B) Cut and Paste  
C) Copy and Paste                      D) Copy and Undo
31. Go to end of a document, press \_\_\_\_\_. [ C ] ✓
- A) Num Lock      B) Tab                      C) End                      D) Home
32. Which of the following options is used to display information such a title, page number of the document? [ B ] ✓
- A) Auto Correct    B) Header and Footer    C) Thesaurus            D) Insert Table
33. \_\_\_\_ appears at the bottom of the Excel window. [ C ] ✓
- A) Title bar            B) Formula bar    C) Work sheet tabs    D) Name box
34. What are the basic rectangular building blocks of a spreadsheet? [ A ] ✓
- A) Cells                      B) Zoom slider    C) Help button            D) All of these
35. Excel is a program that is used to prepare a \_\_\_\_\_. [ B ] ✓
- A) Slide presentation                      B) Spreadsheet  
C) Text document                          D) Database
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- A) Formula bar    B) Ribbon                      C) Menu bar            D) Scroll bar
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40. A (n) \_\_\_\_\_ is a series of two or more adjacent cells in a column or row or rectangular group of cells. [ C ]  
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 A) U-torrent                      B) Mozilla Firefox  
 C) MS PowerPoint                      D) Slide Panel
44. The slide that is used to introduce a topic and set the tone for the presentation is called the \_\_\_\_\_. [ A ]  
 A) Title slide                      B) Bullet slide                      C) Table slide                      D) Graph slide
45. The PowerPoint view that displays only text (title and bullets) is [ A ]  
 A) Outline view                      B) Notes page view  
 C) Slide sorter                      D) Slide show
46. What is the default PowerPoint standard layout? [ B ]  
 A) Blank                      B) Title slide                      C) Title only                      D) Comparison
47. To center the selected text, the shortcut key is \_\_\_\_\_ [ B ]  
 A) Ctrl+ C                      B) Ctrl+ E                      C) Ctrl+ O                      D) Ctrl+ U
48. Which key helps to move to the beginning of a line? [ C ]  
 A) Page Up                      B) Page Down                      C) Home                      D) Insert
49. Which of the following is the file extension of the PowerPoint application? [ A ]  
 A) .ppt                      B) .jpg                      C) .html                      D) .docs
50. Which of the following is called as page to create a presentation in PowerPoint? [ B ]  
 a) Sheet                      B) Slide                      C) Paper                      D) None of the above

# Valued Answer Scripts

 **SIR C R REDDY COLLEGE FOR WOMEN**  
(Affiliated to ADIKAVI NANNAYA UNIVERSITY, Rajamahendravaram)  
An ISO - 9001:2015, 14001:2015, 50001:2018 Certified Institution  
UGC 2(f) certified institution  
Vaturu, Eluru - 534007  
e-mail : sircrrwomen.principal@gmail.com Website : www.sircrrwomen.ac.in Phone : 08812-231192

## DEPARTMENT OF COMPUTER SCIENCE

Life Skills Course: on Basics of Computer Applications

### Grand Test

Roll No.: 222633 Reg. No.: 223307126215  
Student Name: T. Vijaya  
Class: 1<sup>st</sup> B.S. CBZBT

45  
50  
H. H. H. H. H.  
6/5/22

Marks Obtained:

Maximum Marks: 50

Time: 1 hour

- Physical parts of a computer are known as \_\_\_\_\_.  
A) Software B) Hardware C) Operating System D) System unit [ B ]
- \_\_\_\_\_ is a place where processing takes place  
A) Box B) CPU C) Monitor D) System unit [ B ]
- Processor is fixed on the \_\_\_\_\_.  
A) Fan B) Chipboard C) Motherboard D) Expansion slot [ A ]
- There are \_\_\_\_\_ types of memory.  
A) Two B) Three C) One D) Four [ A ]
- The input device to be used to get a printed diagram into a computer is \_\_\_\_\_.  
A) Touch pad B) Scanner C) Mouse D) Printer [ B ]
- The basic operation performed by a computer is \_\_\_\_\_.  
A) Storage and retrieval operations B) Logic operations  
C) Arithmetic operations D) All of the above [ D ]
- A Processor is also known as \_\_\_\_\_.  
A) CPU B) UPS C) UPC D) PUS [ A ]

8. Which of the following part of the CPU controls the sequence of the instructions? [ B ]
- A) AU                      B) CU                      C) LU                      D) ALU
9. RAM stands for [ A ]
- A) Random Access Memory                      B) Random Analysis  
C) Read Able Memory                      D) Random Available Memory
10. ROM stores data [ B ]
- A) Permanently              B) Temporarily              C) Partially              D) Fully
11. A video game is played by using \_\_\_\_\_ card. [ A ]
- A) Sound                      B) Modem                      C) Graphics                      D) Network information
12. Barcode Reader is a/an \_\_\_\_\_ device. [ B ]
- A) Output                      B) Input                      C) Display                      D) Storage
13. Which is used in security system and criminal investigations [ A ]
- A) Fingerprint Reader              B) Robots              C) Sound card              D) Barcode Reader
14. \_\_\_\_\_ is the set of instruction given to the computer to perform a specific task. [ C ]
- A) Monitor                      B) Hardware                      C) Software                      D) Printer
15. \_\_\_\_\_ is the most famous type of Operating System for personal computer [ C ]
- A) Linux                      B) Unix                      C) Microsoft Windows                      D) Mac OS
16. System software that helps Operating System to communicate with a device is called [ B ]
- A) Operating system              B) Device Driver              C) Utility                      D) Graphics Software
17. \_\_\_\_\_ creates a link between a user and the computer [ C ]
- A) Device Driver              B) Utilities                      C) Operating System              D) Image Viewer
18. A mouse is a part of a \_\_\_\_\_ [ A ]
- A) washing machine              B) computer                      C) fan                      D) Video game
19. \_\_\_\_\_ is graphical objects used to represent commonly used application. [ D ]
- A) Windows                      B) Icons                      C) Drivers                      D) GUI

20. File \_\_\_ shrinks the size of a file so it requires less storage space. [ A ]
- A) Compression    B) Defragmenting    C) Synthesizing    D) Scanning
21. Microsoft Word is a \_\_\_\_\_. [ C ]
- A) Computer Hardware Program    B) Computer Non-application Program
- C) Computer Application Program    D) None of the above
22. What is MS Word used for? [ D ]
- A) Design Pictures    B) Design Videos    C) Paint    D) Design Texts
23. Documents can be \_\_\_ with MS Word. [ A ]
- A) Created    B) Edited    C) Saved    D) All of the above
24. Which of the following option is provided by Office Button? [ D ]
- A) Open    B) Save    C) Print    D) All of the above
25. The file that is linked with an e-mail and sent to the receiver of the e-mail is referred to as \_\_\_\_\_. [ C ]
- A) Annexure    B) Appendage    C) Attachment    D) Add-on
26. Which of the following tab is the default in MS Word? [ A ]
- A) Home    B) Insert    C) Page Layout    D) Reference
27. Which is not an edition of MS Word? [ C ]
- A) MS Word 2007    B) MS Word 2003
- C) MS Word 2200    D) MS Word 2010
28. Which of the following tools can be used in MS Word? [ D ]
- A) Hyperlinks    B) Bullets    C) Highlight    D) All of the above
29. What is the function of the spelling and grammar tool? [ D ]
- A) Corrects Spelling Errors as You Type    B) Indicates Grammatical Errors
- C) Identifies Words with Capitalization Problems    D) All Of Above



30. To move data from one part of the document to another, following is used. [ B ]  
A) Cut and Delete                      B) Cut and Paste  
C) Copy and Paste                      D) Copy and Undo

31. Go to end of a document, press \_\_\_\_\_. [ C ]  
A) Num Lock      B) Tab                      C) End                      D) Home

32. Which of the following options is used to display information such a title, page number of the document? [ B ]  
A) Auto Correct    B) Header and Footer    C) Thesaurus            D) Insert Table

33. \_\_\_\_ appears at the bottom of the Excel window. [ C ]  
A) Title bar            B) Formula bar    C) Work sheet tabs            D) Name box

34. What are the basic rectangular building blocks of a spreadsheet? [ A ]  
A) Cells                      B) Zoom slider    C) Help button            D) All of these

35. Excel is a program that is used to prepare a \_\_\_\_\_. [ B ]  
A) Slide presentation                      B) Spreadsheet  
C) Text document                      D) Database

36. Which bar show the used formula of selected active cell? [ A ]  
A) Formula bar    B) Ribbon                      C) Menu bar                      D) Scroll bar

37. In which tab wrap text feature is present in MS Excel 2007? [ D ]  
A) Formulas            B) View                      C) Insert                      D) Home

38. Which of the following identifies a cell in Excel? [ A ]  
A) Address                      B) Formula                      C) Name                      D) Label

39. Which term is used to join the selected cells in to one cell? [ D ]  
A) Filter                      B) Wrap                      C) Pivot                      D) Merge

40. A (n) \_\_\_\_\_ is a series of two or more adjacent cells in a column or row or rectangular group of cells. [ C ]
- A) List                      B) Section                      C) Range                      D) Area
41. What is the extension of saved file in MS Excel? [ A ]
- A) .xls                      B) .xks                      C) .xos                      D) .xbs
42. Which command is used to close the window of Excel? [ A ]
- A) Alt+ F4                      B) Ctrl + W                      C) Ctrl +R                      D) Ctrl+ C
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## DEPARTMENT OF COMPUTER SCIENCE

Life Skills Course on Basics of Computer Applications

Grand Test

Roll No.: 221006

22-33071005

Student Name: D. Paralakshmi

Class: BSC MPC

42  
50  
M. Hemani  
6/5/23

Marks Obtained:

Maximum Marks: 50

Time: 1 hour

- Physical parts of a computer are known as \_\_\_\_\_.  
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**SIR C R REDDY COLLEGE FOR WOMEN, ELURU**  
**Life Skills Course on "Basics of Computer Applications"**  
**GRAND TEST - MARKS REGISTER 2022-2023**

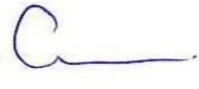
S.No	Roll Number	Class	Name of the Student	Marks Obtained
1	222601	IBS.c (BZBT)	ALLE BHARGAVI	37
2	222607	IBS.c (BZBT)	BALINA DEVIKA	45
3	222608	IBS.c (BZBT)	BEESETTI MADHURI SRI VARSHA	43
4	222609	IBS.c (BZBT)	BOMIMISETTI SNEHA	44
5	222610	IBS.c (BZBT)	CHAVALA MANI DEEPIKA	39
6	222611	IBS.c (BZBT)	CHIDELLA RAMYA SAI PRIYA	46
7	222613	IBS.c (BZBT)	DORRAJU LEEPIKA LAKSHMI	43
8	222603	IBS.c (BZBT)	GEDDAM PRAVEENA	36
9	222614	IBS.c (BZBT)	GEDELA MEGHANA	46
10	222616	IBS.c (BZBT)	KANDAVALLI DEEPIKA	44
11	222618	IBS.c (BZBT)	KOMARAPURI BHAVANI	41
12	222619	IBS.c (BZBT)	KONAPALA VARDHINI SAI LAKSHMI	44
13	222621	IBS.c (BZBT)	MUDINURI JAHNAVI	39
14	222622	IBS.c (BZBT)	NERUSU LAKSHMI SAI PRASANNA	45
15	222604	IBS.c (BZBT)	PANTHULA LALITHA	41
16	222623	IBS.c (BZBT)	PAVULURI BABY RAJA SRI	41
17	222624	IBS.c (BZBT)	POTHUNURI LAKSHMI SIVANI	41
18	222625	IBS.c (BZBT)	POTHURI SUSHMA SRI	42
19	222627	IBS.c (BZBT)	PULAVARTHI JAHNAVI	40
20	222629	IBS.c (BZBT)	REKAPALLI DURGA PRAVALLIKA	41
21	222630	IBS.c (BZBT)	ROMPICHARLA NAMITHA	40
22	222631	IBS.c (BZBT)	SHAIK NASRIN	38
23	222633	IBS.c (BZBT)	TELLA VIJAYA	45
24	222635	IBS.c (BZBT)	VAKKALAGADDA JITHAPRAGNA	43
25	224011	IBS.c (CBZ)	ALAPATI SAISREE	38
26	220412	IBS.c (CBZ)	BEZAWADA LAVANYA	39



27	224013	IBS.c (CBZ)	BUDDALA LAKSHMI PHANI DEVI	41
28	224015	IBS.c (CBZ)	DAMESETTI SIVATULASI	43
29	224016	IBS.c (CBZ)	DUKKIPATI DIVYA	44
30	224018	IBS.c (CBZ)	GARIKIPATI DURGA SATWIKA	43
31	224019	IBS.c (CBZ)	GORIPARTHI NIHARIKA	42
32	224001	IBS.c (CBZ)	GURINDAGUNTA PUJITHA	45
33	224021	IBS.c (CBZ)	JAGANI PUSHPA HASINI	41
34	224023	IBS.c (CBZ)	KISHTARAPU KAVYA	43
35	224024	IBS.c (CBZ)	KOMIRIPALEPU GAYATHRI	43
36	224025	IBS.c (CBZ)	KOTARI SRI SAI PUJITHA	43
37	224022	IBS.c (CBZ)	KOTHAPALLI DURGA ANJANI KUMARI	46
38	224028	IBS.c (CBZ)	MATTA MEGHANA	41
39	224002	IBS.c (CBZ)	JAJULA RAMYA SRI	46
40	224005	IBS.c (CBZ)	MUNGARA DURGA MAHESWARI	37
41	224006	IBS.c (CBZ)	PAKALAPATI SAI SIRI	44
42	224020	IBS.c (CBZ)	GUNNAMPALLI RASHMI	40
43	224008	IBS.c (CBZ)	SEELAM BHANU	47
44	224009	IBS.c (CBZ)	SODHEM SWAPNA	45
45	224031	IBS.c (CBZ)	VATTI GEETHIKA	42
46	224033	IBS.c (CBZ)	YANDRA KAVERI	36
47	224051	IBS.c (ZFC)	ALLE VIJAYA MEGHANA	40
48	224069	IBS.c (ZFC)	SHAIK NAGEENA SULTHANA	38
49	224059	IBS.c (ZFC)	CHANDINI PINGULA	35
50	224060	IBS.c (ZFC)	CHINNALA KALYANI	41
51	224052	IBS.c (ZFC)	CHINTHADA PALLAVI	46
52	224062	IBS.c (ZFC)	DOWLURI SUDHA RANI	39
53	224064	IBS.c (ZFC)	KONDA SAI PALLAVI	43
54	224065	IBS.c (ZFC)	KURAMA PARIMALA	40
55	224053	IBS.c (ZFC)	MARRI VALLI PADMINI	37
56	224054	IBS.c (ZFC)	PEDAMURTHI SRAVANI SANDHYA	39

57	224067	IBS.c (ZFC)	PEDDIBOYINA HEMASRI	45
58	224055	IBS.c (ZFC)	RAMESWARAPU LIKHITHA	43
59	224070	IBS.c (ZFC)	SODEM RENUKA	44
60	224071	IBS.c (ZFC)	THOTA DEEPIKA	36
61	224056	IBS.c (ZFC)	YARRA ANJALI	47
62	224058	IBS.c (ZFC)	CHALLA DIVYA SRI	45
63	221002	IBS.c (MPC)	AREPALLI SRUJANA	45
64	221004	IBS.c (MPC)	BUGGALA GEETHA GAYATRI	41
65	221005	IBS.c (MPC)	CHINTHADA DEVI	44
66	221006	IBS.c (MPC)	DONGA VARALAKSHMI	49
67	221007	IBS.c (MPC)	KADAGALA LAKSHMI KRUPA	40
68	221008	IBS.c (MPC)	KOTTHALA SIRISHA	46
69	221001	IBS.c (MPC)	MORU PAVANI	40
70	221009	IBS.c (MPC)	NAGA VENKATA DANA LAKSHMI	43
71	221012	IBS.c (MPC)	PENTAPATI SRUJANA	42
72	221013	IBS.c (MPC)	VEERAVALLI SIRISHA	40

N.Bh   
Signature of Resource Person

K.V.V.C   
Signature of HOD





# SIR C R REDDY COLLEGE FOR WOMEN, ELURU

## Life Skill Course on “Basics of Computer Applications”

### List of Students Registered for Grand Test 2022-2023

SIR C R REDDY COLLEGE FOR WOMEN, ELURU

Life Skills Course on “BASICS OF COMPUTER APPLICATIONS”

List of Students Registered 2022-2023

S. No	Roll Number	Class	Name of the Student	Signature
1	222601	IB.Sc(BZBT)	ALLE BHARGAVI	A. Bhargavi
2	222607	IB.Sc(BZBT)	BALINA DEVIKA(S)	B. Devika
3	222608	IB.Sc(BZBT)	BEESETTI MADHURI SRI VARSHA	B. Madhuri Sri Varsha
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6	222611	IB.Sc(BZBT)	CHIDELLA RAMYA SAI PRIYA	Ch. Ramya Sai Priya
7	222613	IB.Sc(BZBT)	DORRAJU LEEPIKA LAKSHMI	D. Leepika Lakshmi
8	222603	IB.Sc(BZBT)	GEDDAM PRAVEENA	G. Praveena
9	222614	IB.Sc(BZBT)	GEDELA MEGHANA	G. meghana
10	222616	IB.Sc(BZBT)	KANDAVALLI DEEPIKA	k. Deepika
11	222618	IB.Sc(BZBT)	KOMARAPURI BHAVANI	k. Bhavani
12	222619	IB.Sc(BZBT)	KONAPALA VARDHINI SAI LAKSHMI	k. vardhini
13	222621	IB.Sc(BZBT)	MUDINURI JAHAVI	M. Jahnavi
14	222622	IB.Sc(BZBT)	NERUSU LAKSHMI SAI PRASANNA	N.L. Sai Prasanna
15	222604	IB.Sc(BZBT)	PANTHULA LALITHA	P. Lalitha
16	222623	IB.Sc(BZBT)	PAVULURI BABY RAJA SRI	P. Baby Raja
17	222624	IB.Sc(BZBT)	POTHUNURI LAKSHMI SIVANI	P. Sivani
18	222625	IB.Sc(BZBT)	POTHURI SUSHMASRI	P. Sushma Sri
19	222627	IB.Sc(BZBT)	PULAVARTHI JAHAVI	P. Jahnavi

20	222629	IB.Sc(BZBT)	REKAPALLI DURGA PRAVALLIKA	R. Durga Pravalika
21	222630	IB.Sc(BZBT)	ROMPICHARLA NAMITHA	R. Namitha
22	222631	IB.Sc(BZBT)	SHAIK NASRIN	Sk. Nasrin
23	222633	IB.Sc(BZBT)	TELLA VIJAYA	T. Vijaya
24	222635	IB.Sc(BZBT)	VAKKALAGADDA JITHAPRAGNA	V. Jithapragna
25	224011	IB.Sc(CBZ)	ALAPATI SAISREE	A. Saisree
26	224012	IB.Sc(CBZ)	BEZAWADA LAVANYA	b. Lavanya
27	224013	IB.Sc(CBZ)	BUDDALA LAKSHMI PHANI DEVI	B. Lakshmi Phani Devi
28	224015	IB.Sc(CBZ)	DAMESETTI SIVATULASI	D. Sivatulasi
29	224016	IB.Sc(CBZ)	DUKKIPATI DIVYA	D. Divya
30	224018	IB.Sc(CBZ)	GARIKIPATI DURGA SATWIKA	G. Durga Satwika
31	224019	IB.Sc(CBZ)	GORIPARTHI NIHARIKA	G. Niharika
32	224001	IB.Sc(CBZ)	GURINDAGUNTA PUJITHA	G. Pujitha
33	224021	IB.Sc(CBZ)	JAGANI PUSHPA HASINI	J. Pushpa Hasini
34	224023	IB.Sc(CBZ)	KISHTARAPU KAVYA	k. Kavya
35	224024	IB.Sc(CBZ)	KOMIRIPALEPU GAYATHRI	k. Gayathri
36	224025	IB.Sc(CBZ)	KOTARI SRI SAI PUJITHA	k. Sri Sai Pujitha
37	224022	IB.Sc(CBZ)	KOTHAPALLI DURGA ANJANI KUMARI	k. Durga Anjani Kumari
38	224028	IB.Sc(CBZ)	MATTA MEGHANA	M. Meghana
39	224002	IB.Sc(CBZ)	JAJULA RAMYA SRI	J. Ramya Sri
40	224005	IB.Sc(CBZ)	MUNGARA DURGA MAHESWARI	M.D. Maheswari
41	224006	IB.Sc(CBZ)	PAKALAPATI SAI SIRI	P. Sai Siri
42	224020	IB.Sc(CBZ)	GUNNAMPALLI RASHMI	G. Rashmi

43	224008	IB.Sc(CBZ)	SEELAM BHANU	S. Bhanu
44	224009	IB.Sc(CBZ)	SODHEM SWAPNA	S. Swapna
45	224031	IB.Sc(CBZ)	VATTI GEETHIKA	V. Geethika
46	224033	IB.Sc(CBZ)	YANDRA KAVERI	Y. Kaveri
47	224051	IB.Sc(ZFC)	ALLE VIJAYA MEGHANA	A. Vijaya meghana
48	224069	IB.Sc(ZFC)	SHAIK NAGEENA SULTHANA	S.N. Sulthana
49	224059	IB.Sc(ZFC)	CHANDINI PINGULA(S)	chandini pingula
50	224060	IB.Sc(ZFC)	CHINNALA KALYANI	ch. kalyani
51	224052	IB.Sc(ZFC)	CHINTHADA PALLAVI	ch. pallavi
52	224062	IB.Sc(ZFC)	DOWLURI SUDHA RANI	D. Sudha Rani
53	224064	IB.Sc(ZFC)	KONDA SAI PALLAVI	K. Sai pallavi
54	224065	IB.Sc(ZFC)	KURAMA PARIMALA	R. Padmala
55	224053	IB.Sc(ZFC)	MARRI VALLI PADMINI	M. Valli padmini
56	224054	IB.Sc(ZFC)	PEDAMURTHI SRAVANI SANDHYA	P. Sravani Sandhya
57	224067	IB.Sc(ZFC)	PEDDIBOYINA HEMASRI	P. Hemasri
58	224055	IB.Sc(ZFC)	RAMESWARAPU LIKITHA	R. Likitha
59	224070	IB.Sc(ZFC)	SODEM RENUKA	S. Renuka
60	224071	IB.Sc(ZFC)	THOTA DEEPIKA	T. Deepika
61	224056	IB.Sc(ZFC)	YARRA ANJALI	Y. Anjali
62	224058	IB.Sc(ZFC)	CHALLA DIVYA SRI	Ch. Divya Sri
63	221002	IB.Sc(MPC)	AREPALLI SRUJANA	A. Srujana
64	221004	IB.Sc(MPC)	BUGGALA GEETHA GAYATRI	B. Geetha Gayatri
65	221005	IB.Sc(MPC)	CHINTHADA DEVI	ch. Devi

66	221006	IB.Sc(MPC)	DONGA VARALAKSHI	D. Varalakshmi
67	221007	IB.Sc(MPC)	KADAGALA LAKSHMI KRUPA	K. Lakshmi Krupa
68	221008	IB.Sc(MPC)	KOTHALA SIRISHA	k. Sirisha
69	221001	IB.Sc(MPC)	MORU PAVANI	M. Pavani
70	221009	IB.Sc(MPC)	METTAPALLI VENKATA DHANA LAKSHMI	M. Venkata Dhana Lakshmi
71	221012	IB.Sc(MPC)	PENTAPATI SRUJANA	P. Srujana
72	221013	IB.Sc(MPC)	VEERAVALLI SIRISHA	V. Sirisha



**Life Skill Course on “Basics of Computer Applications”  
Certificates**



**SIR C. R. REDDY COLLEGE FOR WOMEN**

Vatluru(Post), Pedapadu Mandal, Eluru, Eluru Dist., A.P, India 534007

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

An ISO - 9001:2015, 14001:2015, 50001:2018 Certified Institution

**DEPARTMENT OF COMPUTER SCIENCE**

**CERTIFICATE OF PARTICIPATION**

This is to certify that Miss/Mrs DORRAJU LEEPIKA LAKSHMI  
class I. B.Sc (B.Z.BT) Roll No 222613 has successfully completed  
her training on **Life Skill Course “ Basics of Computer Applications ”** from  
21-03-2023 to 04-05-2023.

Date: 6<sup>th</sup> May 2023

**K.V.V. SRINIVAS**



Convener, HOD, Dept. of CS

**Smt S. SAILAJA**

Principal

# Life Skill Course on “Basics of Computer Applications”

## Feedback

 (Estd : 1987)	<b>SIR C R REDDY COLLEGE FOR WOMEN</b> (Affiliated to ADIKAVI NANNAYA UNIVERSITY, Rajamahendravaram) An ISO - 9001:2015, 14001:2015, 50001:2018 Certified Institution UGC 2(f) certified institution Vatluru, Eluru - 534007	 2018
e-mail : sircrrwomen.principal@gmail.com	Website : www.sircrrwomen.ac.in	Phone : 08812-231192

### DEPARTMENT OF COMPUTER SCIENCE

#### STUDENT FEEDBACK FORM      Date: 06-05-2023

#### Life Skills Course: Basics of Computer Applications

1. Do you think this course is beneficial to you?  
Yes  No  To Some Extent
2. Did the faculty explain the topics clearly using relevant examples?  
Excellent  Good  Average  Poor
3. Is the syllabus, employment oriented?  
Excellent  Good  Average  Poor
4. Did the faculty explain the topics using Projectors, Internet etc?  
Excellent  Good  Average  Poor
5. Your satisfaction on practical experience/exercises on this course?  
Excellent  Good  Average  Poor
6. Will you be able to use a computer on your own, if employment is given?  
Yes  No  To Some Extent
7. Are you satisfied with the assessment / exam pattern of the course?  
Yes  No  To Some Extent
8. How do you rate the program on a 5 point scale? (please tick )

1	2	3	4	5 <input checked="" type="checkbox"/>
---	---	---	---	---------------------------------------

9. Additional comments and Suggestions

This programme is beneficial to me.  
Now I am able to operate computer on my own.

Signature of Student

A Sai Sree



# SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to ADIKAVI NANNAYA UNIVERSITY, Rajamahendravaram)

An ISO - 9001:2015, 14001:2015, 50001:2018 Certified Institution

UGC 2(f) certified institution

Vatluru, Eluru - 534007

(Estd : 1987)



e-mail : sircrrwomen.principal@gmail.com

Website : www.sircrrwomen.ac.in

Phone : 08812-231192

## DEPARTMENT OF COMPUTER SCIENCE

### STUDENT FEEDBACK FORM      Date: 06-05-2023

#### Life Skills Course: Basics of Computer Applications

1. Do you think this course is beneficial to you?

Yes  No  To Some Extent

2. Did the faculty explain the topics clearly using relevant examples?

Excellent  Good  Average  Poor

3. Is the syllabus, employment oriented?

Excellent  Good  Average  Poor

4. Did the faculty explain the topics using Projectors, Internet etc?

Excellent  Good  Average  Poor

5. Your satisfaction on practical experience/exercises on this course?

Excellent  Good  Average  Poor

6. Will you be able to use a computer on your own, if employment is given?

Yes  No  To Some Extent

7. Are you satisfied with the assessment / exam pattern of the course?

Yes  No  To Some Extent

8. How do you rate the program on a 5 point scale? (please tick )

1	2	3	4 <input checked="" type="checkbox"/>	5
---	---	---	---------------------------------------	---

9. Additional comments and Suggestions

We learned PPT (Power Point) MS Word in the computers. It is very beneficial to us.

Signature of Student

*A. Bhargavi*

## DEPARTMENT OF COMPUTER SCIENCE

### STUDENT FEEDBACK FORM      Date: 06-05-2023

#### Life Skills Course: Basics of Computer Applications

1. Do you think this course is beneficial to you?  
 Yes  No  To Some Extent
2. Did the faculty explain the topics clearly using relevant examples?  
 Excellent  Good  Average  Poor
3. Is the syllabus, employment oriented?  
 Excellent  Good  Average  Poor
4. Did the faculty explain the topics using Projectors, Internet etc?  
 Excellent  Good  Average  Poor
5. Your satisfaction on practical experience/exercises on this course?  
 Excellent  Good  Average  Poor
6. Will you be able to use a computer on your own, if employment is given?  
 Yes  No  To Some Extent
7. Are you satisfied with the assessment / exam pattern of the course?  
 Yes  No  To Some Extent
8. How do you rate the program on a 5 point scale? (please tick )

1	2	3	4	5 <input checked="" type="checkbox"/>
---	---	---	---	---------------------------------------

9. Additional comments and Suggestions

It is beneficial to me. I learn more in this class of computer basic-

A. Suryana  
Signature of Student



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Vatluru, Eluru - 534007

(Estd : 1987)



e-mail : sircrrwomen.principal@gmail.com

Website : www.sircrrwomen.ac.in

Phone : 08812-231192

## DEPARTMENT OF COMPUTER SCIENCE

### STUDENT FEEDBACK FORM      Date: 06-05-2023

#### Life Skills Course: Basics of Computer Applications

- Do you think this course is beneficial to you?  
Yes  No  To Some Extent
- Did the faculty explain the topics clearly using relevant examples?  
Excellent  Good  Average  Poor
- Is the syllabus, employment oriented?  
Excellent  Good  Average  Poor
- Did the faculty explain the topics using Projectors, Internet etc?  
Excellent  Good  Average  Poor
- Your satisfaction on practical experience/exercises on this course?  
Excellent  Good  Average  Poor
- Will you be able to use a computer on your own, if employment is given?  
Yes  No  To Some Extent
- Are you satisfied with the assessment / exam pattern of the course?  
Yes  No  To Some Extent
- How do you rate the program on a 5 point scale? (please tick )

1	2	3	4	5 <input checked="" type="checkbox"/>
---	---	---	---	---------------------------------------

9. Additional comments and Suggestions

I easily learned Basics of computer applications.

It is very usefull for us.

Signature of Student

K.Sirisha.

# **Life Skill Course on “Basics of Computer Applications”**

## **Valedictory Function**

**SIR C R REDDY COLLEGE FOR WOMEN**

**Date: 2<sup>nd</sup> May 2023.**

### **NOTICE**

This is to inform you that the Department of Computer Science is going to conduct a Valedictory function for Life Skills course on “Basics of Computer Applications” on 6<sup>th</sup> May 2023 at 8.30 am. All staff members are requested to attend the function and make it a big success.

  
Signature of Principal.

PRINCIPAL

Sir C.R.R, College for Women  
ELURU



## **SIR C. R. REDDY COLLEGE FOR WOMEN**

(Affiliated to Adikavi Nannaya University, Rajahmahendravaram)  
Vatluru(Post), PedapaduMandal, EluruDist(AP)

### **Invitation**

*You are cordially invited to  
Valedictory Function*

### **Life Skill Course on “Basics of Computer Applications**

**Chief Guest** : **Sri Chalasani Viswanadha Rao**  
Correspondent, Sir C R Reddy College for Women, Eluru

**Guest of honor** : **Smt. P. Sailaja**  
Principal, Sir C R Reddy College for Women, Eluru

**Resource Person** : **N. Bharathi**  
Lecturer, Sir C R Reddy College for Women, Eluru

Date: Saturday 6<sup>th</sup> May 2023

Venue: Seminar Hall

Time: 8.30 am to 9.30 am

**Organized by**

**Department of Computer Science**

**SIR C.R. REDDY COLLEGE FOR WOMEN, ELURU**

# Life Skill Course on “Basics of Computer Applications” Photo Gallery



Students listening to the Course given by Bharathi mam



Mam given Powerpoint presentation



# SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

Vatluru(Post), Pedapadu Mandal, Eluru Dist.,(A.P)



## "EMERGING TECHNOLOGIES IN COMPUTER SCIENCE AND JOB PERSPECTIVES"

**Date: 28-02-2023**

**Time: 10:00 am**

**Venue: Seminar Hall**

**Organized by**

**DEPARTMENT OF COMPUTER SCIENCE**

**2022-2023**

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## Brief Note

The Department of Computer Science has Organized National Science Day Celebrations on 28<sup>th</sup> February 2023.

National Science Day is celebrated in India on February 28 each year to mark the discovery of the Raman Effect by Indian physicist Sir C. V. Raman on 28<sup>th</sup> February 1928. For his discovery, Sir C.V. Raman was awarded the Nobel Prize in Physics in 1930.

This day was observed on the recommendation of **National Council for Science and Technology Communication (NCSTC)** to the Government of India. It was first observed in the year 1987. This year the theme is “**Global Science for Global Wellbeing**”. The event is celebrated across several educational institutions like Schools, colleges, universities, etc. It is also observed in various medical, science and research institutions across India.

The objective behind organization of poster making competition is to bring out the creative expression of students and to gather their knowledge and awareness of various trends in latest technologies. The aim of the Poster Making Competition is not just to judge the students based on their creative aspects but also to trigger thought process among the students towards recent trends.

## **About Programme**

This program was conducted in association with IQAC, Sir C R Reddy College for Women, Eluru. This program was held on 28-02-2023 in the Seminar Hall-2 for the III year B.Sc & B.Com students.

Ms N.Bharathi, Lecturer in computer science invited the Chief Guest Sri **Ch.Viswanadha Rao** Garu, Correspondent, **Smt P.Sailaja**, Principal and the Resource person **Dr. P.M. Prasuna M. Tech., Ph.D**, Professor & HoD, Department of Computer Science and Engineering, Ramachandra College of Engineering, Eluru and **Sri K V V Srinivas**, HoD, Dept of Computer Science and **Smt K. Jhansi Lakshmi**, IQAC Coordinator on to the dais.

**Dr. P.M. Prasuna M. Tech., Ph.D**, Professor & HoD, Department of Computer Science and Engineering, Ramachandra College of Engineering, Eluru in her speech in her speech gave the importance of National Science Day and She said that it was a great experience to be a part of such an informative and helpful session.

She gave the invited Talk on “**Emerging Technologies in Computer Science and job Perspectives** and how they useful to society. She starts the program and told about Machine learning technologies and cyber security. I am here to deliver a speech on technology which has taken a tremendous role in our day to day life. We all are in a generation where everything is dependent on technology. Let’s understand what technology is through the lens of Science.

Technology comes in the form of tangible and intangible properties by exerting physical and mental force to achieve something that adds value. For example, a mobile phone is tangible, and the network connection used by the phone is intangible. Technology has taken its place as indispensable, wherein it has resulted in economic benefits, better health care, time-saving, and better lifestyle.

Due to technology, we have a significant amount of knowledge to improve our lives and solve problems. We can get our work done efficiently and effectively. As long as you know how to access technology, it can be used and proves to benefit people of all ages greatly. Technology is constantly being modified and upgraded every passing year. At the last she explained how to protect the data in personal devices like mobiles and personal computers and how to attackers is stolen data. In this context how to protect them from cyber attacks using virtual private networks.

The computer science students arrange the exhibition of various computer related posters and models in the seminar hall. Our Correspondent Sri Ch Viswanadha Rao inaugurates the exhibition.

The students of APSWR Gurukula and Z P H School, Vatluru and Sir C R Reddy College of Nursing visited the exhibition. Our Students explain the various presentations to the students.

**Ms G S R Kalyani**, Lecturer in Computer Science and her team monitoring the various model presentations and poster presentations made by the students. Our resource person **Dr. P.M. Prasuna M. Tech., Ph.D**, Professor & HoD, Department of Computer Science and Engineering, Ramachandra College of Engineering, Eluru visited and judges the models and posters. The students who won the posters presentations and model presentations was appreciated and given certificates to them.

# Requesting Letter

## SIR C.R.REDDY COLLEGE FOR WOMEN

(Estd : 1987)

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

An ISO-9001:2015, 14001:2015, 50001:2018 Certified Institution

ELURU (VATLURU POST), ELURU Dist., A.P. - 534 007

email : sirrrwomen.principal@gmail.com

OFF : 08812 - 231192

OFF : 08812 - 232717

Fax : 08812 - 253421



24-02-2023

Eluru

To,  
Dr. P.M. Prasuna M. Tech., Ph.D,  
Professor & HoD,  
Department of Computer Science,  
Ramachandra College of Engineering,  
Eluru.

Dear Madam,

Subject: Invitation for invited talk - Reg.

We from the Department of Computer Science, Sir C R Reddy College for Women are celebrating National Science Day on 28<sup>th</sup> February 2023.

As a part of this program, we are happy to invite you as a speaker to address our students on "Emerging Technologies in Computer Science and Job perspectives". This helps them understand about latest technologies and job opportunities in the field of Computer Science.

Your Expertise and deliberation will surely benefit our students to gain knowledge. The date for the Invite Talk by you will be on 28.02.2023 and the session will begin at 10:00 am.

Kindly communicate your acceptance at the earliest. This will enable us to prepare for the smooth running of the lecture.

Thanking you,

Yours faithfully,

PRINCIPAL

Sir C.R.R. College for Women  
ELURU

# Acceptance Letter

3/1/23, 3:21 PM

Gmail - Acceptance to be a Guest speaker - National Science Day - regd



Sailaja P <sircrrwomen.principal@gmail.com>

---

## Acceptance to be a Guest speaker - National Science Day - regd

---

**HEAD CSE RCEE** <csehod@rcee.ac.in>  
To: kvasu172@gmail.com  
Cc: sircrrwomen.principal@gmail.com

Mon, Feb 27, 2023 at 2:09 PM

Dear Sir/Madam

Thank you for inviting me to be a guest speaker on the Occasion of National Science Day -2023.

It's my pleasure and honour to accept this invitation and I am willing to deliver a lecture to your students on "Latest Technologies and Job Opportunities"

Thank you

Dr.P.M.Prasuna

**HOD:CSE**  
**Ramachandra College of Engineering**  
**NH5, Bypass, Vatluru, Eluru - 534007**



# Learning Objectives and Learning Outcomes

## Learning Objectives

National Science Day is being celebrated every year to widely spread a message about the significance of scientific applications in the daily life of the people.

- ❖ To discuss all the issues and implement new technologies for the development of science.
- ❖ To give an opportunity to the scientific-minded citizens in the country.
- ❖ To encourage the people as well as popularize Science and Technology.
- ❖ To recognize and appreciate all scientific activities, efforts, and achievements.
- ❖ To promote and nourish interest in science and technology.
- ❖ To encourage young people to learn more about science.

## Learning Outcomes

- ❖ Students learn about various emerging technologies like Cyber Security, Artificial Intelligence, Machine learning, Web Development etc
- ❖ Know about Job opportunities in the field of Computer Science
- ❖ Know about skills required before applying Jobs
- ❖ Encouraged to participate in poster presentation and other activities

# Permission Letter

22-02-2023.  
Eluru,

To  
The Principal,  
Sir C R Reddy College for Women, Eluru.

Respected Madam,

Subject: Requesting for permission to celebrate National Science Day on 28<sup>th</sup> February - regarding.

We wish to bring to your notice that we are planning to celebrate National Science Day on 28<sup>th</sup> February 2023. In view of this day, we are planning to conduct one Invited Talk and Poster & Model presentation event on that day.

So, we are planning to arrange a invited Talk on **“Emerging Technologies in Computer Science and job Perspectives”** by Dr. P.M. Prasuna M. Tech., Ph.D, Professor & HoD, Department of Computer Science, Ramachandra College of Engineering, Eluru, And also we can arrange Poster and Model presentation event in Seminar Hall-1.

This helps students understand the future technologies used. All the students will be benefitted by this awareness program.

Kindly permit us so that we can arrange this to III Degree B.Sc Computer Science and III B.Com (Voc) students

Thanking You Madam,

Yours Faithfully,

K.V.V. - C 22/2/23  
(HoD, Dept. of CS)

Permitted  
Kishor  
PRINCIPAL  
Sir C.R.R. College for Women  
ELURU

# Brochure

## events



Invited talk on  
Emerging Technologies and Job Perspectives



Poster Presentation

### National Science Day

National Science Day is celebrated in India on 28th February each year to mark the discovery of the "Raman Effect" by Indian physicist Sir C.V. Raman on 28 th February 1928. For his discovery , Sir C.V. Raman was awarded the Nobal Prize in Physics in 1930

#### Chairman

Smt P. Sailaja

Principal, Sir C R Reddy College for Women

#### Organizing Secretaries

Smt K. Jhansi Lakshmi, IQAC Coordinator

Smt S. Anuradha, NAAC Coordinator

#### Organizing Committee

Ms G.S.R Kalyani

Smt M. Aruna

Smt K. Susheela

Smt G.Sarala

Mr V. Rambabu

Smt M. Divya Sri

Smt Ch. Padmini

Smt N. Bharathi



## SIR C.R.REDDY COLLEGE FOR WOMEN

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Vatluru (Post), Pedapadu Mandal, Eluru Dist., (A.P)

An ISO - 9001:2015, 14001:2015, 50001:2018 Certified Institution

### Celebrations of NATIONAL SCIENCE DAY -2023

28th February 2023

Venue: Seminar Hall

Time: 10AM



Organized by

Internal Quality Assurance Cell  
Department of Computer Science

## Notice to Staff and Students



**SIR C.R.REDDY COLLEGE FOR WOMEN**  
( Affiliated to Adikavi Nannaya University, Rajahmahendravaram)  
Vatluru (Post), Pedapadu Mandal, EluruDist.,(A.P)

### Notice to Staff and Students

**Date: 27<sup>th</sup> February 2023.**

This is to inform that, Department of Computer Science is going to celebrate National Science Day on 28<sup>th</sup> February 2023 for III B.Sc & III B.Com Computer Science students. In view of this day, we are planning to conduct one Invited Talk and Poster & Model presentation event on that day.

Dr. P.M. Prasuna M. Tech., Ph.D, Professor & HoD, Department of Computer Science, Ramachandra College of Engineering, Eluru will deliver her Talk on “**Emerging Technologies in Computer Science and job Perspectives**“ in Seminar Hall-2 at 10AM. And also, we can arrange Poster and Model presentation event in Seminar Hall-1.

We request all the Staff & Students to attend the invited Talk and events and make it a big success

Principal  
**PRINCIPAL**  
**Sr C.R.R. College for Women**  
**ELURU**

# Invitation



## **SIR C. R. REDDY COLLEGE FOR WOMEN**

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

Vatluru(Post), Pedapadu Mandal, Eluru Dist(AP)

An ISO - 9001:2015, 14001:2015, 50001:2018 Certified Institution

### **Invitation**

*You are cordially invited to inaugurate*

*Celebrations of*

**NATIONAL SCIENCE DAY - 2023**

**Chief Guest:** **Sri Chalasani Viswanadha Rao**  
Correspondent, Sir C R Reddy College for Women, Eluru

**Guest of honor :** **Smt P. Sailaja**  
Principal, Sir C R Reddy College for Women, Eluru

**Resource Person:** **Dr. P.M. Prasuna M. Tech., Ph.D,**  
Professor & HoD, Department of Computer Science,  
Ramachandra College of Engineering, Eluru

Date: Monday 28<sup>th</sup> February 2023

Venue : Seminar Hall -2

Time: 10.00 am

Organized by

**Department of Computer Science**

**SIR C.R. REDDY COLLEGE FOR WOMEN, ELURU**

# Inaugural Function

## Inaugural Function

Date: 27<sup>th</sup> Febraury 2023.

### NOTICE

This is to inform that Department of Computer Science is going to conduct an Inaugural function for “National Science Day” Celebrations on 28-12-2023 at 10.00am in Seminar Hall 2. All staff and Students are requested to attend the function and make it a big success.

  
Principal  
PRINCIPAL  
Sri C.R.R. College for Women  
ELURU

# Student's Attendance

## SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

Vatluru(post), Eluru, Eluru Dist.

Department of Computer Science

2022-2023

### ATTENDANCE SHEET

Program Name : National Science Day Celebrations

Class : III MPCs 2

Semester : V

Date & Time : 28/07/2023 @ 10:00 AM.

S.No	Roll No.	NAME OF THE STUDENT	SIGNATURE
1	200252	MADDALA USHA	M. Usha.
2	200253	MAMIDI HEMAPRASUNA	M. Hema Prasuna.
3	200254	MARRE DIVYA SRI	M. Divya sri
4	200255	MINDA SWATHI	M. Swathi.
5	200256	PARSA PAVANI	P. Pavani
6	200257	VELLATORI GEETHA SATYA PRNA	V. Geetha satya priya
7	200258	MANTHINA DHEDHIPYA	M. Dhedhipya.
8	200259	MARADANI YAMINI DURGA	M. Yamini Durga.
9	200260	MATLA SAI RAMADEVI	M. Sai Ramadevi
10	200261	MEDA GAYATHRI	M. Gayathri
11	200262	MIRIYALA KEERTHI	M. Keerthi
12	200263	MODA HARITHA DEVI	M. Haritha Devi
13	200264	MO DHAVA SRAVANI	M. Sravani
14	200265	MOGALA LIKHITA NAGIA RAJESWARI	M. L. N. Rajeswari
15	200274	PASUPULETI DIVYA	P. Divya
16	200296	TIRUPATHI SUMASREE	T. Suma Sree
17	200287	SHAIK KARISHMA	SK. Karishma.
18	200270	NEELAPU MEGHANA	N. Meghana
19	200291	SONGA SRI DURGA BHAVINI	S. Sri Durga Bh.
20	200280	PONNADA MADHURI	P. Madhuri
21	200282	R. Sindhu	R. Sindhu.
22	200298	Y. Pavani Naga Durga	Y. Pavani Naga Durga.
23	200285	S. Jyothi Venkata Pavan Durga	S. J. V. P. Durga
24	200294	T. Sowmya	T. Sowmya

K.V.V.C





# SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)  
Vatluru(post), Eluru, Eluru Dist.

## Department of Computer Science

2022-2023

### ATTENDANCE SHEET

Program Name : National Science Day Celebrations

Class : VI MPCS

Semester : V

Date & Time : 28/02/2023 @ 10:00 AM.

S.No	Roll No.	NAME OF THE STUDENT	SIGNATURE
1.	204637	K. Phanendra Meghana	K.P. Meghana
2.	204612	A. Rajya Lakshmi	A. Rajyalakshmi
3.	204611	A. Swapna	A. Swapna
4.	204639	K. Venkata Sasi	K. Venkata Sasi
5.	204645	R.N.D.S. Hasini	R.N.D.S. Hasini
6.	204625	D. Sri Nithya prasanna Teja	D. Sri Nithya
7.	204605	K. Pwitha Ratnam	K. Pwitha
8.	204666	S. Tulasi Teja	S. Tulasi Teja
9.	204636	K. Yamini	K. Yamini
10.	204618	Ch. Savari	Ch. Savari
11.	204631	J. Revathi	J. Revathi
12.	204633	K. Bharu Sanjana	K. Sanjana
13.	204663	S. Mounika	Mounikal
14.	204657	P. Sumiyabhi	P. Sumiyabhi
15.	204643	N.P. Sulochana Vari	N. Pwitha Sulochana Vari
16.	204604	G. Uma Duxga	G. Uma Duxga
17.	204606	K. Sai Sai Lekha	K. Sai Sai Lekha
18.	204607	K. Navya Sri	K. Navya Sri
19.	204624	D. H.S.S. Gayathri Devi	D. H.S.S. Gayathri Devi
20.	204650	M. Sowjanya	M. Sowjanya
21.	204615	B. Bhargavi	B. Bhargavi
22.	204649	M. Gowthami Priya	M. Gowthami Priya
23.	204652	M. Seviha	M. Seviha
24.	204660	P. Sumanjali	P. Sumanjali

K.V.V.



# SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)  
Vatluru(post), Eluru, Eluru Dist.

## Department of Computer Science

2022 2023

B.Com(VI)

### ATTENDANCE SHEET

Program Name : National Science Day celebrations

Class : III B.Com (VI)

Semester : V

Date & Time : 28-02-2023 @ 10:00 AM.

S.No	Roll No.	NAME OF THE STUDENT	SIGNATURE
1	208233	G. Madhuri	G. Madhuri
2	208217	B. Sowmya	B. Sowmya
3	208237	P. Priyanka	Priyanka P. G
4	208201	B. Akhila	B. Akhila
5	208220	B. Chandrika	B. Chandrika
6	208219	B. Geetha	B. Geetha
7	208218	B. Raja Rajeswari	B. Rajeswari
8	208205	G. Chandrika	G. Chandrika
9	208221	Ch. Madhu	Ch. Madhu
10	208236	G. Jashini	G. Jashini
11	208211	K. Sushma	K. Sushma
12	208239	J. Divyaja	J. Divyaja
13	208209	K. Chaitanya Sri	K. Chaitanya Sri
14	208249	K. Naga Kavya	K. Naga Kavya
15	208247	K. Harika	K. Harika
16	208248	K. Nithya Sri	K. Nithya Sri
17	208250	K. Likhitha	K. Likhitha
18	208253	K. Ratna Manikya	K. Ratna Manikya
19	208214	A. Amrutha Bindhu	Amrutha Bindhu
20	208216	B. Harika	B. Harika
21	208210	K. Neeraja	K. Neeraja
22	208243	K. Vennela	K. Vennela
23	208244	K. Bhargavi	K. Bhargavi
24	208240	J. Lakshmi Devi	J. Lakshmi Devi

K.V.V.



# SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)  
Vatluru(post), Eluru, Eluru Dist.

## Department of Computer Science

2022 2023

### ATTENDANCE SHEET

Program Name : National Science Day Celebrations

Class : ITBcom(V2)

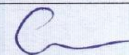
Semester : V

Date & Time : 28/02/2023 @ 10:00 AM,

S.No	Roll No.	NAME OF THE STUDENT	SIGNATURE
1.	208254	M. Sravanthi	M. Sravanthi
2.	255	M. Meenika	M. Meenika
3.	256	M. Swathi	M. Swathi
4.	257	P. Swathi Bealut	P. Swathi Bealut
5.	258	P. Swathi	P. Swathi
6.	259	S. Sithara	S. Sithara
7.	260	T. Sushma	T. Sushma
8.	261	T. Satya Sai nama Durga	T. Satya Sai nama Durga
9.	262	V. Yamini	V. Yamini
10.	263	V. Leela Vinodhini	V. Leela Vinodhini
11.	265	Y. Latha Sagarani	Y. Latha Sagarani
12.	266	K. Hima Bindu	K. Hima Bindu
13.	267	K. Susmitha	K. Susmitha
14.	268	M. Pralanna Deepika	M. P. Deepika
15.	269	M. Hemavalli	M. Hemavalli
16.	270	M. Lavanya	M. Lavanya
17.	271	M. Lavanya	M. Lavanya
18.	272	M. Keerithi	M. Keerithi
19.	273	M. Bhargavi	M. Bhargavi
20.	274	M. Sravani	M. Sravani
21.	275	M. Gunavardhini	M. Gunavardhini
22.	276	M. Mallika	M. Mallika
23.	277	P. Sai Prasanna	P. Sai prasanna
24.	278	P. Navitha	P. Navitha

K.V.V. C

	Roll No.	NAME OF THE STUDENT	SIGNATURE
25	279		
26	281	P. Nagapriema Deekshitha	P. N. P. Deekshitha
27	282	P. Anitha	P. Anitha
28	284	P. Yamini Mahalakshmi	P. Yamini Mahalakshmi
29	285	P. Geetha Sri	P. Geetha Sri
30	286	P. vidya glory	P. Glory
31	287	P. Jaya Sri	P. Jaya Sri
32	288	P. Prasanna Kumari	P. prasanna Kumari
33	289	R. Sai Srisisha	R. saisisisha
34	290	R. N. S. Mounika	R. N. S. mounika
35	291	R. Rajya Laxmi	R. Rajyalaxmi
36	292	S. Swathika	S. Swathika
37	293	S. Geetha parani	S. Parani
38	294	S. Himajaya	S. Himajaya
39	295	Sk. Shabeena	Sk. Shabeena
40	296	S. Tulasi manga tayara	S. Tulasi manga tayara
41	297	S. Mounika	S. Mounika
42	298	Sd. Jasmin	Sd. Jasmin
43	299	T. Durga	T. Durga
44	300	T. S. V. D. Bhavani	T. S. V. D. Bhavani
45	301	T. Aswini	T. Aswini
46	302	T. Sneesha	T. Sneesha
47	303	V. Ramya	V. Ramya
48	304	V. Madhuri priya dharshini	V. Madhuri Priya dharshini
49	305	V. Mallika	V. Mallika
50	306	Y. Sunitha	Y. Sunitha

K. v. v. 

# SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)  
Vatluru(post), Eluru, Eluru Dist.

## Department of Computer Science

2022 2023

### ATTENDANCE SHEET

Program Name : National Science Day Celebrations

Class : II B.Sc - M.Sc

M.Sc

Semester : V

Date & Time : 28/02/2023 @ 10.00 AM.

S.No	Roll No.	NAME OF THE STUDENT	SIGNATURE
1.	213064	D. Harika	D. Harika
2.	213062	Ch. Satyavathi	Ch. Satyavathi
3.	213087	V. Bhavani	V. Bhavani
4.	213075	K. Madhusri	K. Madhusri
5.	213073	K. Harika	K. Harika
6.	213089	V. Janaki Chandrakala	V. J. Chandrakala
7.	213090	Y. Deepthi Navya Sri	Y. Deepthi Navya Sri
8.	213066	G. Dharaani	G. Dharaani
9.	213081	P. Keerthi	P. Keerthi
10.	213082	P. Devisti	P. Devisti
11.	213083	S. Yamini Naga Purnima	S. Y. N. Purnima
12.	213063	Ch. Jahnavi	Ch. Jahnavi
13.	213085	T. Anjali Devi	T. Anjali
14.	213079	M. Sai Praveethika	M. Sai Praveethika
15.	213078	M. Harshita Gangathri	M. H. Gangathri
16.	213067	Gr. Indumathi	Gr. Indumathi
17.	213060	Y. Susmitha Bharathi	Y. Susmitha
18.	213077	L. Sri Lakshmi Prassanna Kumari	L. Prassanna
19.	213093	B. Anu	B. Anu
20.	213084	T. Anjali Devi	T. Anjali Devi
21.	213065	E. Likhitha	E. Likhitha
22.	213069	K. Uma Sai	K. Uma Sai
23.	213046	Sk. Nazirin	Sk. Nazirin
24.	213011	A. Pujitha	A. Pujitha

K. V. V. C

	Roll No.	NAME OF THE STUDENT	SIGNATURE
25	213033	M. Prasanna	M. Prasanna.
26	213027	k. Bhavani	k. Bhavani
27	213020	D. Sindhuja	D. Sindhuja
28	213037	P. Yamini	P. Yamini
29	213047	sk. Naziya.	sk. Naziya.
30	213031	k. Seema	k. Seema
31	213041	P. Jawanya.	p. Jawanya.
32	213008	A. Muskan	A. Muskan
33	213006	A. Kusuma Ambica	A. Kusuma
34	213024	G. Devi Kalyani	G. Devi Kalyani
35	213022	E. Sri Lakshmi	E. Sri Lakshmi
36	213050	S. Durga Bhavani	S. Durga Bhavani
37	213054	V. Meenisha.	V. Meenisha
38	213048	S. Madhavi	S. Madhavi
39	215019	D. Jyothi	D. Jyothi
40	213055	Y. Swathi	Y. Swathi.
41	213035	P. Bharya Sri	P. Bharya Sri
42	213051	T. Arjuna Devi	T. Arjuna Devi
43	213032	N. Manasa	N. Manasa
44	213012	A. Navaneetha Kumari	A. Navaneetha
45	213044	R. N. V. Sowjanya Devi	R. N. V. Sowjanya Devi
46	213045	S. Siva Lakshmi	S. Siva Lakshmi
47	213053	U. Harisha	U. Harisha
48	213052	T. Sai Lakshmi Uma	T. Sai Lakshmi Uma
49	213043	P. Rupa Sri	P. Rupa Sri
50	213042	P. Chandini	P. Chandini
51	213013	B. Anitha	B. Anitha.
52	213036	P. Navya Sri	P. Navya Sri
53	213017	Ch. Manjusha	Ch. Manjusha
54	213038	P. Jahnvi	P. Jahnvi
55	213018	Ch. Anuradha	Ch. Anuradha.
56	213029	K. Geetha Lakshmi	K. Geetha
57	213009	A. Spandana	A. Spandana.
58	213007	A. Rishitha	A. Rishitha
59	213010	A. Pavani	A. Pavani

K. V. V. C




# Valedictory Function

## Valedictory Function

Date: 28<sup>th</sup>, February 2023.

### NOTICE

This is to inform that Department of Computer Science is going to conduct a Valedictory function for “National Science Day Celebrations” on 28-02-2023 at 12.30pm in seminar hall 2. All staff and Students are requested to attend the function and make it a big success.



Principal

PRINCIPAL

Sir C.R.R. College for Women  
ELURU

# CERTIFICATES



Estd: 1987

## SIR C. R. REDDY COLLEGE FOR WOMEN

Vatluru(Post), Pedapadu Mandal, Eluru, Eluru Dist., A.P, India 534007

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

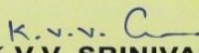
An ISO - 9001:2015, 14001:2015, 50001:2018 Certified Institution


### DEPARTMENT OF COMPUTER SCIENCE

#### CERTIFICATE OF PARTICIPATION

This is to certify that Miss/Mrs A. A. BINDU  
class II B.Com(CA) Roll No 208214 has participated in the  
Model Presentation Competition on the occasion of National Science Day 2023  
celebrations and got II prize on 28<sup>th</sup> February 2023

  
Smt K. JHANSI LAKSHMI  
IQAC Coordinator

  
K.V.V. SRINIVAS  
Convener, HOD, Dept. of CS

  
Smt P. SAILAJA  
Principal



Estd: 1987

## SIR C. R. REDDY COLLEGE FOR WOMEN

Vatluru(Post), Pedapadu Mandal, Eluru, Eluru Dist., A.P, India 534007

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

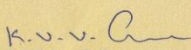
An ISO - 9001:2015, 14001:2015, 50001:2018 Certified Institution


### DEPARTMENT OF COMPUTER SCIENCE

#### CERTIFICATE OF PARTICIPATION

This is to certify that Miss/Mrs T. Syamala Mani Sai  
class III B.Sc - MPCs Roll No 200297 has participated in the  
Poster Presentation Competition on the occasion of National Science Day 2023  
celebrations and got I<sup>st</sup> prize on 28<sup>th</sup> February 2023

  
Smt K. JHANSI LAKSHMI  
IQAC Coordinator

  
K.V.V. SRINIVAS  
Convener, HOD, Dept. of CS

  
Smt P. SAILAJA  
Principal

# Students Feedback

## SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)  
Vatluru (Post), Pedapadu Mandal, Eluru Dist., (A.P)



### DEPARTMENT OF COMPUTER SCIENCE

#### STUDENT FEEDBACK FORM

**Program:** Invited Talk on **Emerging Technologies in Computer Science and job Perspectives.**

**Date:** 28-02-2023

**Time:** 10:00 AM

1. Do you think this program was beneficial for you?

Yes  No

2. Did you find the invited talk on emerging technologies are informative and engaging?

Yes  No

3. Were the topics discussed in the talk relevant to your interest or studies?

Yes  No

4. Did you have the opportunity to ask question or interact with the speaker?

Yes  No

5. Would you like to see more similar talks on emerging technologies in the future?

Yes  No

6. How do you rate the program on 5 point scale? (Please tick ✓)

1	2	3	4	5 ✓
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7. Additional comments and Suggestions

The Topics explained in this program are very useful to us.

K. Naga kavya  
Signature of the Student

# SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajahmahendravaram)  
Vatluru (Post), Pedapadu Mandal, Eluru Dist., (A.P)



## DEPARTMENT OF COMPUTER SCIENCE

### STUDENT FEEDBACK FORM

**Program:** Invited Talk on Emerging Technologies in Computer Science and job Perspectives.

**Date:** 28-02-2023

**Time:** 10:00 AM

1. Do you think this program was beneficial for you?

Yes  No

2. Did you find the invited talk on emerging technologies are informative and engaging?

Yes  No

3. Were the topics discussed in the talk relevant to your interest or studies?

Yes  No

4. Did you have the opportunity to ask question or interact with the speaker?

Yes  No

5. Would you like to see more similar talks on emerging technologies in the future?

Yes  No

6. How do you rate the program on 5 point scale? (Please tick ✓)

1	2	3	4	5
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7. Additional comments and Suggestions

In this program are very useful and very helpful too.

M. Mounika  
Signature of the Student

# SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)  
Vatluru (Post), Pedapadu Mandal, Eluru Dist., (A.P)



## DEPARTMENT OF COMPUTER SCIENCE

### STUDENT FEEDBACK FORM

**Program:** Invited Talk on Emerging Technologies in Computer Science and job Perspectives.

**Date:** 28-02-2023

**Time:** 10:00 AM

1. Do you think this program was beneficial for you?  
 Yes       No
2. Did you find the invited talk on emerging technologies are informative and engaging?  
 Yes       No
3. Were to topics discussed in the talk relevant to your interest or studies?  
 Yes       No
4. Did you have the opportunity to ask question or interact with the speaker?  
 Yes       No
5. Would you like to see more similar talks on emerging technologies in the future?  
 Yes       No

6. How do you rate the program on 5 point scale? (Please tick ✓ )

1	2	3	4	5
---	---	---	---	---

7. Additional comments and Suggestions

very excellent section and very useful to us.

*D. Harika*  
Signature of the Student

# SIR C R REDDY COLLEGE FOR WOMEN

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

Vatluru (Post), Pedapadu Mandal, Eluru Dist., (A.P)



## DEPARTMENT OF COMPUTER SCIENCE

### STUDENT FEEDBACK FORM

**Program:** Invited Talk on Emerging Technologies in Computer Science and job Perspectives.

**Date:** 28-02-2023

**Time:** 10:00 AM

1. Do you think this program was beneficial for you?  
 Yes       No
2. Did you find the invited talk on emerging technologies are informative and engaging?  
 Yes       No
3. Were to topics discussed in the talk relevant to your interest or studies?  
 Yes       No
4. Did you have the opportunity to ask question or interact with the speaker?  
 Yes       No
5. Would you like to see more similar talks on emerging technologies in the future?  
 Yes       No
6. How do you rate the program on 5 point scale? (Please tick ✓)  

1	2	3	4	5 ✓
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7. Additional comments and Suggestions

*This program was very beneficial to us  
we gain a lot of knowledge about this program.*

*M. Keerthi*  
Signature of the Student

## Report

This program was conducted in association with IQAC, Sir C R Reddy College for Women, Eluru. This program was held on 28-02-2023 in the Seminar Hall-2 for the III year B.Sc& B.Com students.

Ms N.Bharathi, Lecturer in computer science invited the Chief Guest **Sri Ch.Viswanadha Rao** Garu,Correspondant, **Smt P.Sailaja**, Principal and the Resource person **Dr. P.M. Prasuna M. Tech., Ph.D**, Professor & HoD, Department of Computer Science and Engineering, Ramachandra College of Engineering, Eluru and **Sri K V V Srinivas**, HoD, Dept of Computer Science and **Smt K.JhansiLakshmi**, IQAC Coordinator on to the dais.

**Dr. P.M. Prasuna M. Tech., Ph.D**,Professor &HoD, Department of Computer Science and Engineering, Ramachandra College of Engineering, Eluru in her speech in her speech gave the importance of National Science Day and She said that it was a great experience to be a part of such an informative and helpful session.

She gave the invited Talk on “**Emerging Technologies in Computer Science and job Perspectives** and how they useful to society. She starts the program and told about Machine learning technologies and cyber security.

I am hereto deliver a speech on technology which has taken a tremendous role in our day to day life. We all are in a generation where everything is dependent on technology. Let's understand what technology is through the lens of Science.

Technology comes in the form of tangible and intangible properties by exerting physical and mental force to achieve something that adds value. For example, a mobile phone is tangible, and the network connection used by the phone is intangible. Technology has taken its place as indispensable, wherein it has resulted in economic benefits, better health care, time-saving, and better lifestyle.

Due to technology, we have a significant amount of knowledge to improve our lives and solve problems. We can get our work done efficiently and effectively. As long as you know how to access technology, it can be used and proves to benefit people of all ages greatly. Technology is constantly being modified and upgraded every passing year. At the last she explained how to protect the data in personal devices like mobiles and personal computers and how to attackers is stolen data. In this context how to protect them from cyber attacks using virtual private networks.

The computer science students arrange the exhibition of various computer related posters and models in the seminar hall. Our Correspondent Sri Ch Viswanadha Rao inaugurates the exhibition.



The students of APSWR Gurukula and Z P H School, Vatluru and Sir C R Reddy College of Nursing visited the exhibition. Our Students explain the various presentations to the students.

**Ms G S R Kalyani**, Lecturer in Computer Science and her team monitoring the various model presentations and poster presentations made by the students. Our resource person **Dr. P.M. Prasuna M. Tech., Ph.D**, Professor & HoD, Department of Computer Science and Engineering, Ramachandra College of Engineering, Eluru visited and judges the models and posters. The students who won the posters presentations and model presentations was appreciated and given certificates to them.



Resource Person: **Dr. P.M. Prasuna M. Tech., Ph.D**, Professor & HoD,  
 Department of Computer Science & Engineering  
**K.V.V.Srinivas**, HoD, Department of Computer Science  
**Smt K.Jhansi Lakshmi**, IQAC Coordinator



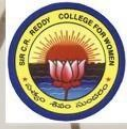
**Lecture by Dr. P.M. Prasuna M. Tech., Ph.D**,  
 Professor & HoD, Department of Computer Science & Engineering



**Speech by Dr. P.M. Prasuna M. Tech., Ph.D,**  
Professor & HoD, Department of Computer Science & Engineering



**Computer Science Exhibition inaugurated by Sri Ch.Viswanadha Rao Garu**



2/28/23 14:24  
131° SE  
Vatluru  
Andhra Pradesh  
Altitude: -60.9m  
Speed: 0.0km/h  
Sir C R Reddy college for Women  
National science day celebrations

Students of APSWR Gurukula School, Vatluru visit the Exhibition



2/28/23 14:28  
126° SE  
Vatluru  
Andhra Pradesh  
Altitude: 59.5m  
Speed: 0.0km/h  
Sir C R Reddy college for Women  
National science day celebrations

Students of ZPH School, Vatluru visit the Exhibition

# **SIR C R REDDY COLLEGE FOR WOMEN**

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

Vatluru (Post), Eluru, West Godavari Dist(A.P)



**VALUE ADDED COURSE**

**ADOBE PHOTOSHOP**

**III B.Sc(M.P.C) Students**

**2020 – 2021**



**Conducted By**

**Department of COMPUTER SCIENCE(UG)**

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## Brief Note

- ❖ Department of Computer Science organized an Value Added on course “ADOBE PHOTOSHOP” for III B.Sc. MPC students.
- ❖ The objective of learning this course is to enable the students to study ADOBE PHOTOSHOP and to enrich the practical knowledge in ADOBE PHOTOSHOP.
- ❖ Photoshop is photo editing and raster graphic design software which allows users to create, edit, and manipulate various graphics as well as digital art. It also allows creating and editing raster images with multiple layers and importing the images in various file formats.
- ❖ This course is conducted before the regular classwork is completed.
- ❖ This course is conducted from 30-11-2020 to 08- 03- 2021(40 hours).
- ❖ The duration of the class is for one hour (8.30 am to 9.30 am).
- ❖ 40 students participated in this course.
- ❖ Course material was provided to every registered participant.
- ❖ During the course 1 Internal and 1 Grand test was conducted and evaluated.

## **About Course**

### **Course Description**

Adobe Photoshop is a complex graphics and image editing software and paint program. It has become a mainstay with graphics designers, professional photographers, and even hobbyists to edit graphics as well as create and manipulate images.

### **What you will learn**

Upon completing this program, candidates will learn designing skills, editing skills along with colour editing, layering, masking, adjustment, selection, retouching, with knowledge of various layers and tools of image editing software Photoshop.

### **Prerequisites and Expected Skills**

There are no course prerequisites to join in this course.

Any student who wants to learn ADOBE PHOTOSHOP can join in this Course.

### **Course Duration**

This course is conducted from 30-11-2020 to 08-03-2021 (40days).

The duration of the class is for one hour (8.30 Am to 9.30 Am).



## **Learning Objectives and Outcomes**

### **Learning Objectives:**

1. Identify the five categories of Adobe Photoshop tools.
2. Identify the 18 Primary Tools of the Adobe Photoshop tool bar.

### **Student Learning Outcomes:**

1. Understand the basic principles of graphic design using Photoshop including typography, compositing, color, and composition
2. Understand how to create better layouts using grids and guides using Photoshop
3. Understand how to use layers, effects, gradients, scaling, cloning, levels, and layer masks in Photoshop
4. Apply selections and extract parts of an image using Photoshop
5. Understand digital design for print and web: resolutions, files formats, tools & menus, programs
6. Learn how to create simple digital paintings including some brushes that let you create the look of an oil painting from a photo
7. Discover how to edit your own photographs to get rid of dust and scratches, fix the color, and correct image exposure
8. Master techniques for switching the backgrounds on images and removing wrinkles and blemishes from photos, as they do in magazines
9. Learn about the content-aware Move tools that let you move something on an image and intelligently replace the “hole” left behind at the same time
10. Design layouts for web pages, paper adverts, brochures, CD covers, package designing Adjust images, Correct color, Transform images.
11. Work with layers and masks.
12. Use layer styles.
13. Blur and sharpen images.
14. Create patterns and textures.
15. Use filters for special effects.
16. Retouch images.

## Permission Letter

Dt:19-11-2020,  
Eluru.

To,

The Principal,  
Sir C.R. Reddy College for Women,  
Eluru.

**Subject:** Request to grant permission to arrange a Value Added Course on  
“ADOBE PHOTOSHOP” - regarding.

This is to bring to your kind notice that, Department of Computer Science is planning to arrange a Value Added Course on “ADOBE PHOTOSHOP” for III B. Sc (M.P.C) Students. This is a 40 days course conducted from Thursday 30- 11- 2020. This course is conducted before the regular class work is started. The duration of the class is for one hour (8:30 am to 9.30 am) on college working days. In this context, we request you to grant permission to conduct the Value Added course for III B. Sc (M.P.C) Students in Computer Lab -1 from 30<sup>th</sup> November 2020.

Thanking you madam

*Permitted*  
*Kalyani*  
PRINCIPAL  
Sir C.R.R. College for Women  
ELURU

Yours Faithfully,

*K.V.V. Ch* 19/11/20  
Signature of HOD  
Dept. of Computer Science

## Notice to Staff and Students

Date: 21<sup>th</sup> November 2020.

This is to inform that Department of Computer Science is going to conduct a Value Added course on "ADOBE PHOTOSHOP" from Thursday 30-11-2020. This course is conducted before the regular class work is started. The duration of the course is 40 days. The duration of the class is for one hour (8:30 am to 9:30 am) on college working days.

Students are requested to apply for this course till 28<sup>th</sup> November 2020. Those who are interested to join the above Value Added course are here by informed to contact the HOD of Computer Science and register the course.

  
Principal

## Inaugural Function

Date: 25<sup>th</sup> November 2020.

This is to inform that Department of Computer Science is going to conduct an Inaugural function for Value Added course on "ADOBE PHOTOSHOP" on 30-11-2020 at 8:15 am. All staff and Students are requested to attend the function and make it a big success.

  
Principal

# INVITATION

## **SIR C R REDDY COLLEGE FOR WOMEN**

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

Vatluru (Post), Eluru, West Godavari Dist(A.P)

*You are cordially invited to the*

### **VALUE ADDED COURSE**

### **ADOBE PHOTOSHOP**

To

**III B.Sc(M.P.C) Students**

### **Chief Guest of the program**

**Sri Paladugu Srirangam**

Correspondent, Sir C R Reddy College for Women

**Smt P. Sailaja**

Principal, Sir C R Reddy College for Women

**Mrs.S.Anuradha**

Vice Principal, Sir C R Reddy College for Women

**Mr K.V.V. Srinivas**

HOD, Dept. of Computer Science, Sir C R Reddy College for Women

*Will preside over the programme*

**DATE : 30-11-2020 at 10AM**

**VENUE : Seminar Hall**

*Organised by*

**DEPARTMENT OF COMPUTER SCIENCE**

# SYLLABUS

## **Unit-I: Introduction to Adobe Photoshop**

Getting started with Photoshop, creating and saving a document in Photoshop, page layout and back ground, Photoshop program window-title bar, menu bar ,option bar, image window, image title bar, status bar, ruler, pallets, tool box, screen modes, saving files, reverting files, closing files.

**Menus:** purpose of menus – new file- open file- print file – copying data – cut data- paste data- saving custom shape- working with modes- define brushes.

## **Unit-II: Images:**

Working with images, image size and resolution, image editing, color modes and adjustments, Zooming & Panning an Image, Rulers, Guides & Grids- Working with tool box: Practice sessions

## **Unit III : Working with tool box**

Working with pen tool, save and load selection-working with erasers-working with text and brushes - Color manipulations: color modes- Levels – Curves - Seeing Color accurately - Patch tool – Cropping-Reading your palettes - Dust and scratches- Advanced Retouching- smoothing skin.

## **Unit-IV: Layers**

Working with layers- layer styles- opacity-adjustment layers

**Filters:** The filter menu, Working with filters- Editing your photo shoot, presentation – how to create ads , artistic filter, blur filter, brush store filter, distort filters, noise filters, pixelate filters, light effects, difference clouds, sharpen filters, printing.

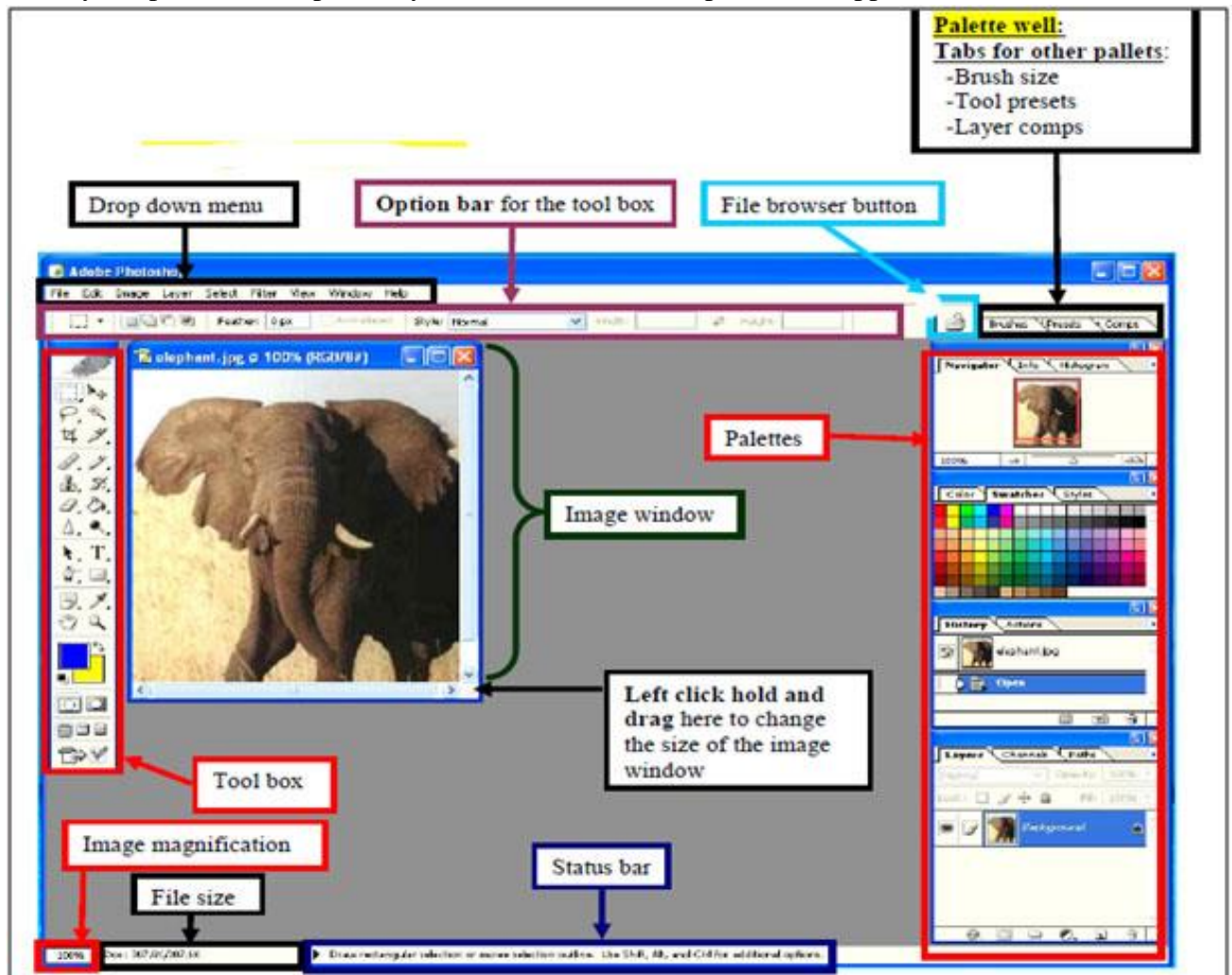
# Unit 1 : Adobe Photoshop CS2

Photoshop is a popular image editing software application produced by Adobe Systems Inc for windows and Mac OS. Image editing software refers to computer programs that allow you to create and modify digital images or pictures in electronic form. Digital images are used in graphic applications, advertising, and publishing and on the WWW.

Image editing software's like Photoshop can be used for basic adjustments such as rotating, cropping or resizing as well as more advanced manipulation such as airbrushing, retouching, removing red-eye, changing the contrast of the image, changing or combining elements of the image. Now a days, every picture you have seen in posters, book covers, magazines and brochures has either been created or edited by Photoshop. Photoshop CS3 is the one of the version released by Adobe Systems.

## Photoshop Program Window or Adobe Photoshop Interface

When you open Photoshop, the layout of Adobe Photoshop interface appears.



**Menu Bar :** If you look at the top of the screen you will see the Menu bar which contains all the main functions of Photoshop, such as File, Edit, Image, Layer, Select, Filter, View, Window, and Help. Each menu contains a list of commands you can use to perform tasks such as opening, saving, printing etc.

**Tool Box :** The Toolbox is a set of tools, which are used for creating images and editing them in a number of ways. Toolbar contains Move, Lasso, Crop, Eraser, Sharpen Tool etc..

**Options Bar :** It contains buttons and boxes that allow you to perform tasks more quickly than using the menu bar and related menus. It also contains extra options for most tools. The options change as different tools are selected. Some tools share the same settings in the options bar, for example, painting modes and opacity, the others have specific options, for example, the Auto Erase setting for the Pencil tool.

**Image Window :** The image will appear in its own window once you open a file. The name of any image that you open will be at the top of the image window as shown above.

**Palettes:** Palettes contain functions that help you monitor and modify images. By default, palettes are stacked together in groups. These are the palettes that are usually visible: Navigator, Color, Histogram, and Layer. If none of the palettes are visible, go to Window in the Menu bar and choose palettes you need to work with.

**Status bar:** Status bar at the bottom provide information about your current view. It contains Magnification area, message area and file size information.

## **Creating a Document in Photoshop**

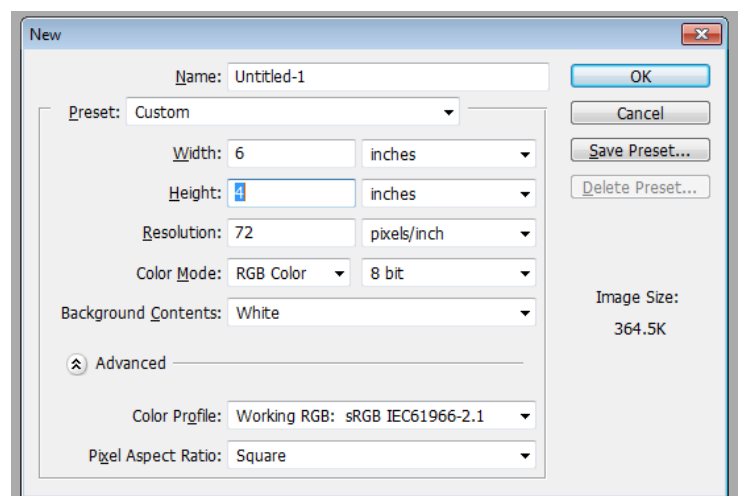
**Opening** On a PC, click Start button > Programs > Adobe > Photoshop CS, or click on the shortcut on the desktop.

**Create new document:** To create a new document, **click File > New**. This will open the Document Setup dialog box

Here you will be able to name your file, set up the correct page size, and orientation for your document. Options include, but are not limited to:

**Name :** Allow us to give an appropriate name to the new file. By default Photoshop assigns the name “Untitled-1” to a new file.

**Width and Height:** These options let





us specify the width and height of the new file in any of the 5 units : *pixels, inches, centimeters, point and picas*.

**Resolution** : It is the number of pixels per inch in the final printed image. If the resolution of an image is 72 ppi - that is 72 pixels per inch. Assuming the number of pixels in an image to be fixed, increasing the size of an image decreases its resolution and vice versa.

**Color mode** : This option is used to specify the number of colors that can appear in the image. The various mode options are *Bitmap, Grayscale, RGB* color(Red-Green-Blue), *CMYK* color(Cyan-Magenta-Yellow-Black) and *Lab* color. Bitmap option creates black and white image, while the Grayscale option gives access to only gray values. RGB, CMYK and Lab color provides full range of 16 million colors.

**Background Contents**: This option is used to change the background of an image. You can choose any one background from *White, Background color and Transparent*. Select a type of background from the drop down list. *White* option sets the background to white. Background color option sets the background of the image to currently selected color and Transparent option opens a check board pattern for the new image.

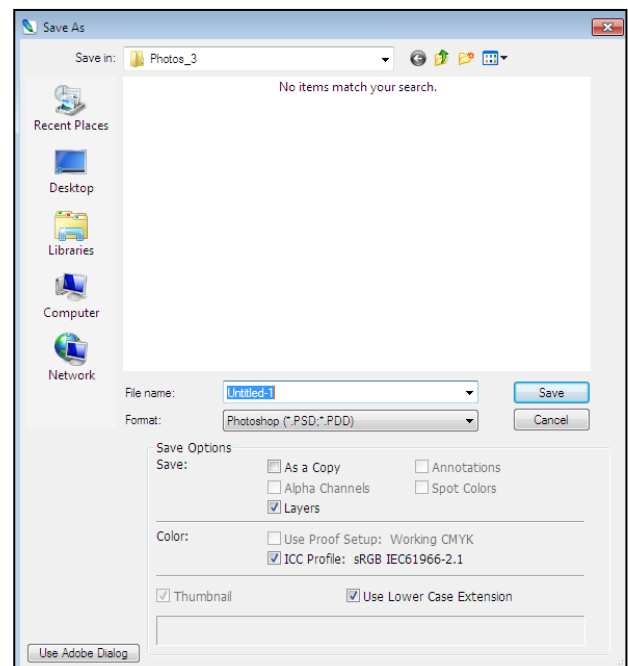
## Saving a Document in Photoshop

After making the required changes to an existing file or a newly created file, we should save it in order to store its data in the memory of the computer.

To save a file, do the steps given below:

1. Click on the **File** menu in the menu bar. Click the **Save** or **Save As** option.
2. The Save As Dialog box appears on the screen.
3. Select the path (folder) where you want to save the file
4. Enter name of the file to save in the File name box provided.
5. Select the File Format from the list. Example PSD, JPEG, PNG etc.
6. Click on the **Save** button. The Save as boxes closes and the file is saved with the given name under the specified folder.

Shortcut key for saving a file is **Ctrl + S**



## Opening an Image from a Disk

If the image you have is saved on a disk, select **File > Open**, and then navigate to the disk drive where your image is saved. *Choose the image file and click Open*. At this point, you may want to save your image under a different name so that you can always have the original to fall back on in case of a mistake. To save your file, select **File > Save As** and type in the new name of the file in the dialogue box. Now you should be ready to go.

### Reverting Files

Many a times, we accidentally make unwanted changes to our files. If the number of changes is large, rectifying each and every change consumes a lot of time. To avoid this waste of time and effort, we can use the **Revert** option of the **File** menu. This option will ignore all the changes we have made and will transform the file to its last saved version.

To revert a file, Click on the **File menu** in the menu bar and then Click on the **“Revert”** option

Shortcut key for closing a file is **F12**

### Closing Files

After saving the changes we have made to our file, we can close it. The content of the file remains unchanged until we open it again and make changes to it.

To close a file, Click on the **File menu** in the menu bar and then Click on the **“Close”** option.

Shortcut key for closing a file is **Ctrl + W**

### Screen modes

The term screen mode refers to the way of viewing the document. Photoshop provides three types of screen modes. To change from one mode to another mode, we use screen mode icons located at the bottom of the **Toolbox**.

*Screen modes*

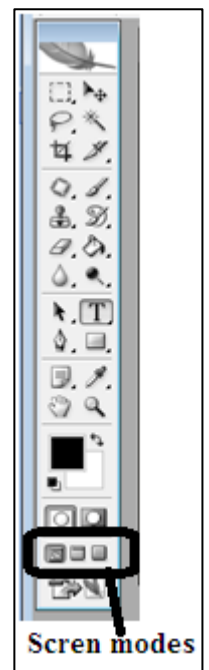


(a) **Standard Screen Mode** : This is the default mode for viewing documents. In standard mode, a document appears in its standard form. In this mode, an image is displayed with all the screen components such as title bar, menu bar etc.

To view an image in this mode, click on the *Standard Screen Mode* at the bottom of the **Toolbox**.

(b) **Full Screen Mode with Menu Bar**: In this view, Title bars of Photoshop program and recently open file disappears and light grey background fills empty area around the image.

To view an image in this mode, click on the *Full Screen Mode with Menu Bar* at the bottom of the **Toolbox**.

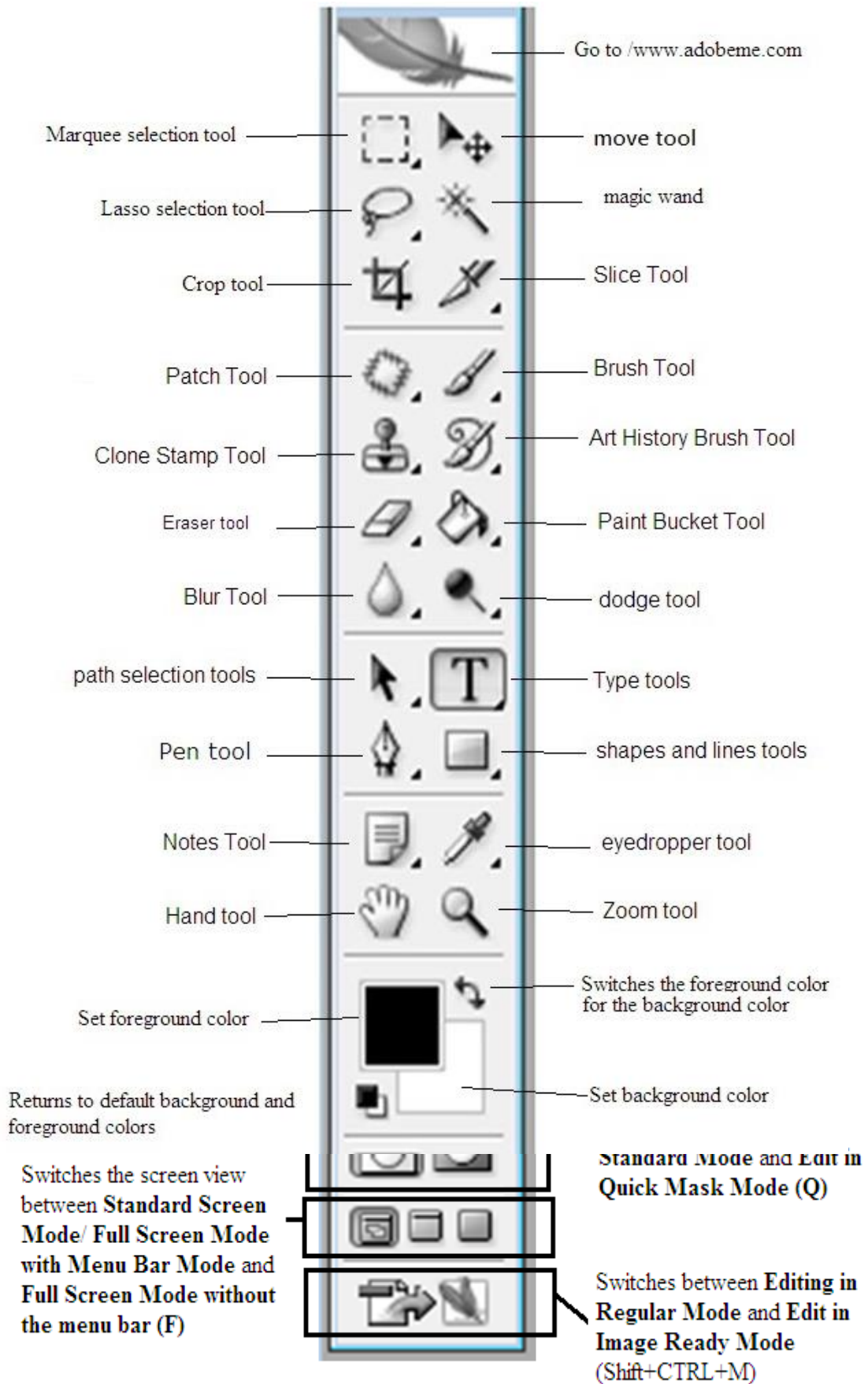


(c) **Full Screen Mode:** In this mode, we can see the image on the black background. The Title bar , Menu bar and Taskbar- all disappear but we can see the Toolbox, Options bar and different palettes on the screen.

To view an image in this mode, click on the *Full Screen Mode* at the bottom of the Toolbox.

## **Toolbox**

The Toolbox is a set of tools, which are used for creating images and editing them in a number of ways.



**M  
a**

## Marquee Tool

This tool is used for selecting rectangular or an elliptical portions of an image. Click the tool button; choose a rectangular or an elliptical marquee. Drag the marquee over the area of the image you wish to select.

Marquee tool group contains 4 tools : *Rectangular, Elliptical, single row, and Single column tools*



## Move Tool

This tool is used for moving image or a portion of the image from one location to another. Click on the Move tool in the toolbox and place the mouse pointer over the image or the selected parts of the image. Now drag the mouse pointer to move the selected part of the image to some other location

## Lasso Tool

This tool is used to draw a freehand border in an image. To use this tool, Click on the Lasso tool in the toolbox. Now place the mouse pointer over the part of the image from where you want to start the selection. Drag the mouse pointer: a selection line appears as you drag the mouse pointer. Release the mouse button at the point from where you had started dragging.

Lasso tool has a group of 3 tools:

*Freehand, Polygonal (straight-edged), and Magnetic (snap-to) .*



## Magic Wand

This tool allows us to select a consistently colored area without selecting the outline of an object. Click on the Magic Wand Tool in the Toolbox and then click on the image. All the adjacent area with the similar color gets selected.

## Crop Tool

Selects and cuts parts of an image. Click the Tool button, then click and drag the tool over the part of the image that you want to keep. Resize the selected area by dragging the squares at the sides and corners. Click the RETURN key when your crop box is sized correctly

## Slice Tool

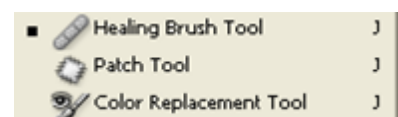
This tool is used to cut images into slices, which can be exported to a web page. To use this tool, click the *Slice* tool on the Toolbox. Slices are parts of picture that will load independently from one another when a webpage loads and are used to reduce download times.

## Patch Tool or Healing Brush Tool

These tools copy patterns or colors to paste them over selected areas in the image. This tool corrects imperfections in the image. It is used usually to Correct small blemishes in scanned photos. Select the tool, hold down the ALT key and left-click on the base color you need to heal. Then left-click over the blemish.

Patch tool has a group of 3 tools:

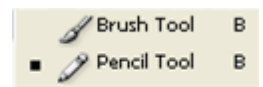
*Healing Brush, Tool Patch tool and Color Replacement tool*



## Brush Tool

This tool is used to draw lines of different thicknesses and colors. Select the Brush tool on the Toolbox. Then click on the selected area, drag to draw lines. Use the Options bar to change the Brush, Mode, Opacity, and Flow.

Brush tool has a group of 2 tools namely *Brush tool and Pencil tool*



## Clone Stamp Tool and Pattern Stamp Tool

These tools allow copying pixels with their foreground color and applying them on other areas in the image. These tools are quite useful to correct old images. To use this tool, Click on Clone Stamp tool on the Toolbox. After selecting the tool, press the ALT key. Keeping the ALT key pressed, move the mouse pointer in image from where you want to copy pixels and click the left mouse button. Pixels get copied. Now move the mouse pointer over the area where you want to paste the copied pixels and click the left mouse button.

## Art History Brush

The History Brush tool paints a copy of the selected state or snapshot into the current image window. The art history brush tool paints with stylized strokes that simulate the look of different paint styles, using a selected state or snapshot. Select the tool, specify the *Brush, Blending Mode, Opacity, Style, Area, and Tolerance*.

## Erase Tool

The Eraser tool erases pixels and restores parts of an image to a previously saved state or a selected state of history. The Background Eraser tool erases areas of a layer to transparency by dragging so you see the layer below. The Magic Eraser tool erases selected colors to transparency with a single click. You can use the Erase tool on paths, but not on text. Select the tool, click on the part of the image you wish to erase. Drag to erase pixels.

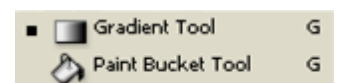
Erase tool has a group of 3 tools: *Eraser tool, Background Eraser tool and Magic Eraser Tool*.



## Paint Bucket Tool

This tool is used to fill the entire area with a specific color of your choice. Select the tool. Choose a foreground color in the Color Box. Select an area you wish to apply the color to. Click the tool button, and then click on the selected area.

Gradient tool applies a gradient fill to a selected part of the image or to an entire layer. Select an area you wish to apply gradient to, click the tool button, choose a fill in the Options bar, click on the starting point, hold the mouse down and drag to the end point.



## Blur Tool

The Blur tool blurs pixels of a selected part of the image to impart a softening look. Move the mouse pointer to the area from where the pixels are to be blurred and drag the mouse pointer.

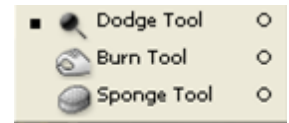


## Dodge Tool

The Dodge tool is used to lighten or darken areas of an image. Select the area where you wish to apply the tool. Choose the *Brush, Range, and Exposure*. Click on the spots you wish to highlight.

The *Burn tool* darkens areas in an image.

The *Sponge tool* changes the color saturation of an area.

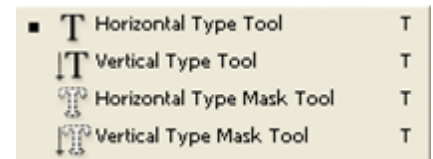


### Path Selection Tool

The path selection tools selects path shapes or segments showing anchor points, direction lines, and direction points.

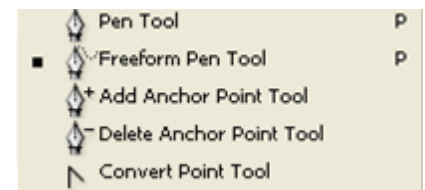
### Type Tool

The Type tool is used for adding text to the image. To add a text to the image, Simply Click on the Type tool on the Toolbox and then move the mouse pointer to the desired location and click the left mouse button. Now type the desired text



### Pen Tool

The Pen tool lets you draw paths as if you were drawing with a pencil on paper but, the ends of line are connected and the area within is filled. Anchor points of the path can be added or modified. This allows you to make an object in a photograph a solid color. Paths can also be turned into selections.



### Shapes and Lines Tool

The shapes and lines tool create shapes or lines on an image and fills them with the foreground color.

Other shapes that are hidden in this tool are: Rounded Rectangle Tool, Ellipse Tool, Polygon Tool, Line Tool, and Custom Shape Tool. Select the tool, click and drag on the page to draw a shape. The shape will be automatically filled with the current foreground color



### Notes Tool

The notes tool lets you add written or voice notes to pictures. Select the tool, click on the spot on the page where you wish to make a comment. Type in the text box.

### Eyedropper Tool

This tool allows us to select foreground and background colour from the image. When we click on the image with the Eyedropper tool, the color of the area where we clicked becomes the foreground.

### Hand Tool

This tool allows you to move around within the image. Select the tool, click on the spot on the page, hold the mouse button down, and drag to move in the area. It moves the viewed part of a picture when the image view size is larger than the Image window size

## Zoom Tool

This tool magnifies or reduces the display of any area in your image window. Select the tool, choose *Zoom In* or *Zoom Out* in the Options bar, click on the area of the image you wish to magnify or reduce.

## Color Boxes

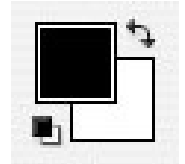
The foreground color appears in the upper color selection box and represents a color that is currently active. The background color appears in the lower box and represents an inactive color.

To change the foreground color, click the upper color selection box in the toolbox.

To change the background color, click the lower color selection box in the toolbox.

To reverse the foreground and background colors, click the Switch Colors icon (the arrow) in the toolbox.

To restore the default foreground and background colors, click the Default Colors icon (the little black and white boxes) in the toolbox.



## Modes

Edit in *Standard Mode* and *Edit in Quick Mask Mode* are used for modifying images in the unmasked or masked area.

*Standard Screen*, *Full Screen with Menu Bar*, *Full Screen* are used for viewing larger or smaller are of the image.

Edit in ImageReady is used to transfer the file for editing in Adobe ImageReady.



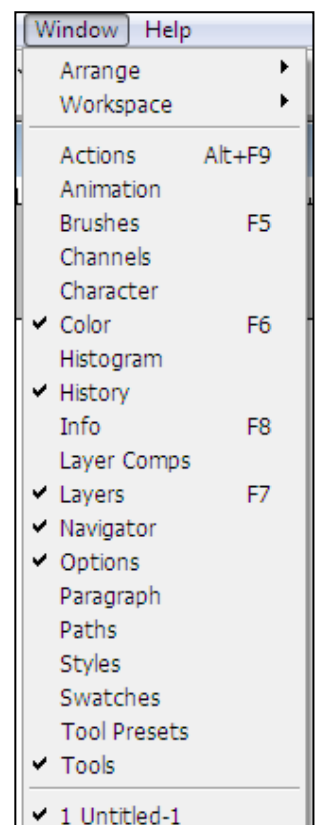
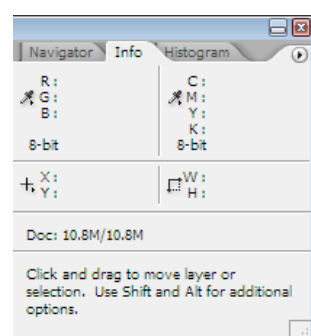
# PALETTES

Palettes help you monitor and modify your work. Palettes are usually organized in groups. For example Colors, Swatches and Styles are one group. To display or hide a particular Palette, go to the Window menu and choose the Palette name.

**Navigator Palette:** It is used for navigating through an image. It provides a handy, all-in-one tool for scrolling and zooming. It is used when we are working on a large image that does not fit entirely on the screen.

To display or hide a Navigator Palette, go to the *Window menu* and choose the *Navigator* Palette.

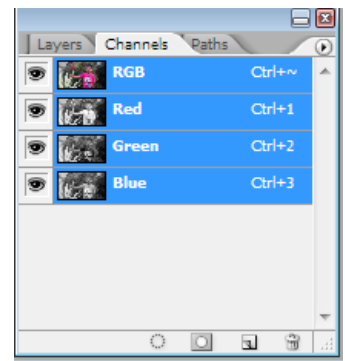
**Info Palette :** The Info Palette shows the color values bearneth the pointer and depending on the tool in use, gives other information. It also displays a hint on using





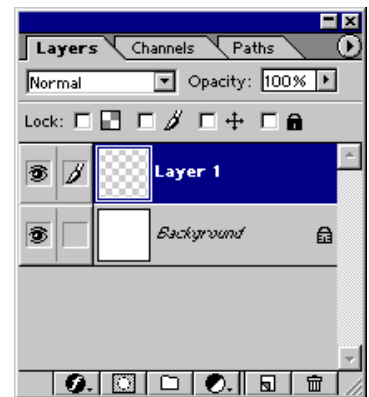


**Channels Palette:** The Channel Palette lets you create and manage channels. The Palette lists all the channels in the image – composite channel first. The thumbnail of the channels contents appears to the left of the channel name;



To display or hide a Channel Palette, go to the *Window menu* and choose the *Channel* Palette.

**Layers Palette :** In a flat image, every pixel resides on one single plane. Layers let you organize your work into distinct levels that can be edited and viewed as individual units. Every Photoshop CS document contains at least one layer. The layer named background is the base layer. As you start creating layers, they appear in a hierarchal position above each other inside layer palette. However you can change the position of layers to meet your requirements.



## **MENU BAR IN PHOTOSHOP**

Photoshop groups all its commands into menus.

<p><b><u>FILE MENU</u></b></p> <p>The File menu is used to create new document, open files, browse documents or folders, saved projects, import and export files, set up page, print and exits the program.</p> <p><b>New :</b> Creates a new document.</p> <p><b>Open:</b> Open the existing document</p> <p><b>Browse:</b> Launches Adobe Bridge so you can look at images before you open them in Photoshop</p> <p><b>Open As:</b> Open different types of existing document</p> <p><b>Open Recent :</b> Displays a list of recently opened documents so you can reopen them easily without rooting through your hard drive.</p> <p><b>Close:</b> Closes the current document.</p> <p><b>Close All :</b> Closes every document you have open in Photoshop.</p>	A screenshot of the File menu in Adobe Photoshop. The menu items and their keyboard shortcuts are: <ul style="list-style-type: none"> <li>New... (Ctrl+N)</li> <li>Open... (Ctrl+O)</li> <li>Browse... (Alt+Ctrl+O)</li> <li>Open As... (Alt+Shift+Ctrl+O)</li> <li>Open Recent</li> <li>Edit in ImageReady (Shift+Ctrl+M)</li> <li>Close (Ctrl+W)</li> <li>Close All (Alt+Ctrl+W)</li> <li>Close and Go To Bridge... (Shift+Ctrl+W)</li> <li>Save (Ctrl+S)</li> <li>Save As... (Shift+Ctrl+S)</li> <li>Save a Version...</li> <li>Save for Web... (Alt+Shift+Ctrl+S)</li> <li>Revert (F12)</li> <li>Place...</li> <li>Import</li> <li>Export</li> <li>Automate</li> <li>Scripts</li> <li>File Info... (Alt+Shift+Ctrl+I)</li> <li>Page Setup... (Shift+Ctrl+P)</li> <li>Print with Preview... (Alt+Ctrl+P)</li> <li>Print... (Ctrl+P)</li> <li>Print One Copy (Alt+Shift+Ctrl+P)</li> <li>Print Online...</li> <li>Jump To</li> <li>Exit (Ctrl+Q)</li> </ul>
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**Close and Go To Bridge:** This option closes the current document and opens the full version of Bridge so you can browse for other images.

**Save :** Saves the current document to your hard drive. If you've already saved the document, choosing this command overwrites the previous version.

**Save As:** Opens the Save As dialog box where you can save a copy of the current file with a new name or in a different format.

**Save for Web & Devices :** Lets you save a copy of the current document in formats that work well with web browsers and devices like smart phones.

**Revert:** Undo any changes you have made to the current document and return it to its last saved state

**Import:** When you choose this menu item, Photoshop opens another menu containing options for using a scanner to get a picture, drawing, or anything into Photoshop.

**Export:** Choose this menu item to export your image as paths so you can open them with Adobe Illustrator or export a sequence of images to video.

**Page Setup:** Go here to choose your printer, paper size, page orientation, and so on before you print your document

**Print:** Selecting this item opens the humongous Print dialog box and lets you choose things like the number of copies, print quality, and which printer you want to use. After you get the settings just right, click Print to send your document to the printer.

## EDIT MENU

It allows you to make specific editing to the image you have opened in the program. It includes copy, cut, undo, step forward, step backward, free transform, fill and stroke.

**Undo:** Make a mistake editing your image? Use this command to erase the last thing you did to your image

**Step Forward:** If you backtrack through your image edits, you can move forward through them again by choosing this command

**Step Backward:** Step Backward works just like Undo, but you can use it to go back more than one step

**Fade:** This command lets you change the strength (opacity) and blend mode of the last image edit you made. It works on filters, image adjustments, and so on.

**Cut:** Copies the selected item to your computer's memory and deletes the original.

**Copy:** Copies the selected item to your computer's memory but leaves the original intact.

**Copy Merged:** This command makes a merged copy of all the visible layers in a selected area.

**Paste:** Places objects you've copied to your computer's memory into the current document.

**Paste into:** This command paste one selection into another selection.

Edit	Image	Layer	Select	Filter	View	Wind
Undo Rectangular Marquee						Ctrl+Z
Step Forward						Shift+Ctrl+Z
Step Backward						Alt+Ctrl+Z
Fade...						Shift+Ctrl+F
Cut						Ctrl+X
Copy						Ctrl+C
Copy Merged						Shift+Ctrl+C
Paste						Ctrl+V
Paste Into						Shift+Ctrl+V
Clear						
Check Spelling...						
Find and Replace Text...						
Fill...						Shift+F5
Stroke...						
Free Transform						Ctrl+T
Transform						▶
Define Brush Preset...						
Define Pattern...						
Define Custom Shape...						
Purge						▶
Adobe PDF Presets...						
Preset Manager...						
Color Settings...						Shift+Ctrl+K
Assign Profile...						
Convert to Profile...						
Keyboard Shortcuts...						Alt+Shift+Ctrl+K
Menus...						Alt+Shift+Ctrl+M
Preferences						▶

**Clear:** This command deletes whatever you've selected from the active layer.

**Check Spelling:** If you add text to your image, this command checks for spelling errors

**Find and Replace Text:** This command lets you find specific words or phrases in your document and replace them with different text if you like.

**Fill:** This command fills the selected area with the color of your choosing. If you haven't selected anything, it fills the whole layer instead.

**Stroke:** This command adds a colored stroke, or outline, to your current selection.

**Free Transform:** This command lets you scale, stretch, warp, distort, and rotate the selected object.

**Transform:** Transform works like Free Transform but lets you change only one aspect of the selected object at a time. For example, you can rotate the object, but can't scale it at the same time.

**Define Brush Preset:** Choose this option to convert the selected object into a custom brush.

**Define Pattern:** This item makes a custom pattern out of your current selection.

**Define Custom Shape:** This option turns the selected path or vector mask into a custom shape.

**Purge:** This item lets you clear Photoshop's undo list, the items you've copied to your computer's memory, or the edits Photoshop has recorded as history states. You can also choose to clear all three at once.

**Color Settings:** This item brings up Photoshop's advanced color settings so you can control color management and device profiles

**Keyboard Shortcuts:** Choose this item to customize Photoshop's keyboard shortcuts, add your own, and save your personalized menu commands to share with other folks

**Menus:** Choose this option to see all of Photoshop's menus and tweak them if you like

## IMAGE MENU

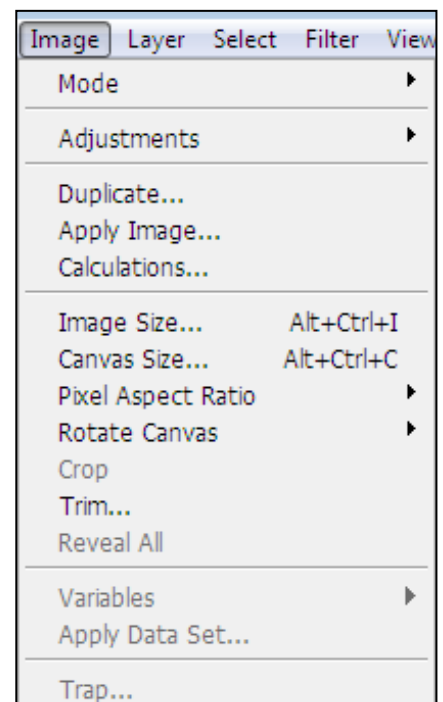
The Image menu allows you to make adjustments to your images and your canvas. You can resize documents, adjust Curves and Levels, duplicate images, and rotate images from here.

**Mode:** This is where you change the current document's color mode and bit depth. You can choose from Bitmap, Grayscale, Duotone, Indexed Color, RGB, CMYK, Lab, and Multichannel color modes and 8-, 16-, and 32-bit images.

**Adjustments:** From here you can change the colors and overall tonal quality of your image.

**Duplicate** This command makes a copy of your current document and lets you give the duplicated document a new name.

**Apply Image** The Apply Image command lets you combine a layer and channel from one document with a layer and channel from another document using the blend mode and opacity of your choice



**Image Size** This option lets you change your image's resolution and dimensions.

**Canvas Size** Choose this option to change your document's dimensions without changing its file size or resolution. Use this option if you need more space in your document but don't want to resize the elements that are already there.

**Crop** This command saves the area you've selected and deletes everything else, leaving you with an image that's only as big as the area you selected.

**Trim** Like Crop, this command lets you cut an image down to size, but it doesn't delete the areas outside the remaining image

**Reveal All** This command shows you all the hidden elements in your image.

## LAYER MENU

This menu has controls for working with your document layers. From here you can add and delete layers, create layer masks, and merge layers, among other things.

**New** This command adds a layer or layer group to your image.

**Duplicate Layer** This option does just what its name implies: Makes a copy of the current layer.

**Delete** Choose this item when you want to delete a layer. You can also select a layer and press the Delete key.

**Layer Properties** This option lets you rename the current layer and assign it a color. It's a handy way to organize your ever-lengthening Layers panel.

**Layer Style** Go here to set the blending options for the current layer and to apply effects like drop shadows, glows, and gradient overlays.

**New Fill Layer** Go here to create a layer and fill it with a solid color, transparent color, or gradient

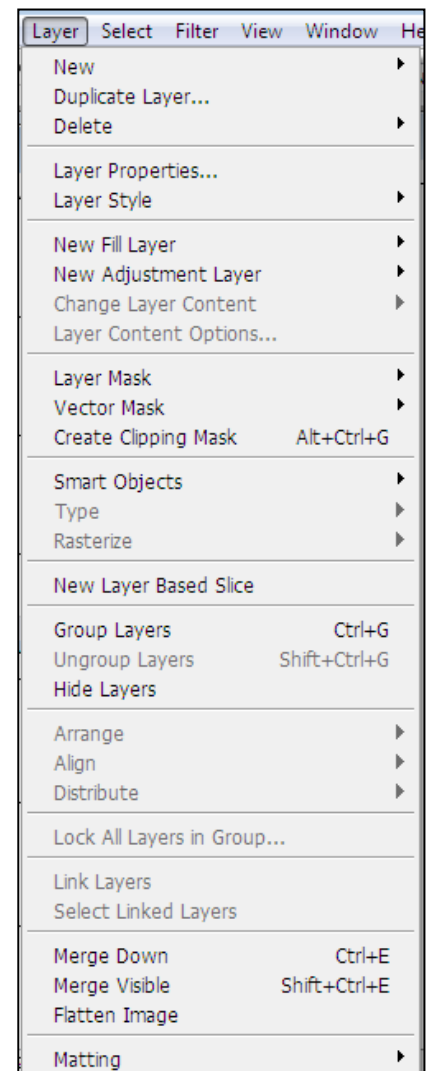
**New Adjustment Layer** This option makes a new Adjustment layer so you can apply nondestructive changes to your images.

**Layer Content Options** If you need to change an Adjustment layer's settings, you can choose this command, but it's a lot faster to simply double-click the Adjustment layer in your Layers panel. **Layer Mask** From here you can show, hide, delete, and apply layer masks.

**Vector Mask** This option works much like Layer Mask item above, but it lets you work with vector-based objects instead

**Group Layers** Use this command to group selected layers together. The layers will appear in their own folder in the Layers panel. **Ungroup Layers** This command removes layers from a group and deletes the group (but doesn't delete the layers).

**Hide Layers** Use this command to hide layers or layer groups temporarily so you can see and work with objects in complex images.



**Arrange** This item lets you change the order of layers and layer groups in your image.

**Align** This option lets you align objects that are on different layers. **Distribute** This item aligns the contents of three or more layers along the object's edges or center points

**Lock All Layers in Group** This command lets you lock selected layers in a particular group so you don't accidentally edit or change them. If you select layers that aren't grouped, the menu item changes to "Lock Layers".

**Link Layers** Use this command to hook layers together so they move as if they were a single layer. You can still edit linked layers, and you can unlink them, too

**Select Linked Layers** Choose a linked layer and then use this menu item to select the layers linked to it. **Merge Layers** This command combines selected layers or layer groups into a single layer.

**Merge Visible** Use this command to blend all your image's visible layers into a single layer.

**Flatten Image** This command merges all your image's layers into the Background layer.

## SELECT MENU

This menu helps you select a portion or all of the image to work on. It also allows you deselect or inverse selection.

**All** This command grabs everything on the current layer.

**Deselect** Use this command to get rid of the marching ants around a selection.

**Reselect** If you didn't mean to deselect a selection, use this command to get the selection back.

**Inverse** Choose this item if you select an area and want to flip-flop the selection to select the part that's not selected

**All Layers** This option selects all the layers in your image so you don't have to choose them one at a time.

**Deselect Layers** Choose this option to let go of all of the layers in your document.

**Similar Layers** This item grabs all the layers in your document that are the same type, like Adjustment layers, Type layers, and so on.

**Color Range** Use this feature to grab all of the areas in your image that are similar in color to the current selection.

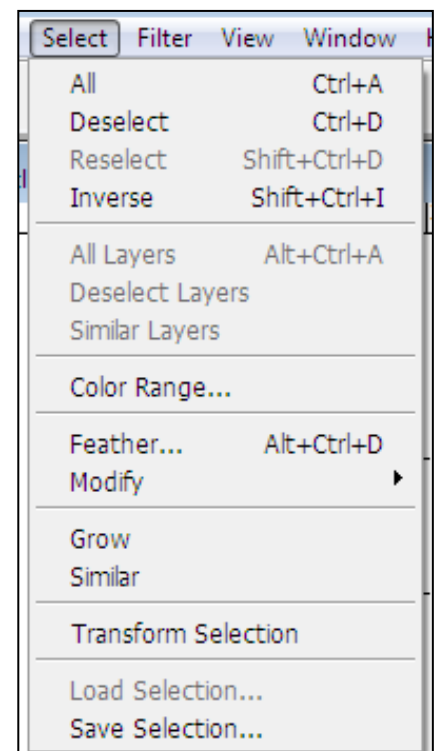
**Refine Edge** This command lets you fine-tune the edges of whatever you've selected.

**Modify** This option lets you tweak the edge of your current selection by expanding or shrinking it, feathering it, grabbing just its border, or smoothing it.

**Grow** This command finds and grabs pixels that match the colors around the area you've selected.

**Similar** Like the Grow command, this option finds all the pixels in your image that match the selected area's colors, but it finds similar-colored pixels anywhere in your image.

**Transform Selection** This command lets you resize the currently selected area with the handles of a bounding box (just like Free Transform).



**Load Selection** This command lets you activate a selection you previously saved so you can use it again **Save Selection** Use this option to save your selection for future use

## FILTER MENU

This menu is packed with all kinds of effects you can apply to your images. It groups filters by type: Artistic, Blur, Sharpen, and so on.

**Last Filter** This command applies the last filter you used—with the same settings—to the current layer or object.

**Filter Gallery** Choose this option to see a preview of how your image will look if you apply various filters.

**Liquify** This filter lets you push, pull, and move pixels in all sorts of ways.

**Artistic** This category includes filters that make your images look like a painting or drawing

**Blur** These filters change the focus in all or part of an image

**Brush Strokes** The filters in this category make your image look like it was painted, penciled, or spray painted, among other effects

**Distort** These filters create geometric patterns based on your image, including ripple, twirl, and zigzag effects

**Noise** This category includes filters that can help smooth areas of your image that don't blend well, fix dust and scratches in photos, and remove graininess. You can also use these filters to add grain to give your image more texture and depth.

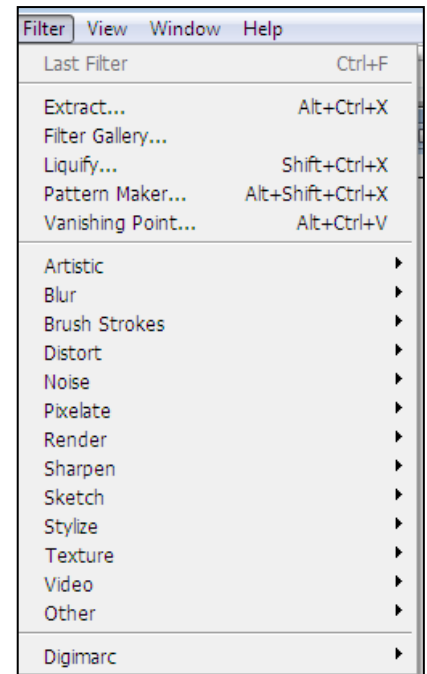
**Pixelate** The Pixelate filters convert images or selections into groups of geometric shapes and patterns. **Render** These filters let you add cloud patterns, fiber patterns, and lens flares, and adjust your image's lighting.

**Sharpen** You can use filters in this category to make blurry or out-of-focus images appear more clear. **Sketch** These filters let you add artistic effects to make your images look like they were hand drawn with charcoal, conté crayons, graphic pens, and so on.

**Stylize** The Stylize filters do things like turn your images into collections of blocks or dots, or add a wind-blown look.

**Texture** These filters make your image look like it's on a textured surface like tiles or stained glass.

**Video** These filters let you deinterlace (smooth) images that you've grabbed from videos and restrict images to colors that display properly on televisions (NTSC-safe colors) in the United States.



## VIEW MENU

This menu gives you all sorts of different ways of looking at your images, from zooming in or out to adding guides and rulers

**Zoom In** This command works like a magnifying glass, increasing your image's magnification level.

**Zoom Out** This command decreases your image's magnification level.

**Fit on Screen** This option resizes the current image and the window it's in to fill your monitor's screen.

**Actual Pixels** Select this option to see your image at its actual size

**Print Size** This item changes the size of your image to show how big or small it will be when you print it.

**Screen Mode** This submenu lets you choose how you want to view your images.

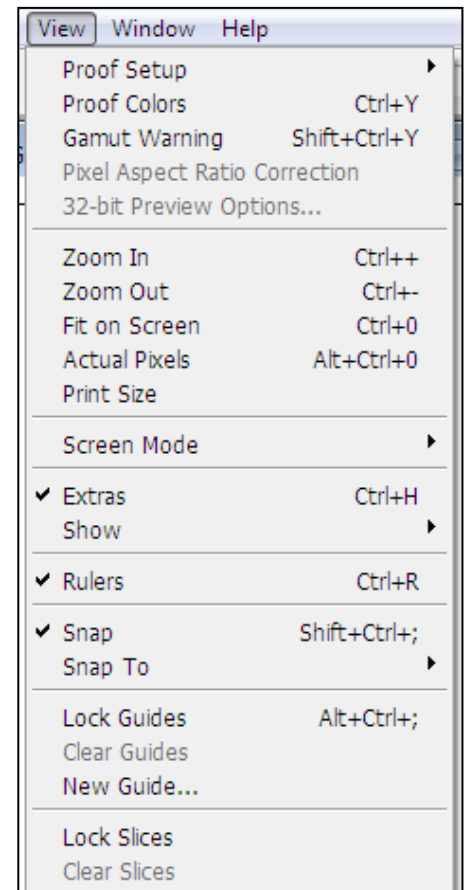
**Rulers** This command shows or hides the horizontal and vertical rulers that run along the document window's left and top edges. **Snap** Choose this item to turn snapping on or off. (Snapping lets you align objects with guides and other items

**Snap To** Here's where you choose which items objects will snap to: guides, grids, layers, slices, document bounds, or all of those things. **Lock**

**Guides** This command prevents you from accidentally moving guides you've added to your images. If you've already locked your guides, use this command to unlock them.

**Clear Guides** Choose this option to get rid of all the guides you've added to the current document.

**New Guide** This option lets you add vertical and horizontal guides to your image.



## WINDOW MENU

Use this menu to change what you see in Photoshop; it lets you arrange your open documents, view or hide panels, and so on

**Arrange** This submenu has commands for organizing your open document windows. From here, you can do things like open and close panels, set the same magnification level across all your documents, minimize windows, and bring all your documents in front of other windows

**Actions** Choose this option to open the Actions panel, where you can see a list of the actions that came with Photoshop, along with those you've created yourself.

**Brushes** This panel lets you select and edit Photoshop's built-in brushes, as well as brushes you've created yourself.

**Channels** This panel shows the different color channels contained in your document.



**Character** The Character panel is where you can find all sorts of settings for working with text.

**Color** Use this panel to view and change your foreground and background colors.

**Histogram** This panel includes a graph (called a histogram) that shows you information about the pixels in your image.

**History** The History panel displays a timeline of the edits you've made to the current document.

**Info** This panel includes info about where your cursor is, the color of the pixels it's hovering over, and the size of your current selection (if you have one).

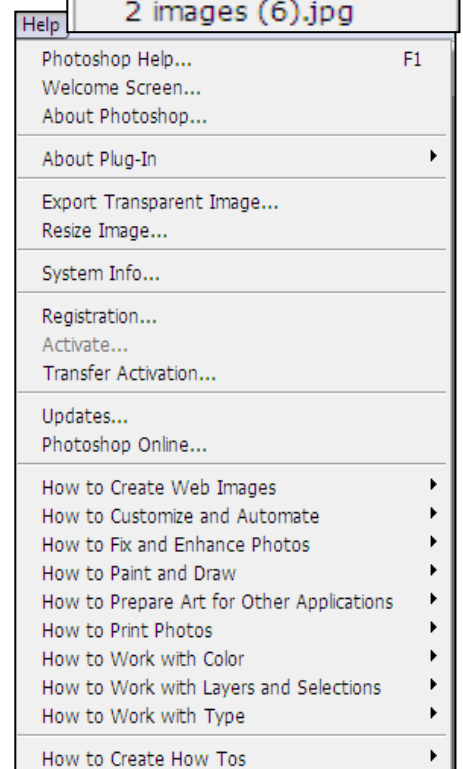
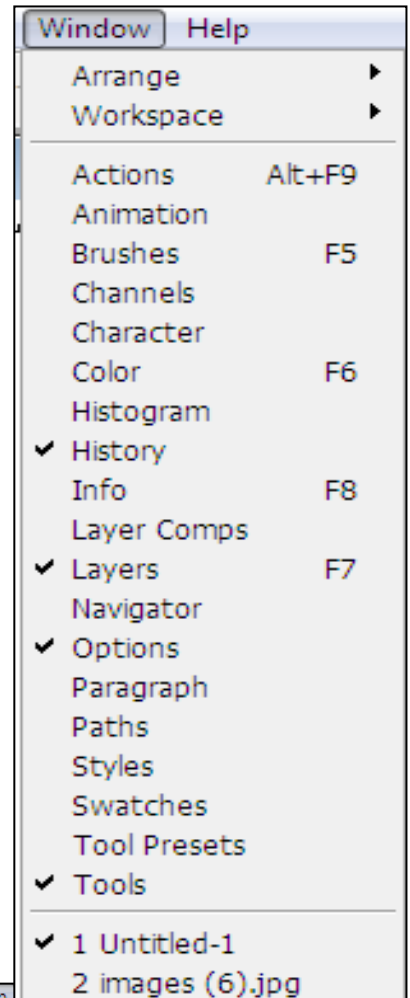
**Layers** You can add, delete, and organize your document's layers from this panel.

**Navigator** This panel lets you change how much you're zoomed in on your image and which part of the image you're viewing.

**Notes** You can view, edit, and delete notes from this panel.

**Paragraph** This panel lets you control the paragraph-wide settings for text in your documents

**Swatches** Here's where you can view and pick colors from libraries of color chips.



## HELP MENU

If you don't know how to do something in Photoshop, you may find the answer in this menu. It includes a link to Adobe's online help system, several tutorials, and options for activating and deactivating your copy of Photoshop

**Photoshop Help** Here's where you can access Photoshop's online help system, but you need an active Internet connection

**Registration** Use this item to register your copy of Photoshop with Adobe

**Updates** Choose this option to make Photoshop check for updates

## UNIT – II Working with Images

Photoshop is a program for editing images and graphics.

### Vector and Bitmap Images

Graphics are of two classes: **bitmaps** (or raster graphics) and **vectors**.

**Vector Images:** Vector images are made up of objects like lines, curves, and shapes, placed on top of each other to create an image. A vector image can be described using mathematical definitions. Vector graphics are resolution independent, that is, they can be displayed on output devices of varying resolutions without losing any quality. Thus, moving, resizing or reshaping a vector graphic will not distort the image quality and use can easily modify these attributes.

**Bitmap Images** Bitmaps graphics are created by combining pixels to form an image. Bitmap graphics are resolution dependent because the data describing the image is fixed to a grid of a particular size. Enlarging a bitmap graphic redistributes the pixels in the grid, often making the edges of the image appear jagged. However, bitmap images are more suitable for photo-realistic images that require complex color variations.

### Resampling

*Resampling* is changing the amount of image data as you change either the pixel dimensions (image size – height & width) or the resolution of the image.

### Image Size

We can change the size of a Photoshop image to suit our requirements. The image size dialog box allows us to change the size of the image. However altering the size of the image may cause it to appear either blurred or sharpened because the resolution of the image remains the same even if its size is changed.

When you **DownSample** (decrease the number of pixels i.e., decrease the image size - height & width), information is deleted from the image.

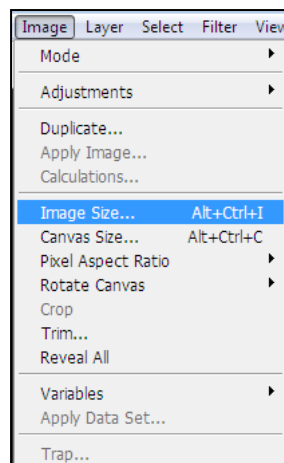
When you **Resample Up** or **UpSample**. (Increase the number of pixels i.e., increase the image height & width), new pixels are added to the image.

Photoshop resample's images using **interpolation method** such as *nearest neighbor*, *Bilinear*, *Bicubic* etc to determine how pixels are added or removed.

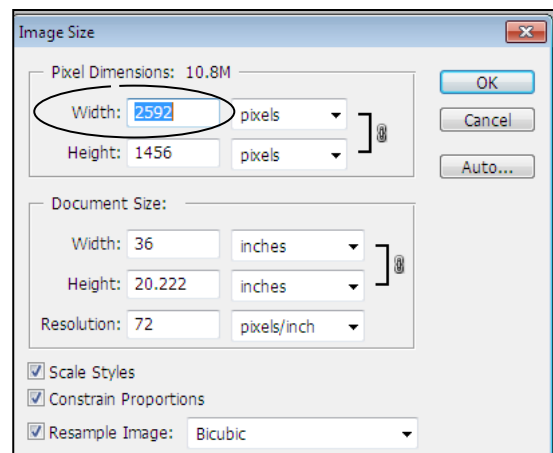
## Changing the Image Size

To change the image size, do the following steps.

1. Open the image to be resized ( Click on **File Menu** and then click on **Open** option)
2. Click on the **Image menu** in the menu bar. A list of options appears
3. Click on the **Image Size** option (*fig. A*). The Image Size dialog box appears on the screen (*fig. B*)
4. Click on the checkbox beside **Constrain Proportions** option
5. Double click on the box beside the **Width** option, the value in this box gets highlighted
6. **Type** the new value for the Width say 2022. The value in the **Height** box is updated automatically.
7. Click on the **OK** button in the dialog box. The image appears in the new size specified.



*fig. A*



*fig. B*

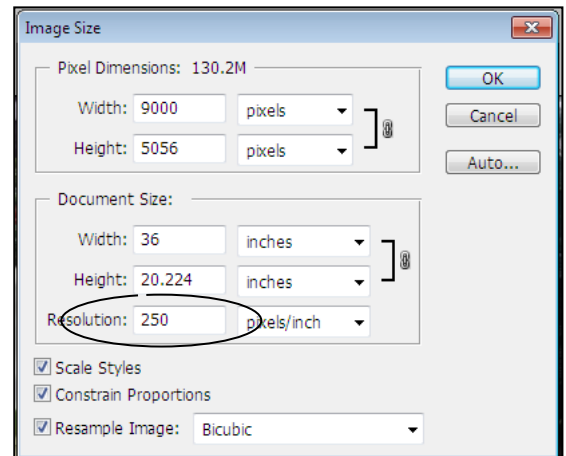
## Image Resolution

Resolution can be explained as the number of pixels per unit of printed length in an image. Resolution is usually measured in pixels per inch (**ppi**). In Photoshop, image resolution and pixel dimensions are interdependent. The more the pixels per inch, the greater the resolution. Generally, an image with higher resolution produces a better printed image quality.

## Changing the Resolution

For changing the resolution of an image, do the following steps:

1. Open the image to be resized ( Click on **File Menu** and then click on **Open** option)
2. Click on the **Image menu** on the menu bar. A list of options appears
3. Click on the **Image Size** option. The Image Size dialog box appears on the screen as shown
4. In the Image Size dialog box, double-click on the box beside the **Resolution option**. The value in the box gets highlighted
5. Enter a new value for resolution, say 250
6. Click on the OK button. This changes the resolution of the image to the new value specified



## Editing Images

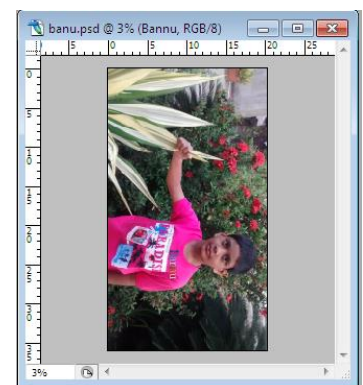
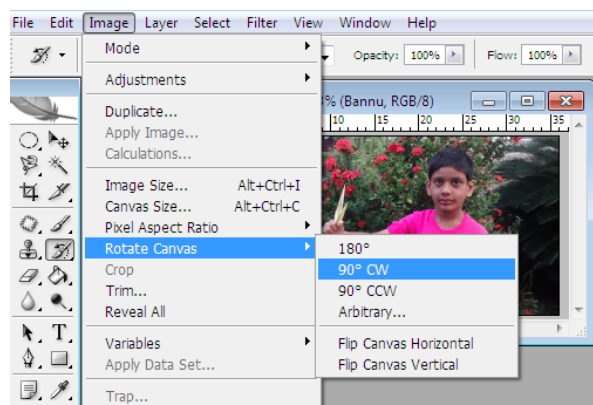
Once an image is scanned and saved as a Photoshop file, many editing changes such as rotating, cropping etc can be made on it.

### Rotating an Image

In Photoshop, we can rotate an image in set of increments or in desired amounts.

To rotate an image in set increments, do the following steps.

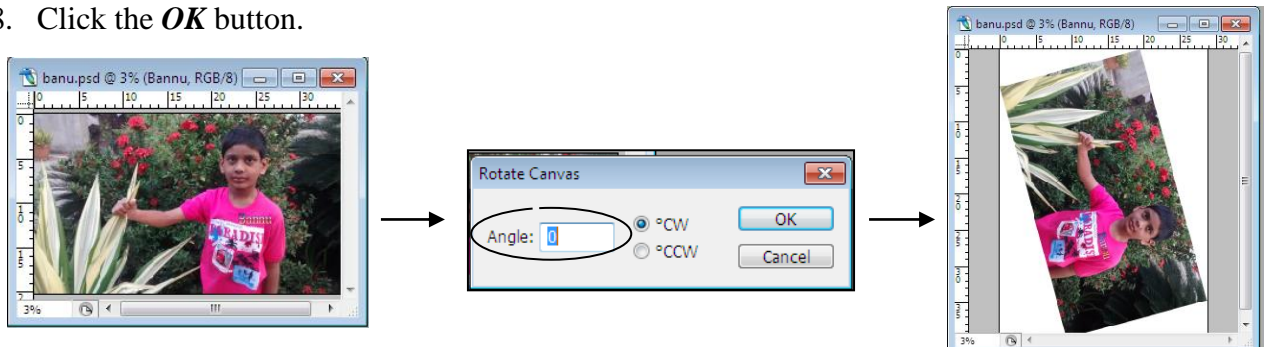
1. Open the image to be resized ( Click on **File Menu** and then click on **Open** option)
2. Click on the **Image menu** on the menu bar. A list of options appears.
3. Place the mouse pointer over the **Rotate Canvas** option. Another list of options appears.
4. Click on the **90° CW** increment option. Instantly, the image id rotated to 90 degrees



To rotate an image in desired amounts, do the following steps.


1. Open the image to be resized ( Click on **File Menu** and then click on **Open** option)
2. Click on the **Image menu** on the menu bar. A list of options appears.

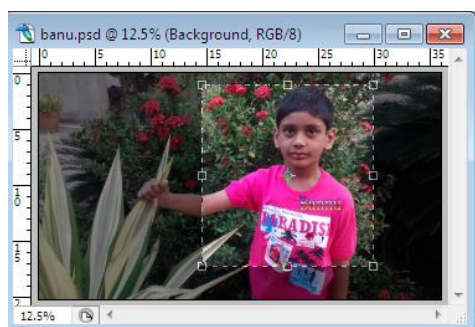
- Place the mouse pointer over the **Rotate Canvas** option. Another list of options appears.
- Click on **Arbitrary option**.
- The **Rotate Canvas dialog box** appears on the screen. In this box, click on the **Angle** option. The default value **0** gets highlighted.
- Type** the value **75** in the Angle text box.
- Click the **CW** radio button to rotate clockwise. Select the **CCW** radio button rotates the image counter clockwise)
- Click the **OK** button.



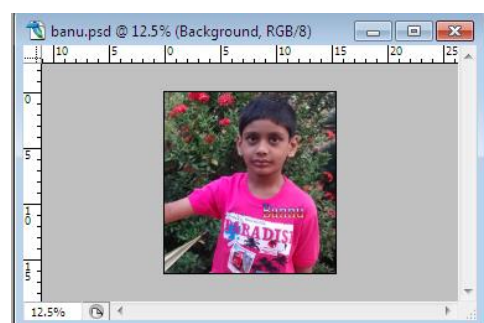
## Cropping

Cropping means trimming an image. It is used to remove unwanted areas of an image, which helps reduce the size of a File. For cropping an image, do the following steps:

- Open the image to be resized ( Click on **File Menu** and then click on **Open** option)
- Click on the Crop Tool () in the Toolbox. The shape of the mouse-pointer changes to the crop tool cursor
- Now place the mouse-pointer on the image and drag it to create a rectangular selection over the part of the image that you want to keep
- Release the mouse-button. Instantly, the crop marquee appears with handles on the corners and sides. Note that the remaining part of the images gets covered with a black shield
- Press the Enter key or double-click inside the crop marquee to crop the portion of the image you have selected using the crop tool. Instantly the image is cropped



*Before cropping*



*After cropping*

## Color Modes

A color mode stands for a color model where the color of each pixel of the image is a combination of the basic colors for that model in different proportions. For example, if an image is in the RGB mode, all the colors used in the image will be defined as combinations of Red, Green and Blue colors in different ratios. Each image in Photoshop is based on one of these color modes. The name of the color mode used in an image appears in the Title bar of the image. Photoshop has eight different color modes. The following section displays the nature of each mode

- a) **RGB:** Images are mostly scanned or captured in RGB mode. In this mode, all the colors used in the image will be defined as combinations of Red, Green and Blue colors having an intensity value for each pixel between a (black) to 255(white). When the values of 3 components are equal, the result is a shade of a neutral gray and when it is 255, the resultant color is pure white. However, when the value of all the components is 0, the color we get is pure black. We should prefer working in this mode since it is faster than CMYK mode and the most flexible one as it allows the use of all the Photoshop commands. The disadvantage of working in RGB mode is that the RGB mode provides a greater range of colors than can be actually printed.
- b) **CMYK:** After an image has been completely edited and is ready to be printed, it is always better to convert it to the CMYK mode. When an image is converted from RGB to CMYK mode, any color that is outside the CMYK gamut is adjusted by Photoshop to its nearest printable color. The gamut of a mode can be described as the range of colors supported by that particular mode. If we print an image without converting it to the CMYK mode, then the colors outside the CMYK gamut are not printed properly, which may result in a low quality print.
- c) **Indexed Color Mode:** This mode is mostly used for multimedia and web images. It reduces the colors in an image to 256 colors or less
- d) **Duotone Mode:** The Duotone mode defines an image in two colors. To convert an image to the duotone mode, we first have to convert it into the grayscale mode
- e) **Grayscale Mode:** If it is not necessary to print an image in color, then it is advisable to convert it to the grayscale mode. It reduces the file size, thus making the work faster
- f) **HSB Mode:** This color mode comprises three components - Hue, Saturation, and Brightness.
  - **Hue:** Hue represents colors in their purest form, measured in degrees.
  - **Saturation:** Saturation refers to the purity of colors. For instance, zero saturation is equal to gray color.
  - **Brightness:** The colors are represented as a degree of lightness or darkness. For instance, zero value for brightness represents a black color

- g) **Lab Color:** This color model has been prepared by a color organization known as CIE (Commission International Eclairage). The advantage of using this color model is that since the gamut of this model includes both RGB and the CMYK models, we can overcome the limitations of both these color models. This way, we gain access to a wider range of colors
- h) **Multichannel :** Multichannel mode images contain 256 levels of gray in each channel and are used for specialized printing. This mode converts the various color channels to channels with 256 colors of gray, with each channel having variations in the distribution of gray tones, according to the original colors.

### **Changing Color Modes**

For converting an image from one mode to another, do the following procedure:

1. Open the image, whose color mode you want to change. (Click on **File Menu** and then click on **Open** option)
2. Click on the **Image menu**.
3. Move the mouse-pointer and place over the **Mode option** of this list. Another list appears.
4. Click on the CMYK Color mode from the list

## **Adjustments**

The tools in Photoshop can enhance, repair, and correct the color and also correct lightness, darkness, and contrast in an image.

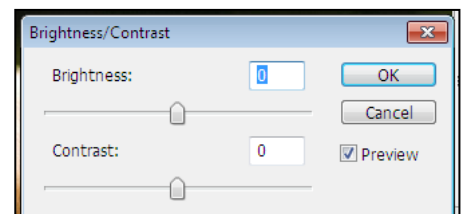
The following are used for color manipulations:

- Brightness / Contrast
- Color Balance
- Auto Levels
- Auto Color
- The Levels Dialog Box
- The Curves Dialog Box

### **Brightness / Contrast**

The Brightness / Contrast command is used for changing overall Brightness / Contrast levels in an image. It makes the same adjustment to all pixels across the full range of the image.

- **To change Brightness / Contrast for the entire image or for a selection,**
  1. Choose **Image menu** and click on **Adjustments** option and then select **Brightness / Contrast**
  2. **Drag** the Brightness and Contrast **sliders** or enter a value in the entry box
  3. Click **OK** button



### **Auto Contrast**

This command is used to change the *Contrast for the entire image or for a selection automatically*

**To set auto Contrast:**

Choose **Image menu** and click on **Adjustments** option and then select **Auto Contrast**

### Auto Color

Auto Color removes unwanted color in an image without adjusting the contrast in the image.

**To apply Auto Color to an image,**

Choose **Image menu** and click on **Adjustments** option and then select **Auto Color**

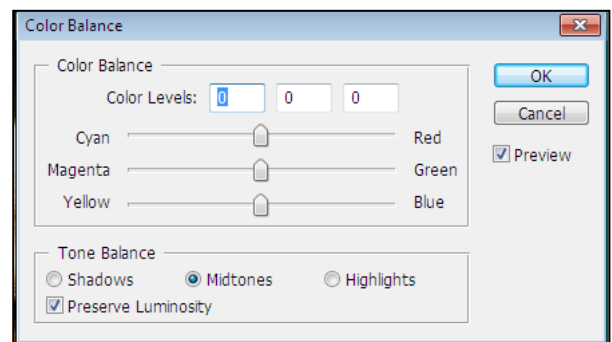
### Color Balance

Color balance works on the principle of complementary colors. If there is too much Cyan in an image, you drag the Cyan-Red slider towards red to remove the Cyan color. For too much Magenta, drag the Magenta-Green slider towards Green etc.

**To adjust the color balance of an image,**

Choose **Image menu** and click on **Adjustments** option and then select **Color Balance**

Drag the color sliders to reduce/increase the amount of a color in the image



### Auto Levels

Auto Levels allows you to adjust brightness and contrast automatically. Auto Levels examines each color channel independently and changes the darkest pixels to black and the lightest pixels to white, then redistributes the remaining shades of gray between these two points.

**To apply Auto Levels to an image,**

Choose **Image menu** and click on **Adjustments** option and then select **Auto Levels**

### Levels Dialog Box

Use the Levels dialog box to adjust the balance for color and grayscale images. You can adjust highlight, shadow and midtone ranges for a selection or an entire image

**To use Levels to an image,**

Choose **Image menu** and click on **Adjustments** option and then select **Levels**

**Input Levels :** The input levels sliders and entry boxes allow you to improve the contrast in a flat

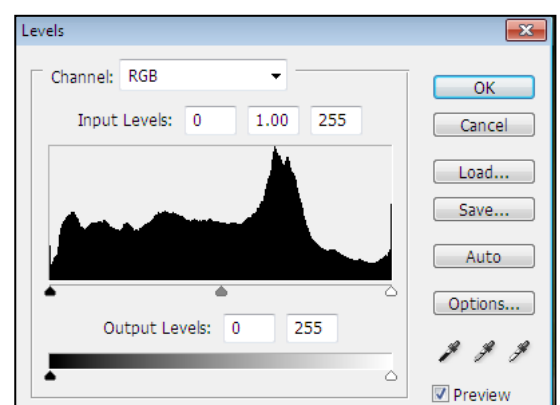




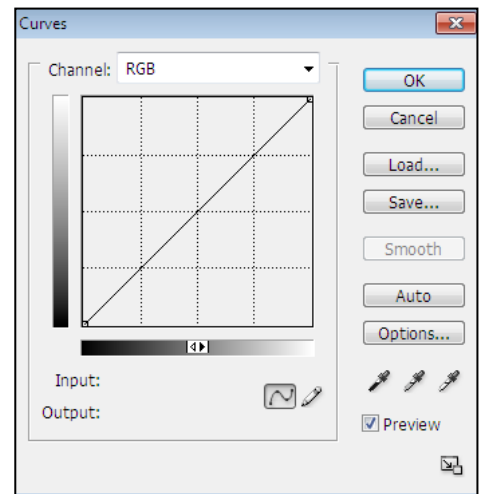
image. To darken an image, drag the solid black slider to the right. To lighten an image, drag the hollow, white input levels slider to the left.

**Output Levels:** You can use the Output Levels entry boxes or sliders to decrease the amount of contrast in an image. Drag the black output Levels slider to the right to lighten the image and reduce the contrast. Drag the white output levels slider to the left to darken the image and reduce the contrast

## Curves Dialog Box

The Curves Dialog Box contains a set of controls for making adjustments in an image. The central brightness graph in the dialog box displays the original and adjusted brightness values for pixels in the image. The graph is a straight line from 0 (black) to 255 (white), before any adjustments are made – input and output values of pixels in the image.

The Horizontal axis of the graph represents the original or input values, the vertical axis represents the output or adjusted values. By adjusting the brightness curve, you are remapping the brightness values of pixels in the image.



To lighten an image, position your cursor near the midpoint of the graph, and then click to place a new point. Click and drag this point upwards.

To darken an image, position your cursor near the midpoint of the graph, then click to place a point. Drag the point downwards

## Zooming and Panning an Image

Zooming refers to magnifies or reduces the display of any image

Photoshop offers a number of techniques you can use to change your view of the image.

- Zoom In and Zoom Out of an image
- View of Actual Pixel size or print size
- Fit the image to the screen
- Scroll with the scroll bar
- Move around with the Hand tool

### **Zoom In & Zoom Out:**

#### **(a) Changing the Zoom level from the document window:**

1. Click on the bottom left corner of the document window
2. Change the value of the zoom level
3. Press Enter to Zoom

#### **(b) Using View Menu**



1. Click on the *View menu* and the click on the *Zoon In* to magnify the image
2. Click on the *View menu* and the click on the *Zoon Out* to reduce the image size

**(c) Using Zoom tool**

1. Click on the *Zoom tool* on the Toolbox
2. If you want to *Zoom in*, *Click on the area of the Image* that you want to zoom in
3. If you want to *Zoom Out*, *Press and hold the ALT key and then Click on the area* of the Image that you want to zoom out.\

**(d) Using Shortcut keys**

1. Press Ctrl++ to Zoom In
2. Press Ctrl+- to Zoom Out

## **View of Actual Pixel size or print size**

Click on the *View menu* and then click on the *Actual Pixels* to quickly zoom an image to 100% view size

## **Fit the image to the screen**

Click on the *View menu* and then click on the *Fit On the screens* to fit the image entirely on the screen

## **Scroll with the scroll bar to view the image**

Scroll bars appear whenever you have resized the image window so that it can't display all of the image..

To view portion of the image *click on a Scroll arrow* on either the vertical or horizontal scroll bar and then *drag the scroll bar* to scroll the image.

## **Using Hand Tool**

You can use the Hand tool to scroll the image in multiple directions at once.

1. *Click on the Hand Tool* on the Toolbox
2. *Click and drag the image* with the hand pointer to scroll the image in the same direction that you drag

## **Rulers, Guides and Grids**

Rulers, Grids and Guides help you position items precisely across the width or length of an image. In Quick mode, only Grids are available.

**Rulers:** Rulers appear along the top and left side of the active window. Markers in ruler display the pointer's position when you move it. Changing the ruler origin( the 0, 0 mark on the top and left rulers) let you measure from a specific point on the image.

To *show or hide Ruler* on the image window, click *View menu* and *select Rulers* option.

**Change Ruler settings:** To change ruler settings, do the following

1. Double click on a ruler *Or*  
Click on *Edit menu* and select *Preferences* and then click on *Units and Rulers*.
2. For Rulers, choose the unit of measurement

3. Click OK button.

**Guides:** Guides and the grid help you position images or elements precisely. Guides appear as nonprinting lines that float over the image. You can move and remove guides. You can also lock them so that you don't move them by accident.

*To create a Vertical / Horizontal Guide* , do the following

1. First show the ruler by click on *View menu* and *select Rulers* option.
2. Position the *cursor in a ruler* and then *click and drag* onto your image to create either vertical or horizontal image

Or

Click on the *View menu* and select the *New Guide* option. Now select the *Orientation* i.e. Vertical / Horizontal and the Enter the *position* value in the textbox and click *OK* button

To *Lock the Guide*, Click on the *View menu* and select the *Lock Guides* option

To *Clear Guides*, Click on the *View menu* and select the *Clear Guides* option

To *reposition the Guide*, select the *Move Tool*, *Position the cursor* on a guide, then *click and drag*


**Grid:** The grid is useful for laying out elements symmetrically. The grid appears by default as nonprinting lines but can also be displayed as dots.

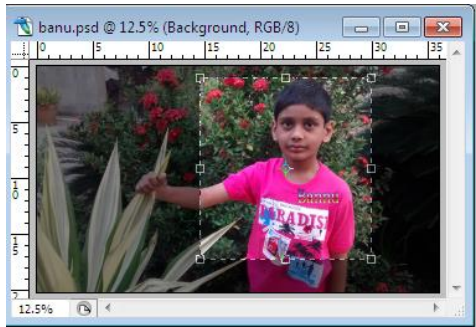
To *display or hide a Grid* on the image window, Click on the *View menu* and select the *Show* option and then select *Grid* option

## **Cropping and Straightening an Image**

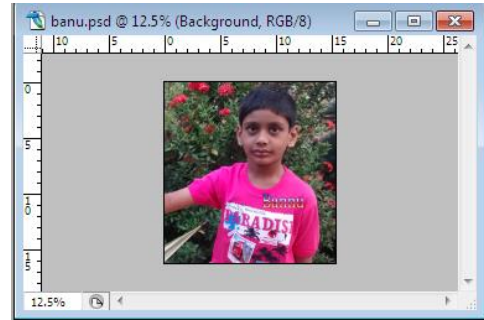
### **Cropping**

Cropping means trimming an image. It is used to remove unwanted areas of an image, which helps reduce the size of a File. For cropping an image, do the following steps:

1. Open the image to be resized ( Click on *File Menu* and then click on *Open* option)
2. Click on the Crop Tool () in the Toolbox. The shape of the mouse-pointer changes to the crop tool cursor
3. Now place the mouse-pointer on the image and drag it to create a rectangular selection over the part of the image that you want to keep
4. Release the mouse-button. Instantly, the crop marquee appears with handles on the corners and sides. Note that the remaining part of the images gets covered with a black shield
5. Press the Enter key or double-click inside the crop marquee to crop the portion of the image you have selected using the crop tool. Instantly the image is cropped



Before cropping




After cropping

## Straightening an Image

We can straighten a image while cropping. The image is rotated and aligned to straighten it. The canvas is automatically resized to accommodate the rotated pixels.

To straighten a image, do the following

1. Open the image to be resized ( Click on **File Menu** and then click on **Open** option)
2. Click on the Crop Tool (  ) in the Toolbox. The shape of the mouse-pointer changes to the crop tool cursor
3. Now place the mouse-pointer on the image and drag it to create a rectangular selection over the part of the image that you want to keep
4. Release the mouse-button. Instantly, the crop marquee appears with handles on the corners and sides.
5. Place the pointer a little outside the corner handles ( mouse pointer changes to curved double-pointed arrow) and drag to rotate the image. A grid displays inside the crop box and the image rotates behind it.
6. Press the Enter key to Crop and straighten the image

## Image Backgrounds

Adobe’s Photoshop program allows you to manipulate and customize images. You can customize image backgrounds and change the background.

To **change background of an image**, do the following steps:

1. **Open an image** that you want to change
2. **Select the Selection Tool** like Magic Wand Tool or Lasso Tool from your toolbox.
3. Place your cursor on image. **Click and drag** across the body of the image you want in the foreground
4. Use your mouse to right **click on the background of the image**. Choose **“Select Inverse.”**
5. Click **Layer Menu** on the Menu bar. Choose **“New Fill Layer”** and **“Solid Color”** from the drop down menus.  
You can also choose **“Pattern”** or **“Gradient,”** depending upon your background preferences.

A color menu will pop up.

6. **Choose a new background color.** Click “OK” and your background color will change.

## Setting a Current Foreground and Background Colors

The two colored boxes in the Toolbox indicate the current foreground and the background colors respectively in that order. The default foreground color is black and the default background color is white. When we click on the Foreground or the ground color box, the Color Picker palette appears as shown in figure. From this Palette, we can choose a color to set as the current Foreground or the Background color. If we click on the box at the front, then the color we select in the Color Picker palette is applied as the Foreground color, and if we click in the box behind it, the color we select in the Color Picker palette is applied as the Background color.

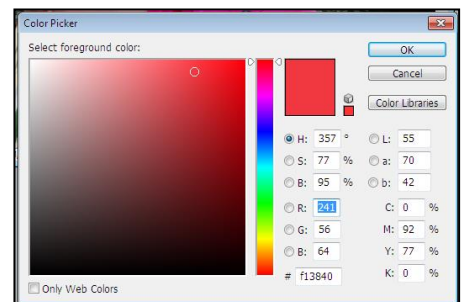
We can set the current foreground or the background color of a Photoshop document using the following

- **Color Picker Palette**
- **Eyedropper Tool**
- **Swatches Palette**



**Color Picker palette:** It contains several colors we can choose from. It can be used for choosing the color to be applied to the foreground or the background of an image or to any particular part of the image.

For displaying the Color Picker palette on the screen, Click on either the foreground or the background color box in the Toolbox. Instantly, the Color Picker palette appears on the screen. Now click on the desired color you want and press OK button



**Eyedropper Tool:** Suppose you want to use color of some other image in an image, but you are not able to locate that color in the color picker palette since the palette contains a large number of colors. In such a situation, the Eye Dropper tool helps in locating the desired color. The Eye- Dropper takes the sample of a color from an image and sets it as the Foreground or the Background color. It is the most convenient and easy method of selecting colors.

For selecting color the Foreground or Background using the Eye Dropper tool, do the following

1. Open the Image from which the sample to be set as the foreground or background color is to be taken
2. Click on the **Eye Dropper tool** in the Toolbox. The mouse pointer changes to the eye dropper cursor



- Place the mouse pointer on the area of the image that contains the color to be sampled and *click the left mouse button for Foreground color* or Press the *ALT key and click the left mouse button for Background color*
- The color of the area where you clicked appears in the color box in the Toolbox.

**Swatches Palette:** The Swatches Palette is another way of setting the foreground and the background color. It is also used to create custom palettes.

To set colors using Swatches Palette,

- To select a foreground color from the Swatches palette, click on the colors swatch in the palette that contains required color.
- To select a background color from the Swatches palette, keeping *the ALT key pressed click* on a colors swatch with the left mouse button.



## Making Selection

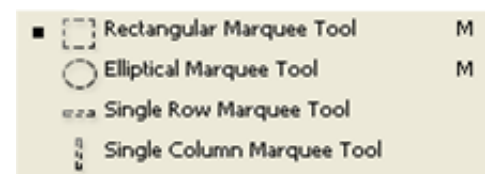
Very often, instead of working on an entire image, you will need to work upon parts of an image. Some of the selection tools of Photoshop are Marquee Tools, Lasso tools, Magic Wand Tool, etc. Various selection techniques such as copying, selecting, editing, pasting, transforming and inverting will also be discussed.

## The Selection Tools

### Marquee Selection Tool

The Marquee Selection Tools help us to select areas of an image. We can select areas of an image in rectangular, square, elliptical or circular shapes by using various Marquee Tools. If we enable one of these tools and select an area of an image by dragging the mouse, the selected area of the image will get surrounded by a dashed border. We can now make changes to the selected portion of the image. When we Right click on the Marquee Tool in the Toolbox, the Marquee Selection fly-out is activated. The tools contained in the Marquee Selection fly-out are as follows:

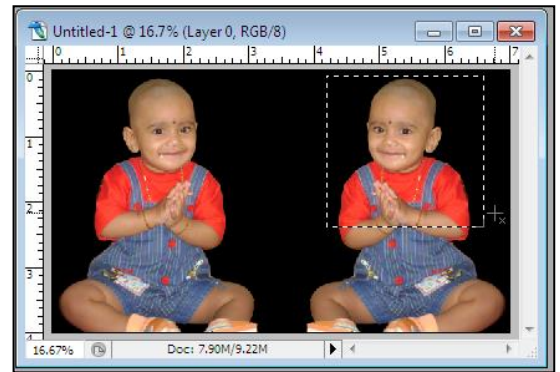
- **Rectangular Marquee Tool:** This tool allows us to select portions of an image in the shape of rectangle or square
- **Elliptical Marquee Tool:** This tool allows us to select portions of an image in elliptical or circular shapes
- **Single row Marquee Tool:** This tool allows us to select a single row of pixels of an image.
- **Single column Marquee Tool:** This tool allows us to select a single column of pixels of an image.



## Making Selections with Marquee Tools

The Marquee Selection Tools are used to select parts of an image so that we can make desired changes to the selected parts only.

*For making Rectangular / Square / Elliptical / Circular / Row / Column selection, undertake the following steps:*



1. Open the image in which the selection is to be made.
2. **Right click on the Marquee Tool in the Toolbox** then Marquee Selection fly-out appears
3. **Click on the Rectangular Marquee Tool** The shape of the mouse-pointer changes to +.
4. Place the mouse-pointer on the image and **drag around. the area you want to select.** A dashed border surrounds the area you have selected
5. To move the Selection Marquee, keep the mouse-pointer inside the selection marquee (with the marquee tool still selected), and drag it to the desired location.
6. To deselect a Selection Marquee, click anywhere on the image, Or press **Ctrl + D** keys.

## The Lasso Tools

The Lasso Tools let us make freehand selections in an image. With the Lasso Tools, we can make selections of any shape. The Lasso Tool fly-out contains the following tools:



**Lasso Tool:** This tool allows us to make freeform selections in an image.


**Polygonal Lasso Tool:** This tool allows us to make freeform selections in an image in the form of polygonal areas. We may click at different points to obtain a selection as a polygon with these points as its vertices.

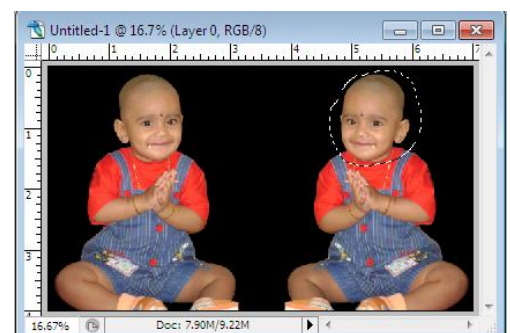
**Magnetic Lasso Tool:** While moving on the area to be selected, this tool sticks to the edges of the image thus making the selection very easy.

## Lasso Tool

This tool allows us to make freeform selections in an image

To select an area of an image using one of the Lasso Selection Tools, do the following steps:

1. Open an image.
2. **Right click on the Lasso Tool in the Toolbox** then Lasso tool fly-out appears
3. **Click on the Lasso Tool** from this fly-out . The shape of the mouse-pointer changes to ()
4. Place the mouse-pointer on the image and drag it



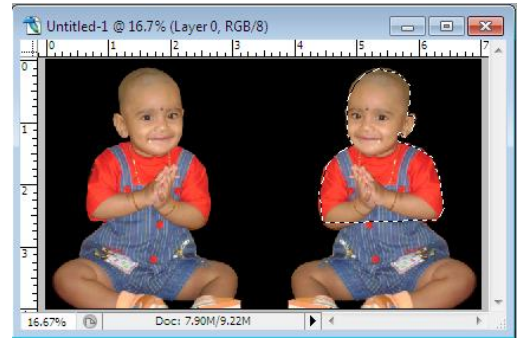
around the part of the image to be selected. To complete the selection, the cursor must reach the starting point.

## **Polygonal Lasso Tool**

The Polygonal Lasso Tool is used to make a freeform selection in the form of areas bounded by straight-line segments. This tool is quite useful if the user is not an expert in making freeform selections.

For making selections using the Polygonal Lasso Tool, do the following steps:

1. Open the image in which the selection is to be made.
2. **Right click on the Lasso Tool in the Toolbox** then Lasso tool fly-out appears
3. **Click on the Polygonal Lasso Tool** from this fly-out
4. Place the mouse-pointer on the image and *click the left mouse-button*
5. Move the mouse-pointer and again click the left mouse-button to indicate the second point of selection. Repeat this at different points to indicate the different vertices of the selection area.
6. Click at the starting point to complete the selection



## **Magnetic Lasso Tool**

While moving on the area to be selected, this tool sticks to the edges of the image thus making the selection very easy.

. For making a selection in an image using the Magnetic Lasso Tool, do the following steps:

1. Open the image in which the selection is to be made.
2. **Right click on the Lasso Tool in the Toolbox** then Lasso tool fly-out appears
3. **Click on the Magnetic Lasso Tool** from this fly-out
4. **Click on an edge of the object** or the area to be selected to set the first anchor point.
5. **Move the mouse-pointer along the edge** of the object to draw a freehand segment.
6. Keep on moving to define the selection border.
7. To close the selection border, place the pointer on the start point and click


## **Magic Wand Tool**

The Magic Wand Tool is used to select adjacent areas of the same color in an image. The selection depends upon a value referred to as the Tolerance setting. The higher the Tolerance setting value, the wider the range of selected pixels. This tool is more suitable than the Lasso Tool for selecting areas of an image, which have the same colors.





For making selection with the Magic Wand Tool, do the following steps:

1. **Click on the Magic Wand Tool** in the Toolbox. The shape of the mouse- pointer changes to 
2. **Set the tolerance value** in Options bar, say 25
3. **Click on only part of the image.** All the adjacent pixels with the same color within the Tolerance range are selected.

## **Moving a Portion of an Image**

We can move selected pixels from one location in the image to another. The following steps show us how to move a selection:

Open an image.

1. **Make a selection** using the Rectangular Marquee Tool
2. **Click on the Move Tool** from the Toolbox.
3. Place the mouse-pointer inside the selection border.
4. **Drag the mouse-pointer** to move the selection.

## **Editing Selections**

### **Adding to an Existing Selection**

We can add portions of an image to an existing selection by following the steps given below:

1. Open the relevant image.
2. **Make a selection using any of the selection tools**, say Rectangle Marquee Tool
3. **Hold down the Shift key** (the mouse-pointer changes to +)
4. **Drag the mouse-pointer to make another selection** marquee intersecting the existing selection marquee. The newly selected pixels will be added to the existing selection

We can also add the non-adjacent areas of an image simultaneously. For making non-adjacent selections, do the steps as follows

1. **Open the image** in which the selection is to be made
2. Make a selection using one of the selection tools, say, the Lasso Tool
3. **Keeping the Shift key pressed, make another selection** in some different location in the image

If we move one of the selections, the other will also move. .

### **Subtracting from a Selection**

We can subtract some portion of the image from a selection. Sometimes while making a selection, some unwanted portion also gets included in the selection. If such a thing happens, it is not necessary to make the selection again.

We can remove the unwanted area by following the steps given below:

1. Open the relevant image.
2. Make a selection using any of the selection tools.
3. **Keeping the ALT key pressed, drag out another selection intersecting the previous selection.** The newly selected portion is removed from the previous selection

## Copying a Selection

We can make a copy of the selection in its own layer so that when we move the selected part to another location, a copy of it remains in the area from where we have moved the selection.

The following steps show us how to make a copy of the selected portion of an image

1. Open the image from which the pixels are to be copied.
2. Make a selection with the Rectangular Marquee Tool.
3. Click on the Move Tool from the Toolbox .
4. ***Keeping the Alt key pressed; drag the selected portion*** to another location in the image.

The selection is moved, but a copy of it remains in the area from where we have moved it.

## Pasting into Selections

We can paste a copy of an image or the selection into the selection of another image. For pasting into a selection, do the following steps:

1. ***Open the destination image*** to which you want to paste another selection.
2. ***Make a selection*** with the Rectangular Marquee Tool in destination image.
3. ***Open the source document.***
4. ***Select the image or a part of the image*** you want to paste using any tool, for example Lasso Tool
5. ***Click on the Edit menu*** in the menu bar and ***Click the Copy option*** to make a copy of the selection.
6. Click anywhere in the destination window.
7. ***Click on the Edit menu*** in the menu bar and ***Click on the Paste Into option***  
Then the source selection is pasted into the destination selection
8. Reposition the pasted selection with respect to the original selection using the Move Tool

## Copying a Selection into another Image

### **Copying a Selection:**

For copying the selected portion of an image into another image, do the following steps:

1. ***Open a source and a destination image***
2. ***Make a selection*** with one of the selection tools in the source image.
3. ***Click on the Edit menu*** in the menu bar and ***click on the Copy option***
4. To paste the selection into another image, open the destination image.
5. ***Click on the Edit menu*** in the menu bar and ***Click on the Paste option*** in the list

The area selected in the source image appears in the destination image

An image can also be dragged from one window to another by undertaking the following steps:

1. Open both the images (source and destination).
2. ***Make a selection in the image in the source image*** using any of the selection tools say, the Lasso Tool.
3. ***Click on the Move Tool*** and place the mouse-pointer on the selection.

4. ***Drag the selection into the destination window.*** The selection is pasted in the destination image

### **Filling a Selection**

We can fill a selected area, or the whole image with a color, or a selection from some other image. The Fill command helps us in doing so.

#### **Fill Command**

The Fill command is used to fill the selected area of an image with the foreground color or a pattern of another selection. To fill a selection using the Fill command, do the following steps:

1. ***Open an image.***
2. ***Select Foreground color.***
3. ***Make a selection*** using any of the selection tools, say the Lasso Tool
4. Click on the ***Edit menu*** in the menu bar and then ***Click on the Fill option*** in the list. The Fill dialog box appears on the screen.
5. From the drop-down box of **Use Option**, select **Foreground Color** from the list
6. Click the OK button

### **Transforming Selections**

Photoshop provides us the facility of changing the orientation of a selection in a number of ways. A selection can easily be Rotated, Skewed, Scaled, or Distorted. For performing any transformation on a selection, we first have to put the selection on the Transform mode. Let us now learn to carry out the transformation of selections in Photoshop.

1. ***Open an image.***
2. ***Select a portion of the image*** using any of the selection tools, say the Rectangle Marquee Tool
3. Click on the ***Select menu*** in the menu bar and then ***Click on the Transformation Selection option.***
4. A box with eight options appears on the selection. we can now perform any of the following actions on the selection

**Scale** : Scaling stands-for changing the size of a selection.

**Rotate** : We can rotate the selected part of an image with the help of the Transformation handlers.

**Distort** : We can also distort our selection by using the Transform Selection option.

**Skew** : We can also skew our selection by using the Transform selection option.

**Perspective:** Perspective option is used to give any object or image a perspective view.

### **Inverting a Selection**

Sometimes the area we select is too big and scattered over different portions of the image. The Invert Selection command lets us invert a selection. This means that the portion we

select will be treated as de-selected and the rest of the image will be treated as selected. For inverting a selection, undertake the following steps:

1. Open the image in which the selection is to be made.
2. Make a selection (around the portion of the image that should not be selected) using any of the tools, say, the Lasso Tool
3. Click on the Select menu on the menu bar. A list of options appears on the screen
4. Click on the Inverse option in the list

The selection gets inverted, that is, the portion of the image we have selected becomes un-selected and the rest of the image is included in the selection.

## Options bar

### **The Marquee Options Bar**

The Options bar displays the options available for the tool we have selected. When we select one of the Marquee Tools, the Options bar becomes the Marquee Options bar. It enables us to use the Marquee Tools in a variety of ways by providing different options. If the Options bar is not displayed on the screen, then double-click on the Marquee Tool in the Toolbox. Instantly, the Marquee Options bar gets displayed on the screen



The options contained in the Marquee Options bar and their usages are discussed as follows:

***New selection:*** Clicking on this button allows us to make a new selection. The previous selection, if any, is discarded.

***Add to selection:*** Clicking on this button allows us to add some more areas of the image to the existing selection. When we click on this button, the shape of the mouse-pointer changes to  $+_{+}$ . Now if we make a new selection, the new selection will be added to the previous selection and both the selections will be treated as one selection

***Subtract from selection:*** Clicking on this button allows us to subtract some of the portion of the image from the selection. When we click on this button, the shape of the mouse-pointer changes to  $+_{-}$ . Now if we make a new selection, the new selection will be subtracted from the previous selection. However, the new selection must be made within the previous selection.

***Intersect with selection:*** Clicking on this button allows us to select only the intersected part of two selections. When we click on this button, the shape of the mouse-pointer changes to  $+_{x}$ . For this, first make a selection with one of the marquee selection tools. Then drag-out another selection intersecting the previous one. Only that portion of the image which lies in the area of intersection of selections will get selected.

**Feather:** The feather option is used to create soft feathered edges around the selection.

**Anti-alias:** Anti-alias option is enabled only for the Elliptical Marquee Tool. This option when selected creates a slightly blurred, softer-edged image

**Style:** Photoshop provides us with a number of styles with which we can make a selection

The various options under this pop-up menu are:

**Normal:** Creates default normal selection

**Fixed Aspect Ratio:** Creates proportional selections where height and width are in proportion.

**Fixed Size:** Creates selection of specified size. It enables us to specify Height and Width for the selection area in the options bar

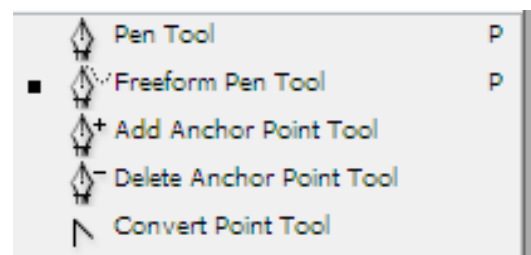
## UNIT- III : Working with Toolbox

### Pen Tool

Pen tool is another way to draw shapes or make selections. The Pen Tool creates straight lines and smooth flowing curves. We can use the Pen Tool in conjunction with the shape tools to create complex shapes. It allows you to make selections that would be difficult to do with marquee tool.

Pen Tool in Toolbox has 5 hidden tools namely

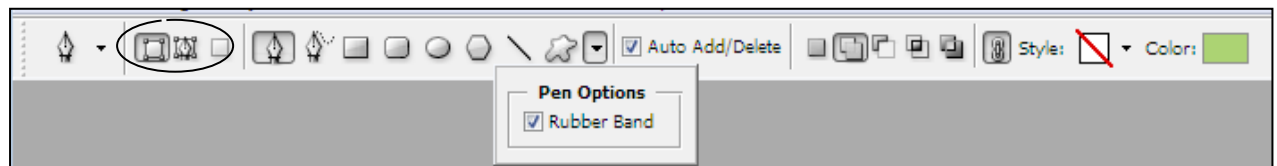
- Pen Tool
- Freeform Pen tool
- Add Anchor Point tool
- Subtract Anchor point tool
- Convert Point tool.



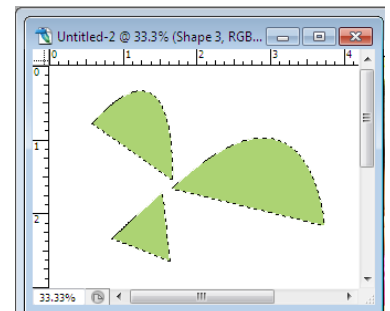
## Working with Pen Tool

To draw shapes using Pen tool, do the following

1. **Select the Pen Tool** from the Toolbox
2. **To create shapes, click on the Shape Layers option on the options bar**
3. **To create Paths, click on the Path option on the options bar**
4. Set the following tool-specific options:
  - To add an anchor point when you click a line segment or delete an anchor point, **select Auto Add/Delete** in the Options bar
  - To preview path segments as you draw, click the inverted arrow next to the Shape buttons in the Options bar, and **select Rubber Band**



3. **Position the pen pointer** where you want to begin to draw, and click **to define the first anchor point**
4. **Click or drag the mouse-pointer to set anchor points** for additional segments
5. Complete the path in the following way:
  - To end an open path, keep the **Ctrl key pressed and click** the left mouse-button away from the path.
  - To close a path, **position the pen pointer** over the first anchor point. A small loop appears next to the pen tip when it is positioned correctly. **Click** to close the path.



## Freeform Pen Tool

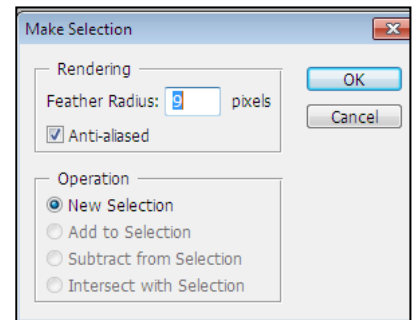
The Freeform pen tool makes us feel as if we are drawing with a pencil on paper. It allows you to make customized paths that are not straight by default. Anchor points are added automatically as we draw. We can adjust the anchor points once the path is complete.

1. **Select the Freeform Pencil tool** from Toolbox
2. **Drag the mouse pointer** in the image. As you drag a path trails behind the pointer. When you release the mouse, a work path is created.
3. To continue the existing freehand, position the pen pointer on an end point of the path and drag the mouse.

4. **To complete the path, release the mouse.** To create a closed path, drag the line to the initial point of the path

## Turning a path into Selection

1. To select your path, **select the path selection tool** from the Toolbox
2. From the **Windows menu, select Paths**. Then Paths palette is displayed
3. **Right click on the Path palette and then click on Make Selection** Option. Then a dialog box appears.
4. To Feather your selection, **type a number in the feather text box** provided.
5. **Click OK** button for the path becomes selection



**Add Anchor Point Tool** : Adds anchor points along a path. Anchor points can be used to alter lines without redrawing them.

**Delete Anchor point:** Deletes Anchor points from the path.

**Convert Point Tool** : Converts a smooth point ( exan arc) into a corner point or a corner point into a smooth point

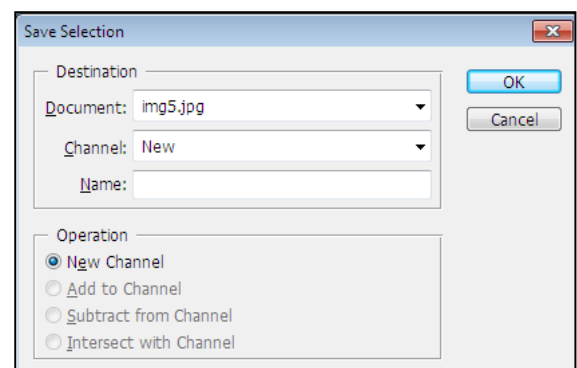
## Save and Load Selection

Selection Tools help us select areas of an image. We can save the selected areas of an image for later use.

### Save Selection

To save the selection, do the following steps.

7. Open the image in which the selection is to be made.
8. **Right click on the Marquee Tool in the Toolbox** then Marquee Selection fly-out appears
9. **Click on the Rectangular Marquee Tool** The shape of the mouse-pointer changes to +.
10. Place the mouse-pointer on the image and **drag around. the area you want to select.** A dashed border surrounds the area you have selected
11. **Click on the Select menu** and then **click on the Save Selection option.** or click the Right mouse button on the selection and select Save Selection option from shortcut menu. Then save selection dialog box appears as shown
12. **Give a name to the selection** and **Click OK** button to save



### Load Selection

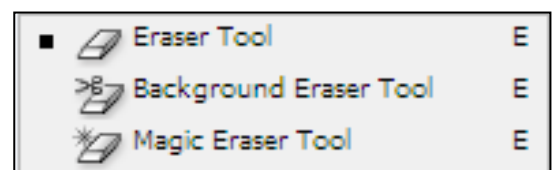
To Load the saved selection, do the following steps

1. Open the image in which the selection is to be made.
2. **Click on the Select menu** and then **click on the Load Selection option**. or **click the Right mouse button** on the image and select **Load Selection** option from shortcut menu. Then a save selection dialog box appears as shown
3. **Select the name** of the saved selection **from the channel dropdown list**. Then the saved selection is loaded.

## Erasers

The Eraser Tool fly-out on the Toolbox has 3 tools namely

- Eraser tool
- Background Eraser Tool
- Magic Eraser Tool

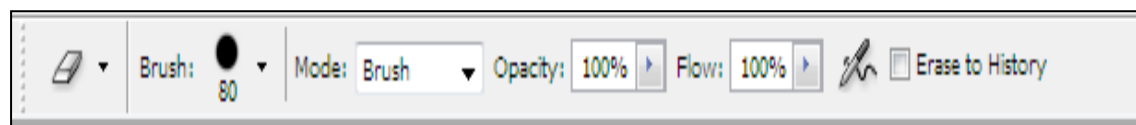


### Eraser Tool

The Eraser tool works like an ordinary eraser to erase portions of the image. When working on the Background Layer, it erases the pixels to transparency that is, the pixels from the background layer are removed and the transparent areas below the erased pixels are exposed. When working on some other layer, the pixels of that layer are removed to expose the pixels in the background layer.

For **using Eraser tool**, do the following steps

1. **Open the image** on which you want to use the Eraser Tool
2. **Click on the Eraser tool** in the Toolbox. The options bar displays the options for the Eraser tool.



3. **Select the Brush option from the Mode drop-down list**. There are 3 modes namely Brush( brush shape), Pencil (pencil shape) and Block (wooden block shape)
4. **Set the value of the Opacity** say 90%. Opacity value determines the strength of the erasure.
5. **Set the Flow percentage value** ( 1 – 100%) to determine the length of the eraser strole
6. **Place the mouse pointer** on the area of the image to be erased and **drag the mouse pointer**. The pixels from the portion where we used the Eraser Tool are removed.

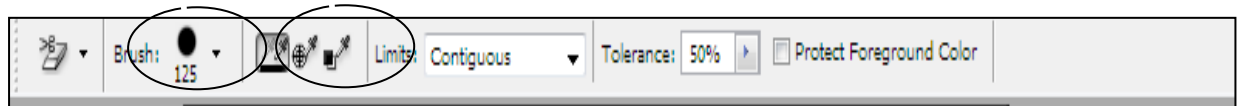


## **Background Eraser Tool**

The Background Eraser Tool is used to erase pixels of an image to transparency.. In case of multi layered images, the pixels are erased to the Background layer.

For **using Background Eraser tool**, do the following steps

1. **Open the image** on which you want to use the Eraser Tool
2. **Click on the Background Eraser tool** in the Toolbox. The options bar displays the options for the Background Eraser tool



3. **Select the Brush size** from the options bar.
4. **On the options bar, Click on the sampling buttons, say Sampling Continuous:** (determines how the eraser selects the color range)
5. Set the Tolerance value say 90%
6. Place the mouse pointer on the area of the image to be erased and drag the mouse-pointer.

## **Magic Eraser Tool**

Magic Eraser tool can be compared to the Magic Wand Tool, which is used to select similar colored areas based on the Tolerance settings.. The Magic Eraser tool is used to erase pixels from similar colored areas of an image based on the Tolerance value.

For using Magic Eraser Tool, do the following.

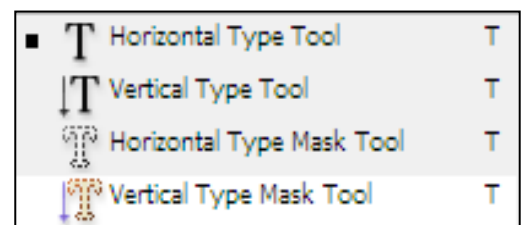
1. **Open the image** on which you want to erase the portion
2. **Click on Magic Eraser Tool** in the Toolbox
3. **Set the Tolerance value** on the Options bar
4. **Set the Opacity value** on the Options bar
5. Now **click anywhere on the image**. All the Pixels similar in color to the portion where you clicked will be erased.

## **Working with Text**

Text can be added to an image or can be created for use as an image by itself. The characters are composed of pixels. We can add fully editable text to our images. PhotoShop produces vector based text. You can scale and transform without any loss of quality.

### **Type Tool**

For typing text into the PhotoShop document, we have to use the Type Tool. Whenever we type text in



PhotoShop, it creates on a separate Layer called as Type Layer

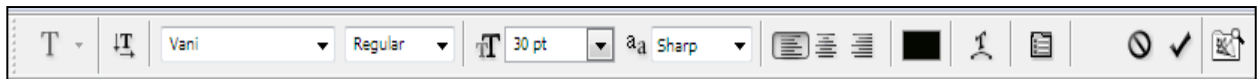
The Type Tool fly-out on the Toolbox has 4 tools namely

- Horizontal Type Tool
- Vertical Type Tool
- Horizontal Type Mask Tool
- Vertical Type Mask Tool

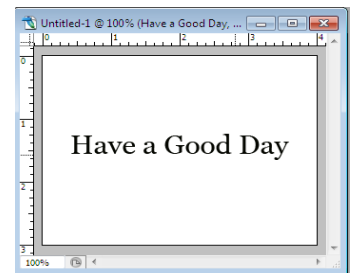
### **Add Text**

To add Text into PhotoShop document, do the following

1. ***Open the image*** to which you want to add some text
2. ***Click the Horizontal Type Tool or Vertical Type Tool in the Toolbox.***
3. Optional : To set a color for the text, click a color on the swatches Palette. or From the Text Toolbar
4. ***From the Options bar, make selections for Font, Size, Style, and alignment***



5. ***Click on the image*** where you want to insert the Text.
6. ***Type the Text***, for example “Have a Good Day”
7. When you have finished typing the text, click on some other tool in the Toolbox. The Type is created in a new layer



### **Modify Text**

To modify text , do the following steps

1. In the ***Layers Palette***, ***select the layer that contains the text*** that you want to modify
2. From the Toolbox , ***click the Type Tool***
3. ***Click on the text*** that you want to modify and ***make changes to text*** or  
Select the desired text and using the Options bar make changes to text like font, style etc

### **Delete Text Layer**

If we don't want to use the text, we can delete the Text Layer.

1. In the Layers Palette, ***select the Layer*** to be deleted
2. From the ***Layer menu***, select ***Delete a Layer*** option or  
From the Layer Palette, ***Right click the layer*** containing the text and select the ***Delete Layer***
3. Click YES to delete text layer

### **Moving the Text**

We can move text from one point to another point on the image

For moving the text, do the following

1. In the Layers Palette, ***select the Text Layer*** to be moved
2. Click the Move Tool in the Toolbox
3. Keep the mouse pointer on the text and drag it to the desired location on the image

4. Release the mouse button. The text is moved to the new location.

### **Resizing the bounding box**

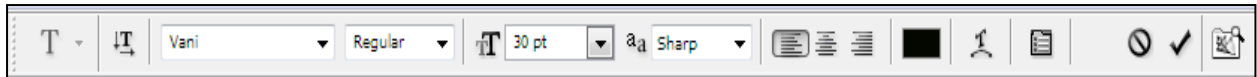
If the text we want to enter is more or less than the capacity of the bounding box, then we can increase or decrease the size of the box.

1. In the Layers Palette, *select the Text Layer* to be resized
2. From the *Edit Menu*, Select *Free Transform* option
3. *To increase or decrease the size* of the bounding box, *drag one of the corner handles* of the box
4. To rotate the bounding box, Place the mouse pointer slightly outside the bounding box and then drag and rotate the mouse while keeping the left mouse pointer pressed. The type (text) also rotates with the mouse.

### **Change the Type Settings**

To change the text settings, we can use Options bar or Character Palette

**Options Bar** : Click on the Type Tool in the Toolbox to display Options bar



**Character Palette** : Click on Windows Menu and then select Character to display Character Palette

**Font** : To set the Font for the Text, Select the Font name from the Font drop down list in the Options bar

**Font Size** : To set the size for the Text, Select the Size value ( say 12pt) from the Font Size drop down list in the Options bar

**Color**: To set a color for the text, click a color on the swatches Palette. or From the Text Toolbar or

Click on the Color button on the options bar. Then the color picker palette appears on the screen. Choose one of the color and click OK button. The color of the text changes to the selected color

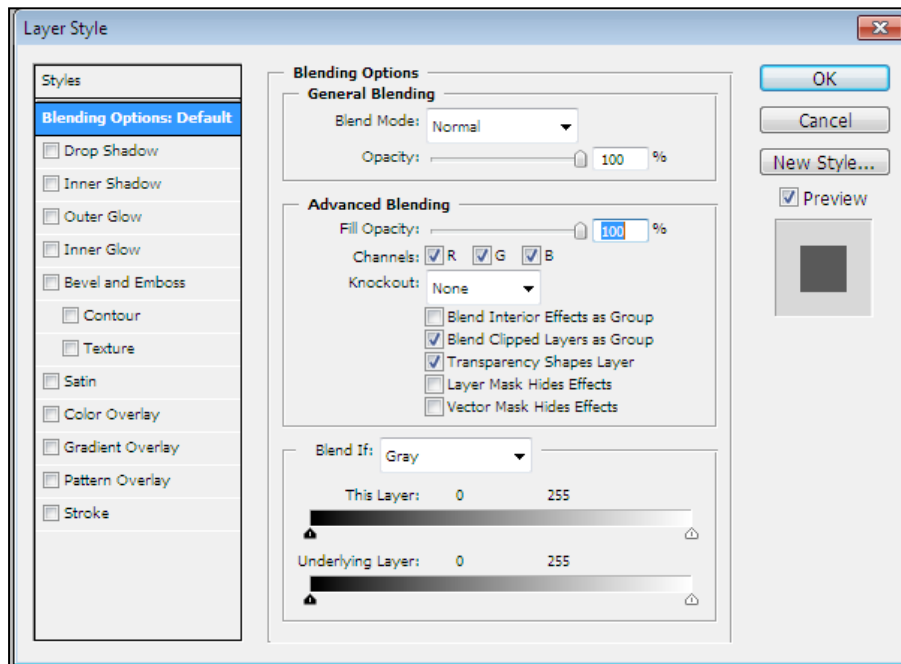
### **Blending Options ( Enhancing Text )**

We can apply special artistic effects including drop shadowing, Emboss, Color overlay etc to the text.

To apply effects , do the following

- From the Layer Palette, *Double click on the Layer* you want to apply effects
- Or
- From the *Layer menu*, select *Layer Style* and then select *Blending Options*

Then the Layer Style dialog box appears



**Drop Shadow** : Gives the impression that the text is raised above the background

**Inner Shadow**: Gives the appearance that the background is raised above the text

**Outer Glow**: Produces text with the image of soft light emanating from under the words and extending around them.

**Inner Glow**: Produces text that appears semi-transparent and internally lit up

**Bevel and Emboss**: Produces text that has a realistic 3D look

**Satin**: Gives the text's surface a shiny, smooth appearance

**Color Overlay**: Overlays the text with color while preserving the highlights and shadows of the text

**Gradient Overlay**: Overlays the text with a gradient color pattern while preserving the highlights and shadows of the text

**Pattern Overlay**: Overlays the text with a pattern while preserving the highlights and shadows of the text

**Stroke**: Adds the appearance of a line drawn on the edge of your text

## **Working with Brushes**

Brush Tools are used to create different kinds of painting strokes. PhotoShop provides many styles of preset Brush strokes. These Brush strokes can be used as provided or altered slightly with in the Brush Palette.

### **Brush Tool**

The Brush Tool works like an ordinary brush. When it is dragged over an image, it creates a smooth stroke of the foreground color.

#### **1. Open an image**

2. **Make a selection** using the Elliptical Marquee Tool around the image for the round frame
3. On Elliptical Marquee Tool Options bar **set feather value** in the box provided say 32
4. Click **Select Menu** and then **Click Inverse** option ( Ctrl+Shift+I ). This selects the area outside the image, which is where you want to paint your frame.
5. **Click** on the **Brush Tool** in the Toolbox.
6. **Click** the **Brush option in the Option bar** and **Click** on the **Brush style** of your choice. As shown in Fig A
7. Click the Foreground color box in the Toolbox and select color from Color Picker Palette
8. Drag the mouse pointer on the image to draw a stroke of the selected color

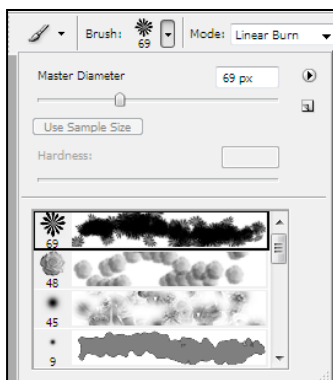


Fig. A

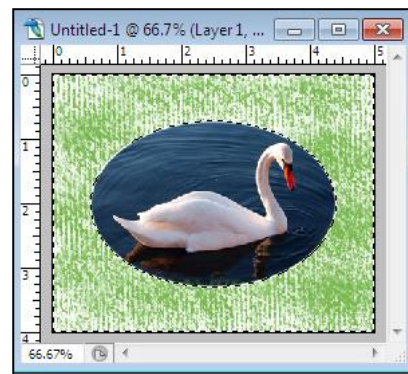


Image after Brush is Applied

### Displaying Brush Palette

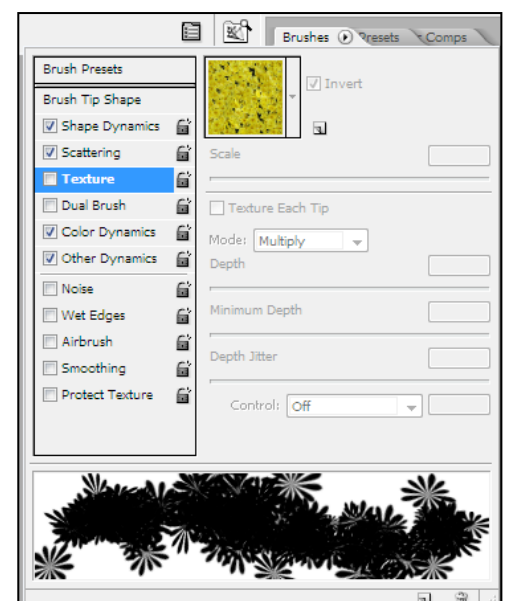
Brush Palette contains more options for setting brush painting such as Color dynamics, brush shape dynamics and texture etc.

To open Brush Palette,

**Click on the Window menu** and then **Click Brushes** option

Or

Click on the small icon  on Brush Tool Options bar

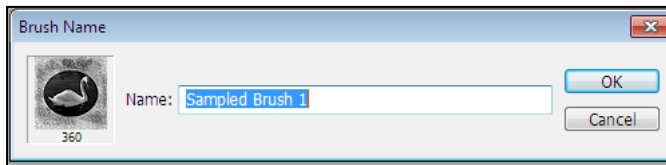


### Create a New Brush using EDIT Menu option

If none of the brushes in the Brushes Palette is appropriate for our requirements, we can define our own brush.

To create a new brush, do the following

1. Select an Object or Image you wish to make a brush tip.
2. Click on EDIT Menu and then Click on Define Brush Preset. Then the Brush Name dialog box appears

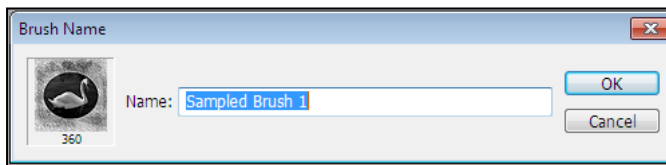


3. In the dialog box, enter the name of your brush.  
Click OK. The brush appears in the Brush Presets

### **Create a New Brush using Brushes menu option on Brushes Palette**

To create a new brush, do the following

1. **Click on the Window menu** and then **Click Brushes** option to display Brush Palette
2. .On the **Brushes Palette**, **Click** on the **MENU**
3. From the Brushes menu, select **“New Brush Preset..”**. Then the Brush Name dialog box appears



4. In the dialog box, enter the name of your brush.  
Click OK. The brush appears in the Brush Presets

## **Color manipulations**

Color correction involves making changes to the overall brightness and contrast in an image and also the color balance to compensate for any deficiency in the original image.

The following are used for color manipulations:

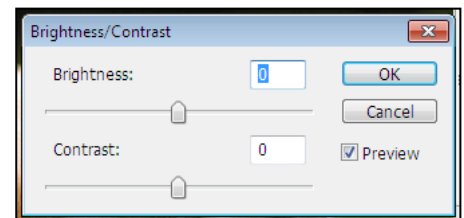
- Brightness / Contrast
- Color Balance
- Auto Levels
- Auto color
- The Levels Dialog Box

- The Curves Dialog Box
- Shadow / Highlight command
- Match Color

### **Brightness / Contrast**

The Brightness / Contrast command is used for changing overall Brightness / Contrast levels in an image. It makes the same adjustment to all pixels across the full range of the image.

- **To change Brightness / Contrast for the entire image or for a selection,**
  4. Choose **Image menu** and click on **Adjustments** option and then select **Brightness / Contrast**
  5. **Drag** the Brightness and Contrast **sliders** or enter a value in the entry box
  6. Click **OK** button



### **Auto Contrast**

This command is used to change the *Contrast for the entire image or for a selection automatically*

#### **To set auto Contrast:**

Choose **Image menu** and click on **Adjustments** option and then select **Auto Contrast**

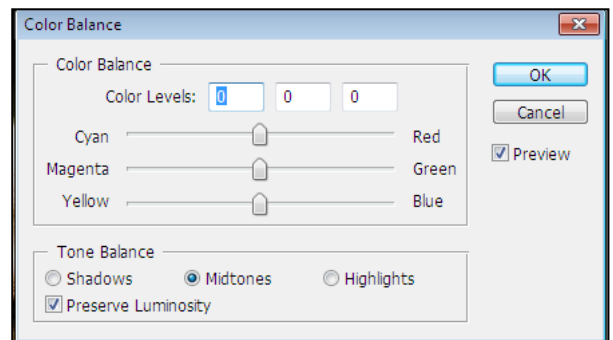
### **Color Balance**

Color balance works on the principle of complementary colors. If there is too much Cyan in an image, you drag the Cyan-Red slider towards red to remove the Cyan color. For too much Magenta, drag the Magenta-Green slider towards Green etc.

#### **To adjust the color balance of an image,**

Choose **Image menu** and click on **Adjustments** option and then select **Color Balance**

Drag the color sliders to reduce/increase the amount of a color in the image



### **Auto Levels**

Auto Levels allows you to adjust brightness and contrast automatically. Auto Levels examines each color channel independently and changes the darkest pixels to black and the lightest pixels to white, then redistributes the remaining shades of gray between these two points.

**To apply Auto Levels to an image,**

Choose **Image menu** and click on **Adjustments** option and then select **Auto Levels**

### **Auto Color**

Auto Color removes unwanted color in an image without adjusting the contrast in the image.

**To apply Auto Color to an image,**

Choose **Image menu** and click on **Adjustments** option and then select **Auto Color**

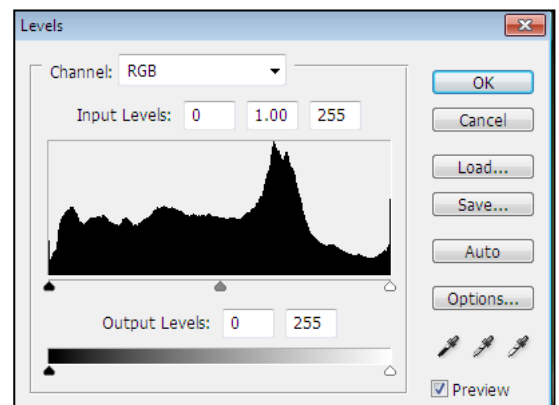
### **Levels Dialog Box**

Use the Levels dialog box to adjust the balance for color and grayscale images. You can adjust highlight, shadow and midtone ranges for a selection or an entire image

**To use Levels to an image,**

Choose **Image menu** and click on **Adjustments** option and then select **Levels**

**Input Levels :** The input levels sliders and entry boxes allow you to improve the contrast in a flat image. To darken an image, drag the solid black slider to the right. To lighten an image, drag the hollow, white input levels slider to the left.

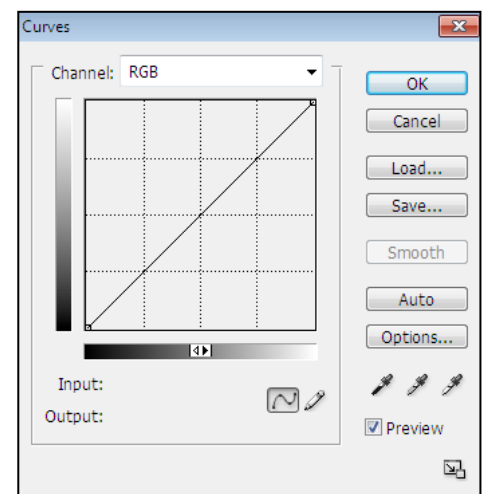


**Output Levels:** You can use the Output Levels entry boxes or sliders to decrease the amount of contrast in an image. Drag the black output Levels slider to the right to lighten the image and reduce the contrast. Drag the white output levels slider to the left to darken the image and reduce the contrast

### **Curves Dialog Box**

The Curves Dialog Box contains a set of controls for making adjustments in an image. The central brightness graph in the dialog box displays the original and adjusted brightness values for pixels in the image. The graph is a straight line from 0 (black) to 255 (white), before any adjustments are made – input and output values of pixels in the image.

The Horizontal axis of the graph represents the original or input values, the vertical axis represents the output or adjusted values. By adjusting the brightness curve, you are remapping the brightness values of pixels in the image.



To lighten an image, position your cursor near the midpoint of the graph, and then click to place a new point. Click and drag this point upwards.



To darken an image, position your cursor near the midpoint of the graph, then click to place a point. Drag the point downwards

## Patch Tool

The Patch Tool lets you repair a selected area with pixels from another area or a pattern. Like the Healing Brush Tool, the Patch Tool matches the texture, lighting, and shading of the sampled pixels to the source pixels. You can also use the Patch Tool to clone isolated areas of an image

1. **Open the image** from which you want to heal the imperfections
2. **Select the Patch Tool** from the Tool box
3. **Select the source** in the options bar.
4. To minimize the effects of the patch, **select Transparent** on the Options bar
5. Drag in the image to select the area of pixels you want to patch over
6. Click and hold the mouse pointer inside the selection and then drag the selection area onto the area of the image from which you want to copy pixels.
7. Release the mouse button. The original patch selection is repaired with pixels sampled from the area you released on.
8. When finished , to deselect the area, press **Ctrl + D**

Alternatively select Destination in the options bar to reverse the way in which the tool works. Use the patch tool to select the area of pixels you want to use to make the repair. Drag the patch selection onto the area of pixels you want to repair. Release the mouse to copy the initial selection area over the flaw.

## The Retouching Tools ( Remove dust, scratches, smoothing skin )

The Retouching Tools enables us to change or edit pixels arrangements in a number of ways.

The retouching tools can be used within a selection or on an entire image.

Some of the editing tools are as follows:

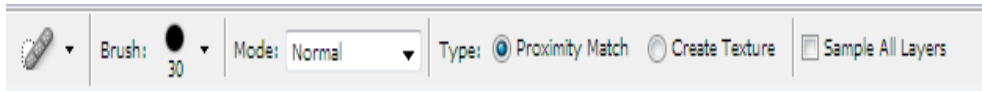
- Healing Brush Tool
- Clone Tool
- Background Eraser Tool
- Sharpen Tool
- Patch Tool
- Pattern Stamp Tool
- Magic Eraser Tool
- Burn Tool
- Red Eye Tool
- Eraser Tool
- Blur Tool
- Dodge Tool

### **Spot Healing Brush Tool**

The Spot Healing Brush Tool quickly removes blemishes and other imperfections in your photograph. The Spot Healing Brush works similarly to the Healing Brush; it paints with sampled pixels from an image or pattern and matches the texture, lighting, transparency, and shading to the pixels being healed. Unlike the Healing Brush, the Spot Healing Brush doesn't require you to specify a sample spot. The Spot Healing Brush automatically samples from around the retouched area.



1. **Open an image.**
2. **Select the Spot Healing Brush Tool** from the Toolbox.
3. **Choose a Brush size** in the Options bar. Select brush size that is slightly larger than the area you want to fix
4. **Click the area you want to fix**, or click and drag over a larger area. The spot is being corrected



## The Healing Brush Tool

The Healing Brush Tool lets you correct imperfections, causing them to disappear into the surrounding image. Like the cloning tools, you use the Healing Brush Tool to paint with sampled pixels from an image or pattern. However, the Healing Brush Tool also matches the texture, lighting, transparency, and shading of the sampled pixels to the source pixels. As a result, the repaired pixels blend seamlessly into the rest of the image.

To use the Healing Brush Tool, you may undertake the following steps:

1. **Open the image** from which you want to heal the imperfections
2. **Select the Healing Brush Tool** from the Tool box. The Option bar for Healing brush appears below the Menu bar
3. **Select the brush size** on Options bar.
4. **Keep the ALT button pressed, set the Source point** by clicking on an image and release the Alt button
5. **Drag in the image.** The sampled pixels are melded with the existing pixels each time you release the mouse button

## Patch Tool

The Patch Tool lets you repair a selected area with pixels from another area or a pattern. Like the Healing Brush Tool, the Patch Tool matches the texture, lighting, and shading of the sampled pixels to the source pixels. You can also use the Patch Tool to clone isolated areas of an image

1. **Open the image** from which you want to heal the imperfections
2. **Select the Patch Tool** from the Tool box
3. **Select the source** in the options bar.
4. To minimize the effects of the patch, **select Transparent** on the Options bar
5. Drag in the image **to select the area of pixels** you want to patch over
6. Click and hold the mouse pointer inside the selection and then **drag the selection area onto the area of the image** from which you want to copy pixels.

7. ***Release the mouse button.*** The original patch selection is repaired with pixels sampled from the area you released on.
8. When finished, to deselect the area, press ***Ctrl + D***  
Alternatively select Destination in the options bar to reverse the way in which the tool works

## **Red Eye Tool**

You can remove-the Red Eye effect from all photographs whether they are scanned from film, or prints, or start out as digital files. Photoshop CS2 introduces a new Red Eye Tool making the process very easy. Red Eye is caused by the reflection of a camera, flash in a eye retina.

By default, Photoshop's Red Eye Tool uses a large brush and 'makes the areas around the pupil black. You can change the default settings in the Options bar to fit the size of your subject's eye. Changing the red areas to a gray color rather than black makes your subject look more natural and allows You to change the eye color later, if needed.

## **The Clone Stamp Tool**

The Clone Stamp Tool is the perfect tool for retouching or repainting an image. It is also called the Rubber Stamp Tool. it is used for cloning or duplicating selected areas of an image. With this tool, we can easily remove blemishes or scratches from an image. For using this tool, undertake the following steps:

1. ***Open the image*** to be edited
2. ***Click on the Clone Stamp Tool*** in the Toolbox.
3. ***Hold down the ALT key and click on the part of the image*** to be cloned and Release the ALT key
4. Place the mouse-pointer over the area of the image to be replaced with the cloned pixels.
5. ***Drag the mouse-pointer to fill the area with the cloned pixels.***

## **The Pattern Stamp Tool**

It works in somewhat similar to the Clone Stamp Tool. It only it clones pre-defined areas of pixels - the pattern, rather than from a source point in the image. In using the Pattern Stamp Tool, we first define a pattern using the Define Pattern option of the Edit menu and then clone this pattern using the Pattern Stamp Tool on an image.

The following steps may be undertaken to use this tool:

1. ***Open the image*** from which the pattern is to be defined
2. ***Click on the area to be used as a pattern*** using one of the Selection Tool
3. Click on the Edit menu in the menu bar and Click on the Define Pattern option to save the Pattern
4. Open the image to which the pattern is to be applied

5. **Click on the Pattern Stamp Tool** in the Toolbox.
6. **Place the mouse pointer on the image** and drag it over a part of the image to fill it with the pattern. The pattern is drawn on the destination image

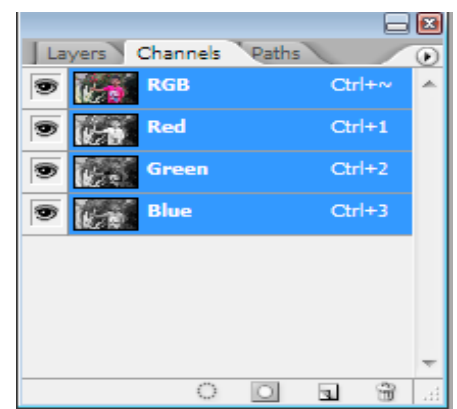
## Unit-V: LAYERS

Layers are the transparent sheet that can hold objects and are stacked on top of each other. When we have number of objects, it is always better to distribute the objects in different ways as it makes the work process much easier. We can draw and edit objects on one layer without affecting the objects on another layer. We can add number of layers, hide and lock layers, change the position of layers, delete layers and even customize the layers as well. The Layers Palette displays a small thumbnail view of the image in it.

### Layers Palette:

The Layers palette is a palette that contains the names of all the layers in an image. It also shows us whether a layer is currently visible or not. Using the Layers palette, we can create, delete, show and hide layers, and also create layer sets, link layers and merge layers.

To **show or hide Layers palette** on the screen, **Click on the Window menu** in the menu bar and then **Click on the Layers option**



### Working with Layers

Using Layers, we can make the following changes to a selected sheet of pixels:

- a) Create a new layer
- b) Show/Hide a layer
- c) Delete a layer
- d) Sort layers
- e) Reposition layers
- f) Merge two or more layers
- g) Flatten all the layers in an image into one

#### a) **Creating a New Layer**

A new Layer is created when you want to paste an object in your image. However, we need not necessarily paste some pixels (objects) to create a new layer. For creating a new layer, do the following

1. Open an image  
Click the New Layer button in the Layer Palette (OR)
2. In Menu bar, select **Layer menu > New > Layer** option  
The New Layer dialog box appears on the screen. Enter the following
  - Type a name in the **Name** text box
  - Select a Color in the **Color** drop down list
  - Select mode from the **Mode** drop down list
  - Select an opacity % from the **Opacity** option
3. Click **OK** button

A new blank Layer will be created. This new layer is displayed on Layers Palette

#### **Creating a New Layer via Cut**

This command allows us to create a new layer with the pixels of a selection. For creating a new layer, do the following

1. Open an image.
2. **Make a selection** on it using any selection tool like Elliptical Marquee Tool.
3. In Menu bar, select **Layer menu > New > Layer via Cut** option  
A new layer with a name gets created with selected pixels and these pixels are removed from the original image.

#### **Create a New Layer via Copy**

This command lets us create a new layer with a copy of the pixels from the selected portion of an image. For creating a new layer, do the following

1. Open an image.
2. **Make a selection** on it using any selection tool like Elliptical Marquee Tool.
3. In Menu bar, select **Layer menu > New > Layer via Copy** option  
A new layer with a name gets created with selected pixels and these pixels are not removed from original image.

#### b) **Hiding/Showing Layers**

When we hide a layer, the contents of that particular layer are removed from the screen, i.e., they become hidden. We can hide and show layers of an image using the Layers palette.

To Hide and Show Layer, do the following

1. Open an image containing more than one layers
2. Click on the Eye icon of the layer in the leftmost column of the Layers palette to hide or show it.

### c) **Deleting Layers**

Sometimes the data contained in a layer is not required, and then we can easily delete such layer by following one of the methods given below:

- ***Deleting a layer using layer Menu***

1. Click on the layer in the Layers palette
2. In Menu bar, select ***Layer menu > Delete > Layer*** option

A confirmation dialog box regarding the deletion of layer appears. Click Yes to delete layer.

- ***Deleting a Layer by Dragging it to the Delete Layer Icon***

We can also delete a layer using the Delete layer icon of the Layers palette by carrying out the steps given below:

1. Click on a Layer in the Layers palette
2. Drag the mouse-pointer to the Delete layer icon at the right bottom corner of the Layers palette. The Layer will be deleted

- ***Deleting a Layer by clicking on the Delete Layer Icon***

To delete a layer using the Delete layer icon, follow the given steps:

1. Select the layer that is to be deleted.
2. Click on the Delete layer icon at the bottom-right corner of the Layers palette.

A dialog box appears confirming the deletion of the layer. Click on the Yes button of the dialog box. The layer will be deleted.

### d) **Sorting Layers in the Layers Palette**

We can change the order of the layers in the stack to rearrange them. For sorting the layers, do the following steps:

1. Drag Layer 1 below Layer 2. The mouse-pointer changes to the shape of a hand
2. Release the mouse-button. The layer will appear in the new location

### e) **Repositioning Layers**

In a Photoshop file, we can change the position of a layer, i.e. we can ***move the contents of the layer*** from one position to another. For doing so, we have to carry out the steps given below:

1. Click on Layer 2 in the Layers palette.
2. Click on the Move Tool in the Toolbox
3. Place the cursor on the layer in the image (not in the palette)
4. Keep the left-mouse button pressed; drag the layer to the new location.

The layer will be moved to the new location

### f) **Merging Layers**

Photoshop allows us to merge two or more layers into one. This not only allows the simultaneous editing of the merged layers but also helps in reducing the size of the file since the file size increases with the number of layers in a file.

For merging the layers into one, do the following steps:

1. Hide the layers you do not want to merge by clicking on their Eye icons in the Layers palette.
2. Click on the right-arrow button on the top right side of the Layers palette.
3. Click on the **Merge Visible option** from the contents of this pop-up menu
4. All the visible layers in the image will be merged into a single layer

#### ***Merge a layer with the one below it.***

We will merge Layer 2 with the Layer 1. For this, do the following steps:

1. Click on the Layer 2 in the Layers palette
2. Click on the right-arrow button at the top of the Layers palette. A shortcut menu appears
3. Click on the **Merge Down** option from the pull-down menu
4. Layer 2 has, merged down with Layer 1

#### **g) Flattening Images**

We can merge all the layers in an image into one layer. This is known as Flattening. When the layers in an image are flattened, all of them will be treated as one layer. Flattening an image reduces the file size since this result in to a single background layer only.

To flatten images follow the steps below:

1. Make all the layers to be flattened as visible in the Layers palette
2. Click on the Layer menu in the menu bar. A list of options appears
3. Click the Flatten Image option from the list

#### **h) Linking Layers**

Making a chain of layers is known as Linking Layers. We should link layers, when we want to move more than one layer without affecting the distance between them. For instance, to move the object, along with its shadow if the object and shadow are contained in separate layers, we should link the two layers containing object and shadow.

##### ***To link Layers, do the following:***

1. Select the two layers, to be linked in the Layers Palette by pressing Shift key in the keyboard
2. In Menu bar, select **Layer menu > Link Layers** option

Look at the Layers palette. If layer is linked then a chain icon appears in the box of all the layers indicating that the layers are linked

##### ***To Unlink Layers, do the following:***

1. Select the linked layers from the Layers Palette
2. In Menu bar, select **Layer menu > UnLink Layers** option

Then the link is broken and the layers are separated .

## Working with Adjustment Layers:

Adjustment Layers constitute a major flexibility feature of Photoshop; they let us control the appearance of an image. They make objects appear larger or smaller or in a different style without changing their appearance. They can be used to get an idea of how an image will appear if we make some changes to it without actually changing the image. An Adjustment Layer is similar to a lens placed on the pixels to obtain an enlarged, diminished or stylized view of images. This way, we can preview an image before the change is actually applied to it. We can apply the Adjustment Layer as a permanent change if satisfied with the result and discard it otherwise.

Open an image and look at its Layers palette. Now, to use and apply the Adjustment layers, undertake the following steps:

1. Click on the Background layer in the Layers palette
2. In Menu bar, select **Layer menu > New Adjustment Layer** option. A list of options are displayed as shown in figure
3. Now **select type of adjustment layer** among Levels, Curves, Color balance etc. The option we select from this list, decides the type of the new adjustment layer

To create an adjustment layer of Invert type, click on the Invert option.



### Options in New Adjustment Layer

- **Levels:** Specify values for the highlights, shadows, and midtones.
- **Curves:** Adjust the intensity values of pixels along a 0-255 scale while keeping up to 15 other values constant.
- **Color Balance:** Drag a slider toward a color that you want to increase in the image; drag a slider away from a color that you want to decrease.
- **Brightness/Contrast:** Specify values for Brightness and Contrast.
- **Hue/Saturation:** Choose which colors to edit, and specify values for Hue, Saturation, and Lightness.
- **Selective Color:** Choose the color you want to adjust, and drag the sliders to increase or decrease the components in the selected color.
- **Channel Mixer:** Modify the color values in a channel by mixing them with other channels.
- **Gradient Map:** Choose a gradient and set gradient options.
- **Photo Filter:** Make color adjustments by simulating the effect of a filter in front of a camera lens.
- **Invert:** Inverted adjustment layers don't have options.
- **Threshold:** Specify a threshold level.
- **Posterize:** Specify the number of tonal levels for each color channel.

## Layer Styles (or) Layer Effects

Photoshop provides a number of styles which can be applied to layers. These styles are also referred to as Layers effects. This makes working with layers interesting in addition



to providing us with better control on our images. Some of the styles are drop shadow, glow, bevel and emboss. When a layer is applied an effect, an icon appears before the name of the layer in the Layers palette indicating that the layer has been applied an effect. When we move or edit the pixels of a layer, the style applied to that layer is updated automatically. We can save our layer effects for future use.

*To apply effects to a selected layer*, do the following

- Click on the name of the layer in the Layers palette to make it the active layer.
- In Menu bar, select **Layer menu > Layer Style option**. A list of options are displayed
- Click on the style you want to apply, say Drop Shadow. The Layer Style dialog box appears on the screen
- Click on the OK button.

### **Working with Layer Effects:**

Once an effect has been created on a layer, we can use a variety of commands to edit it.

#### **a) Change the settings of a layer style**

To change the settings of a layer style, follow the given steps:

1. Make Layer active, by clicking on it in the Layers palette
2. Double-click on the Eye icon of the layer in the Layers palette. A dialog box corresponding to the effect we have applied to the layer will appear on the screen.
3. Drag the slider beside the Spread option to increase /decrease the value to 37%
4. Drag the slider beside the Size option to increase/decrease the value to 79px
5. After making the required specifications in the dialog box, click on the OK button

#### **b) Hide all the effects applied to all the layers of the image temporarily**

To hide all the effects applied to all the layers of the image temporarily, do the steps below:

- In Menu bar, select **Layer menu > Layer Style > Hide All Effects option**.

#### **c) Enable all the effects applied to all the layers of the image temporarily**

To enable all the effects applied to all the layers of the image temporarily, do the steps below:

- In Menu bar, select **Layer menu > Layer Style > Show All Effects option**.

#### **d) Set brightness to all the layers**

While working with multiple layers we can apply the same degree of brightness to all the layers. To do this, follow steps given below:

1. In Menu bar, select **Layer menu > Layer Style > Global Light option**.
2. Enter a value in Angle entry box
3. Click OK button

#### **e) Copy a layer style from one layer to another**

To copy a layer style from one layer to another, follow the steps given below:

1. Click on the source layer in Layers Palette (i.e. the layer whose styles you have to copy)
2. Click the right mouse-button. A shortcut menu appears
3. Click on the **Copy Layer Style option** from this menu
4. Click on the destination layer, say Layer 2 with the right mouse-button.
5. Click on the **Paste Layer Style option**. The style will be copied to the destination layer

**f) Remove layer effects permanently from a layer**

To remove layer effects permanently from a layer, do the steps given below:

Click on the layer, Layer 2 in the Layers Palette

In Menu bar, select *Layer menu > Layer Style > Clear Layer Style* option

Instantly, all the styles will be removed from the layer

## FILTERS

Filters enable us to add a variety of special effects to our images. We can modify our images in a number of ways using Filters.

### The Filter Menu

The Filter menu present on the menu bar contains all the filters.

**(a) Artistic Filters**

Filters from the Artistic submenu help you achieve painterly and artistic effects for a fine arts or commercial project. For example, use the Cutout filter for collages or for typography. These filters replicate natural or traditional media effects. All the Artistic filters can be applied through the Filter Gallery.

The Artistic sub menu contains the following filters

*Colored Pencil, Cutout, Dry Brush, ,Film Grain, Fresco, Neon Glow, Paint Daubs , Palette Knife, Plastic Wrap, Poster Edges, Rough Pastels, Smudge Stick, Sponge. Underpainting, Watercolor*

**(b) Blur Filters**

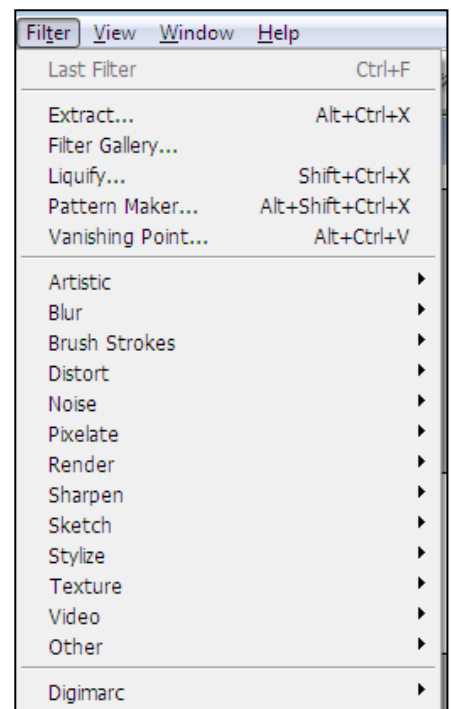
The Blur filters soften a selection or an entire image, and are useful for retouching. They smooth transitions by averaging the pixels next to the hard edges of defined lines and shaded areas in an image.

The Blur sub menu contains the following filters

*Average, Blur, Blur More, Box Blur, Gaussian Blur, Lens Blur, Motion Blur, Radial Blur, Shape Blur, Smart Blur, Surface Blur.*

**(c) Brush Stroke filters**

Like the Artistic filters, the Brush Stroke filters and effects give a painterly or fine-arts look using different brush and ink stroke effects. Some of the filters add grain, paint,



noise, edge detail, or texture to an image. All the Brush Stroke filters can be applied through the Filter Gallery.

The Brush Stroke sub menu contains the following filters

*Accented Edges, Angled Strokes, Crosshatch, Dark Strokes, Ink Outlines, Spatter, Sprayed Strokes*

#### **(d) Distort filters**

The Distort filters geometrically distort an image, creating 3D or other reshaping effects. Note that these filters can be very memory-intensive. The Diffuse Glow, Glass, and Ocean Ripple filters can be applied through the Filter Gallery.

The Distort sub menu contains the following filters

*Diffuse Glow, Displace, Glass, Ocean Ripple, Pinch, Polar Coordinates, Ripple, Shear, Spherize, Twirl, Wave, ZigZag*

#### **(e) Noise filters**

The Noise filters add or remove noise, or pixels with randomly distributed color levels. This helps to blend a selection into the surrounding pixels. Noise filters can create unusual textures or remove problem areas such as dust and scratches.

The Noise sub menu contains the following filters

*Add Noise, Despeckle, Dust & Scratches, Median, Reduce Noise*

#### **(f) Pixelate Filters**

The filters in the Pixelate submenu sharply defines a selection by clumping pixels of similar color values in cells. The Pixelate sub menu contains the following filters

*Color Halftone, Facet, Fragment, Mezzotint, Mosaic, Pointillize*

#### **(g) Render filters**

The Render filters create 3D shapes, cloud patterns, refraction patterns, and simulated light reflections in an image. You can also manipulate objects in 3D space, create 3D objects (cubes, spheres, and cylinders), and create texture fills from grayscale files to produce 3D-like effects for lighting.

The Render sub menu contains the following filters

*Clouds, Difference Clouds, Fibers, Lens Flare, Lighting Effects*

#### **(h) Sharpen filters**

The Sharpen filters focus blurred images by increasing the contrast of adjacent pixels.

The Sharpen sub menu contains the following filters

*Sharpen, Sharpen Edges, Sharpen More, Smart Sharpen, Unsharp Mask*

#### **(i) Sketch Filters**

Filters in the Sketch submenu add texture to images, often for a 3D effect. The filters also are useful for creating a fine-arts or hand-drawn look. Many of the Sketch filters use the foreground and background color as they redraw the image. All the Sketch filters can be applied through the Filter Gallery.

The Sketch sub menu contains the following filters

*Bas Relief, Chalk & Charcoal, Charcoal, Chrome, Conte Crayon, Graphic Pen, Halftone Pattern, Note Paper, Photocopy, Plaster, Reticulation, Stamp, Torn Edges, Water Paper*

### **(j) Stylize filters**

The Stylize filters produce a painted or impressionistic effect on a selection by displacing pixels and by finding and heightening contrast in an image. After using filters like Find Edges and Trace Contour that highlight edges, you can apply the Invert command to outline the edges of a color image with colored lines or to outline the edges of a grayscale image with white lines.

**Diffuse:** Shuffles pixels in a selection to soften focus according to the selected option.

**Emboss:** Makes a selection appear raised or stamped by converting its fill color to gray and tracing the edges with the original fill color.

### **(k) Texture Filters**

Use the Texture filters to simulate the appearance of depth or substance, or to add an organic look.

The following filters are available namely *Craquelure, Grain, Mosaic Tiles, Patchwork, Stained Glass and Texturizer*

### **(l) Video Filters**

The video sub menu contains the **De-interlace** and **NTSC colors** filters

### **(m) Digimarc Filters**

The Digimarc Filters embed a digital watermark into an image to store copyright information

This video sub menu contains the **embed Watermark** and **Read Watermark** filters

## **Artistic Filters**

These filters may be used to impart an artistic touch to images in Photoshop. When applied, they make an image appear as though it is done in wet paint by an artist. Filters from the Artistic submenu help you achieve painterly and artistic effects for a fine arts or commercial project. For example, use the Cutout filter for collages or for typography. These filters replicate natural or traditional media effects. All the Artistic filters can be applied through the Filter Gallery.

The Artistic sub menu contains the following filters

**Colored Pencil:** Draws an image using colored pencils on a solid background.

**Cutout:** Makes an image appear as though it were constructed from roughly cut pieces of colored paper.

**Dry Brush:** Paints the edges of the image using a dry brush technique and simplifies an image by reducing its range of colors to areas of common color.

**Film Grain:** Applies an even pattern to the shadow tones and midtones. This filter is useful for eliminating banding in blends and visually unifying elements from various sources.

**Fresco:** Paints an image in a coarse style using short, rounded, and hastily applied daubs.

**Neon Glow:** Adds various types of glows to the objects in an image. This filter is useful for colorizing an image while softening its look.

**Paint Daubs:** Lets you choose from various brush sizes (from 1 to 50) and types for a painterly effect.

**Palette Knife:** Reduces detail in an image to give the effect of a thinly painted canvas that reveals the texture underneath.

**Plastic Wrap:** Coats the image in shiny plastic, accentuating the surface detail.

**Poster Edges:** Reduces the number of colors in an image according to the posterization option you set, and finds the edges of the image and draws black lines on them.

**Rough Pastels:** Applies strokes of pastel chalk on a textured background.

**Smudge Stick:** Softens an image using short diagonal strokes to smudge or smear the darker areas.

**Sponge:** Creates images with highly textured areas of contrasting color, simulating the effect of sponge painting.

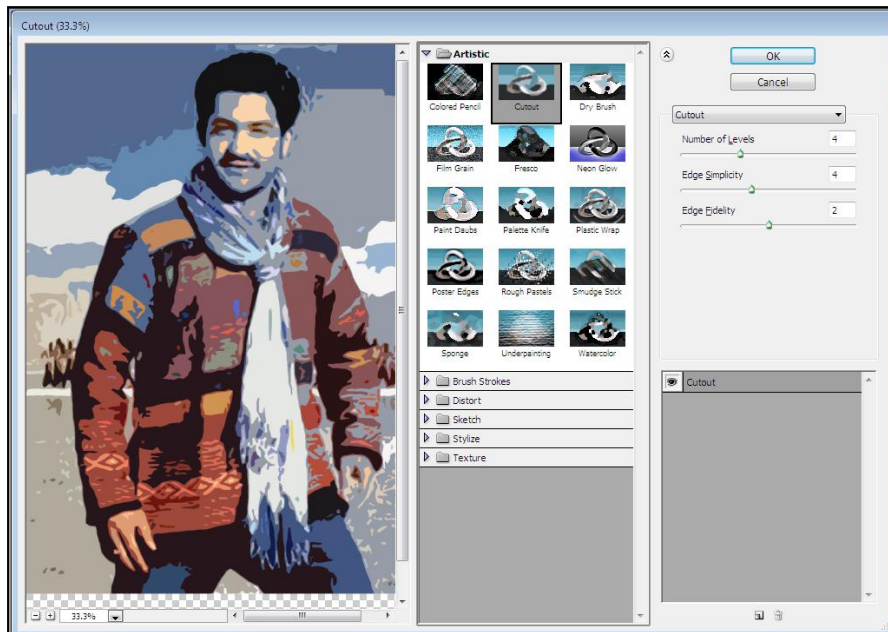
**Underpainting:** Paints the image on a textured background, and then paints the final image over it.

**Watercolor:** Paints the image in a watercolor style using a medium brush loaded with water and color, simplifying details. Where significant tonal changes occur at edges, the filter saturates the color.

## **Working with Cutout filter**

Cutout imparts a collage effect to an image, i.e. on applying it the image appears as if created with roughly cut out pieces of painted paper. The following steps are used to apply this filter to an image.

1. **Open the image** to which you want to apply the Cutout filter.
2. In Menu bar, select **Filter menu>Artistic > Cutout** option  
The Cutout dialog box appears



3. Enter the

specifications of your choice in the dialog box.

**No. of Levels:** The value entered in this dialog box states the number of cutout pieces in the image.

**Edge Simplicity:** This value determines how clearly the edges of this image would be visible. A lower value defines the edges more clearly than a higher value.

**Edge Fidelity:** A higher value of Edge Fidelity increases the contrast between the edges with the surrounding pixels whereas a lower value decreases this contrast.

4. Click on the **OK** button. The cutout filter will be applied the image.

## Working with Neon Glow filter

Colored glows appear on the image when this filter is applied to it. It colors as well as softens the image in appearance. We can apply glows of specific colors to an image by using this filter. The steps to apply this filter to an image are given below:

1. **Open the image** to which you want to apply the Neon Glow filter.
2. In Menu bar, select **Filter menu>Artistic > Neon Glow** option

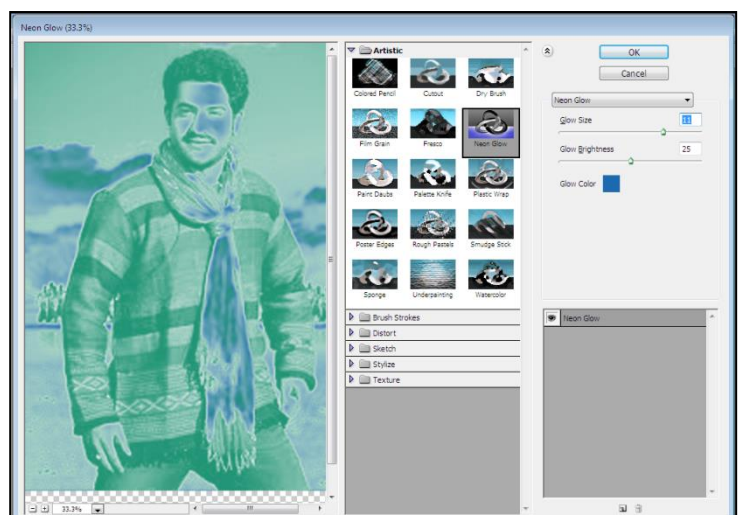
The Neon Glow dialog box appears

3. Drag the slider under the **Glow**

**Brightness** option to change the value in this box to 32. The value entered in this box specifies the degree of brightness for the glow

4. Select the **Glow Color**

5. Click on the **OK** button in the Neon Glow dialog box. The Neon Glow filter will be applied the image.



## **Blur Filters**

Blur Filters can be used to blur the images in a number of ways giving us more control on how the images should be blurred. The filters under this group are very useful for retouching and repairing an image. Different filters of this group are used for creating different types of blur effects. For example, Radial Blur filter creates a blur in the circular direction.

This Blur sub menu contains the following filters

**Average:** Finds the average color of an image or selection, and then fills the image or selection with the color to create a smooth look.

**Blur:** Eliminates noise where significant color transitions occur in the image

**Blur More:** Works same as Blur filter but with three or four times stronger effect.

**Box Blur:** Blurs an image based on the average color value of neighboring pixels. This filter is useful for creating special effects.

**Gaussian Blur:** Blurs an image based on the average color value of neighboring pixels. This filter is useful for creating special effects. The Gaussian Blur filter adds low-frequency detail and can produce a hazy effect.

**Lens Blur:** Adds blur to an image to give the effect of a narrower depth of field so that some objects in the image stay in focus and other areas are blurred.

**Motion Blur:** Blurs in the specified direction ( $-360^{\circ}$  to  $+360^{\circ}$ ) and at a specified intensity (1 to 999).

**Radial Blur:** Simulates the blur of a zooming or rotating camera to produce a soft blur.

**Shape Blur:** Uses the specified kernel to create the blur. Choose a kernel from the list of custom shape presets, and use the radius slider to adjust its size.

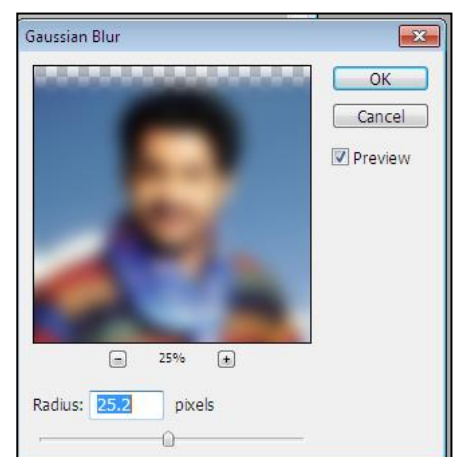
**Smart Blur:** Blurs an image with precision. You can specify a radius, a threshold, and a blur quality. The Radius value determines the size of the area searched for dissimilar pixels. The Threshold value determines how dissimilar the pixels must be before they are affected.

**Surface:** Blurs an image while preserving edges. This filter is useful for creating special effects and for removing noise or graininess.

### **Working with Gaussian Blur filter**

Blurs an image based on the average color value of neighboring pixels. When this filter is used on an image or a selection, it quickly blurs the area depending upon the value specified for the radius in the Gaussian Blur dialog box. To apply the Gaussian Blur filter to an image, carry out the steps that follow:

1. **Open the image** to which you want to apply the Gaussian filter.
2. In Menu bar, select **Filter menu > Blur > Gaussian**



### **Blur** option

The Gaussian Blur dialog box appears on the screen

3. **Enter a value (say 21.5) in the Radius text box.** This sets the radius of the blur to 21.5. (The Blur effect increases with an increase in the Radius).
4. **Click on the OK button** in the Gaussian Blur dialog box. The Gaussian Blur filter is applied to the image

## **Brush Stroke Filters**

Brush stroke filters are quite similar to the Artistic filters and impart artistic touch to an image. These effects include displaying an image in paint, texture, chalk, grain and so on.

**Accented Edges :** The Accented Edges filter makes the edges of an image prominent.

When a lower value is specified for the accent, the accent is darker and when a higher value is specified, the accent is brighter.

**Angled Edges:** Repaints an image using diagonal strokes, with lighter and darker areas painted in strokes going in opposite directions

**Crosshatch** Preserves the details and features of the original image while adding texture and roughening the edges of the colored areas with simulated pencil hatching. The Strength option (with values from 1 to 3) determines the number of hatching passes.

**Dark Strokes** Paints dark areas with short, tight, dark strokes, and lighter areas with long, white strokes.

**Ink Outlines** Redraws an image with fine narrow lines over the original details, in pen-and-ink style.

**Spatter** Replicates the effect of a spatter airbrush. Increasing the options simplifies the overall effect.

**Sprayed Strokes** Repaints an image, using its dominant colors, with angled, sprayed strokes of color.

**Sumi-e** Paints an image in Japanese style, as if with a fully saturated brush applied to rice paper. Sumi-e creates soft, blurred edges with rich, inky blacks.

### **Accented Edges**

The Accented Edges filter makes the edges of an image prominent. When a lower value is specified for the accent, the accent is darker and when a higher value is specified, the accent is brighter.

The following steps show us how to use the Accented Edges filter:

1. **Open the image** to which you want to apply the Accented Edges filter
2. In Menu bar, select **Filter menu>Brush Stroke > Accented Edges** option  
The Accented Edges dialog box appears
3. Drag the slider under the **Edge Width** option to set width of image
4. Drag the slider under the **Edge Brightness** option to set brightness of image



5. Drag the slider under the **Smoothness** option to set the smoothness of the edges in the image
6. Click on the **OK** button



## Distort Filters

The filters under this group are used to distort an image in a variety of ways to produce a 3D or geometric effect. For this reason, they are also known as Destructive Filters.

Let us take a look at some of the filters of this group:

**Diffuse Glow:** The filter adds see-through white noise, with the glow fading from the center of a selection.

**Displace:** Uses an image, called a displacement map, to determine how to distort a selection.

**Glass:** Makes an image appear as if it were being viewed through different types of glasses.

**Lens Correction:** The Lens Correction filter fixes common lens flaws.

**Ocean Ripple:** Adds randomly spaced ripples to the surface of the image so that it appears to be underwater.

**Pinch:** Squeezes a selection. A positive value up to 100% shifts a selection toward its center; a negative value up to -100% shifts a selection outward.

**Polar Coordinates:** Converts a selection from its rectangular to polar coordinates, and vice versa, according to a selected option.

**Ripple:** Creates an undulating pattern on a selection, like ripples on the surface of a pond.

**Shear:** Distorts an image along a curve. Specify the curve by dragging the line in the box. You can adjust any point along the curve.

**Spherize:** Gives objects a 3D effect by wrapping a selection around a spherical shape, distorting the image and stretching it to fit the selected curve.

**Twirl:** Rotates a selection more sharply in the center than at the edges. Specifying an angle produces a twirl pattern.

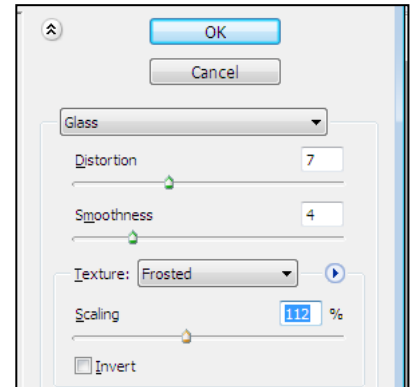
**Wave:** Works much as the Ripple filter does, but with greater control.

**ZigZag:** Distorts a selection radially, depending on the radius of the pixels in your selection.

## Working with Glass Filter

This filter makes the image appear as if it is being viewed through different types of glasses. We can choose the type of the glass to be used from the Texture drop down list in the Glass dialog box and also load our files for creating the glass effect. For applying the Glass filter to an image or a selection, carry out the following steps:

1. **Open the image** to which you want to apply the Glass filter
2. In Menu bar, select **Filter menu>Distort > Glass** option  
The Glass dialog box appears
3. Drag the slider under the **Distortion** option to set the value which determines the degree of distortion.
4. Drag the slider under the **Smoothness** option to set the value which determines the clarity of an image.
5. Select **Texture** from the list to determine the style of the Glass filter. For example Frosted texture
6. *Click on the OK button*



## Noise Filters

The Noise filters add or remove noise, or pixels with randomly distributed color levels. This helps to blend a selection into the surrounding pixels. Noise filters can create unusual textures or remove problem areas, such as dust and scratches.

Let us take a look at some of the filters of this group:

**Add Noise:** Applies random pixels to an image, simulating the effect of shooting pictures on high-speed film.

**Despeckle:** Detects the edges in an image areas where significant color changes occur and blurs all of the selection except those edges.

**Dust & Scratches:** Reduces noise by changing dissimilar pixels.

**Median:** Reduces noise in an image by blending the brightness of pixels within a selection.

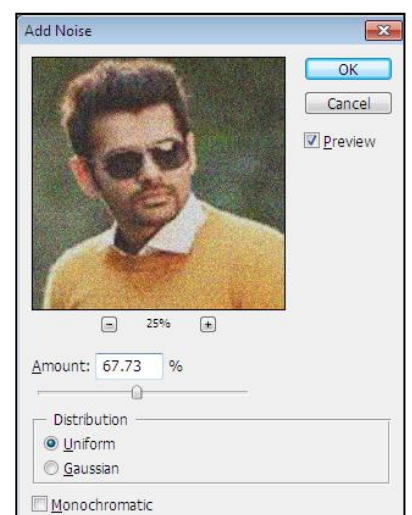
**Reduce Noise:** Reduces noise while preserving edges based on user settings affecting the overall image or individual channels.

## Working with Add Noise filter

The main advantage of using this filter is that it reduces the banding of colors in the selected area. Add Noise filter adds random pixels to an image, imparting a grainy texture to it.

The following steps are undertaken to use this filter.

1. **Open the image** to which you want to apply the Dust & Scratches filter



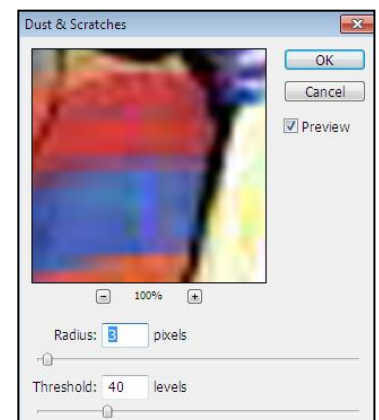
2. In Menu bar, select **Filter menu>Noise > AddNoise** option  
The Add Noise dialog box appears on the screen
3. Drag the slider under the **Amount** option to change the value which determines the intensity of the noise (i.e. dots) in the image.
4. Click on **Uniform option** under the **Distribution** option. The following two distribution types are available:
  - i) Uniform which distributes the colored dots throughout the image evenly.
  - ii) Gaussian which distributes the pixels along a bell-shaped curve for a freckled effect.
5. Click on the **OK** button

## Working with *Dust & Scratches*

The Dust & Scratches filter reduces noise (contrast among pixels) in the image by applying an average color to all the dissimilar pixels. This filter is very useful in repairing worn out photographs, damaged by dust and scratches.

Carry out the following steps for applying the Dust & Scratches filter to an image:

1. **Open the image** to which you want to apply the Dust & Scratches filter
2. In Menu bar, select **Filter menu>Noise > Dust & Scratches** option  
The Dust & Scratches dialog box appears
3. **Set a value for Radius** by dragging the slider under the Radius option
4. **Set a value for Threshold** by dragging the slider under the Threshold option
5. Click on the **OK** button



## Pixelate Filters

The filters in the Pixelate submenu sharply define a selection by clumping pixels of similar color values in cells.

**Color Halftone:** Simulates the effect of using an enlarged halftone screen on each channel of the image.

**Crystalize:** Clumps pixels into a solid color in a polygon shape

**Facet:** Clumps pixels of solid or similar colors into blocks of like-colored pixels.

**Fragment:** Creates four copies of the pixels in the selection, averages them and offsets them from each other.

**Mezzotint:** Converts an image to a random pattern of black-and-white areas or of fully saturated colors in a color image.

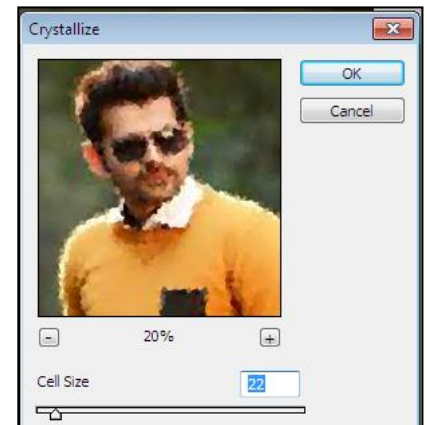
**Mosaic:** Clumps pixels into square blocks. The pixels in a given block are the same color, and the colors of the blocks represent the colors in the selection

**Pointillize:** Breaks up the color in an image into randomly placed dots, as in a pointillist painting, and uses the background color as a canvas area between the dots.

## Working with Crystalize filter

The Crystallize filter arranges pixels into clumps of polygonal shape thus imparting the image, a crystal effect. For using this filter on an image, do the following steps:

1. **Open the image** to which you want to apply the Dust & Scratches filter
2. In Menu bar, select **Filter menu>Pixelate > Crystalize** option  
The Crystalize filter dialog box appears
3. Drag the slider under the **Cell Size** option to set value which determines the size of the cells in the image
4. Click on the **OK** button in the dialog box.



## Render Filters

The Render filters create 3D shapes, cloud patterns, refraction patterns, and simulated light reflections in an image. You can also manipulate objects in 3D space. create 3D objects (cubes, spheres, and cylinders), and create texture fills from grayscale files to produce 3D-like effects for lighting.

**Clouds:** Generates a soft cloud pattern using random values that vary between the foreground and the background colors.

**Difference Clouds:** Uses randomly generated values that vary between the foreground and background color to produce a cloud pattern.

**Fibers:** Creates the look of woven fibers using the foreground and background colors.

**Lens Flare:** Simulates the refraction caused by shining a bright light into the camera lens.

**Lighting Effects:** Lets you produce myriad lighting effects on RGB images by varying 17 light styles, three light types, and four sets of light properties. You can also use textures from grayscale files to produce 3D-like effects and save your own styles for use in other images.

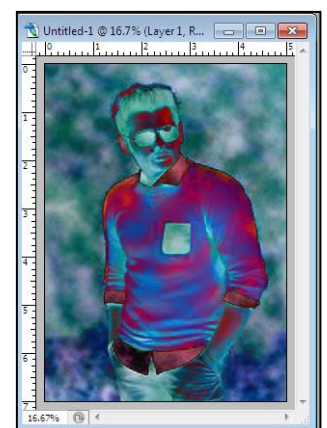
## Working with Difference Clouds

Difference Clouds filter creates a soft clouds pattern by blending the cloud colors.

Carry out the following steps for applying the Difference Clouds filter on an image:

1. **Open the image** to which you want to apply the Dust & Scratches filter
2. In Menu bar, select **Filter menu>Render > Difference Clouds** option

This applies the Difference Clouds filter on the image immediately.

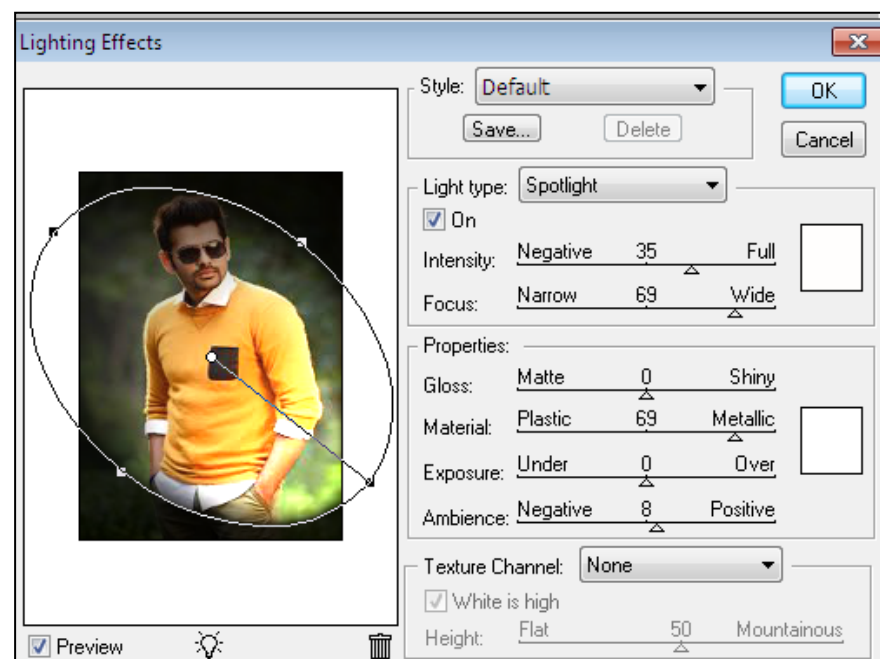


## Working with Lighting Effects

The Lighting Effects filter Lets you produce myriad lighting effects on RGB images by varying 17 light styles, three light types, and four sets of light properties. You can also use textures from grayscale files (called bump maps) to produce 3D-like effects and save your own styles for use in other images

The following steps shows us how to use the Lighting Effect filter on an image:

1. **Open the image** to which you want to apply the lighting effects.
2. In Menu bar, select **Filter menu>Render > Lighting Effects** option  
The Lighting Effects filter dialog box appears.
3. **Select style from the Style dropdown box** say Soft Direct light
4. **For Light type, choose a type.** If you're using multiple lights, select and deselect **ON** to turn individual lights on and off
5. To set light properties, drag the corresponding slider for the following options:
  - **Gloss:** Gloss determines how much the surface reflects light.
  - **Material:** Material determines which is more reflective: the light or the object on which the light is cast. Plastic reflects the light's color; Metallic reflects the object's color.
  - **Exposure:** Exposure increases (positive values) or decreases (negative values) light. A value of 0 has no effect.
  - **Ambience:** Ambience diffuses the light as if it were combined with other light in a room, such as sunlight or fluorescent light. Choose a value of 100 to use only the light source, or a value of -100 to remove the light source. To change the color of the ambient light, click the color box and use the color picker that appears.
  - To use a texture fill, choose a channel for Texture Channel
5. Click **on the OK button** in the dialog box. The lighting effects filter is applied to the image.



## Sharpen Filters:

The Sharpen filters focus blurred images by increasing the contrast of adjacent pixels.

**Sharpen:** Focuses a selection and improves its clarity.

**Sharpen Edges:** The Sharpen Edges filter sharpens only edges while preserving the overall smoothness of the image.

**Sharpen More:** The Sharpen More filter applies a stronger sharpening effect than does the Sharpen filter.

**Smart Sharpen:** Sharpens an image by letting you set the sharpening algorithm or control the amount of sharpening that occurs in shadows and highlights.

**Unsharp Mask:** For better color correction, use the Unsharp Mask filter to adjust the contrast of edge detail and produce a lighter and darker line on each side of the edge.

### Working with Sharpen & Sharpen More filter

Sometimes, an image becomes blurred and unclear due to resizing or some other reason. By using the Sharpen and Sharpen More filters on the image, we can restore its sharpness. Sharpen and Sharpen More filters increase the contrast between adjacent pixels throughout an image or a selection to improve the appearance and clarity of the image. Sharpen More applies a stronger sharpness than the Sharpen filter.

Follow the steps given below to use one of these filters on an image:

1. **Open the blurred image** to which you want to apply the sharpen filter
2. In Menu bar, select **Filter menu>Sharpen > Sharpen or Sharpen More** option  
The Sharpen filter is applied to the image.

### Working with Sharpen Edges Filter

This filter finds the areas in the image where color changes occur and sharpens them. The Sharpen Edges filter sharpens only edges while preserving the overall smoothness of the image.

Carry out the following steps to apply the Sharpen Edges filter to an image:

1. **Open the blurred image** to which you want to apply the sharpen filter
2. In Menu bar, select **Filter menu>Sharpen > Sharpen Edges** option  
The Sharpen edges filter is applied to the image.

## Blending Modes

The blending mode specified in the options bar controls how pixels in the image are affected by a painting or editing tool.

### List of blending modes:

- **Normal** Edits or paints each pixel to make it the result color. This is the default mode. (Normal mode is called Threshold when you're working with a bitmapped or indexed-color image.)
- **Dissolve** Edits or paints each pixel to make it the result color. However, the result color is a random replacement of the pixels with the base color or the blend color, depending on the opacity at any pixel location.
- **Behind** Edits or paints only on the transparent part of a layer. This mode works only in layers with Lock Transparency deselected and is analogous to painting on the back of transparent areas on a sheet of acetate.
- **Clear** Edits or paints each pixel and makes it transparent. This mode is available for the Shape tools (when fill region is selected), the Paint Bucket tool, the Brush tool, the Pencil tool, the Fill command, and the Stroke command. You must be in a layer with Lock Transparency deselected to use this mode.
- **Darken** Looks at the color information in each channel and selects the base or blend color—whichever is darker—as the result color. Pixels lighter than the blend color are replaced, and pixels darker than the blend color do not change.
- **Multiply** Looks at the color information in each channel and multiplies the base color by the blend color. The result color is always a darker color. Multiplying any color with black produces black. Multiplying any color with white leaves the color unchanged. When you're painting with a color other than black or white, successive strokes with a painting tool produce progressively darker colors. The effect is similar to drawing on the image with multiple marking pens.
- **Color Burn** Looks at the color information in each channel and darkens the base color to reflect the blend color by increasing the contrast between the two. Blending with white produces no change.
- **Linear Burn** Looks at the color information in each channel and darkens the base color to reflect the blend color by decreasing the brightness. Blending with white produces no change.
- **Lighten** Looks at the color information in each channel and selects the base or blend color—whichever is lighter—as the result color. Pixels darker than the blend color are replaced, and pixels lighter than the blend color do not change.
- **Screen** Looks at each channel's color information and multiplies the inverse of the blend and base colors. The result color is always a lighter color. Screening with black leaves the color unchanged. Screening with white produces white. The effect is similar to projecting multiple photographic slides on top of each other.

- **Color Dodge** Looks at the color information in each channel and brightens the base color to reflect the blend color by decreasing the contrast between the two. Blending with black produces no change.
- **Linear Dodge** Looks at the color information in each channel and brightens the base color to reflect the blend color by increasing the brightness. Blending with black produces no change.
- **Overlay** Multiplies or screens the colors, depending on the base color. Patterns or colors overlay the existing pixels while preserving the highlights and shadows of the base color. The base color is not replaced but mixed with the blend color to reflect the lightness or darkness of the original color.
- **Soft Light** Darkens or lightens the colors, depending on the blend color. The effect is similar to shining a diffused spotlight on the image.  
If the blend color (light source) is lighter than 50% gray, the image is lightened as if it were dodged. If the blend color is darker than 50% gray, the image is darkened as if it were burned in. Painting with pure black or white produces a distinctly darker or lighter area but does not result in pure black or white.
- **Hard Light** Multiplies or screens the colors, depending on the blend color. The effect is similar to shining a harsh spotlight on the image.  
If the blend color (light source) is lighter than 50% gray, the image is lightened, as if it were screened. This is useful for adding highlights to an image. If the blend color is darker than 50% gray, the image is darkened, as if it were multiplied. This is useful for adding shadows to an image. Painting with pure black or white results in pure black or white.
- **Vivid Light** Burns or dodges the colors by increasing or decreasing the contrast, depending on the blend color. If the blend color (light source) is lighter than 50% gray, the image is lightened by decreasing the contrast. If the blend color is darker than 50% gray, the image is darkened by increasing the contrast.
- **Linear Light** Burns or dodges the colors by decreasing or increasing the brightness, depending on the blend color. If the blend color (light source) is lighter than 50% gray, the image is lightened by increasing the brightness. If the blend color is darker than 50% gray, the image is darkened by decreasing the brightness.
- **Pin Light** Replaces the colors, depending on the blend color. If the blend color (light source) is lighter than 50% gray, pixels darker than the blend color are replaced, and pixels lighter than the blend color do not change. If the blend color is darker than 50% gray, pixels lighter than the blend color are replaced, and pixels darker than the blend color do not change. This is useful for adding special effects to an image.
- **Difference** Looks at the color information in each channel and subtracts either the blend color from the base color or the base color from the blend color, depending on which has the greater brightness value. Blending with white inverts the base color values; blending with black produces no change.
- **Exclusion** Creates an effect similar to but lower in contrast than the Difference mode. Blending with white inverts the base color values. Blending with black produces no change.



- **Hue** Creates a result color with the luminance and saturation of the base color and the hue of the blend color.
- **Saturation** Creates a result color with the luminance and hue of the base color and the saturation of the blend color. Painting with this mode in an area with no (0) saturation (gray) causes no change.
- **Color** Creates a result color with the luminance of the base color and the hue and saturation of the blend color. This preserves the gray levels in the image and is useful for coloring monochrome images and for tinting color images.
- **Luminosity** Creates a result color with the hue and saturation of the base color and the luminance of the blend color. This mode creates an inverse effect from that of the Color mode.

## REGISTRATIONS



SIR C REDDY COLLEGE FOR WOMEN, ELURU.

DEPARTMENT OF Computer Science

VALUE ADDED COURSE

ENROLMENT FORM

Roll Number : 181004  
Name of the Student : BOMMA JYOTSHNA VENKATA DATTA SATYA VANI  
Father's Name : BOMMA BHASKARARAO  
Date of Birth : 17/04/2001  
Phone Number : 98 48158758  
Permanent Address : RAMALAYAM  
ST. KANDRIKA GUEDEM, BUT  
TAYAGUEDEM  
MDL, WQDT-534311

B.J.V.D.s Vani  
Signature of the Student



SIR C REDDY COLLEGE FOR WOMEN, ELURU.

DEPARTMENT OF COMPUTER SCIENCE

VALUE ADDED COURSE

ENROLMENT FORM

Roll Number : 181005  
Name of the Student : BOPANA BHAVATA NAGA RATASREE  
Father's Name : BOPANA RAMA CHANDRA RAO  
Date of Birth : 14/04/2001  
Phone Number : 9963313189  
Permanent Address : AGIRIPALLI

B.B.N. Rajasree  
Signature of the Student

## Notice for Internal Exam

Date: 05<sup>th</sup> January 2021.

This is to inform that Department of Computer Science is going to conduct Internal Examination for Value Added Course on "ADOBE PHOTOSHOP" on Tuesday, 19<sup>th</sup> January 2021 from 8.45 am to 9.15 am. All the registered participants must attend this exam without fail.

Type of Exam : MCQs (Multiple Choice Questions)

Max. Marks : 25 marks

Time : 30 Mins

K.V.V. - *C*  
5/1/21  
HOD  
Dept. of Computer Science

**SIR C R REDDY COLLEGE FOR WOMEN, ELURU**  
**VALUE ADDED COURSE On ADOBE PHOTOSHOP**  
**INTERNAL EXAM**

Student Name: \_\_\_\_\_

Roll No: \_\_\_\_\_

Max Marks: 25

Marks Obtained:

Time: 30 min

1. The tiny, square with solid colours in the picture is called [     ]  
A) Pixels                      B) Shape fill                      C) Resolution                      D) Graphics
2. Which company made Image Ready? [     ]  
A) Adobe Systems      B) Citrix Systems      C) Cisco Systems      D) Microsoft
3. What is File Extension in Photoshop? [     ]  
A) Bmp                      B) Tiff                      C) Psd                      D) Txt
4. Which menu contains the duplicate layer option in Photoshop? [     ]  
A) Image                      B) Layer                      C) Filter                      D) Edit
5. In the Photoshop, this tool helps to make your image look like attractive painting. [     ]  
A) Filters                      B) Smudging                      C) Smoothing                      D) None of these
6. It is the small window which helps to give access to the commands. [     ]  
A) Menus                      B) Options                      C) Ribbons                      D) Palettes
7. What is the full form of RGB? [     ]  
A) Red Green Black      B) Red Gray Black      C) Red Green Blue      D) Red Gray Blue
8. What is the meaning of CMYK? [     ]  
A) Cream Magenta Yellow Kolor                      B) Cyan Magenta Yellow Blue  
C) Cyan Magenta Yellow Brown                      D) Cyan Magenta Yellow Black
9. In photoshop, which window helps to open image [     ]  
A) Picture                      B) Edit                      C) Photo                      D) Image
10. The full form of GIF – [     ]  
A) Graphics Interchange Format                      B) Graphics inter file  
C) Gray-scale Interchange file                      D) Graphics Interchange file
11. Which tool is used for cutting the part of the image that you wish to? [     ]  
A) Delete                      B) Remove                      C) Erase                      D) Crop
12. What is the area where the image appears/gets displayed? [     ]  
A) Stage                      B) Working area                      C) Canvas                      D) Image window

**13. Which tool is used to select the groups of similarly coloured pixels?** [ ]

- A) Magic Wand    B) Lasso    C) Marquee    D) zoom

**14. Which tool is used to copy the information from one area to the other?** [ ]

- A) Burn tool    B) Fuzzy tool    C) Clone Stamp    D) Dodge

**15. Photoshop is a image \_\_\_\_ application.** [ ]

- A) Sharing    B) Downloading    C) Editing    D) Deleting

**16. Which tool helps us to select the color form the opened image?** [ ]

- A) Fuzzy    B) Dodge    C) Eyedropper    D) None of these

**17. Layer Palettes in Photoshop have a variety of features to help you work with them, such as \_\_\_\_, and locking.** [ ]

- A) Opacity (transparency)    B) Layer Masks  
C) Blending Modes    D) All of the above

**18. Which color mode is used for printing?** [ ]

- A) RGB    B) CMYK    C) Gray Scale    D) None of the above

**19. Non-destructive editing relies on the \_\_\_\_** [ ]

- A) Type layer    B) Layer style    C) Layer mask    D) None

**20. What is the shortcut key to create a new file in Photoshop?** [ ]

- A) Shift+N    B) Ctrl + N    C) Ctrl+Shift+N    D) None of the above

**21. We can resize a layer using -** [ ]

- A) Freeform Pen tool    B) Resize tool    C) Free Transform tool    D) Layer Tool

**22. Creating an object as a smart object will allow us to perform operations on it without affecting its \_\_\_\_.** [ ]

- A) Dataset    B) Image quality    C) Video quality    D) File size

**23. A \_\_\_\_ mode mixes the RGB values of an original color with the green, blue, and red channel values.** [ ]

- A) Subtract    B) Exclusion    C) Hard Mix    D) Difference

**24. Using the \_\_\_\_ tool, you can draw complex shapes and paths.** [ ]

- A) Draw    B) Eraser    C) Shape    D) Pen

**25. How many color modes are there in Photoshop?** [ ]

- A) 3    B) 4    C) 5    D) 6

## KEY

1) A

2) A

3) C

4) B

5) A

6) D

7) C

8) D

9) D

10) A

11) D

12) C

13) A

14) C

15) C

16) C

17) D

18) B

19) B

20) B

21) C

22) B

23) C

24) D

25) C

**SIR C R REDDY COLLEGE FOR WOMEN, ELURU**  
**VALUE ADDED COURSE On ADOBE PHOTOSHOP**  
**INTERNAL EXAM**

Student Name: Ch. Sangeetha  
Roll No: 181038  
Max Marks: 25

Marks Obtained: 23  
Time: 30 min

1. The tiny, square with solid colours in the picture is called  
A) Pixels                      B) Shape fill                      C) Resolution                      D) Graphics                      [ A ] ✓
2. Which company made Image Ready?  
A) Adobe Systems                      B) Citrix Systems                      C) Cisco Systems                      D) Microsoft                      [ A ] ✓
3. What is File Extension in Photoshop?  
A) Bmp                      B) Tiff                      C) Psd                      D) Txt                      [ B ] ✓
4. Which menu contains the duplicate layer option in Photoshop?  
A) Image                      B) Layer                      C) Filter                      D) Edit                      [ B ] ✓
5. In the Photoshop, this tool helps to make your image look like attractive painting.  
A) Filters                      B) Smudging                      C) Smoothening                      D) None of these                      [ A ] ✓
6. It is the small window which helps to give access to the commands.  
A) Menus                      B) Options                      C) Ribbons                      D) Palettes                      [ D ] ✓
7. What is the full form of RGB?  
A) Red Green Black                      B) Red Gray Black                      C) Red Green Blue                      D) Red Gray Blue                      [ C ] ✓
8. What is the meaning of CMYK?  
A) Cream Magenta Yellow Krole                      B) Cyan Magenta Yellow Blue                      C) Cyan Magenta Yellow Brown                      D) Cyan Magenta Yellow Black                      [ D ] ✓
9. In photoshop, which window helps to open image  
A) Picture                      B) Edit                      C) Photo                      D) Image                      [ D ] ✓
10. The full form of GIF -  
A) Graphics Interchange Format                      B) Graphics inter file                      C) Gray-scale Interchange file                      D) Graphics Interchange file                      [ A ] ✓
11. Which tool is used for cutting the part of the image that you wish to?  
A) Delete                      B) Remove                      C) Erase                      D) Crop                      [ D ] ✓
12. What is the area where the image appears/gets displayed?  
A) Stage                      B) Working area                      C) Canvas                      D) Image window                      [ C ] ✓
13. Which tool is used to select the groups of similarly coloured pixels?  
A) Magic Wand                      B) Lasso                      C) Marquee                      D) zoom                      [ A ] ✓



14. Which tool is used to copy the information from one area to the other? [ C ] ✓  
A) Burn tool    B) Fuzzy tool    C) Clone Stamp    D) Dodge
15. Photoshop is a image \_\_\_\_ application. [ C ] ✓  
A) Sharing    B) Downloading    C) Editing    D) Deleting
16. Which tool helps us to select the color form the opened image? [ C ] ✓  
A) Fuzzy    B) Dodge    C) Eyedropper    D) None of these
17. Layer Palettes in Photoshop have a variety of features to help you work with them, such as \_\_\_\_, and locking. [ D ] ✓  
A) Opacity (transparency)    B) Layer Masks  
C) Blending Modes    D) All of the above
18. Which color mode is used for printing? [ B ] ✓  
A) RGB    B) CMYK    C) Gray Scale    D) None of the above
19. Non-destructive editing relies on the \_\_\_\_ [ B ] ✓  
A) Type layer    B) Layer style    C) Layer mask    D) None
20. What is the shortcut key to create a new file in Photoshop? [ B ] ✓  
A) Shift+N    B) Ctrl + N    C) Ctrl+Shift+N    D) None of the above
21. We can resize a layer using - [ C ] ✓  
A) Freeform Pen tool    B) Resize tool    C) Free Transform tool    D) Layer Tool
22. Creating an object as a smart object will allow us to perform operations on it without affecting its \_\_\_\_ [ B ] ✓  
A) Dataset    B) Image quality    C) Video quality    D) File size
23. A \_\_\_\_ mode mixes the RGB values of an original color with the green, blue, and red channel values. [ C ] ✓  
A) Subtract    B) Exclusion    C) Hard Mix    D) Difference
24. Using the \_\_\_\_ tool, you can draw complex shapes and paths. [ D ] ✓  
A) Draw    B) Eraser    C) Shape    D) Pen
25. How many color modes are there in Photoshop? [ D ] ✓  
A) 3    B) 4    C) 5    D) 6

## Notice for External Exam

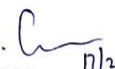
Date: 17<sup>th</sup> February 2021.

This is to inform that Department of Computer Science is going to conduct External Examination for Value Added Course on “ADOBE PHOTOSHOP” on Monday, 8<sup>th</sup> March 2021 from 8.30 am to 9.30 am. All the registered participants must attend this exam without fail.

Type of Exam : MCQs (Multiple Choice Questions)

Max. Marks : 50 marks

Time : 1 Hr

K.V.V.  17/2/21  
HOD  
Dept. of Computer Science

**SIR C R REDDY COLLEGE FOR WOMEN, ELURU**  
**VALUE ADDED COURSE On ADOBE PHOTOSHOP**  
**EXTERNAL EXAM**

Student Name: \_\_\_\_\_

Roll No: \_\_\_\_\_

Max Marks:50

Marks Obtained:

Time:60 min

**1. Working with \_\_\_\_ allows you to create independent pieces of paper that can be edited independently and later added to.** [     ]

- A) Layers                      B) Smart Objects                      C) Slice Tool                      D) Shapes

**2. How to do Multiple Steps Undo in Photoshop in Windows OS?** [     ]

- A) Ctrl + Z                      B) Ctrl + Shift + Z                      C) Ctrl + Alt + Z                      D) Ctrl+V

**3. To delete a series of steps that have been used in a graphic design, you would need to use the \_\_\_\_\_ palette.** [     ]

- A) Layer                      B) Action                      C) History                      D) Path

**4. Drop shadow, inner glow and bevel are examples of \_\_\_\_\_ you need to use with text.** [     ]

- A) Filters                      B) Blending Options                      C) Image Adjustments                      D) Layer Modes

**5. Create an object centered at the selected point by pressing which of the following keys?** [     ]

- A) Space Bar                      B) Shift Key                      C) Alt Key                      D) Shape Tool

**6. Which tool on Photoshop helps remove the background from the image?** [     ]

- A) Magic Wand Tool    B) Magic Eraser Tool    C) Both A and B                      D) None of the above

**7. Which of the following blending mode(s) is/are available on Photoshop?** [     ]

- A) Normal                      B) Dissolve                      C) Behind                      D) All of the above

**8. Which of the masks can be created in Photoshop?** [     ]

- A) Layer                      B) Vector                      C) Both A and B                      D) Palettes

**9. How to add images in Photoshop?** [     ]

A) Drag the image    B) Use Open Feature    C) Both A and B    D) Delete the image

**10. To get Stroke option in Photoshop, we have to select** [    ]

A) Select Menu    B) Filter Menu    C) Edit Menu    D) File Menu

**11. Which command selects a specified color or color subset within an existing selection or an entire image?** [    ]

A) Replace Color    B) Color Range    C) Selective Color    D) Match Color

**12. How many maximum steps we can undo in Photoshop?** [    ]

A) 10    B) 100    C) 1000    D) 10000

**13. Which tool allows you to reposition an object in current layer?** [    ]

A) Move    B) Marquee    C) Crop    D) Hand

**14. Which command changes the Overall mixture of colors in an image for generalized color correction?** [    ]

A) The Color Balance    B) Variations    C) Curves    D) Replace Color

**15. We can get Resize image option from** [    ]

A) Layer Menu    B) Image Menu    C) Edit Menu    D) File Menu

**16. In a Bitmap mode image, the shades are adjusted by changing the quantity of \_\_\_\_\_ and \_\_\_\_\_ dots** [    ]

A) Black, White    B) Gray, White    C) Gray, Black    D) Black, Blue

**17. The tool that lets you select an area of an image and then paint with that area is called** [    ]

A) Eye dropper    B) Copy    C) Clone    D) Patch

**18. Which is the common layer to all the files in Photoshop?** [    ]

A) Layer 0    B) Background    C) Layer 1    D) None of these

**19. Which tool used to increase or decrease the magnification of an image** [    ]

A) Hand Tool    B) Gradient Tool    C) Lasso Tool    D) Zoom Tool

**20. The \_\_\_\_ is used to trim images.** [    ]

- A) Paint bucket      B) Eraser      C) Gradient      D) Crop

**21. What is the Shortcut key to re-apply filters used previously in Photoshop?** [    ]

- A) Ctrl+F      B) Alt + F      C) Ctrl + Alt      D) Ctrl + Alt + F

**22. To resize a graphic in a layer, select the \_\_\_\_\_ tool, then check mark \_\_\_\_\_ to see selection handles.** [    ]

- A) Marquee; Resize      B) Move; Show bounding box  
C) Move; Resize      D) Marquee; Show bounding box

**23. When deleting detailed areas of your image by hand, the tool is the best option.** [    ]

- A) Magic wand      B) Clone Stamp      C) Gradient      D) Eraser

**24. The shortcut to activate the Free Transform box** [    ]

- A) Control+D      B) Control+T      C) Control+V      D) Control+B

**25. The setting with a selection tool that allows the edges to be soft.** [    ]

- A) Radius      B) Feather      C) Tolerance      D) Saturation

**26. The name of the points that are made with the pen tool when it is making a path** [    ]

- A) Anchor points      B) Markers      C) Spotters      D) Clusters

**27. How many type of Marquee Tool are there in Photoshop?** [    ]

- A) Seven      B) One      C) Four      D) Two

**28. We can change width or height or resolution of an image respective of other two at a time by** [    ]

- A) Selecting Resample Image option from image size  
B) Deselecting Resample Image option from image size  
C) Selecting Constrain Proportion option from image size  
D) Deselecting Constrain Proportion option from image size

**29. In Photoshop, \_\_\_\_ Tool is used to erase pixels from similar colored area.** [    ]

- A) Magic Eraser      B) Background Eraser      C) Layer Eraser      D) None of these

**30. The .....tool allows you to copy one area of the layer to another area of the layer. [    ]**

- A) Clone stamp      B) Magic wand      C) Marquee      D) Gradient

**31. Which tool is used to select the part of the image having defined edges? [    ]**

- A) Magic Wand      B) Magnetic Lasso      C) marquee      D) zoom

**32. Which of these palettes is not displayed by default in Photoshop? [    ]**

- A) History Palette      B) Navigator Palette      C) Color Palette      D) Layers Palette

**33. Which tool is used to fill single color in background? [    ]**

- A) Gradient Tool      B) Paint Tool      C) Paint Bucket Tool      D) Background Tool

**34. Which tool is used to remove any spot in the image? [    ]**

- A) Eraser Tool      B) Spot Brush Tool      C) Spot Healing Brush Tool      D) Gradient Tool

**35. Which tool is helpful to make a round (Circular) shape? [    ]**

- A) Elliptical Marquee Tool      B) Rectangle Tool      C) Polygonal Lasso Tool      D) Pen Tool

**36. Which tool is used to select any color from the image in Photoshop? [    ]**

- A) Paint Bucket      B) Eyedropper      C) Zoom      D) Pen

**37. with help of which tool the character is inserted in Photoshop? [    ]**

- A) Slice Tool      B) Type Tool      C) Pen Tool      D) Pencil Tool

**38. Which of these palettes is not in Photoshop? [    ]**

- A) Layer      B) Navigator      C) Channel      D) Drawing

**39. How to make New Layer in Photoshop? [    ]**

- A) File>New      B) Layer>New      C) Image>New      D) Edit>New

**40. Which of the following is not a menu in Photoshop? [    ]**

- A) Image      B) Select      C) Filter      D) Tools

**41. \_\_\_\_key is used to merge layers in Photoshop. [    ]**

- A) Ctrl + M      B) Ctrl + E      C) Ctrl + D      D) Ctrl+ S

**42. In Photoshop, Ctrl + M is used for [    ]**

- A) Saturation      B) Curves      C) Hue      D) Export

**43. In Photoshop, \_\_\_\_ Tool is used to paint an image with a desired pattern. [    ]**

- A) Brush      B) Pattern Stamp      C) Sprayer      D) Gradient

**44. This tool works like a real life paintbrush and allows drawing smooth strokes of color: [ ]**

- A) Paint brush      B) Airbrush      C) History brush      D) all of the above

**45. A Digital Image is made up of thousands of [ ]**

- A) Pixels      B) Bitmap      C) Resolution      D) Vector Images

**46. To turn-off the use of a tool, or deselect it, you must push the \_\_ key. [ ]**

- A) Ctrl + Z      B) Shift + Z      C) Shift + D      D) Ctrl + D

**47. \_\_\_\_ adjusts the width of the space between two characters in a line of text in Photoshop [ ]**

- A) Leading      B) Kerning      C) Tracking      D) Cloning

**48. In Photoshop, \_\_\_\_ tool is used to darken pixels in an image. [ ]**

- A) Patch      B) Blur      C) Burn      D) Dodge

**49. The \_\_\_\_ tool selects areas of similar color? [ ]**

- A) Lasso      B) Marquee      C) Move      D) Magic Wand

**50. \_\_\_\_ is the process of generating an image from a model by means of computer programs. [ ]**

- A) Cloning      B) Rendering      C) Filtering      D) None of these

**EXTERNAL EXAM KEY**

- 1) A
- 2) B
- 3) C
- 4) B
- 5) C
- 6) C
- 7) D
- 8) C
- 9) C
- 10) C
- 11) B
- 12) C
- 13) A
- 14) A
- 15) B
- 16) A
- 17) D
- 18) B
- 19) D
- 20) D
- 21) D
- 22) B
- 23) D
- 24) B
- 25) B

- 26) A
- 27) C
- 28) B
- 29) A
- 30) A
- 31) B
- 32) A
- 33) B
- 34) C
- 35) A
- 36) B
- 37) B
- 38) D
- 39) B
- 40) D
- 41) B
- 42) B
- 43) B
- 44) B
- 45) A
- 46) D
- 47) B
- 48) C
- 49) D
- 50) A



**SIR C R REDDY COLLEGE FOR WOMEN, ELURU**  
**VALUE ADDED COURSE On ADOBE PHOTOSHOP**  
**EXTERNAL EXAM**

Student Name: Ch. Sangeetha  
Roll No: 181038  
Max Marks: 50

Marks Obtained: 43  
Time: 60 min

1. Working with \_\_\_\_\_ allows you to create independent pieces of paper that can be edited independently and later added to. [ A ] ✓  
A) Layers      B) Smart Objects      C) Slice Tool      D) Shapes
2. How to do Multiple Steps Undo in Photoshop in Windows OS? [ B ] ✓  
A) Ctrl + Z      B) Ctrl + Shift + Z      C) Ctrl + Alt + Z      D) Ctrl + V
3. To delete a series of steps that have been used in a graphic design, you would need to use the \_\_\_\_\_ palette. [ C ] ✓  
A) Layer      B) Action      C) History      D) Path
4. Drop shadow, inner glow and bevel are examples of \_\_\_\_\_ you need to use with text. [ A ] ✓  
A) Filters      B) Blending Options      C) Image Adjustments      D) Layer Modes
5. Create an object centered at the selected point by pressing which of the following keys? [ C ] ✓  
A) Space Bar      B) Shift Key      C) Alt Key      D) Shape Tool
6. Which tool on Photoshop helps remove the background from the image? [ C ] ✓  
A) Magic Wand Tool      B) Magic Eraser Tool      C) Both A and B      D) None of the above
7. Which of the following blending mode(s) is/are available on Photoshop? [ D ] ✓  
A) Normal      B) Dissolve      C) Behind      D) All of the above
8. Which of the masks can be created in Photoshop? [ C ] ✓  
A) Layer      B) Vector      C) Both A and B      D) Palettes
9. How to add images in Photoshop? [ C ] ✓  
A) Drag the image      B) Use Open Feature      C) Both A and B      D) Delete the image

10. To get Stroke option in Photoshop, we have to select

[ C ] ✓

- A) Select Menu      B) Filter Menu      C) Edit Menu      D) File Menu

11. Which command selects a specified color or color subset within an existing selection or an entire image?

[ B ] ✓

- A) Replace Color      B) Color Range      C) Selective Color      D) Match Color

12. How many maximum steps we can undo in Photoshop?

[ C ] ✓

- A) 10      B) 100      C) 1000      D) 10000

13. Which tool allows you to reposition an object in current layer?

[ A ] ✓

- A) Move      B) Marquee      C) Crop      D) Hand

14. Which command changes the Overall mixture of colors in an image for generalized color correction?

[ A ] ✓

- A) The Color Balance      B) Variations      C) Curves      D) Replace Color

15. We can get Resize image option from

[ B ] ✓

- A) Layer Menu      B) Image Menu      C) Edit Menu      D) File Menu

16. In a Bitmap mode image, the shades are adjusted by changing the quantity of \_\_\_\_\_ and \_\_\_\_\_ dots

[ A ] ✓

- A) Black, White      B) Gray, White      C) Gray, Black      D) Black, Blue

17. The tool that lets you select an area of an image and then paint with that area is called

[ D ] ✓

- A) Eye dropper      B) Copy      C) Clone      D) Patch

18. Which is the common layer to all the files in Photoshop?

[ B ] ✓

- A) Layer 0      B) Background      C) Layer 1      D) None of these

19. Which tool used to increase or decrease the magnification of an image

[ C ] ✓

- A) Hand Tool      B) Gradient Tool      C) Lasso Tool      D) Zoom Tool

20. The \_\_\_\_ is used to trim images.

[ D ] ✓

- A) Paint bucket      B) Eraser      C) Gradient      D) Crop

21. What is the Shortcut key to re-apply filters used previously in Photoshop? [ D ] ✓

- A) Ctrl+F      B) Alt + F      C) Ctrl + Alt      D) Ctrl + Alt + F

22. To resize a graphic in a layer, select the \_\_\_\_\_ tool, then check mark \_\_\_\_\_ to see selection handles. [ B ] ✓

- A) Marquee; Resize      B) Move; Show bounding box  
C) Move; Resize      D) Marquee; Show bounding box

23. When deleting detailed areas of your image by hand, the tool is the best option. [ D ] ✓

- A) Magic wand      B) Clone Stamp      C) Gradient      D) Eraser

24. The shortcut to activate the Free Transform box [ B ] ✓

- A) Control+D      B) Control+T      C) Control+V      D) Control+B

25. The setting with a selection tool that allows the edges to be soft. [ B ] ✓

- A) Radius      B) Feather      C) Tolerance      D) Saturation

26. The name of the points that are made with the pen tool when it is making a path [ B ] ✓

- A) Anchor points      B) Markers      C) Spotters      D) Clusters

27. How many type of Marquee Tool are there in Photoshop? [ C ] ✓

- A) Seven      B) One      C) Four      D) Two

28. We can change width or height or resolution of an image respective of other two at a time by [ B ] ✓

- A) Selecting Resample Image option from image size  
B) Deselecting Resample Image option from image size  
C) Selecting Constrain Proportion option from image size  
D) Deselecting Constrain Proportion option from image size

29. In Photoshop, \_\_\_ Tool is used to erase pixels from similar colored area. [ B ] ✓

- A) Magic Eraser      B) Background Eraser      C) Layer Eraser      D) None of these

30. What is the shortcut key to Zoom Out in Photoshop? [ C ] ✓

- A) Ctrl +      B) Ctrl + O      C) Ctrl + -      D) Ctrl + F

31. Which tool is used to select the part of the image having defined edges? | B | ✓

- A) Magic Wand    B) Magnetic Lasso    C) marquee    D) zoom

32. Which of these palettes is not displayed by default in Photoshop? | A | ✓

- A) History Palette    B) Navigator Palette    C) Color Palette    D) Layers Palette

33. Which tool is used to fill single color in background? | B | ✓

- A) Gradient Tool    B) Paint Tool    C) Paint Bucket Tool    D) Background Tool

34. Which tool is used to remove any spot in the image? | C | ✓

- A) Eraser Tool    B) Spot Brush Tool    C) Spot Healing Brush Tool    D) Gradient Tool

35. Which tool is helpful to make a round (Circular) shape? | B | ✓

- A) Elliptical Marquee Tool    B) Rectangle Tool    C) Polygonal Lasso Tool    D) Pen Tool

36. How many layers do we need to create a clipping mask? | B | ✓

- A) One    B) Two    C) Three    D) Four

37. with help of which tool the character is inserted in Photoshop? | B | ✓

- A) Slice Tool    B) Type Tool    C) Pen Tool    D) Pencil Tool

38. Which of these palettes is not in Photoshop? | D | ✓

- A) Layer    B) Navigator    C) Channel    D) Drawing

39. How to make New Layer in Photoshop? | B | ✓

- A) File>New    B) Layer>New    C) Image>New    D) Edit>New

40. Which of the following is not a menu in Photoshop? | D | ✓

- A) Image    B) Select    C) Filter    D) Tools

41. \_\_\_ key is used to merge layers in Photoshop. | B | ✓

- A) Ctrl + M    B) Ctrl + E    C) Ctrl + D    D) Ctrl + S

42. In Photoshop, Ctrl + M is used for | B | ✓

- A) Saturation    B) Curves    C) Hue    D) Export

43. In Photoshop, \_\_\_ Tool is used to paint an image with a desired pattern | A | ✓

- A) Brush    B) Pattern Stamp    C) Sprayer    D) Gradient

44. This tool works like a real life paintbrush and allows drawing smooth strokes of color: | B | ✓

- A) Paint brush    B) Airbrush    C) History brush    D) all of the above

45. A Digital Image is made up of thousands of

- A) Pixels                  B) Bitmap                  C) Resolution                  D) Vector Images

[ A ] ✓

46. To turn-off the use of a tool, or deselect it, you must push the \_\_\_ key.

- A) Ctrl + Z                  B) Shift + Z                  C) Shift + D                  D) Ctrl + D

[ D ] ✓

47. \_\_\_ adjusts the width of the space between two characters in a line of text in Photoshop

- A) Leading                  B) Kerning                  C) Tracking                  D) Cloning

[ B ] ✓

48. In Photoshop, \_\_\_ tool is used to darken pixels in an image.

- A) Patch                  B) Blur                  C) Burn                  D) Dodge

[ D ] ✓

49. The \_\_\_ tool selects areas of similar color?

- A) Lasso                  B) Marquee                  C) Move                  D) Magic Wand

[ D ] ✓


50. \_\_\_ is the process of generating an image from a model by means of computer programs.

- A) Cloning                  B) Rendering                  C) Filtering                  D) None of these

[ A ] ✓

**SIR C R REDDY COLLEGE FOR WOMEN, ELURU**  
**VALUE ADDED COURSE On "ADOBE PHOTOSHOP"**  
**MARKS REGISTER**

S.N O	Roll Number	Class	Name Of The Student	Internal Exam	External Exam
1	181004	III B.Sc (M.P.C)	B.J.V.D.Satya Vani	22	42
2	181005	III B.Sc (M.P.C)	B.Bhavaja Naga Raja sri	22	41
3	181006	III B.Sc (M.P.C)	B.Gnaneswari	21	40
4	181008	III B.Sc (M.P.C)	Ch.Harika	22	44
5	181009	III B.Sc (M.P.C)	Ch.Mounika	22	42
6	181011	III B.Sc (M.P.C)	Ch.Devi sree	19	42
7	181015	III B.Sc (M.P.C)	T.Vineetha	21	40
8	181017	III B.Sc (M.P.C)	K.Satya Sowjanya	22	43
9	181018	III B.Sc (M.P.C)	K.K.Gayathri Supraja	24	44
10	181019	III B.Sc (M.P.C)	V.Radhika	21	45
11	181020	III B.Sc (M.P.C)	A.Kamala Sarojini	23	43
12	181024	III B.Sc (M.P.C)	A.Devi Hari Chandana	20	42
13	181025	III B.Sc (M.P.C)	A.Ekta Sri	24	45
14	181026	III B.Sc (M.P.C)	B.Ramya Priya	24	44
15	181038	III B.Sc (M.P.C)	Ch.Sangeetha	23	43
16	181045	III B.Sc (M.P.C)	D. Devi Maheswari	24	41
17	181047	III B.Sc (M.P.C)	G.Vasavi	23	45
18	181050	III B.Sc (M.P.C)	G.Sri Satya Jyothi	21	43
19	181051	III B.Sc (M.P.C)	G.Naga Ramya	24	45
20	181053	III B.Sc (M.P.C)	G.Akhila	21	45
21	181054	III B.Sc (M.P.C)	G.Ambica	23	44
22	181055	III B.Sc (M.P.C)	G.Sri Pujitha	24	44
23	181059	III B.Sc (M.P.C)	G.Sravani Durga	21	40
24	181060	III B.Sc (M.P.C)	T.Lakshmi Sai Triveni	19	43
25	181062	III B.Sc (M.P.C)	J.KrishnaVeni	21	40
26	181063	III B.Sc (M.P.C)	T.Nandini	22	43
27	181068	III B.Sc (M.P.C)	K.SubbaLakshmi	24	43
28	181072	III B.Sc (M.P.C)	K.Jahnavi	21	43
29	181073	III B.Sc (M.P.C)	K.Jaya Sir	24	45
30	181074	III B.Sc (M.P.C)	K.V.N.Priya	18	44

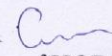
  
Signature

SIR C R REDDY COLLEGE FOR WOMEN, ELURU.

DEPARTMENT OF COMPUTER SCIENCE.

ATTENDANCE SHEET

S.No	Name of the Student	Roll No	30/11	1/12	02/12	7/12	8/12	09/12	14/12	15/12	16/12	21/12
1	B.T.V.D. Satya Vani	181004	/	/	/	/	/	/	/	/	/	/
2	B. Bhavara Naga Raja Sri	181005	/	/	/	/	/	/	/	/	/	/
3	B. Gnaneswari	181006	/	/	/	/	/	/	/	/	/	/
4	Ch. Harika	181008	/	/	/	/	/	/	/	/	/	/
5	Ch. Mounipa	181009	/	/	/	/	/	/	/	/	A	/
6	Ch. Devi Sree	181011	/	/	A	/	/	/	/	/	/	/
7	T. vineetha	181015	/	/	/	/	/	/	A	/	/	/
8	K. Satya Sowjanya	181017	/	/	/	/	/	/	/	/	/	/
9	K.K. Gayathri Suprasa	181018	/	/	/	/	A	/	/	/	/	/
10	V. Radhika	181019	/	/	/	/	/	/	/	/	/	/
11	A. Kamala Sarojini	181020	/	A	/	/	/	/	/	/	/	/
12	A. Devi hari Chandana	181024	/	/	/	/	/	/	/	/	/	A
13	A. Ekta Sri	181025	/	/	/	/	/	/	/	/	/	/
14	B. Ramya priya	181026	/	/	/	/	/	/	/	/	/	/
15	Ch. Sangretha	181038	/	/	/	/	/	/	/	/	/	/
16	D. Devi Maheswari	181045	/	/	/	/	/	A	/	/	/	/
17	G. Vasavi	181047	/	/	/	/	/	/	/	/	/	/
18	G. Sri satya Jyothi	181050	/	/	/	/	/	/	/	/	A	/
19	G. Naga Ramya	181051	/	/	/	/	/	/	/	/	/	/
20	G. Akhila	181053	/	/	/	/	/	/	/	/	/	/
21	G. Ambica	181054	/	/	A	/	/	/	/	/	/	/
22	G. Sri pusitha	181055	/	/	/	/	/	/	/	/	/	/
23	G. Sravani Durga	181059	/	/	/	/	/	/	/	/	/	/
24	T. Lakshmi Sai Triveni	181060	/	/	/	A	/	/	/	/	/	/
25	J. Krishna veni	181062	/	/	/	/	/	/	/	/	/	/
26	J. Nandini	181063	/	/	/	/	/	/	/	/	/	/
27	K. Subba lakshmi	181068	/	/	/	/	/	/	/	/	A	/
28	K. Jahnavi	181072	/	/	/	/	/	/	/	/	/	/
29	K. Jaya Sri	181073	/	/	/	/	A	/	/	/	/	/
30	K.V.N. Priya	181074	/	/	/	/	/	/	/	/	/	/

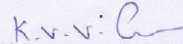
K.v.v.   
Signature of HOD

SIR C R REDDY COLLEGE FOR WOMEN, ELURU.

DEPARTMENT OF COMPUTER SCIENCE

ATTENDANCE SHEET

S.No	Name of the Student	Roll No	29/12	30/12	31/12	01/01	02/01	03/01	04/01	05/01	06/01	11/01	18/01
1	B.J.V.D. Satyavani	181004	/	/	/	/	/	/	/	/	/	/	/
2	B. Bhavaja Naga Sri	181005	/	/	/	/	/	/	/	A	/	/	/
3	B. Gnaneswari	181006	/	/	/	/	/	/	/	/	/	/	/
4	Ch. Harika	181008	/	/	/	/	/	/	/	/	/	/	/
5	Ch. Mounika	181009	/	/	/	/	A	/	/	/	/	/	/
6	Ch. Devi sree	181011	/	/	/	/	/	/	/	/	/	/	/
7	I. Vineetha	181015	/	/	/	/	/	/	/	/	/	/	/
8	K. Satya Sreeranya	181017	/	/	/	/	/	/	/	/	/	/	/
9	K.K. Gayathri Supraja	181018	/	/	/	/	/	/	/	/	/	/	/
10	V. Radhika	181019	/	/	/	/	/	/	/	/	/	/	/
11	A. Kamala Sarojini	181020	/	/	/	/	/	/	/	/	/	/	/
12	A. Devi hari Chandana	181024	/	/	/	/	/	/	/	/	/	/	/
13	A. Ekta Sri	181025	/	A	/	/	/	/	/	/	/	/	/
14	B. Ramya priya	181026	/	/	/	/	/	/	/	/	/	/	/
15	Ch. Sangeetha	181038	/	/	/	/	/	/	/	/	/	/	/
16	D. Devi Maheswari	181045	/	/	/	/	/	/	/	/	/	/	/
17	G. Vasavi	181047	/	/	/	/	/	/	/	/	/	A	/
18	G. Sri Satya Jyothi	181050	/	/	/	/	/	/	/	/	/	/	/
19	G. Naga Ramya	181051	/	/	/	/	/	/	/	/	/	/	/
20	G. Akhila	181053	/	/	/	/	/	/	/	/	/	/	/
21	G. Ambika	181054	/	/	/	/	/	/	/	/	/	/	/
22	G. Sri puritha	181055	/	A	/	/	/	/	/	/	/	/	/
23	G. Sravani Durga	181059	/	/	/	/	/	/	/	/	/	/	/
24	I. Lakshmi Sai Triveni	181060	/	/	/	/	/	/	/	/	/	/	/
25	J. Krishna Veni	181062	/	/	/	/	/	/	/	/	/	/	/
26	J. Nandini	181063	/	/	/	/	/	/	/	/	/	/	/
27	K. Subba Lakshmi	181068	/	/	/	/	/	/	/	/	/	/	/
28	K. Jahnvi	181072	/	/	/	/	/	/	/	/	/	/	A
29	K. Jaya Sri	181073	/	/	/	/	/	/	/	/	/	/	A
30	K.V.N. Priya	181074	A	/	/	/	/	/	/	/	/	/	/

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Signature of HOD



SIR C R REDDY COLLEGE FOR WOMEN, ELURU.

DEPARTMENT OF COMPUTER SCIENCE

ATTENDANCE SHEET

S.No	Name of the Student	Roll No	17/01	20/01	25/01	27/01	01/02	02/02	03/02	06/02	07/02	10/02
1.	B. J. V. D. Satya Vani	181004	A	/	/	/	/	/	/	/	/	/
	B. Bhavata Naga Sri	181005	/	/	/	/	/	/	/	/	/	/
	B. Ananeswari	181006	/	/	/	/	/	/	/	/	A	/
	Ch. Harika	181008	/	/	/	/	/	/	/	/	/	/
	Ch. Hounika	181009	/	/	/	/	/	/	/	/	/	/
	T. Vineetha	181015	/	A	/	/	/	/	/	/	/	/
	K. Satya Sowjanya	181017	/	/	/	/	/	/	/	/	/	/
	K. K. Gayathri Supraja	181018	/	/	/	/	/	/	/	/	/	/
	V. Radhika	181019	/	/	/	/	A	/	/	/	/	/
	A. Kamala Sarojini	181020	/	/	/	/	/	/	/	/	/	/
	A. Devi Hari Chandana	181024	/	/	/	/	/	/	/	/	/	/
	A. Ekta Sri	181025	/	/	/	/	/	/	/	/	/	/
	B. Ramya Priya	181026	A	/	/	/	/	/	/	/	/	/
	Ch. Sangeetha	181038	/	/	/	/	/	/	/	/	/	/
	D. Devi Maheswari	181045	/	/	/	/	/	/	A	/	/	/
	G. Vasavi	181047	/	/	/	/	/	A	/	/	/	/
	G. Sri Satya Jyothi	181050	/	/	/	/	/	/	/	/	/	/
	G. Naga Ramya	181051	/	/	/	/	/	/	/	/	/	/
	G. Arkhila	181053	/	/	A	/	/	/	/	/	/	/
	G. Ambica	181054	/	/	/	/	/	/	/	/	/	/
	G. Sri pusitha	181055	/	/	/	A	/	/	/	/	/	/
	G. Sravani Durga	181059	/	/	/	A	/	/	/	/	/	/
	J. Lakshmi Sai Triveni	181060	/	/	A	/	/	/	/	/	/	/
	J. Krishna veni	181062	/	/	/	/	/	/	/	/	/	/
	J. Nandini	181063	/	/	/	/	/	/	/	/	/	/
	K. Subba Lakshmi	181068	/	/	/	/	/	/	/	/	/	/
	K. Jahnvi	181072	/	/	/	/	/	/	/	/	/	/
	K. Jaya Sri	181073	/	/	/	/	A	/	/	/	/	/
	K. V. N. Priya	181074	/	/	/	/	/	/	/	/	/	/
	Ch. Devi. sreel	181011	/	/	/	/	/	/	/	/	/	/

K. V. V. C.  
Signature of HOD

SIR C R REDDY COLLEGE FOR WOMEN, ELURU.

DEPARTMENT OF COMPUTER SCIENCE

ATTENDANCE SHEET

S.No	Name of the Student	Roll No	15/12	16/12	17/12	22/12	23/12	24/12	01/01	02/01	03/01	04/01
1	B.J.V.D Satyavani	181004	/	/	/	/	/	/	/	/	/	/
2	B. Bhavaja Raga Sri	181005	/	/	/	/	/	A	/	/	/	/
3	B. Gnaneswari	181006	/	/	/	/	/	/	/	/	/	/
4	ch. Harika	181008	/	/	/	/	/	/	/	/	/	/
5	ch. Mounika	181009	/	/	A	/	/	/	/	/	/	/
6	ch. Devi Sree	181011	/	/	A	/	/	/	/	/	/	/
7	J. Vineetha	181015	/	/	A	/	/	/	/	/	/	/
8	k. Satya Sowjanya	181017	/	/	/	/	/	/	/	/	/	/
9	K.k. Gayathri Supraja	181018	/	/	/	/	/	/	/	/	/	/
10	V. Radhika	181019	/	/	/	A	/	/	/	/	/	/
11	A. kamala Sarojini	181020	/	/	/	/	/	/	/	/	/	A
12	A. Devi Hari Chandana	181024	/	/	/	/	/	/	/	/	/	/
13	A. Ekta Sri	181025	/	/	/	/	/	/	/	/	/	/
14	B. Ramya Priya	181026	/	/	/	A	/	/	/	/	/	/
15	ch. Sangeetha	181038	/	/	/	/	/	/	/	/	/	/
16	D. Devi Maheswari	181045	/	/	/	/	/	/	/	/	/	/
17	G. Vasavi	181047	/	/	/	/	/	/	/	/	A	/
18	G. Sri Satya Tyothi	181050	/	A	/	/	/	/	/	/	/	/
19	G. Naga Ramya	181051	/	/	/	/	/	/	/	/	/	/
20	G. Akhila	181053	/	/	/	/	/	/	/	/	/	/
21	G. Ambika	181054	/	/	/	A	/	/	/	/	/	/
22	G. Sri Pujitha	181055	/	A	/	/	/	/	/	/	/	/
23	G. Sravani Durga	181059	/	/	/	/	/	/	/	/	/	/
24	J. Lakshmi Sai Triveni	181060	/	/	/	/	/	/	/	/	/	/
25	J. Krishna Veni	181062	A	/	/	/	/	/	/	/	/	/
26	J. Nandini	181063	/	/	/	/	/	/	/	/	/	/
27	k. Subba Lakshmi	181068	/	/	/	A	/	/	/	/	/	/
28	K. Jahnvi	181072	/	/	/	/	/	/	/	/	/	/
29	k. Jaya Sri	181073	/	/	/	/	/	/	A	/	/	/
30	k.V.N Priya	181074	/	A	/	/	/	/	/	/	/	A

Signature of HOD