# Gwalior M.P. Gwalior M.P.



# **Practical File**

On

# **Computer Fundamentals & Its Applications**

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Submitted To: Submitted By:

Mr. Deepak Bhatnagar Name:

Mr. Alankar Shastri Roll No:

**CSE Department** 

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# Experiment No $\rightarrow$ 1

# **Various Components of Computer**

#### **CPU**

Its meaning is Central Processing Unit. Sometimes referred to simply as the central processor or Nerve Centre or heart, but more commonly called processor, the CPU is where most calculations take place. The CPU is the brains of the computer.

Central processing unit (CPU) is the central component of the Computer System. Sometimes it is called as microprocessor or processor. It is the brain that runs the show inside the Computer. All functions and processes that is done on a computer is performed directly or indirectly by the processor. Obviously, computer processor is one of the most important elements of the Computer system. CPU is consists of transistors, that receives inputs and produces output. Transistors perform logical operations which is called processing. It is also, scientifically, not only one of the most amazing parts of the PC, but one of the most amazing devices in the world of technology.



In terms of computing power, the *computer processor* is the most important element of a computer system. It add and compare its data in cpu chip. A CPU of all computers, whether micro, mini or mainframe must have three parts.

#### Parts of CPU

**Arithmetic Logic Unit (ALU):** It is the part of computer processor (CPU) can be used to perform arithmetic and logic operations. An arithmetic-logic unit (ALU) is further divided into two parts, (AU) arithmetic unit and a (LU) logic unit.

Control Unit (CU): Decodes the program instruction. CPU chip used in a computer is partially made out of Silica. on other words silicon chip used for data processing are called Micro Processor.

## Keyboard

A **computer keyboard** is an input device used to enter characters and functions into the computer system by pressing buttons, or **keys**. It is the primary device used to enter text. A keyboard typically contains keys for individual letters, numbers and special characters, as well as keys for specific functions. A keyboard is connected to a computer system using a cable or a wireless connection.



Typical keyboard for a desktop computer

Most keyboards have a very similar layout. The individual keys for letters, numbers and special characters are collectively called the **character keys**. The layout of these keys is derived from the original layout of keys on a typewriter. The most widely used layout in the English language is called **QWERTY**, named after the sequence of the first six letters from the top left.

#### Mouse

A **computer mouse** is a handheld hardware <u>input device</u> that controls a <u>cursor</u> in a <u>GUI</u> and can move and select <u>text</u>, <u>icons</u>, <u>files</u>, and <u>folders</u>. For desktop computers, the mouse is placed on a

flat surface such as a mouse pad or a desk and is placed in front of your computer. The picture to the right is an example of a desktop computer mouse with two buttons and a wheel.



The mouse was originally known as the **X-Y Position Indicator** for a Display System and was invented by <u>Douglas Engelbart</u> in <u>1963</u> while working at <u>Xerox PARC</u>. However, due to Alto's lack of success, the first widely used application of the mouse was with the <u>Apple Lisa computer</u>. Today, this pointing device is on virtually every computer.

#### **Monitor**

Monitors, commonly called as **Visual Display Unit** (VDU), are the main output device of a computer. It forms images from tiny dots, called pixels that are arranged in a rectangular form. The sharpness of the image depends upon the number of pixels.

There are two kinds of viewing screen used for monitors.

- Cathode-Ray Tube (CRT)
- Flat-Panel Display

## **Cathode-Ray Tube (CRT) Monitor**

The CRT display is made up of small picture elements called pixels. The smaller the pixels, the better the image clarity or resolution. It takes more than one illuminated pixel to form a whole character, such as the letter 'e' in the word help.



A finite number of characters can be displayed on a screen at once. The screen can be divided into a series of character boxes - fixed location on the screen where a standard character can be placed. Most screens are capable of displaying 80 characters of data horizontally and 25 lines vertically.

There are some disadvantages of CRT -

- Large in Size
- High power consumption

## **Flat-Panel Display Monitor**

The flat-panel display refers to a class of video devices that have reduced volume, weight and power requirement in comparison to the CRT. You can hang them on walls or wear them on your wrists. Current uses of flat-panel displays include calculators, video games, monitors, laptop computer, and graphics display.



The flat-panel display is divided into two categories –

- **Emissive Displays** Emissive displays are devices that convert electrical energy into light. For example, plasma panel and LED (Light-Emitting Diodes).
- **Non-Emissive Displays** Non-emissive displays use optical effects to convert sunlight or light from some other source into graphics patterns. For example, LCD (Liquid-Crystal Device).

#### **Printers**

Printer is an output device, which is used to print information on paper.

There are two types of printers –

- Impact Printers
- Non-Impact Printers

## **Impact Printers**

Impact printers print the characters by striking them on the ribbon, which is then pressed on the paper.

Characteristics of Impact Printers are the following -

- Very low consumable costs
- Very noisy
- Useful for bulk printing due to low cost
- There is physical contact with the paper to produce an image

These printers are of two types –

- Character printers
- Line printers

#### **Character Printers**

Character printers are the printers which print one character at a time.

These are further divided into two types:

- Dot Matrix Printer(DMP)
- Daisy Wheel

#### **Dot Matrix Printer**

In the market, one of the most popular printers is Dot Matrix Printer. These printers are popular because of their ease of printing and economical price. Each character printed is in the form of pattern of dots and head consists of a Matrix of Pins of size (5\*7, 7\*9, 9\*7 or 9\*9) which come out to form a character which is why it is called Dot Matrix Printer.



## **Daisy Wheel**

Head is lying on a wheel and pins corresponding to characters are like petals of Daisy (flower) which is why it is called Daisy Wheel Printer. These printers are generally used for word-processing in offices that require a few letters to be sent here and there with very nice quality.



## **Line Printers**

Line printers are the printers which print one line at a time.



These are of two types –

- Drum Printer
- Chain Printer

#### **Drum Printer**

This printer is like a drum in shape hence it is called drum printer. The surface of the drum is divided into a number of tracks. Total tracks are equal to the size of the paper, i.e. for a paper width of 132 characters, drum will have 132 tracks. A character set is embossed on the track. Different character sets available in the market are 48 character set, 64 and 96 characters set. One rotation of drum prints one line. Drum printers are fast in speed and can print 300 to 2000 lines per minute.

#### **Chain Printer**

In this printer, a chain of character sets is used, hence it is called Chain Printer. A standard character set may have 48, 64, or 96 characters.

## **Non-impact Printers**

Non-impact printers print the characters without using the ribbon. These printers print a complete page at a time, thus they are also called as Page Printers.

These printers are of two types –

- Laser Printers
- Inkjet Printers

## **Characteristics of Non-impact Printers**

- Faster than impact printers
- They are not noisy
- High quality
- Supports many fonts and different character size

#### **Laser Printers**

These are non-impact page printers. They use laser lights to produce the dots needed to form the characters to be printed on a page.



## **Inkjet Printers**

Inkjet printers are non-impact character printers based on a relatively new technology. They print characters by spraying small drops of ink onto paper. Inkjet printers produce high quality output with presentable features.



They make less noise because no hammering is done and these have many styles of printing modes available. Color printing is also possible. Some models of Inkjet printers can produce multiple copies of printing also.

## **Storage Devices**

#### 1. USB Flash Drive

A USB Flash Drive is a small, ultra-portable storage device which is used to store data and transfer information. Flash drives are also called as pen-drives, jump-drives, and thumb-drives. Basically, every USB flash drive are re-writable and removable. Actually, USB Flash Drive is robust because there are no moving parts. At the time of First stage the size of USB Flash Drive was just like 8 MB and now the size of USB Flash Drive is just like 2 GB to 1 TB.



## 2. Memory Cards

A Memory Card is a small storage device just like 16 MB to 64 GB and this storage device is used for storing media and data files. Memory card is Non-Volatile, permanent storage device which is used inside of Phone, Camera, and many other electronic devices. There are so many types of memory card in market, and it's totally depended on size.



## 3. CD (Compact Disk)

The CD was created by Pilips factory in Germany on august,1982. Compact Disk is the full form of CD, it's looks like a flat, round and the measures of standard CD is 120 millimeters and across 1.2 mm thick. The size of Compact Disk is 650 Megabytes to 700 Megabytes. A compact Disk is a portable storage medium that can store audio, video, picture, and also Data.



## 4. DVD (Digital Video Disk)

DVD (Digital Video Disk) is an optical disk format invented and developed in 1995. The Capacity of CD is 4.7 GB and the Weight is 16 grams. The Compact Disk can store any kind of digital media just like video, audio, picture, game, software, data. Actually, DVD is just like a ROM because data can only be read and not written. DVD can be single side or double side both, the size of single side DVD is 4.7 GB and the size of double side DVD is 9.4 GB.



#### 5. HDD (Hard Disk Drive)

IBM company's engineer created the first Hard Disk Drive in 1953. The size of Hard Disk was just like two refrigerators. A Hard Disk Drive is a non-volatile secondary storage device, here data can store permanently. unlike RAM, it is non-volatile means data is retained when the computer is turned off. A Hard Disk Drive is actually a set of stacked disks. The first production IBM hard Disk was 305 disk storage which was shipped in 1957.



HDD (Hard Disk Drive)

# Experiment No $\rightarrow$ 2

## **MS-DOS:Internal & External DOS Commands**

Command is an instruction written in a computer acceptable language that user types on the dos prompt. It will execute and do the appropriate action. There are mainly two types of dos command.

1. Internal commands: The internal commands are those commands that are automatically
loaded in the memory. Some commonly used DOS internal commands are

- 1 Cls
- 2. Dir
- 3. Date
- 4. Time
- 5. Ver
- 6. Copycon
- 7. Type
- 8. Ren
- 9. Del
- 10. MD
- 11. CD
- 12. RD
- 13. Copy

**2. External commands:** - These commands are not permanent part of the memory. To execute or run this commands an external file is required.

**Example :** [.] Dot exe, bat.

Some commonly used DOS external commands are .

**1. CHKDSK:-** The command CHSDK returns the configuration status of the selected disk. It returns the information about the volume, serial number, total disk space, space in directories, space in each allocation unit, total memory and free memory.

**Syntax:** - C:/> CHKDSK drive name

**Eg:-** C:/> CHKDSK e:

If drive name is not mentioned by default current drive is considered.

**2. Diskcopy:** - Disk copy command is used to make duplicate copy of the disk like Xerox copy. It first formats the target disk and then copies the files by collection. From the source disk and copied to the target disk.

**Syntax:** - C: /> disk copy < source path > < destination path >

**Ex:** - c: / > diskcopy A: B:

**NOTE:** - This command is used after diskcopy command to ensure that disk is copied successfully.

**3. Format : -** Format is used to erase information off of a computer diskette or fixed drive.

**Syntax:** - C:/> format drive name

**Ex**: C: /> format A:

**4. Label :** This command is used to see volume label and to change volume label.

**Syntax**: C:/>label drive name

 $\mathbf{Ex}: \mathbf{C}: /> \mathbf{label} \ \mathbf{A}:$ 

**5.Scandisk:** - This utility is used to repair and check various disk errors. It also defects various physical disk errors and surface errors.

 $Syntax: \hbox{-} C: /\!> scandisk < drive \ names >$ 

C:/>Scandisk A:

**6. Move :** The purpose of move is move to files from one place to another place.

**Syntax:** C:/> Move < source path > < target path >

**7. Print :** This command allowed users to print a text file to a line printer.

 $\textbf{Syntax}: C: /\!> Print < files name >$ 

C:/>print ramu

**8. Tree :** This command displays the list of directories and files on specified path using graphical display. It displays directories of files like a tree.

**Syntax:-** C: /> tree > path

C:/> tree A:

**9. Deltree:** This command is used to delete files a directories same as by the del and RD commands. This command is more useful than del and RD commands because it completely removes specified directories ie., disk will all it files and sub – directories at a time.

**Syntax:-** C:/ > deltree (path)

C:/>deltree A:/>ramu

# Experiment No $\rightarrow$ 3

## **Windows Operating System**

The operating system window is the extension of the disk operating system. It is the most popular and simplest operating system; it can be used by any person who can read and understand basic English, as it does not require any special training.

However, the Windows Operating System requires DOS to run the various application programs initially. Because of this reason, DOS should be installed into the memory and then window can be executed.

#### **Elements of Windows OS**

Following are the significant element of Windows Operating System (WOS) –

- Graphical User Interface
- Icons (pictures, documents, application, program icons, etc.)
- Taskbar
- Start button
- Windows explorer
- Mouse button
- Hardware compatibility
- Software compatibility
- Help, etc.

Once you are logged in a window computer system, you will get dozens of applications, so you can choose an option of your requirement.

Many of the options have shortcut icon readily available on your computer screen; however, in some computers, you may not find any such option on the screen; in such a case, you can take the help of menu button (as shown in the image given below) –



## **Start Menu Options**

The following table lists down the options that appear after clicking on the Start menu –

## **Option & Description**

## 1. All programs

It displays all those programs, which are installed in your system.

#### 2. Document

It displays a list of folders used by the user.

## 3. Recent file

It displays the recently used file.

## 4. My picture

It displays a list of pictures.

## 5. My music

It displays a list of music/song, etc.

## 6. My computer

It displays the drives of computer where user keeps his/her work, file, folder, song, video, picture, e-book, etc.

## 7. Control panel

It displays all the installed computer programs (software).

#### 8. Printer

It displays the installed printers (if printer is installed in the system, user can take print easily).

#### 9. Help (support)

It helps users to know how to do a particular task.

#### 10. Search

It helps a user to find a file in computer.

#### 11. **Run**

It helps to start an application program or execute a DOS command.

#### 12. **Setting**

It has different options that help to manage different settings of the computer, software as well as hardware.

#### 13. **Log Off**

It helps a user to log off the currently logged in user of the system.

#### **14. Sleep**

It makes the system non-functional; however, puts the ongoing work and settings in memory and also keeps drawing small amount of power.

#### 15. Hibernation

Hibernation puts the open documents and programs on hard disk and then turns off your computer; in comparison to 'sleep', it uses very low power.

#### 16. **Restart**

Its function is to shut down and again start (log on) computer; it is done normally to refresh computer especially when computer is hanged.

#### 17. Shut down

It simply shuts down the system.

## Recycle Bin

Recycle Bin is a trash location where deleted files remain stored. Once you delete any sort of file, it gets stored (automatically) into recycle bin; therefore, if you mistakenly deleted some important file, don't panic, go to recycle bin and restore it. However, if you deleted file from recycle bin as well, then it is very difficult to restore that permanently deleted file.



## Accessories

Windows operating system ships with some handy applications known as Windows accessories. Calculator, Notepad, Paint, Explorer, WordPad are some of the most frequently used accessories.

#### Calculator



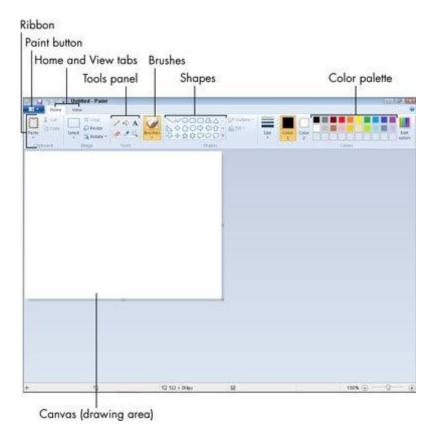
Windows Calculator is a calculating application included in all the versions of Windows. It can be used to perform simple calculation, scientific calculation and Programming calculation.

• Choose Start >> Programs >> Accessories >> Calculator to start Calculator application, or

- Alternately you can open Run dialog box (Start >> Run) dialog box then type *calc* and hit enter.
- From View menu choose the required type of calculator Standard, Scientific, Programmer, Statistical
- Edit >> Copy and Paste commands can be used to input the numbers into calculator or paste the result to other applications

Calculator was first included with Windows 1.0 as a simple arithmetic calculator. In Windows 3.0, a Scientific mode was added, which included exponents and roots, logarithms, factorial-based functions, trigonometry (supports radian, degree and gradians angles), base conversions (2, 8, 10, 16), logic operations, Statistic functions such as single variable statistics and linear regression.

#### **Paint**

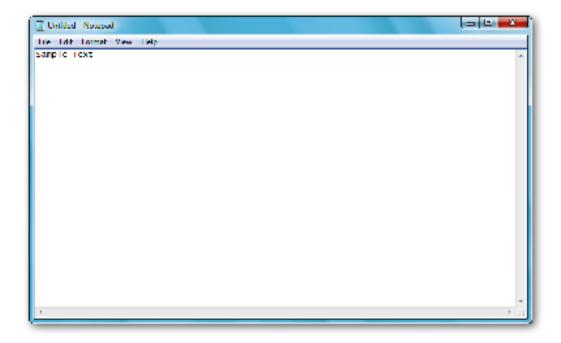


Paint (formerly Paintbrush for Windows) is a simple graphics painting program that has been included with all versions of Microsoft Windows. It is often referred to as MS Paint or Microsoft Paint. The program opens and saves files as Windows bitmap (24-bit, 256 color, 16 color, and monochrome) .BMP, JPEG, GIF. Paintbrush supports GIF without animation or transparency. Since Windows 98 Paint supports GIF with transparency. It also supports PNG (without alpha channel), and TIFF (without multiple page support).

The program can be in color mode or two-color black-and-white, but there is no grayscale mode. For its simplicity, it rapidly became one of the most used applications in

the early versions of Windows—introducing many to painting on a computer for the first time—and still has strong associations with the immediate usability of the old Windows workspace.

## **Notepad**



Notepad is a common text-only (plain text) editor. The resulting files—typically saved with the .txt extension—have no format tags or styles, making the program suitable for editing system files that are to be used in a DOS environment.

Notepad supports both left-to-right and right-to-left based languages, and one can alternate between these viewing formats by using the right or left Ctrl+Shift keys to go to right-to-left format or left-to-right format, respectively.

#### WordPad



Microsoft WordPad is a free rich text editor included with Microsoft Windows 95 and the later. Earlier to Windows 95 there used to be an application called Write for the same task. Although capable of doing much more than Notepad, WordPad is not as advanced as Microsoft Word.

WordPad can format and print text, but lacks intermediate features such as a spell checker, thesaurus, and support for tables. As such, it is suitable for writing letters or short pieces, but underpowered for work that relies heavily on graphics or typesetting.

#### **Control Panel**

The **Control Panel** is a section of <u>Microsoft Windows</u> that enables a user to change various computer hardware and software features. Settings for the <u>mouse</u>, <u>display</u>, <u>sound</u>, <u>network</u>, and <u>keyboard</u> represent just a few examples of what may be modified in the Control Panel. Below the Control Panel appeared in Windows.

## Windows 10 Control Panel



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## EXPERIMENT $\rightarrow$ 4

#### **MS-WORD**

MS-WORD is the part of the bigger package called MS-OFFICE. We can do much more than word processing.

## What is word processing?

Word processing is a software package that enables you to create, print and save document for future retrial and reference creating a document involves typing by using a keyboard and saving it editing a document a document involves correcting the spelling mistakes if any deleting or moving words sentence or paragraph.

## Advantages of word processing:

Word processor over a conventional type writer is that a word processor enables you to may change to a document without retyping the entire document.

## **Features of word processing:**

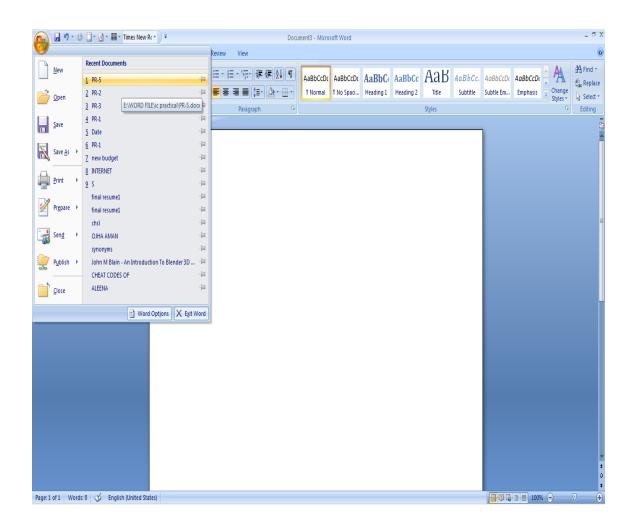
- 1. Text is typing into the computer which allows alteration to be made easily
- 2. Word and sentence can be inserted or deleted.
- 3. Paragraph or text can be copy/move throughout the documents.
- 4. Margins and page length can be adjusted as desired.
- 5. Spelling can be checked and modify through the spell check facility.
- 6. Multiple documents/files can be merged.
- 7. Multiple copies of letters can be generated with different address through the male merger facility.

Some commands of a word processing package:

- 1. Soft Word.
- 2. WordStar.
- 3. WordPerfect.
- 4. Microsoft word.
- 5. Footer.
- 6. Header.

Important components of the screen:

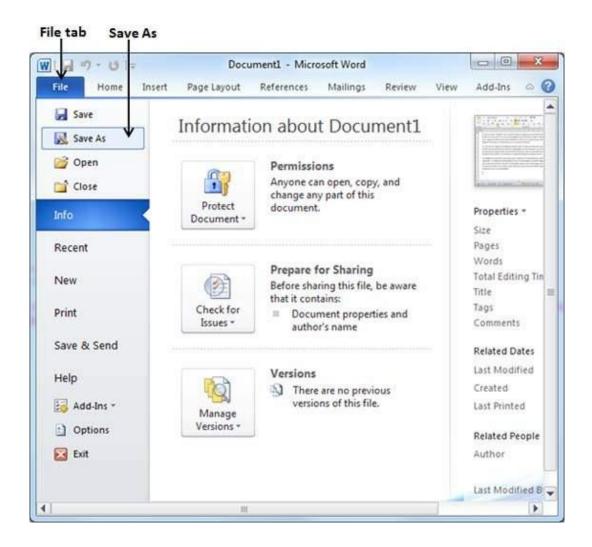
- 1. **Title bar:** The title bar displayed the name of the currently active word document like other windows applications.
- 2. **Toolbar:** Word has a number of tool bar that help you perform task faster and with great easy two of the most commonly toolbar are the formatting toolbar and the standard toolbar.
- 3. **Ruler bar:** the ruler bar allows you to format the vertical alignment of text in a document.
- 4. **Status bar:-** The status bar displays information about the currently activate document. This includes the page no. that you are working.
- 5. **Scroll bar:-** This bar helps scroll the content or body of document.
- 6. **Work space:-** The work space is the document windows where you enter/type the text of your document.
- 7. **Main menu:-** The word main menu is displayed at the top if the screen.



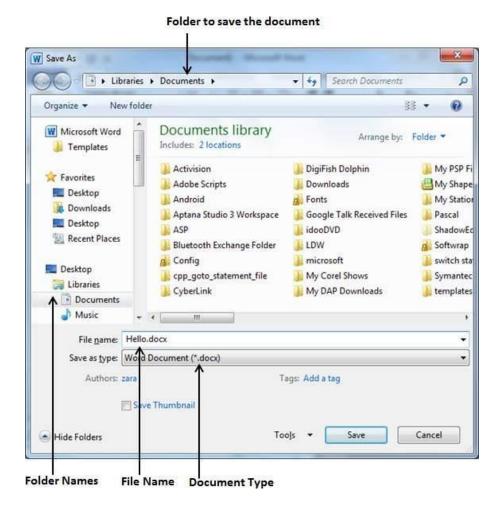
#### **Saving New Document**

Once you are done with typing in your new Word document, it is time to save your document to avoid losing work you have done on a Word document. Following are the steps to save an edited Word document –

Step 1 – Click the File tab and select the Save As option.



**Step 2** – Select a folder where you will like to save the document, Enter the file name which you want to give to your document and Select the **Save As**option, by default it is the **.docx** format.



**Step 3** – Finally, click on the **Save** button and your document will be saved with the entered name in the selected folder.

## **Saving New Changes**

There may be an instance when you open an existing document and edit it partially or completely, or an instance where you may like to save the changes in between editing of the document. If you want to save this document with the same name, then you can use either of the following simple options –

- Just press the **Ctrl** + **S** keys to save the changes.
- Optionally you can click on the floppy icon available at the top left corner and just above the **File tab**. This option will also help you save the changes.
- You can also use the third method to save the changes, which is the **Save** option available just above the **Save As** option as shown in the above screenshot.

If your document is new and it was never saved so far, then with either of the three options, Word will display a dialogue box to let you select a folder, and enter the document name as explained in case of saving new document.

#### **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.

## EXPERIMENT $\rightarrow$ 5

#### MS Excel

#### **Introduction to Microsoft Excel 2007**

Microsoft Excel is a very powerful tool for you to use for numeric computations and analysis Excel can also function as a simple database but that is another class. Today we will look at how to get starting with Excel and show you around the neighborhood sort of speak.

## **Starting MS-Excel 2007**

- To start Microsoft Excel:
- Click once on the Start button on the bottom left corner of the screen.
- Click on All Programs.
- Move the cursor to the new menu on the right and then click on Microsoft Office 2007.
- Move the cursor to the next menu that opens and click Microsoft Office excel 2007.
- A blank document will appear on the screen.

#### Main screen of a Microsoft Excel 2007 Document

This is a workbook. A workbook is a collection of worksheets (spreadsheets) and macros. By default, Excel creates 3 worksheets in a new workbook. The worksheets are designated at the bottom part of the window where you see the file folder-like tabs. The tabs are named Sheet1,Sheet2 and Sheet3. If you click on Sheet2, you will be in Sheet2 and not Sheet1 so you need to be aware of which worksheet you are in.

#### Office Fluent user interface

In Excel 2007, the new Office Fluent user interface replaces the traditional menus and toolbars from previous versions of Excel with a single mechanism designed to help users find the right features more efficiently.

The interface contains three main components:

- Office Button
- Quick Access Toolbar
- Ribbon

## Open a New Workbook

Sometimes you have to create a new workbook.

- 1. Click on the Office Button
- 2. Click on New

You are now able to open recently used or new workbooks from this panel. You can also open up templates that are available with Excel or ones that you create. If you click on Blank Workbook, Excel will create a new workbook for you.

#### What are Columns, Rows, and Cells?

- Columns are the vertical markers in the worksheet and are denoted by the alphabet i.e. A, B, C.
- The rows are the horizontal markers in the worksheet and are denoted by numbers i.e. 1, 2, 3.
- Cells are the single box that you get where the column and row intersect i.e. A1, B3, and C2.

You will often need to know the cell reference. The cell reference is the cell's name and you can find that by looking at the toolbar. This means that the cell that is selected is named C28.

#### Selecting a cell

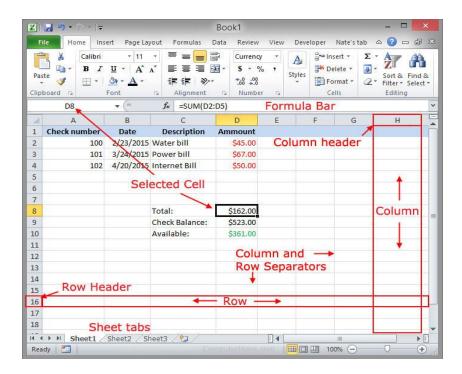
- 1. We are going to select C28. Look for the C column.
- 2. Look for the Row number 28.
- 3. You may use your finger to follow the column C down to where row 28 is.
- 4. Once you have located it, click on it.
- 5. Look at the toolbar; the cell reference box should say C28. If it does not, try again.
- 6. After you have done this, click on a different cell and note the cell reference box.

## Selecting a group of cells A4 to D10

- 1. Click on the first cell A4
- 2. Click and Hold the mouse button down. Drag the cursor down to D10.
- 3. Let go of the mouse button.
- 4. If you did it correctly, you should see a Highlighted box around those cells. If not, try again. Please see the picture on the next page.

## Basic data entry, fill handle

From the example, we have numeric (year, numbers) and text (months) entered as data in our worksheet. Let us practice by re-creating the example on our own.



#### Method 1

- 1. Click on cell A2 to select it.
- 2. Type in 1981 and hit Enter. Notice by hitting Enter, we automatically move down to the next row. (we can also do the same by hitting the down arrow)
- 3. Click on cell B1 to select it.
- 4. Type in January and hit Tab. By hitting Tab (or right arrow), we move to the next column.

We can continue to doing this to enter the data from 1981 to 1992 and so on, but Excel provides us with a tool to complete sequences.

#### Method 2:

- 1. Click on cell A2 to select it.
- 2. Type in 1981 and hit Enter.
- 3. Type in 1982, and then select both cells A2 and A3.
- 4. Move your mouse cursor over the fill handle (small black box on the bottom right of the, active cell) so that the cursor turns into a cross.
- 5. Click and drag the fill handle down to the cell desired.

## Copy, Cut, Paste

You can Copy, Cut and Paste anything into your worksheet. You can copy from one worksheet to another worksheet in another book. Let's concentrate on the basics. We are going to copy cells D4 to H9.

## Cut/Copy and Paste to the same worksheet

- 1. Using the same worksheet, select cells A4 to D10.
- 2. Use CTRL-c to copy and CTRL-x to cut the selected cells.
- 3. Click on cell E29. It should be blank
- 4. Use CTRL-v to paste the data.

You can also use the toolbar shortcuts for cut/copy/paste as the functionality is the same.

#### Insert & delete columns, rows, and cells

Have you ever entered all of your data and realized that you are missing an entry in the middle of the worksheet? If yes and you did not know how to add columns or rows, it would be really difficult to fix. Well, there is an easier method.

You can insert columns, rows, or cells in any spot on your worksheet.

## Using the sort feature

We want to insert a new row for Anne Frank's contact information between John Doe 1. And Fred Johnson but this time we will create her record in line 5.

- 1. Select cells A1 to G5
- 2. Go to the Data tab, then click on Sort
- 3. In the sort option window, use the pull down boxes to select the sort criteria. In this case we want to sort by Last Name, ascending order A-Z, then click on OK.

#### **Delete columns and rows**

We all make mistakes. It is very easy to remove a column or rows.

- 1. Select the column or row that you want to delete.
- 2. Point at the highlighted column name or row name and **right** click.
- 3. A pop-up menu should appear
- 4. Select **Delete**
- 5. The column or row should be gone.

## **Inserting & deleting new worksheets**

There will be many times when you need to add a whole worksheet rather than columns or rows.

#### Insert a worksheet

- 1. **Right** Click on the tabs where the name of the worksheets are.
- 2. Click on **Insert**
- 3. Select what kind of insert you want from the window.
- 4. To move the worksheet, click and hold the left mouse button on the worksheet tab. Drag the tab to where you want it to be placed. Note: you can only move the worksheet tabs to the left or right.

#### Delete a worksheet

- 1. Click on the tab of the worksheet that you want to delete.
- 2. **Right** Click on the same tab of the worksheet
- 3. Click on **Delete**

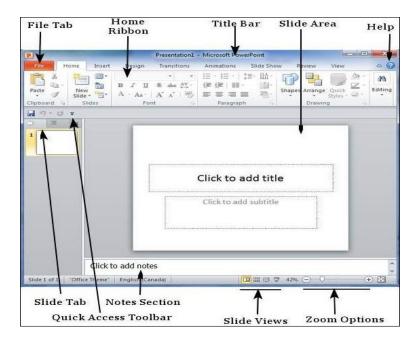
## **Printing**

Printing your worksheets out to a printer would be a nice thing to know how to do. If the information that you have on the worksheet fits on an 8.5"x11" paper, you have no trouble printing your worksheet out. The problem arises when you have a larger worksheet. You may have noticed that your worksheet has dashed lines running down and across it; this is your print area.

## EXPERIMENT $\rightarrow$ 6

#### **MS-POWER POINT**

The presentation software is used for creation of the slides and to display the information in form of presentation software are easy to use and provide an alternative to other older types of visual aids like hand drawn slides, black board, posters, hand outs or overhead transparency. A presentation software provide tool like editor that allows insertion and formatting of text and methods for inserting and manipulating graphics images along with sound and visual effects.



## **Features of MS-Power point:**

- 1. Design.
- 2. Flexibility.
- 3. Animation.
- 4. Presentation.
- 5. Effects.
- 6. Multimedia.
- 7. Integration.

## Presentation terminology:

- 1. Audience hangouts.
- 2. Free hand drawing.
- 3. Object.
- 4. Outline.
- 5. Placeholder.
- 6. Slides.
- 7. Speaker's notes.

#### Starting the MS-Power point:

- 1. Using the start menu.
  - (a) Click on start button.
  - (b) Click at programs.
  - (c) Click on MS-Office sub menu.
- 2. By using shortcuts.

User can use these facilities if the icon of the software has been created and it put on desktop.

- 3. By using Microsoft office bar.
- 4. Menu bar and menu.
- 5. Screen of MS-Power point.

#### Screen of MS Power Point:

- 1. **Title bar:** The title bar displayed the name of the currently active word document like other windows applications.
- 2. **Toolbar:** Word has a number of tool bar that help you perform task faster and with great easy two of the most commonly toolbar are the formatting toolbar and the standard toolbar.
- 3. **Ruler bar:** The ruler bar allows you to format the vertical alignment of text in a document.
- 4. **Status bar:** The status bar displays information about the currently activate document. This includes the page no. that you are working.
- 5. **Scroll bar:** This bar helps scroll the content or body of document.
- 6. **Work space:** The work space is the document windows where you enter/type the text of your document.
- 7. **Main bar:** The word main menu is displayed at the top if the screen.

## EXPERIMENT $\rightarrow$ 7

#### Web browser & E-Mail

A web browser is a software application which enables a user to display and interact with text, images, videos, music, and other information that could be on a website. Text and images on awe page can contain hyperlinks to other web pages at the same or different website. Web browsers allow a user to quickly and easily access information provided on many web pages atman websites by traversing these links. Web browsers format HTML information for displays the appearance of a web page many differ between browsers.

## **Purpose**:

Web browser defines the application software that is designed for the Web browser is used to run the software application that allows retrieving, presenting and traversing the information from one place to another Web browser provides the resources using the WWW (World Wide Web) this can be identified by URI (Uniform Resource Identifier). Web browser fetches the data like web page, image, video or other piece of content from the server and displays it accordingly Web browser uses hyperlinks to display the resources and allow the users to navigate their browsers user to access and retrieve the documents using the Internet.

#### **Protocols and Standards**

Web browsers communicated with web servers primarily using HTTP (hypertext transfer protocol) to fetch web pages. HTTP allows web browsers to submit information to web servers as well as fetch web pages from them. Pages are identified by means of a URL (uniform resource locater), which is treated as an address, beginning with "http://" for HTTP access. The file format for a web page is usually HTML (hyper-text markup language) and is identified in the HTTP protocol. Most web browsers also support a variety of additional formats, such aspen, PNG, and GIF image formats, and can be extended to support more through the use of plug-in. The combination of HTTP content type and URL protocol specification allows webpage designers to embed images, animations, video, sound, and streaming media into a webpage, or to make them accessible through the web page.

## **Popular Browsers**

#### 1. Firefox

Firefox is a very popular web browser. One of the great things about Firefox is that it is supported on all different OSs. Firefox is also open source which makes its support group Avery large community of open source developers. Firefox is also known for its vast range of plugins/add-ons that let the user customize in a variety of ways. Firefox is a product of the

Mozilla Foundation. The latest version of Firefox is Firefox 3.Some of Firefox's most prominent features includes: tabbed browsing, a spell checker, incremental find, live bookmarking, a download manager, and an integrated search system that uses the user's favorite search engine. Like mentioned before, one of the best things about Firefox is its vast amount of plugging/addons. Some of the most popular include No Script (script blocker), Foxy Tunes (controls music players), Ad block Plus (ad blocker), Stumble Upon (website discovery), Down Them All! (Download functions), and Web Developer (web tools).

## 2. Internet Explorer

Internet Explorer (IE - created by Microsoft) is a very prominent web browser for the Windows. IE is the most popular web browser. It comes pre-installed on all Windows computers. The latest version of IE is IE7 with IE8 in beta. IE was designed to view a broad range of web pages and to provide certain features within the OS.IE almost fully supports HTML 4.01, CSS Level 1, XML 1.0, and DOM Level 1. It has introduced a number of proprietary extensions to many of the standards. This has resulted in number of web pages that can only be viewed properly using IE. It has been subject to many security vulnerabilities just like Windows has. Much of the spyware, adware, and viruses across the Internet are made possible by exploitable bugs and flaws in the security architecture of IE. These are drive-by downloads come into play (see computer security lesson for more details on that).

#### 3. Others

Safari (created by Apple) is a very popular web browser among Apple computers. Safari is also the native browser on the phone and iPod touch. Safari is available for Windows, but has not reached a very high level of Windows users since. In May 2008 Safari controlled 6.25% of market share among all web browsers. Opera (created by the Opera Software Company) is another fairly popular web browser. It handles common Internet-related tasks. Opera also includes features such as tabbed browsing, page zooming, mouse gestures, and an integrated download manager. Its security features include phishing and malware protection, strong encryption when browsing secure web sites, and the ability to easily delete private data such as cookies and browsing history. Opera runs on Windows, OS X, and Linux.

#### E-mail:

E-mail (electronic mail) is the exchange of computer-stored messages by telecommunication. (Some publications spell it email; we prefer the currently more established spelling of e-mail.) E-mail messages are usually encoded in ASCII text. However, you can also send non-text files, such as graphic images and sound files, as attachments sent in binary streams. E-mail was one of the first uses of the Internet and is still the most popular use. A large percentage of the total traffic over the Internet is e-mail. E-mail can also be exchanged between online service provider users and in networks other than the Internet, both public and privateer-mail can be distributed to lists of people as well as to individuals. A shared distribution list can be managed by using an e-mail reflector. Some mailing lists allow you to

subscribe by sending a request to the mailing list administrator. A mailing list that is administered automatically is called a list server's-mail is one of the protocols included with the Transport Control Protocol/Internet Protocol (TCP/IP) suite of protocols. A popular protocol for sending e-mail is Simple Mail Transfer Protocol and a popular protocol for receiving it is POP3. Both Netscape and Microsoft include an e-mail utility with their Web browsers.

#### **How to Create a Email**

Gmail has been increasing in popularity since it was first introduced in 2004. With the decline of Yahoo!, AOL, and Hotmail, more and more people are moving to Google's services. Creating a Gmail account is quick and easy, and also provides you access to other Google products such as YouTube, Google Drive, and Google Plus.

#### **Creating Your Account**

Suppose if u want to open your account on gmail.com. Then follow the steps given below Open a Web browser (internet explorer or Google chrome or Mozilla etc.)write in address bar www.gmail.com and you will get below image Now click on "CREATE AN ACCOUNT", as shown in below (check the red arrow) .After clicking on "CREATE AN ACCOUNT" button you will get a window as shown in below image Fill all the details, here the user name is the desired user ID which you want to create. after felling all the details click on "Next step" Button (check the red arrow)after next step it will ask for Phone number for verification, enter cell phone number and click on next now click on "next step" button and you will get you inbox Cong'syou have created your new Gmail ID Enjoy your new Gmail account. You're finished! Click on "Continue to Gmail" to access your inbox, read your emails, and write new ones.

#### **Use of Email**

Email is one of the most important forms of communication in today's digital age. It's the way that millions (if not billions) of people stay in touch with each other. Luckily, this form of near-instant communication is completely free. Make a free email account today to starts sending and receiving email immediately. Read on below the jump for detailed instruction son registering a new email account with several of the internet's most popular email providers. Go to Gmail.com. The first step to creating an email account with Gmail, Google's free email service, is to visit Gmail's main site. Type "gmail.com" into your browser's navigation bar, or, alternatively, type "Gmail" into your search engine of choice and click the relevant result. The email is actually used to transfer messages between one to another. It is also used for:-

- 1. Group discussion by making groups in hotmail, yahoo, etc
- 2. Stay in touch with users attached in the group.
- 3. Transmitting documents through attachments
- 4. Group email to multiple users
- 5. Convenient way of sending job application.
- 6. Easy method of advertisement.
- 7. Receiving conformation of service.
- 8. Service subscription