

COMPUTER

8TH STANDARD



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* ಅರ್ಪಣೆ *

ಕ಼಼ ಷುಸ್ತುಕವನ್ನು ನನ್ನ ಅತ್ತಿಲೆಯಿ ಕಂಷ್ಯಾಟರ್ ಶಿಕ್ಷಕರು
ಹಾಗೂ ನನ್ನ ಏಲ್ಲಾ ಹಿತ್ತೈಷಿಗತಿಗೆ ಹೃದಯಿ ಷೂವಕವಾಗಿ
ಅಪಿ಼ಸುತ್ಲಿದ್ಲೆನೆ.

*What the elder person is followed by others;
What he demonstrates by action that people follow"*

-Bhagwad Gita

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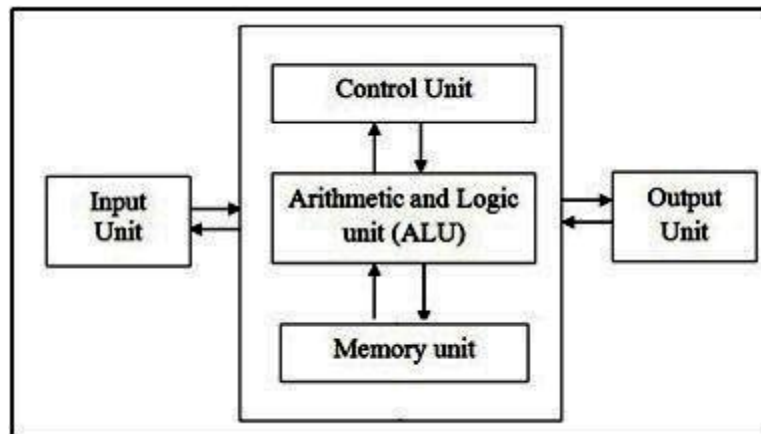
INTRODUCTION TO COMPUTER

WHAT IS A COMPUTER?

A **Computer** is an Electronic Machine which accepts the Data, Process it, stores in its memory and gives out the result. The word computer is derived from Latin word compute which means to calculate or manipulate. It performs four basic operations:

- Accepting Data, information and instructions from the user.
- Processing the data and information.
- Storing the data, information and instructions from the memory
- Executing the data and information.

Based on these operations the structure of a computer can be pictured as



CHARACTERISTICS AND CAPABILITIES OF COMPUTER

Speed: Current computers systems can amass manipulate and provide data in fractions of a second. Computer can [perform in minute's task that would take a person year to complete. The speed of a computer is closely related to the amount of date it must process.

Accuracy: The computer must process data accurately as well as quickly. Accuracy is a prime consideration in installing computers. Computers rarely make mistakes and can accurately perform all kinds of complex computations.

Reliability: Computer systems are particularly adept at repetitive tasks. They do not take sick days and coffee breaks. Computer systems are widely accepted because of their



exceptional reliability. Unlike most humans, they are capable of operating under the most adverse conditions for extended periods of time without showing any signs of fatigue.

Storage Capability: Computer systems have total and instant recall of data and an almost unlimited capacity to store the data. A typical mainframe computer system will have many billions characters and perhaps thousands of graphic images, stored and available for instant recall.

Reduced Costs: With the ever-increasing advances being made in the state-of the art, the cost of computer equipment has dropped drastically over the years. Hardware cost of acquiring their own computer system many now find it not only feasible to acquire a system, but cost-effective as well.

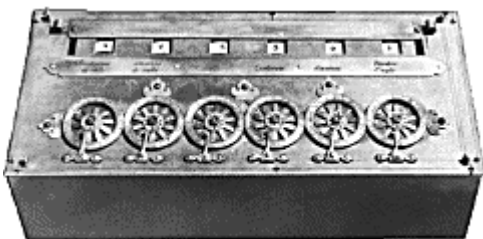
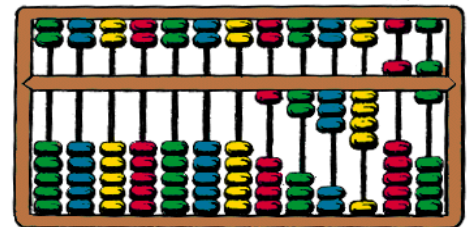
Versatility: Computers are being used in different fields such as offices, schools, hospitals etc. to perform various tasks. Versatile means ability to perform various tasks and computer can capable to do so. A computer can process any kind of data.

HISTORY OF COMPUTERS

Today, computer can be seen almost everywhere from office, shopping malls, schools, to almost every home. Computers are as common place as pencils and have been marketed in such a way as make them available to almost anyone, it has gone through many stages of evolution and it is continuously changing. To fully understand and appreciate the impact that computers have on our lives and promises they hold for the future, it is important to understand their evolution.

Early Computing Machine

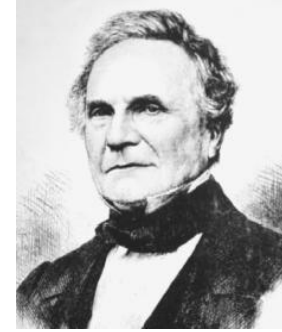
The Abacus, which emerged about 5,000 years ago in Asia Minor and is still in use, and may be considered as the first computer. This device allows users to make computations using a system of sliding beads arranged on a rack. Early merchants used the abacus to keep trading transactions.



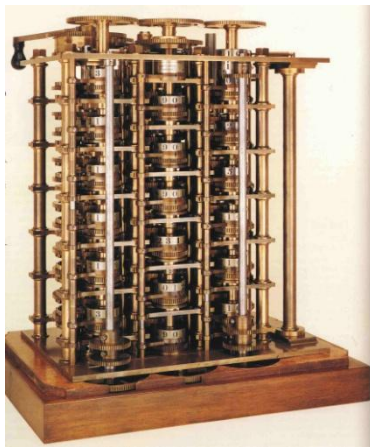
First mechanical adding machine was invented by **Braise Pascal in 1642** Pascal's device used a base of ten to perform calculations. The drawback to the Pascaline, of course, was its limitation to addition. It used eight movable wheels to add the sums up to eight digits.



The real beginnings of computers as we know them today, however, lay with an English mathematics professor, Charles Babbage. (1791- 1871) “**Charles Babbage is known as father of computers**”. Babbage’ developed machine to perform differential equations, called a **difference engine**. It was powered by steam and large as a locomotive, could perform calculations and print the results automatically.



After working on difference engine for 10 years, Babbage was suddenly inspired to begin work on the first general-purpose computer, which he called the **analytical engine**.



Babbage’s steam- powered analytical engine. Ultimately was never constructed, it may seem primitive by today’s standards. However, it outlined the basic elements of a modern general – purpose computer and was a breakthrough concept. Babbage borrowed the idea of punch cards to encode the machine’s instructions from the jacquard loom... the loom, produced in 1820 and named after its inventor, Joseph- Marie jacquard, used punched boards that controlled the patterns to be woven. Babbage assistant Augusta lady was instrumental in designing analytical engine.

In 1889, an American inventor, **Herman Hollerith**, also applied the jacquard loom concept to computing. Hollerith’s method used cards to store data or information, which he fed into a machine that compiled the results mechanically.

Instead of ten years, census takers compiled their results in just six weeks with Hollerith’s machine. In addition to their speed, the punch cards served as a storage method for data and they helped to reduce computational errors. Hollerith brought his punch card reader into the business world, finding the tabulating Machine Company in 1896, later to become **International Business machines (IBM)** in 1924 after a series of mergers. Both business and government used punch cards for data processing until then 1960’s

GENERATIONS OF COMPUTER

Generation in computer terminology is a change in technology a computer is/was being used. Initially, the generation term was used to distinguish between varying



hardware technologies. But nowadays, generation includes both hardware and software, which together make up an entire computer system.

There are totally five computer generations known till date. Each generation has been discussed in detail along with their time period, characteristics. We've used approximate dates against each generation which are normally accepted.

Following are the main *five generations of computers*:

Sl.No	Generation	Year	Description
01	First Generation	1946-1959	Vacuum tube based
02	Second Generation	1959-1965	Transistor based
03	Third Generation	1965-1971	Integrated Circuit based
04	Fourth Generation	1971-1980	VLSI microprocessor based
05	Fifth Generation	1980-onwards	ULSI microprocessor based

First Generation of Computer (1946-1959)

First generation of computers started with using vacuum tubes as the basic components for memory and circuitry for CPU (Central Processing Unit). These tubes like electric bulbs produced a lot of heat and were prone to frequent fusing of the installations, therefore, were very expensive and could be afforded only by very large organizations.

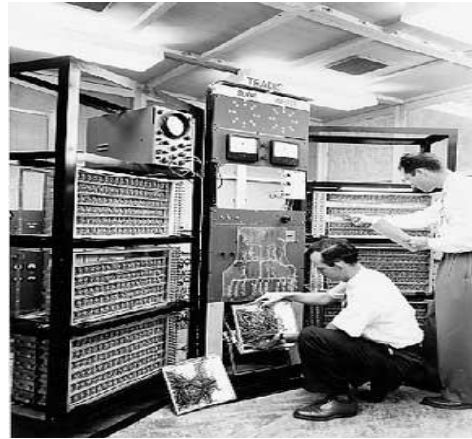
In this generation, mainly batch processing operating systems were used. In this generation, Punched cards, Paper tape, Magnetic tape Input & Output device were used. There were machine codes and electric wired board languages used.

Some computers of this generation were ENIAC, EDVAC, UNIVAC, IBM-701, and IBM-650



The main features of First Generation are:

- Vacuum tube technology
- Unreliable, Very costly
- Supported Machine language only
- Generate lot of heat & Need of A.C.
- Slow Input/output device
- Huge size, Non-portable
- Consumed lot of electricity



Second Generation of Computer (1959-1965)

This generation using the transistor was cheaper, consumed less power, more compact in size, more reliable and faster than the first generation machines made of vacuum tubes. In this generation, magnetic cores were used as primary memory and magnetic tape and magnetic disks as secondary storage devices.

In this generation, assembly language and high-level programming language like FORTRAN, COBOL was used. There was Batch processing and Multiprogramming Operating system used.



Some computers of this generation were IBM 1620, IBM 7094, CDC 1604, CDC 3600, and UNIVAC 1108

The main features of Second Generation are:

- Use of transistors
- Reliable as compared to First generation computers
- Smaller size as compared to First generation computers
- Generate less heat as compared to First generation computers
- Consumed less electricity as compared to First generation computers
- Faster than first generation computers
- Still very costly
- A.C. needed
- Support machine and assembly languages



Third Generation of Computer (1965-1971)

The third generation of computer is marked by the use of Integrated Circuits (IC's) in place of transistors. A single IC has many transistors, resistors and capacitors along with the associated circuitry. The IC was invented by Jack Kilby. This development made computers smaller in size, reliable and efficient.

In this generation, Remote processing, Time-sharing, Real-time, Multi-programming Operating System were used. High-level language (FORTRAN-II TO IV, COBOL, PASCAL PL/1, BASIC, ALGOL-68, etc.) were used during this generation.

Some computers of this generation were IBM-360 series, Honeywell-6000 series, PDP (Personal Data Processor), IBM-370/168, TDC-316

The main features of Third Generation are:

- IC used
- More reliable
- Smaller size and Faster
- Generate less heat
- Lesser maintenance
- Still costly
- A.C. needed
- Consumed lesser electricity
- Support high-level language



Fourth Generation of Computer (1971-1980)

The fourth generation of computers is marked by the use of Very Large Scale Integrated (VLSI) circuits. VLSI circuits having about 5000 transistors and other circuit elements and their associated circuits on a single chip made it possible to have microcomputers of fourth generation. Fourth Generation computers became more powerful, compact, reliable, and affordable. As a result, it gave rise to personal computer (PC) revolution.

In this generation, Time sharing, Real time, Networks, Distributed Operating System were used. All the higher level languages like C and C++, DBASE, etc., were used in this generation.

Some computers of this generation were DEC 10, STAR 1000, PDP 11, CRAY-1 (Super Computer), CRAY-X-MP (Super Computer).



The main features of Fourth Generation are:

- VLSI technology used
- Very cheap
- Portable and reliable
- Use of PC's
- Very small size
- Pipeline processing
- No A.C. needed
- Concept of internet was introduced
- Great developments in the fields of networks
- Computers became easily available



Fifth Generation of Computer (1980-till date)

In the fifth generation, the VLSI technology became ULSI (Ultra Large Scale Integration) technology, resulting in the production of microprocessor chips having ten million electronic components.

This generation is based on parallel processing hardware and AI (Artificial Intelligence) software. AI is an emerging branch in computer science which interprets means and methods of making computers think like human beings. All the higher level languages like C and C++, Java, .Net, etc., are used in this generation.

Some computers types of this generation are Desktop, Laptop, NoteBook, UltraBook, ChromeBook.

The main features of Fifth Generation are:

- ULSI technology
- Development of true artificial intelligence
- Development of Natural language processing
- Advancement in Parallel Processing
- Advancement in Superconductor technology
- More user friendly interfaces with multimedia features
- Availability of very powerful and compact computers at cheaper rates



APPLICATIONS OF COMPUTER

Computer in Business

The computer's characteristic as high speed of calculation, diligence, accuracy, reliability, or versatility has made it an integrated part in all business organizations.

Computer is used in business organization for:

- Payroll Calculations
- Budgeting
- Sales Analysis
- Financial forecasting
- Managing employees database
- Maintenance of stocks, etc.



Computer in Banking

Today Banking is almost totally dependent on computer. Banks provide following facilities:

- Banks on-line accounting facility, which includes current balances, deposits, overdrafts, interest charges, shares and trustee records.
- ATM machines are making it even easier for customers to deal with banks.



Computer in Education

The computer has provided a lot of facilities in the Education System.

- The uses of computer provide a tool in the Education system known as CBE (Computer Based Education).
- CBE involves Control, Delivery and Evaluation of learning.
- The computer education is very familiar and rapidly increasing the graph of computer students.
- There are number of methods in which educational institutions can use computer to educate the students.
- It is used for prepare a database about student performance and analyses are carried out.



Computer in Health Care

Computers have become important part in all Medical Systems. The computers are being used in hospitals to keep the record of patients and medicines. It is also used in scanning and diagnosing different diseases. ECG, EEG, Ultrasounds and CT Scans, etc., are also done by computerized machines.

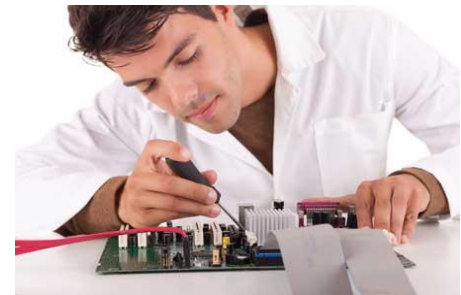


Some of major fields of health care in which computers are used:

- **Diagnostic System:** Computers are used to collect data and identify cause of illness.
- **Lab-diagnostic System:** All tests can be done and reports are prepared by computer.
- **Patient Monitoring System:** These are used to check patient's signs for abnormality such as in Cardiac Arrest, ECG, etc.
- **Pharma Information System:** Computer checks Drug-Labels, Expiry dates, harmful drug side effects, etc.
- Nowadays, computers are also used in performing surgery.

Computer in Engineering Design

Computers are widely used in engineering purposes. One of major areas is CAD (Computer aided design). CAD provides creation, edition, and modification of image. Some fields are:



- **Structural Engineering:** Requires stress and strain analysis required for design of Ships, Buildings, Budgets, Airplanes, etc.
- **Industrial Engineering:** Computers deal with design, implementation and improvement of Integrated systems of people, materials and equipments.
- **Architectural Engineering:** Computers help in planning towns, designing buildings, determining a range of buildings on a site using both 2D and 3D drawings.

Computer in Military

Computers are largely used in defense. Modern tanks, missiles, weapons, etc., employ computerized control systems. Some military areas where a computer has been used are:



- Missile Control
- Military Communication
- Military operation and planning
- Smart Weapons

Computer in Communication

Communication means to convey a message, an idea, a picture or speech that is received and understood clearly and correctly by the person for whom it is meant. Some main areas in this category are:

- E-mail
- Chatting
- Usenet
- FTP
- Telnet
- Video-conferencing



Computer in Government Applications

Computers play an important role in government applications. Some major fields in this category are:

- Budgets
- Sales tax department
- Income tax department
- Male/Female ratio
- Computerization of voters lists
- Computerization of Driving Licensing system
- Computerization of PAN card
- Weather Forecasting.



CHAPTER - 2

MS-WORD AND DRAWING TOOLBAR

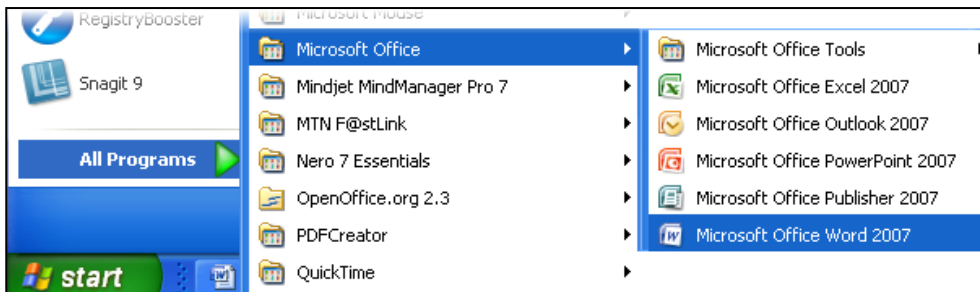
INTRODUCTION

Ms-Word is an advanced word processing program, developed by Microsoft Corporation USA. It is a family member of Ms-Office group. With the help of this program we can create any type of documents report, thesis, designing & news paper etc. It also saves the document for future use with revision facility.

STARTING MS-WORD

This will show you how to start Microsoft Word:

1. Click the **Start** button - the Start menu appears
2. Point to the entry for **All Programs**
3. Click on the entry for **Microsoft Office – Word 2007**



The Microsoft Word program will load, and a blank document will appear on your

MICROSOFT WORD BASICS

Typing Text

To enter text, type just as you would if you were using a typewriter. To capitalize a letter, hold down the **SHIFT** key while typing the letter. Or, press the **CAPS LOCK** key on the left-hand side of your keyboard. You will have to press the **CAPS LOCK** key again—once you are done capitalizing—to remove the lock. You do not need to press **ENTER** to start a new line—Microsoft Word will automatically wrap your sentence at the end of the line.

To move the cursor from its position at the end of your sentence to anywhere else on the page, use the mouse or the arrow keys to move the cursor where you want the letters or spaces to be (left-click the mouse to place the cursor) and then type what you



want to add—the text will automatically adjust to include it. Press **ENTER** to start a new paragraph (this is sometimes called a “carriage return”).

Deleting Text

While typing a document, sometimes you will make a mistake. Unlike a typewriter, MS Word can delete text on the screen and leave no trace—it is as if you never typed on the page in the first place.

There are two different buttons on the keyboard that will allow you to erase text. They are the “Delete” key and the “Backspace” key (#s 1 and 2 on the keyboard map on page. The “Backspace” key deletes words to the LEFT of the cursor, and the “Delete” key deletes words to the RIGHT of the cursor.

This is my crea | tive sentence.

BACKSPACE ↔ DELETE

Undoing and Redoing

The **UNDO** and **REDO** features of Microsoft Windows applications are great tools to rely on (especially in MS Word). The program will keep a list of the last 25 commands that you have performed, and it allows for taking “one step” backwards in order to erase what you have just done.



Click on the **UNDO** button in the Quick Access Toolbar to go back one step (up to 25).



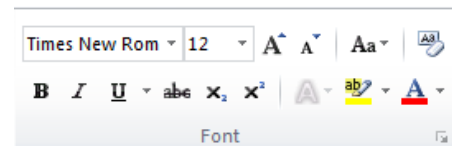
Click on the **REDO** button in the Quick Access Toolbar to go forward one step (up to 25).

Formatting Text

Changing the look of what you’ve written is called “formatting.” This can include changing the text style, size, color, and more.

This is **a** *sentence* that features many different fonts.

This is **a** sentence that features many different sizes.

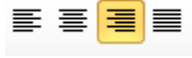


From the Home Tab, the “**B**” will make your text **BOLD**, the “*I*” will put it in *italics*, and the “U” will add an underline to your text. These features do not have to be



used independently of each other—in other words, you can bold, underline, and italicize a ***single piece of text***.

The alignment of the text can be altered using the buttons with the horizontal lines on them. You can align text



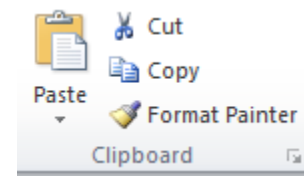
To The **LEFT**

To The **CENTER**

To The **RIGHT**

Cutting, Copying, and Pasting Text

In MS Word, you can **CUT** or **COPY** text from one area of the document and save that text to be **PASTED** elsewhere (these commands are found on the **Home Tab**). When you **CUT** text, you actually delete it from where you took it, as opposed to **COPYING** it, which makes a copy of your selection.



CUTTING a selection will place it on the clipboard, just in case you want to **PASTE** it elsewhere. To **CUT** a selection, first highlight it. Then, click on the **CUT** icon from the Home Tab.

The highlighted text will disappear, as you have just cut it out, but a copy is now on your clipboard, and MS Word is waiting for you to paste it somewhere else.

To **PASTE** this cut selection, place your cursor where you want the selection to go. Click on the **PASTE** icon from the Home Tab toolbar, and it will pop the text into place, right where you have your cursor.

To **COPY**, simply follow those same steps, replacing the **CUT** command with **COPY**. The **COPY** command will not alter your original selection at all, as it simply makes a copy of the selection without changing or deleting it in any way.

HOW TO USE DRAWING OBJECTS

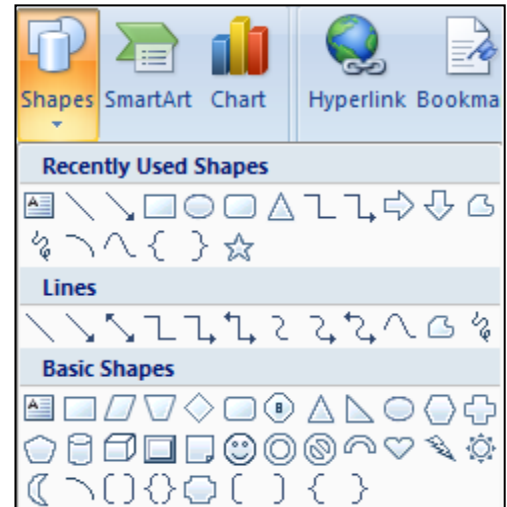
Drawing objects include shapes, diagrams, flowcharts, curves, lines, and WordArt. These objects are part of your document. You can change and enhance these objects with colors, patterns, borders, and other effects. A drawing in Word refers to a drawing object or a group of drawing objects. For example, a drawing object that is made up of shapes and lines is a drawing.



Drawing an Object on the Document

It's really easy to insert shapes to your document. Here's what you need to do:

1. Click in your document where you want to create the drawing.
2. Click on the **Insert** ribbon tab.
3. Click on the **Shapes** button, and then click **New Drawing Canvas**.

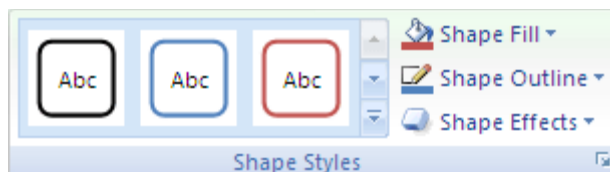


A drawing canvas is inserted into your document.

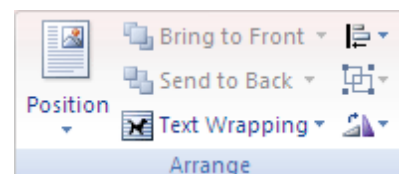
CHANGING OBJECT SIZE

When you insert a drawing canvas, you can do any of the following on the **Format** tab under **Drawing Tools**:

1. Click a shape or shapes to insert into your document. You can also change the shape and add text to it.
2. Draw on the canvas. To draw, click **Shapes**, and then click **Freeform** or **Scribble** under **Lines**.
3. Adjust the size of the canvas by selecting it and then clicking the arrows in the **Size** group, or click the **Size** Dialog Box Launcher to specify more precise measurements.
4. Apply a style to a shape. In the **Shape Styles** group, rest your pointer over a style to see what your shape will look like when you apply that style. Click the style to apply it. Or, click **Shape Fill** or **Shape Outline** and select the options that you want.



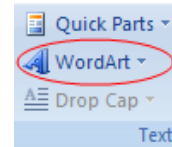
5. Use shadow and three-dimensional (3-D) effects to add interest to the shapes in your drawing.
6. Align the objects on the canvas. To align the objects, press and hold CTRL while you select the objects that you want to align. In the **Arrange** group, click **Align** to choose from an assortment of alignment commands.



WORDART

How would you like to create cool text effects with shadows and 3D? Check out the WordArt functions!

1. Select the text to which you want to add WordArt effects.
2. Click the **WordArt** button on the Insert ribbon.
3. A selection of WordArt design options will appear.
4. Click on a design option to select it.
5. The **Edit WordArt Text** dialog box will allow you to change the font style and size.
6. Click **OK** to accept the settings.



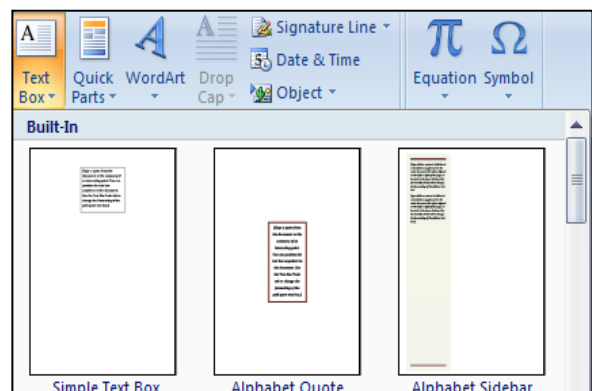
Your selected text will be transformed by the WordArt you have chosen!



Draw Textbox

You'd like to draw textbox in your document? It couldn't be easier! Here's how it's done:

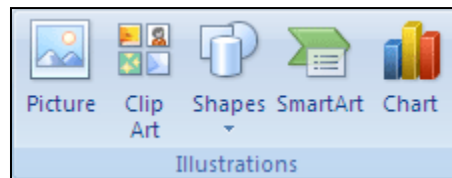
1. Click on the **Insert** ribbon tab.
2. Click on the **TextBox** button.



3. A selection of Text Box design options will appear.
4. Click on a design option to select it.
5. Edit the text in Text Box and you can position the Text Box anywhere in your document.

Adding Pictures, ClipArt and Smart Art

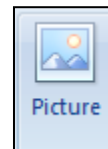
These are the basic types of graphics that you can use to enhance Word documents: drawing objects, Smart Art, charts, pictures, and clip art. Drawings refer to a drawing object or a group of drawing objects.



Adding Picture to documents

It's really easy to insert a picture to your document. Here's what you need to do:

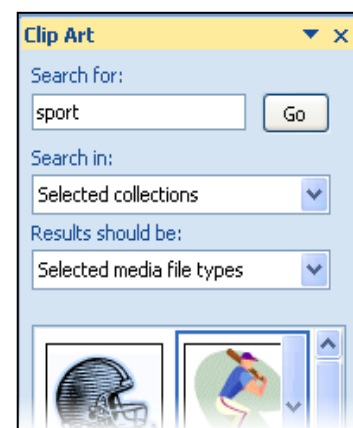
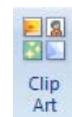
1. Click at the point in your document where you'd like to add a Picture.
2. Click on the **Insert** ribbon tab.
3. Click on the **Picture** button.
4. Locate the picture that you want to insert.
5. Double-click the picture that you want to insert.



Adding ClipArt graphics to documents

You can add pizzazz to your documents with ClipArt, the ready-made pictures that come with Word! Here's what you need to do to add ClipArt graphics to your document:

1. Click at the point in your document where you'd like to add a ClipArt graphic.
2. Click on the **Insert** ribbon tab.
3. Click on the **ClipArt** button.
4. A ClipArt pane will open on the right of your document.
5. Type a descriptive term in the **Search For** field, for example sport. Then click **Go** or press



[ENTER].

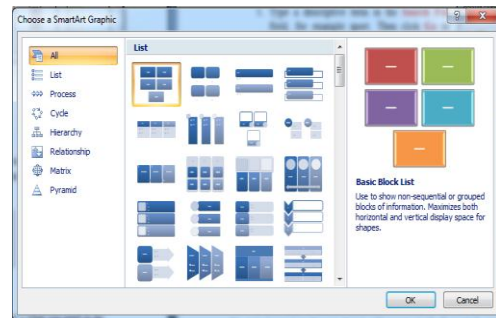
6. The ClipArt Gallery will show you all the available graphics related to this theme.
7. Clicking on a picture will insert it in your document.

To remove a graphic from your document, click on it and then press the [DEL] key.

Adding Smart Art to documents

It's really easy to insert smart to your document. Here's what you need to do:

1. Click in your document where you want to create the drawing.
2. Click on the **Insert** ribbon tab.
3. Click on the **SmartArt** button, and then choose a SmartArt Graphic which you want.



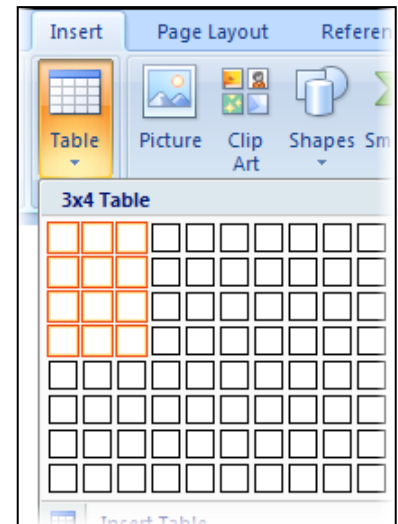
TABLES

If you need to include structured text in your document, then using a table is the easiest way to make sure that it will remain neatly formatted, even when you edit it.

Creating a table

It's really easy to create a table. Here's what you need to do:

1. Click at the point in your document where you'd like to add a table.
2. Click on the **Insert** ribbon tab.
3. Click on the **Table** button just below the Insert tab.
4. A blank table grid will appear.
5. Position the mouse pointer in the top left square of the table grid. Click the left button, and hold it down while dragging the mouse down and to the right. This is how you specify the number of columns and rows you'd like in your table.
6. Release the left mouse button, and the framework of your table is included in the document.



After you create a table, the Design ribbon will be displayed giving you a choice of standard table styles. Or use the **Borders** and **Shading** buttons to design your own!

Adding text to your table

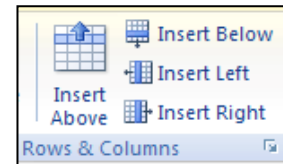
You want to fill the table in? Nothing could be easier!

1. After you've created the table, the cursor will be blinking in the first cell. You can begin typing here.
2. To move on to the next cell, just press the [TAB] key.
3. When you want to move to the next line, just press [TAB] again. Don't press [ENTER] – that will create a new line inside the current cell.

Adding rows and columns

You need to have the **Layout** ribbon visible for this too.

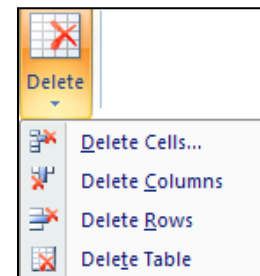
1. Position the cursor in the row (column) next to which you want add another row (column).
2. Click on one of the **Rows & Columns** options (located on the right of the Delete button). The new row or column will be included in your table.



Deleting rows and columns

You'd like to delete a row? Or a column? Here show:

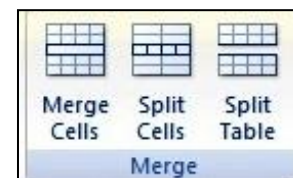
1. Position the cursor in the row or column that you want to get rid of.
2. Click on the **Layout** ribbon tab.
3. Click on the **Delete** button, and a drop-down menu will appear.
4. Select an option to delete cells, columns, rows, or even the entire table.



Merge Cells

If you want to merge the two or more cells in table?

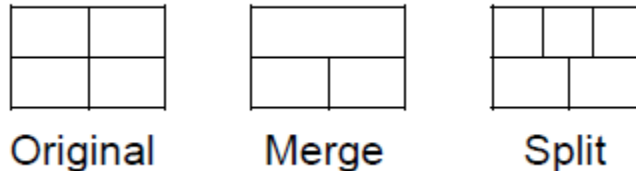
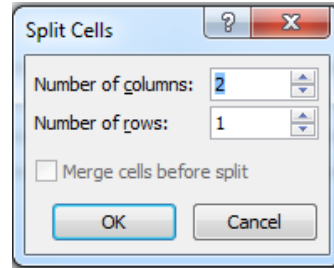
1. Select two or more cells to be merged.
2. Click on the **Layout** ribbon tab.
3. Click on the **Merge Cells** button.



Split a Cell

If you want to split the cells in table?

1. Select the cell to be divided.
2. Click on the **Layout** ribbon tab.
3. Click on the **Split Cells** button and specify the number of rows and columns to split the cell into.

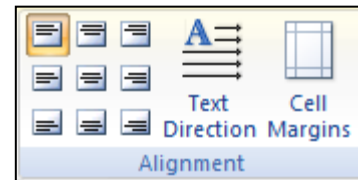


Formatting Cells

You can easily format the cells. Here's what you need to do:

To Change the Alignment of the Text in a Cell

1. Place the cursor in a cell or select multiple cells or select the whole table.
2. Select the appropriate text alignment template from the **Layout** ribbon tab.



Auto Fit

To fit the cell automatically in a table

1. Select the table.
2. Click on the **Layout** ribbon tab.
3. Click on the **AutoFit** button, and a drop-down menu will appear.
4. Select an option to auto the entire table.

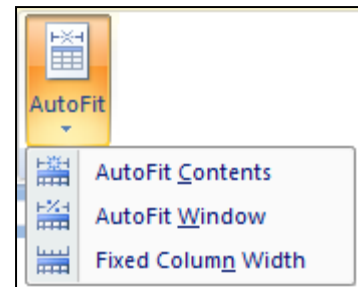


Table Properties

The preferred method for changing the size of a row or column is to right-click in a cell in the row or column and selects “**Table Properties...**” from the menu. This action opens the Table Properties dialog box, which allows the user to specify the alignment of the table, the size of rows and columns as well as to indicate how text wraps around the table.



CHAPTER - 3

MS-DOS

INTRODUCTION

The word DOS is often taken to stand for Disk Operating System, but this is not historically accurate. The current versions of DOS were developed from QDOS, which stood for Quick and Dirty Operating System, a reference to the fact that it was a simple and not very sophisticated system in comparison to others around at the time!

At one time, most PCs used DOS as their primary OS. Back then it looked after everything: the hard disk, the CPU, the memory, and communication with I/O devices such as the keyboard and printer. Gradually, Windows took over and DOS was relegated to the background. In fact, many people today are unaware of its continued existence. However, it still has an important role to play in running modern computers and a vital role when it comes to maintenance and trouble shooting.

Unlike Windows, this uses a graphical user interface (GUI), DOS uses a **Text User Interface (TUI)** i.e. you type commands and the computer carries out your instruction. This makes it less "user friendly" as you have to remember lots of individual commands - and if you make a tiny mistake, it won't understand you! On the other hand, once you have learnt DOS you will have a better understanding of how a computer operates and the underlying directory structure of your hard disk. Hence it is worth making the effort to get to know it well.

MS-DOS commands perform tasks like:

- Manage files and directories
- Maintain Disks
- Configure **Hardware and Networking**
- Optimize the use of **memory**
- Customize MS-DOS

STARTING DOS

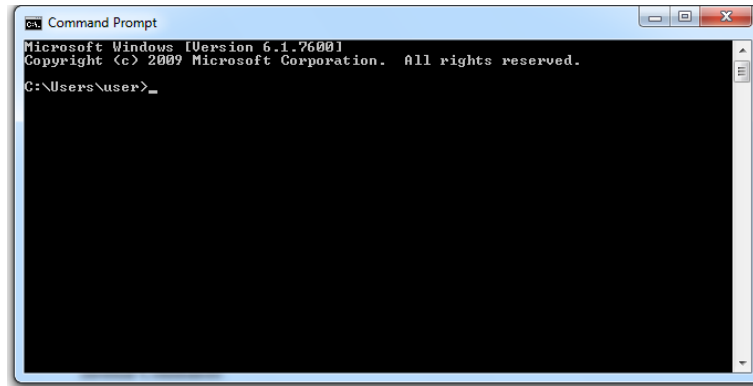
There are several ways to get to DOS, but the easiest is from within Windows is

1. Click **Start**
2. Select **Programs** in that **Accessories**
3. Click on **Command Prompt**



DOS will open in a window rather like any other program window, except that it has white text on a black background and a rather strange-looking tool bar.

The screen will clear and you will be left at the command prompt which, by default, looks like:



The flashing cursor (an underscore) means that it is ready to accept an input from the keyboard.

DOS Commands are divided into 2 types:

1. Internal Commands
2. External Commands

Internal Commands:

These are for performing basic operations on files and directories and they do not need any external file support.

Some of the Internal Commands are:

1. DATE

This command is used to display the system current date setting and prompt you to enter a new date. The syntax is: **DATE [/T | date]**

If you type DATE without parameters then it displays current date and prompts to enter new date. We should give new date in mm-dd-yy format. If you want to keep the same date just Press ENTER. DATE command with /T switch tells the command to just output the current system date, without prompting for a new date.




```
C:\>date
The current date is: Tue 03/29/2011
Enter the new date: <mm-dd-yy>

C:\>date/t
Tue 03/29/2011

C:\>
```

```
C:\>time
The current time is: 13:41:53.99
Enter the new time:

C:\>time/t
01:42 PM

C:\>
```

2. TIME

This command is used to displays or set the system time. The syntax is: **TIME [/T |time]** Same as DATE command, typing TIME with no parameters displays the current time and a prompt for a new one. Press ENTER to keep the same time.

3. COPY CON

It is used to create a file in the existing directory. Here CON is a DOS reserved word which stands for console. Syntax is: **COPY CON filename** after that press Enter and start typing your text and after you're done typing your text, to save and exit hit F6 key.

```
C:\>copy con filename
-----
COPY CON Command is used to
create a file in the existing
directory, so here we're creating
a file named filename in C drive.

To save and exit type F6, which I'm
gonna do now ^Z
      1 file(s) copied.

C:\>
```

4. TYPE


This command is used to display the contents of a text file or files. The syntax is: **TYPE [drive:][path]filename**

5. CLS

It is used to clear the screen. Syntax is **CLS**

```
C:\>copy con abc.txt
a b c d e f g h i j k
l m n o p q r s t u v
w x y z ^Z
      1 file(s) copied.

C:\>CLS
```



```
C:\>
```

6. REN

This command is used to change/modify the name of a file or files. The Syntax is: **REN [drive:] [path] filename1 filename2.**

```
D:\>ren filename1 filename2
```



Here, filename1 is source file for which you wanted to change the name, and filename2 will obviously becomes your new file name. Also note that you cannot specify a new drive or path for your destination file.

7. VER

This command displays the version of the Microsoft Windows running on your computer. The Syntax is: **VER [drive:] [path]**

```
D:\>ver
Microsoft Windows [Version 6.1.7600]
D:\>_
```

8. PATH

This command displays the path that how we have come to the present position or sets a search path for executable files. Its Syntax is **PATH [drive:] [path]**

```
C:\>path
PATH=C:\Program Files\Intel\iCLS Client\;C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;C:\Windows\System32\WindowsPowerShell\v1.0\;C:\Program Files\Intel\Intel(R) Management Engine Components\DAL;C:\Program Files\Intel\Intel(R) Management Engine Components\IPT;C:\Program Files\Intel\OpenCL SDK\2.0\bin\x86
```

9. DIR

This command displays a list of files and subdirectories in a directory. Syntax is: **DIR [drive:] [path]**

```
C:\>dir
Volume in drive C has no label.
Volume Serial Number is 822F-70B1

Directory of C:\

02/07/2013  05:41 PM                3 Loader.TAG
06/11/2009  03:12 AM                24 autoexec.bat
06/11/2009  03:12 AM                10 config.sys
02/07/2013  06:01 PM            <DIR>          Intel
01/21/2014  10:19 AM            80,553 P1005.log
07/14/2009  08:07 AM            <DIR>          PerfLogs
04/07/2014  07:31 PM            <DIR>          Program Files
02/07/2013  05:38 PM            <DIR>          Users
06/30/2014  12:44 PM            <DIR>          Windows
               4 File(s)              80,590 bytes
               5 Dir(s)         106,765,066,240 bytes free
```

```
C:\>vol
Volume in drive C has no label.
Volume Serial Number is EC21-77CD

C:\>vol e:
Volume in drive E is New Volume
Volume Serial Number is 60B4-4F09

C:\>
```

10. VOL

It displays the disk volume label and serial number, if they exist for the drive specified. If no drive is specified it displays for the active drive. The Syntax is **VOL [drive:]**



11. DEL/ERASE

It is used to delete one or more files. The Syntax is **DEL names**

```
C:\>del abc.txt/p
C:\abc.txt, Delete (Y/N)? Y
C:\>
```

12. MD, CD and RD

- MD (or MKDIR)** command stand for make directory and it is used to create a directory. The Syntax is **MD [drive:]path**
- CD (or CHDIR)** stands for create or change directory and it allows displaying the name of or changing the current directory or rather we can say come out of a directory. The Syntax is **CD [/D] [drive:]path**
- RD (or RMDIR)** command removes or deletes a directory. There are two conditions to remove any directory - (1) Directory to be removed should be empty. And (2) we should be outside the directory we are commanding to delete. The Syntax is **RD [drive:] path**

```
C:\>md NewFolder
C:\>_
```

```
C:\>CD /D e:\sftw
E:\sftw>
```

```
C:\>rd NewFolder
C:\>_
```

External Commands:

These external commands are for performing advanced tasks and they do need some external file support as they are not stored in COMMAND.COM

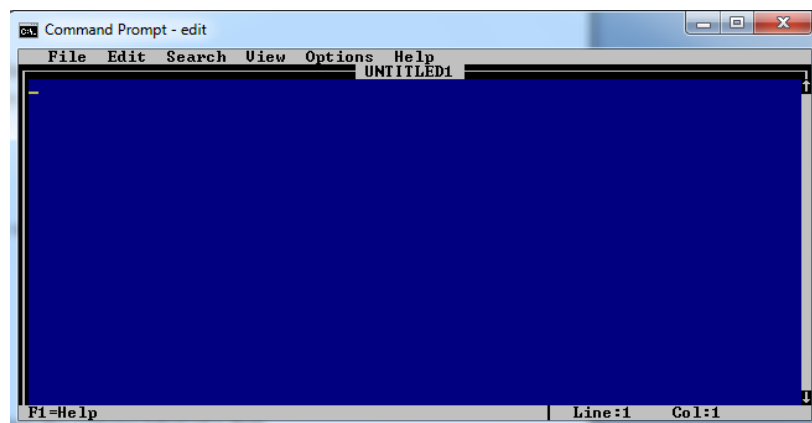
Some of the External Commands are:

1. EDIT

This command is used to modify or change the data of a file. The Syntax is

EDIT [filename(s)]

```
C:\>edit
C:\>_
```



2. LABEL

It is used to create, change, or delete the volume label of a disk. The Syntax is **LABEL [drive:] [label]**

```
C:\>label
Volume in drive C: has no label
Volume Serial Number is 822F-70B1
Volume label <32 characters, ENTER for none>?
C:\>_
```

3. CHKDSK

This command is used to check a disk and display a status report with properties of disk like serial number, volume label, memory and other properties along with errors on the disk if any. The Syntax is **CHKDSK [volume path]**

```
C:\>chkdsk
The type of the file system is NTFS.

WARNING! F parameter not specified.
Running CHKDSK in read-only mode.

CHKDSK is verifying files (stage 1 of 3)...
 87040 file records processed.
File verification completed.
 59 large file records processed.
 0 bad file records processed.
 2 EA records processed.
 44 reparse records processed.
CHKDSK is verifying indexes (stage 2 of 3)...
112944 index entries processed.
Index verification completed.
 0 unindexed files scanned.
 0 unindexed files recovered.
CHKDSK is verifying security descriptors (stage 3 of 3)...
 87040 file SDs/SIDs processed.
Security descriptor verification completed.
12953 data files processed.
CHKDSK is verifying Usn Journal...
 37269176 USN bytes processed.
Usn Journal verification completed.
Windows has checked the file system and found no problems.

122803199 KB total disk space.
18638020 KB in 53284 files.
 32456 KB in 12954 indexes.
 0 KB in bad sectors.
193771 KB in use by the system.
 65536 KB occupied by the log file.
103938952 KB available on disk.

    4096 bytes in each allocation unit.
30700799 total allocation units on disk.
25984738 allocation units available on disk.

C:\>_
```

```
D:\>tree
Folder PATH listing
Volume serial number is 00000200 B429:7D6C
D:
-- Computer Books Final
-- 6th STD
-- 7th STD
-- Pictures
--   Excel
--   MS Paint
--   New folder
--   Nudi
--   Windows
--   Word
--   WordPad
-- D 2013-14
--   2013-14 school details
--   Anudhana
--   CL Letters
--   Deputation
--   DSWO docs
--   Exam
--   Food Indent
--   HRMS
--   HRMS Generated Reports
--   Incharge
--   Inspection Reports
--   Kreis E-Mail Letter
--   April 2013
--     APR 04
--     APR 06 GROUP_D
--     GROUP D
--     APR 10 regardinggrantsforlpggas
--     APR 30 MC
--   August 2013
--     Aug 13 Outsource Salary
--     Aug 17
--     Aug 19
--     23 & 24 Meeting
--     Working Hours
--     Aug 21
--     AUG 29 regtoresignationreports
--     AUG 29 scan0003
```

4. TREE

This command is very useful to view the list of directories and subdirectories present on the disk in graphical form. Here is the syntax for this command with allowed switches: **TREE [drive][path]**

5. DOSKEY

This command is generally used to edit command lines and recall commands. The Syntax is **DOSKEY [/REINSTALL] [/HISTORY] [text]**



Here, /REINSTALL installs new copy of doskey, /HISTORY is used to display all previously given commands stored in memory. And [text] specifies the commands you want to record.

```
D:\>doskey
D:\>doskey /history
cd\
dir
path
d:\
d:
path
ren
dir
```

6. SORT

This command is used to arrange the data of a file in alphabetical order (A-Z, 0-9) or reverse alphabetical order. The Syntax is **SORT [/R] [[drive1:][path]**
/R in command line reverses the sort order

```
D:\>sort
aaa
ggg
kkk
rrr
uuu
yyy
eee
qqq
yyy
ccc
^Z
aaa
ccc
eee
ggg
kkk
qqq
rrr
uuu
yyy
yyy
D:\>

D:\>sort
98
65
78
41
23
65
77
123
68
^Z
123
23
41
65
65
68
77
78
98
D:\>
```



CHAPTER - 4

HTML

Introduction to HTML

HTML is a tag based language used to “markup” specific parts of a web page for display. By adding tags to the page, you can give instructions to the web browser about how you want the page displayed.

The **Hyper Text Mark Up** in HTML stands for its capability to link a text or graphics hotspot to other web pages. This powerful feature, the hyperlinks, is one of the main reasons HTML was adopted as the language for web.

HTML is maintained by a standard body called the **World Wide Web** consortium (W3C). It is subset of **SGML (Standardized General markup Language)**.

A Brief history of HTML

In the late 1980s, Tim Berners-Lee was working as a physicist at CERN (the European Organization for Nuclear Research). He devised a way for scientists to share documents over the internet. Prior to his invention, communication via the internet was limited to plain text, using technologies such as email, FTP (File Transfer Protocol), and Usenet-based discussion boards. The invention of HTML made use of a model of content stored on a central server that could be transferred and displayed on a local workstation via a browser. It simplified access to content and enabled the display of "rich" content (such as sophisticated text formatting and the display of images).

What is HTML?

HTML is a **markup language**. It tells the web browser what content to display. HTML separates "content" (words, images, audio, video, and so on) from "presentation" (the definition of the type of content and the instructions for how that type of content should be displayed). HTML uses a pre-defined set of elements to identify content types. Elements contain one or more "tags" that contain or express content. Tags are surrounded by angle brackets, and the "closing" tag (the one that indicates the end of the content) is prefixed by a forward slash.

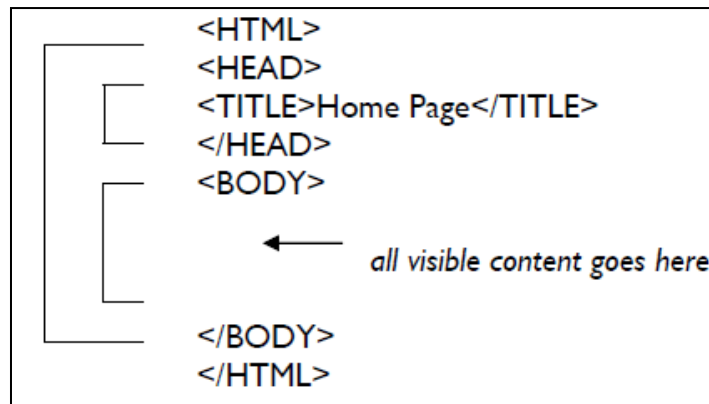
For example, the paragraph element consists of the start tag "<p>" and the closing tag "</p>".



HTML – Basic structure

HTML consists of a set of **elements**. Elements define the **semantic** meaning of their content. Elements include everything between two matching element tags, including the tags themselves.

Most elements may contain other elements, forming a hierarchic structure. A very simple but complete web page looks like this:



Basic Tags of HTML

HTML documents are written in plain text. They can be written in any text editor that allows content to be saved as plain text, such as Notepad, Notepad++. Tag names may be written in either upper or lower case. However, the W3C recommends using lower case (and XHTML requires lower case).

HTML attaches special meaning to anything that starts with the less-than sign ("**<**") and ends with the greater-than sign ("**>**"). Such markup is called a **tag**. Make sure to close the tag, as some tags are closed by default, whereas others might produce unexpected errors if you forget the end tag.

Here is a simple example:

```
<p> This is text within a paragraph</p>
```

Some of the Basic Tags are

- **<HTML></HTML> Tag:** It contains the entire document place these tags at the top and bottom of you HTML file.
- **<HEAD></HEAD> Tag:** It contains document head information and do not contain any of the page's actual content. The page title, which browser's use for bookmark and favorites list, should be including in these tags. You can also place



any of the following tags within the document head: <TITLE>, <SCRIPT>, <STYLE>

- **<TITLE></TITLE> Tag:** It gives the document an official title. The <TITLE> tag appears inside the document header i.e. inside the <HEAD> tag.
- **<BODY></BODY> tag:** It acts as a container for the body of the document. It appears after the <HEAD> tag and is followed by the </HTML> tag. The <BODY> tag also sets various color setting and background characteristics of the document.
- **Paragraph tag (<P></P>):** One of the first formatting option you might want to use is to separate you text into paragraphs. The paragraph tags <P></P> the care of this for you. These add a blank line before and after the text they enclosed.
- **Line Break tag (
):** The line break tag
 places the text that follows on the left margin of the next line.
- **Bold & Italic Tag (& <I></I>):** This physical formatting tag changes the appearance in your document.

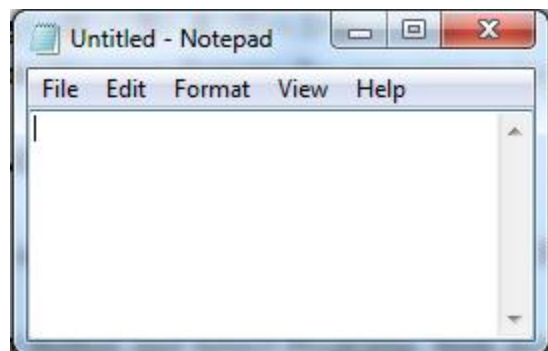
Creating a Simple HTML Document

It's really easy to create and view a simple HTML document. Here's what you need to do:

1. Click on the **Start Button** and Select **Programs**, then **Accessories**.
2. Select the **Notepad**.
3. In the Notepad window type the following text:

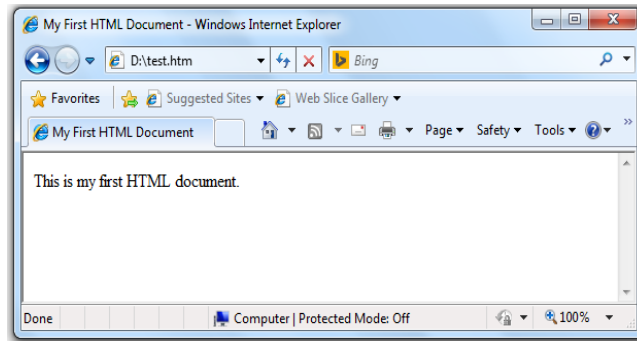
```
<HTML>
<HEAD>
<TITLE>My First HTML Document</TITLE>
</HEAD>
<BODY>
    This is my first HTML document.
</BODY>
</HTML>
```

4. Within Notepad, select the **File** menu and choose the **Save** option.
5. Choose the **D:** drive (for example) and name the file **test.htm**



After saving the file in Notepad, you have to test the HTML document in browser

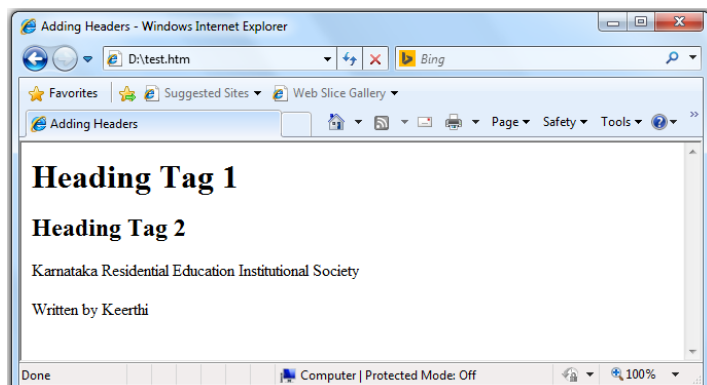
1. Click on the **Start Button**
2. Select the **Internet Explorer**
3. Type the file name path in address bar of Internet Explorer as **D:\test.htm**



Adding Headers to your HTML Document

To use the header tags in your HTML document. You will add the <H1> and <H2> header tags. Headings can delimited using the <Hn> and </Hn> tags. There are six different levels, from <H1> the largest, down to <H6>. Header tags should not be nested.

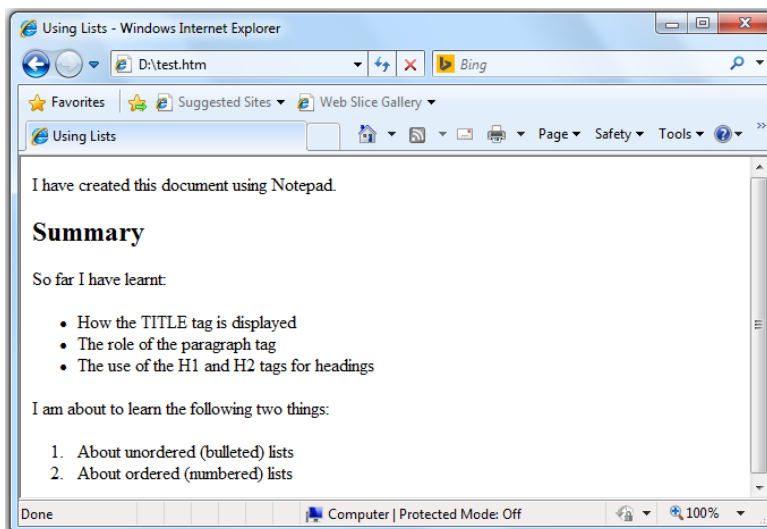
```
<HTML>
<HEAD>
<TITLE>Adding Headers </TITLE>
</HEAD>
<BODY>
  <H1>Heading Tag 1</H1>
  <H2>Heading Tag 2</H2>
  <P> Karnataka Residential Education Institutional Society</P>
  <P> Written by Keerthi </P>
</BODY>
</HTML>
```



Using Lists

To add a bulleted list to your HTML document. You will use the ****, **** and **** tags. The **** ... **** tags are used to define the start and end of an unordered list (bulleted). The **** ... **** tags are used to define the start and end of an ordered list (numbered). The **** tag is used to define list items.

```
<BODY>
  <P>I have created this document using Notepad.</P>
  <H2>Summary</H2>
  <P>So far I have learnt:</P>
  <UL>
    <LI>How the TITLE tag is displayed</LI>
    <LI>The role of the paragraph tag</LI>
    <LI>The use of the H1 and H2 tags for headings</LI>
  </UL>
  <P>I am about to learn the following two things : </P>
  <OL>
    <LI>About unordered (bulleted) lists</LI>
    <LI>About ordered (numbered) lists</LI>
  </OL>
</BODY>
```



Using Hypertext Links

To create a hypertext link in your HTML document. You will use the **<A>** anchor tag to add a link to the KREIS home page. The **<A>** tag is used to create links to other



files, either locally or on computers systems anywhere on the Internet.

```
<HTML>
<HEAD>
<TITLE>Using Hyperlinks </TITLE>
</HEAD>
<BODY>
  <P>KREIS</P>
  <A HREF="www.kreis.kar.nic.in"> Click here </A>
</BODY>
</HTML>
```

Note: Notice that the <A> tag always uses the syntax

```
<A HREF="http://domain_name/pathname">link text</A>
```

The attribute **HREF** is a mnemonic for ‘**H**ypertext **R**EFerence’.

The **domain name** is the name of the computer system (Web server) you wish to access.

The **pathname** refers to the name of the file you wish to retrieve and the directory in which it is located.

Adding Images

To add an image file to your HTML document. You will use the **** tag to include an image. The tag specifies the location of an image. You will normally use GIF or JPEG image formats in HTML document.

```
<HTML>
<HEAD>
<TITLE>Using Images </TITLE>
</HEAD>
<BODY>
  <P>KREIS</P>
  <IMG SRC="D:/Logo.jpg" ALT="KREIS, Bangalore">
</BODY>
</HTML>
```

The **ALT=“...”** attribute is used in order to provide a text alternative for browsers which can’t load images, or when loading of images is disabled. If the image was also a link to another page, you would include a full description.



Creating a Simple Table

To create a simple table in your HTML document. You will use a number of basic table tags. These include `<TABLE>`, `<TR>`, `<TH>` and `<TD>`.

Tables are a useful tool for improving layout and fitting more information onto a page. Note that old browsers do not support them, and that they can cause difficulties for audio-enabled browsers as used by the visually impaired.

```
<HTML>
<HEAD>
<TITLE>Tables </TITLE>
</HEAD>
<BODY>
  <TABLE BORDER="1">
    <TR>
      <TH>Contents</TH>
    </TR>
    <TR>
      <TD> Task 1 </TD>
      <TD> Getting Started </TD>
      <TD> Page 1 </TD>
    </TR>
  </TABLE>
</BODY>
</HTML>
```

Contents		
Task 1	Getting Started	Page 1

The `<TABLE> ... </TABLE>` tag is a container for the whole table.

The `<TR> ... </TR>` tags define a table row and within this you use the `<TD></TD>` tags to define cells in the row (table data).

The `<TH>` tag defines a heading, making the text inside it bold and centered.

Adding a Background Color

To familiarize yourself with background colors. You will set the background color for an HTML document. Using a background color can change the impact of your HTML page.



```
<HTML>
<HEAD>
<TITLE>My Color HTML Document</TITLE>
</HEAD>
<BODY BGCOLOR= "#FFDDDD">
    <H2> This is my document</H2>
</BODY>
</HTML>
```

Adding Color to Text and Links

To change the color of your document's text and hypertext links. You will use a number of **<BODY>** element attributes.

These include **TEXT="#rrggbb"**, **LINK="#rrggbb"** and **VLINK="#rrggbb"**

(#rrggbb represents a hexadecimal color value, e.g. #FF0000 is red. Three pairs of digits are used to specify the proportion of red/green/blue in a particular color, hence known as RGB color values.)

Setting colors in the BODY tag will change the text and link colors for the whole page.

```
<BODY BGCOLOR="#FFFFFF" TEXT="#FF0000">
```

Adding Background Images

To add an image to your HTML document background. You will use the **BACKGROUND="image.gif"** attribute of the **BODY** tag. Using an image file as a background allows you to use textured effects.

```
<BODY BACKGROUND="D:/Image.gif">
```



“ ನನ್ನ ಆತ್ಮೀಯ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ನೀಡುತ್ತಿರುವ ಕಿರುಕಾಣಿಕೆ ”



ಆತ್ಮೀಯರೇ, ನನ್ನ ಜೀವನದ ಅಮೂಲ್ಯವಾದ ಸಂಪತ್ತೆಂದರೆ “ನನ್ನ ವಿದ್ಯಾರ್ಥಿ ಬಳಗ” ನನ್ನ ಶಾಲೆಯ ವಿದ್ಯಾರ್ಥಿ ಬಳಗ ನನ್ನನು ಜವಾಬ್ದಾರಿಯುತ ಶಿಕ್ಷಕನ್ನಾಗಿಸಿದ್ದಾರೆ. ನನ್ನನ್ನು ಬೆಳಸಿ ಸಂತೋಷಪಟ್ಟು ಹೆಮ್ಮೆಯಿಂದ ನನ್ನ ಬಗ್ಗೆ ಪ್ರಶಂಸಿಸಿದ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಅವರ ಪ್ರೀತಿಯ ಗುರುವಾಗಿ ಈ ಪುಸ್ತಕವನ್ನು ಕಿರುಕಾಣಿಕೆಯಾಗಿ ನಿಮ್ಮ ಕೈಗಿಡುತ್ತಿದ್ದೇನೆ.

ಈ ಪುಸ್ತಕವು ನನ್ನ ವಿದ್ಯಾರ್ಥಿಗಳ ಜ್ಞಾನವನ್ನು ಹೆಚ್ಚಿಸಲಿ, ಅವರು ಪರೀಕ್ಷೆಗಳಲ್ಲಿ ಯಶಸ್ಸು ಗಳಿಸುವಂತಾಗಲಿ, ಅವರ ಜೀವನ ಸುಖವಾಗಿರಲಿ ಎಂದು ಹಾರೈಸುವೆ.....

ಇಂತಿ ನಿಮ್ಮ

ಕೀರ್ತಿ ಕುಮಾರ್ ಹೆಚ್.ಎಂ

ಕಂಪ್ಯೂಟರ್ ಶಿಕ್ಷಕರು

ಮೊ.ದೆ.ವ.ಶಾಲೆ, ಬೇಲೂರು ಟೌನ್