



Objectives of this chapter:

Introduction

- 2.1 Introduction
- 2.2 What is HTML?
- 2.3 Basic structure of an HTML document
- 2.4 CREATING AN HTML DOCUMENT
- 2.5 Web Browsers
- 2.6 HTML TAGS
- 2.7 Attributes
- 2.8 Body tag with attributes
- 2.9 Formatting in HTML document
- 2.10 Lists
- 2.11 Images
- 2.12 Tables

2.1 Introduction

The Internet is rapidly becoming a key resource for locating information relevant to a particular field. The Internet has been called the "network of networks." Simply put, it's a way to link millions of people around the world, each of whom is using a computer, smart phone, tab etc. connected to a smaller network through ISP. Nobody owns or controls the Internet or the World Wide Web, although millions of individuals and organizations control their own systems. Some task forces have been constituted for its smooth functioning. WWW is composed of millions of webpages containing text, graphics, sounds, videos and link to other webpages. Have you ever think which basic technology lies in writing these webpages, which we are using daily? We need a computer language to design these web pages. The Basic and frequently used language for designing a webpage is HTML. In this chapter we will discuss the basics of HTML.

2.2 What is HTML?

HTML stands for Hyper Text Markup Language. HTML is a language used for DESIGNING A WEB page in which text, graphics, and other information are organized, formatted, and linked together. HTML is a tag based Language, which specifies the web browser what operation has to be performed on the given text. Hypertext refers to a text which acts as a link in markup language for describing web documents (web pages).A markup language is a set of markup tags, HTML documents are described by HTML

tags, Each HTML tag describes a distinct meaning for which it has been designed.

HTML is extremely simple, Flexible, easy to learn, interactive, widely accepted Markup Language.

2.3 Basic structure of an HTML document

An HTML document has two main parts:

- **Head.** The head section contains title that identifies the heading of the HTML document.
- **Body.** The body element contains the actual contents or information that you want to display on a web page to the end user.

HTML document contains the following syntax:-

```
<html>  
<head>  
<title>TITLE OF YOUR WEBPAGE </title>  
</head>  
<body>  
Information which user wants to show.  
</body>  
</html>
```

Fig: 2.1

The tags defined in the above structure basically define or instruct the web browser about the different operation to be performed on the text defined in the given TAGS. We will now explain the above structure.

1.3.1 <HTML> HTML document is started with <html> and ended with </html> with this tag. This TAG informs the web browser from where a web page will start and where it ends. If the commands are not defined in tags then the commands are taken as text by the web browser.

1.3.2 <HEAD Tag> Head tag provides Header information. The document title is written in Head Tag. It always occurs in pair. Head Tag is considered very important for a web page. This is a container tag. It defines the Heading of the HTML document. It starts with <HEAD> TAG and ends with </HEAD> .This Tag is always defined below <HTML> and above <BODY>tag. It

contains information regarding title of the webpage, keywords used by the search engines etc. It contains no text in itself.

Eg. <HEAD> <TITLE> First Web Page </TITLE> </HEAD>

2.3.3 <TITLE> TITLE tag defines the title of the webpage, which is to be displayed on the title bar of the web browser when the web page is loaded in the web browser. It is enclosed in between <TITLE> AND</TITLE>tags. It should be short and meaningful of <TITLE> First Web Page </TITLE>

2.3.4 <BODY> BODY tag contains the actual information to be displayed on the web browser. When the webpage is loaded in the web browser. It may contain any element or contents related to text, images, audio, video etc. These contents are defined with in <BODY> and </BODY> tags. e.g. <BODY>This is my first document in HTML document. </BODY>

Each Body tag has different characteristics. These characteristics (properties) are termed as attributes. We can select Background colour, text colour, font size etc. with these attributes.

2.4 CREATING AN HTML DOCUMENT:-

HTML webpages are plain text files that can be created using any text editor or word processor such as Notepad, WordPad, MS-word. The following steps are to be taken while creating and displaying a webpage.

1. Open Notepad by clicking Start→All Programs→Accessories→Notepad or by typing Notepad in the run window. Notepad will be opened as shown in fig.2.1

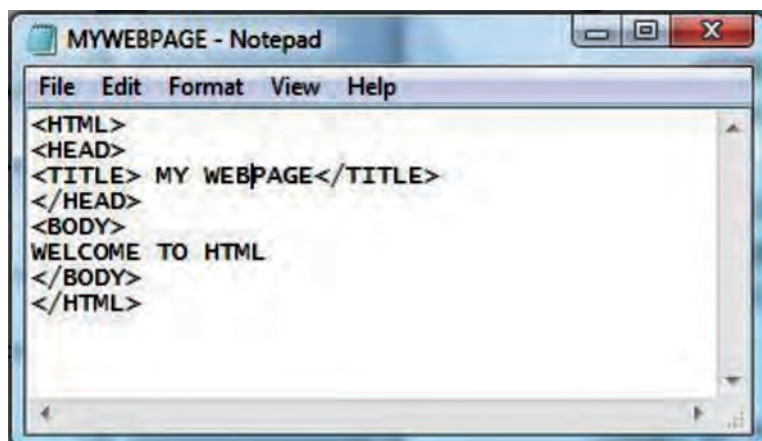


Fig: 2.2

2. Now type the html code in the Notepad as Shown in the Fig. 2.2
Click on File→ Save menu option. A dialog box will appear as shown fig 2.2
select where we want to save the file, enter file name with an extension .html

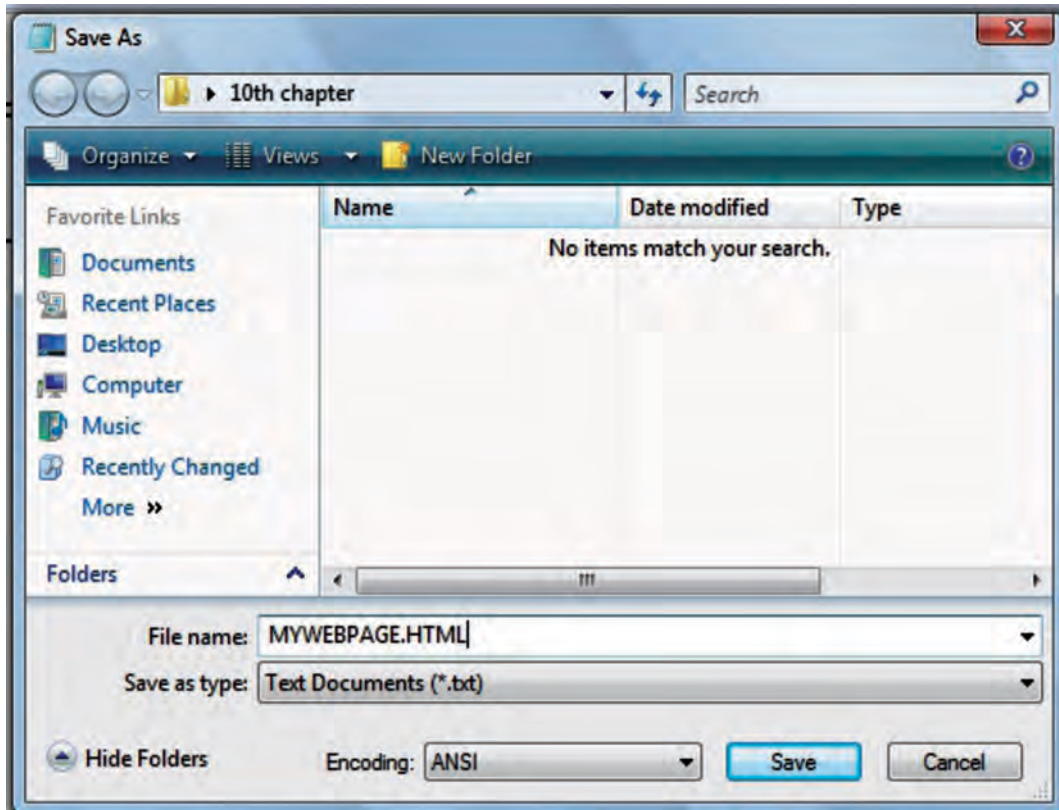


Fig: 2.3

2.4.1 VIEWING AN HTML DOCUMENT:-

Any HTML document can be viewed using any web browser like Internet Explorer, Netscape Navigator, Mozilla Firefox, Opera or Google Chrome. Here Internet explorer is used in examples.

To open Internet Explorer follow the underwritten steps:

1. Start→ All Programs → Internet Explorer or start → Run → explore in the text box and click OK.
2. Click File→Open or press Ctrl + O from the keyboard, an open box will appear and select html file as shown in fig 2.3

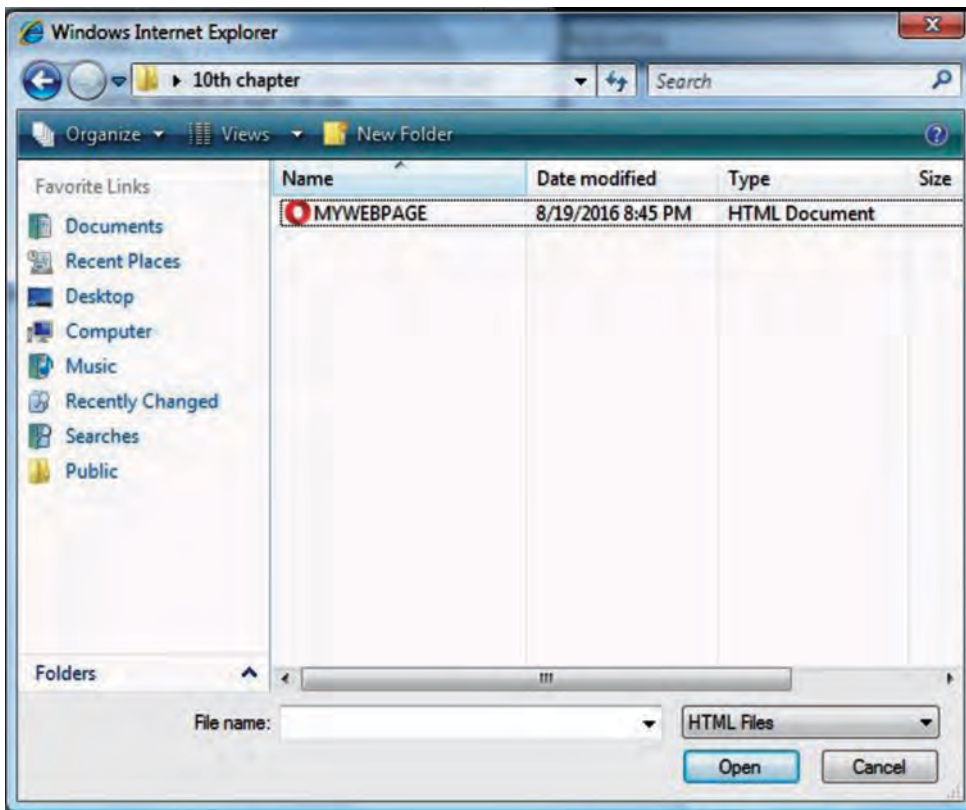


Fig: 2.4

3. **Choose the path where file is stored and open it with open button. The webpage will be displayed in the browser as shown in fig 2.4:-**

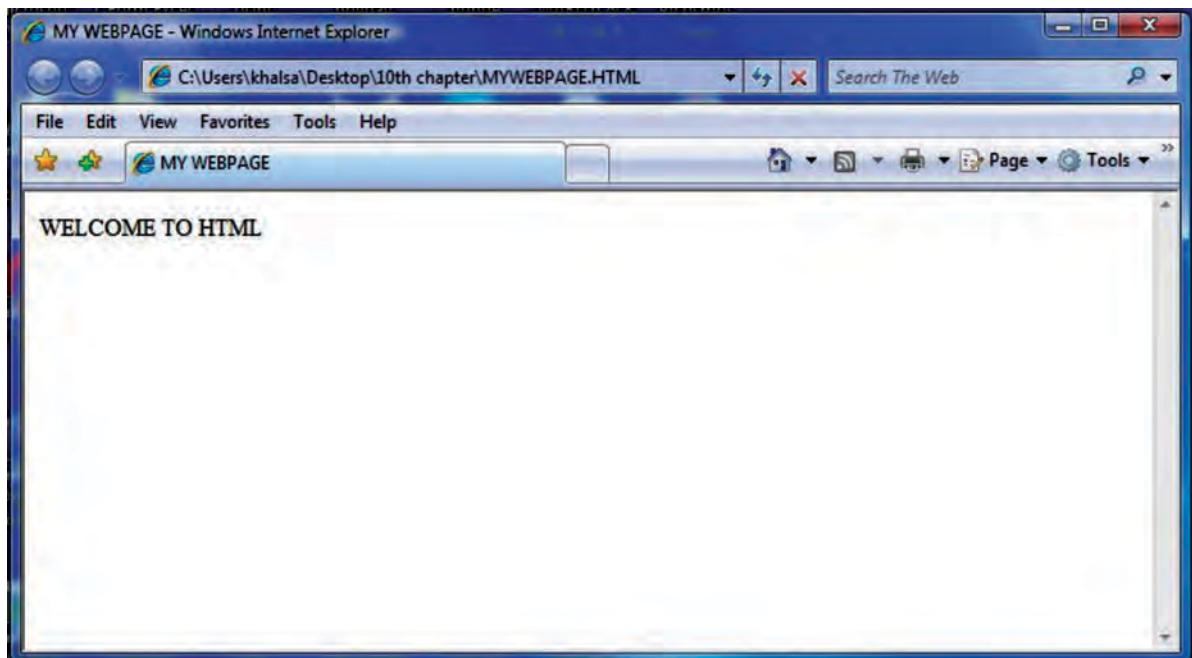


Fig: 2.5

2.5 Web Browsers:-

Web browser is a software which is used to browse web pages. Some of commonly used web browsers are :-

1. Internet Explorer
2. Google Chrome
3. Mozilla Firefox
4. Opera

2.6 HTML TAGS

As to attract end users we have to make our web page attractive, which may include text, graphics, and links. In HTML we can use tags which are defined in angle brackets<>. The use of less-than and greater-than angle brackets surrounding an element creates what is known as a tag. Tags most commonly occur in pairs of opening and closing tags.

These tags are also known as elements. These tags can be defined in two forms these are:-

1. Container Tags.
2. Empty Tags.

1 Container Tags:-The **container** is an area enclosed by the Opening and closing **tags**. Container tags come in pairs. Every tag which is opened must be closed. A container tag consists of a **start** tag and **end** tag, with the content inserted in between, for example: <tag name>content goes here...</tag name>

for example, when you want italic text, you will contain the text between opening <i>and closing </ i>. **Html** encloses the entire document in <html> and </html>.

2 Empty Tags:-These elements are called empty or void and they only have a start tag as they don't have any content. They must not have an ending tag in HTML. For Example
 tag is used to break the given line from where it is used.

Note:-

Attribute of a tag defines the features of a given tag in its starting tag..

2.6.1 Some of the commonly used container tags are defined below:

ELEMENT/TAG	OPERATION PERFORMED	EXAMPLE	OUTPUT
.....	Bold the text	hello	hello
<I>.....</I>	Italic the text	<I>hello</I>	<i>hello</i>
<U>.....</U>	Underline the text	<U>hello</U>	<u>Hello</u>
^{.....}	Superscript the text	a²+ b²	A ² +b ²
_{.....}	Subscript the text	H₂O	H ₂ O
<STRIKE>.....</STRIKE>	Strike through the text	<STRIKE>hello</STRIKE>	Hello
<TT>.....</TT>	Type writer font.	<TT>hello</TT>	hello

Above tags are explained in the example as shown in fig 2.6.

```

CONTAINER TAGS - Notepad
File Edit Format View Help
<HTML>
<HEAD>
<TITLE> MY DIFFERENT TAGS WEBPAGE</TITLE>
</HEAD>
<BODY>
WELCOME TO HTML
<B>HELLO </B>
<I>STUDENTS</I>
<U>I WANT TO DRINK </U>
H<SUB>2</SUB>O
<STRIKE>AND WANT TO TELL SOLVE</STRIKE>
a<SUP>2</SUP>+B<SUP>2</SUP>
<TT>TRY IT</TT>
</BODY>
</HTML>
    
```

Fig 2.6

The output will be displayed as shown in fig 2.7

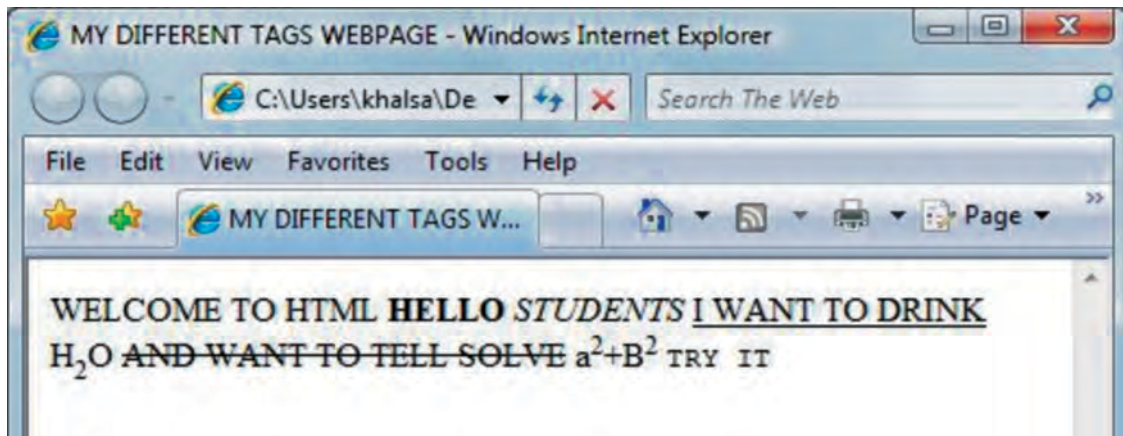


Fig. 2.7

2.7 Attributes:

2.7.1. Difference between Tag and Attribute:-

Tag	Attribute
/. Tags are those instruction which dispys information on webpage.	/. An attribute defines a property of tags
0. Tags may contain attribute	0. Attribute is a part of opening Tag of an element.
1. These are of two types:-Empty Tag and Container Tag	1. Types of Attribute depend upon the tag used .i.e. each tag has its own number of attributes.
2. Example:- <Table > Here table is a tag.	2,Cv_k njc8 <Table Border="3" > a. Here a table is the Tag and border is its attribute.

2.8 Body tag with attributes

Body Tag is the main part of the HTML document in which whole information about the webpage resides. The main attributes of this tag are background, bgcolor and text. Let us discuss these attributes used in Body Tag.

2.8.1 Background attribute is used to define the background of a webpage. This is explained with an example in the figure as shown in html code and output in fig 2.8 and 2.9

<BODY BACKGROUND="lampbg.jpg">

```

<html>
<head>
<title>My Font Page</title>
</head>
<body background="lampbg.jpg">
<font face="times new roman" color="white" size=4>
This webpage looks different.
</font>
</body>
</html>
    
```

Fig: 2.8

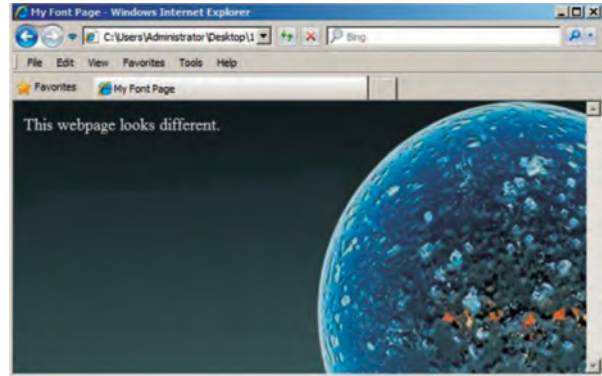


Fig: 2.9

2.8.2 Bgcolor attribute of body tag is used to change the background colour of the webpage.

eg. <BODY BGCOLOR="GREEN">

EXPLAINED as shown with html code and output in fig 2.10 and 2.11

```

<html>
<head>
<title>My Font Page</title>
</head>
<body bgcolor="green">
<font face="times new roman" color="white" size=4>
This webpage looks different with background colour.
</font>
</body>
</html>
    
```

Fig: 2.10

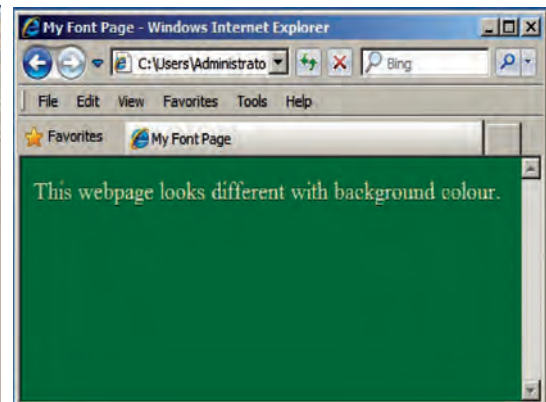
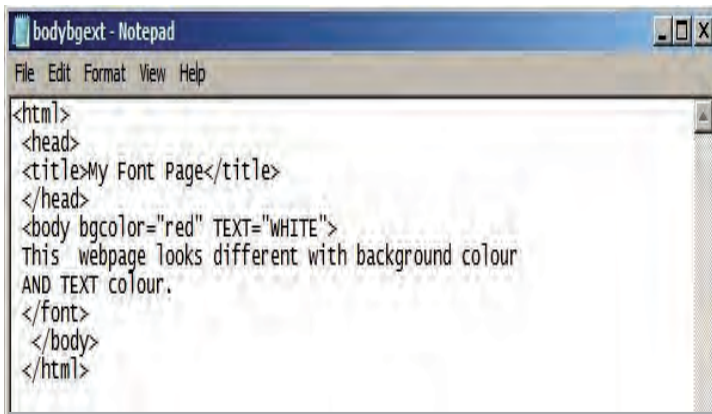


Fig: 2.11

2.8.3 Difference between BACKGROUND and BGCOLOR:

BACKGROUND	BGCOLOR
1. Background attribute is used in body as well as in table tag ,to add background image in the given webpage or a table.	1. Bgcolor attribute is used in body as well as in table tag, to change the background color of the webpage or a table.
2. Syntax <body background="URL">	2. Syntax is <table bgcolor="color_name">
3. Example <BODY BACKGROUND="IMAGE1.IPEG">	3. Example <BODY BGCOLOR="GREEN">

2.8.4 Text attribute defines the color of the text and is defined with an example as shown with html code and output in fig 2.12 and 2.13 `<BODY BGCOLOR="RED" TEXT="WHITE">`



```

<html>
<head>
<title>My Font Page</title>
</head>
<body bgcolor="red" TEXT="WHITE">
This webpage looks different with background colour
AND TEXT colour.
</font>
</body>
</html>

```

Fig: 2.12

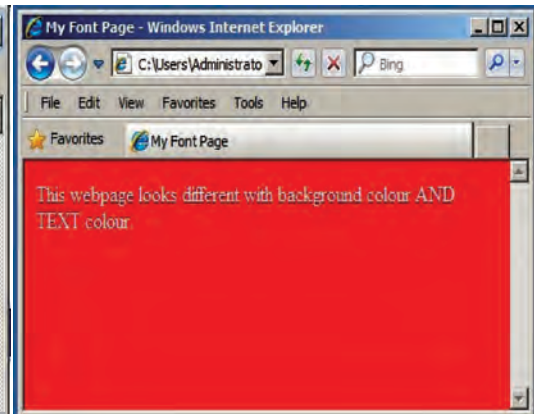


Fig: 2.13

2.9 Formatting in HTML document

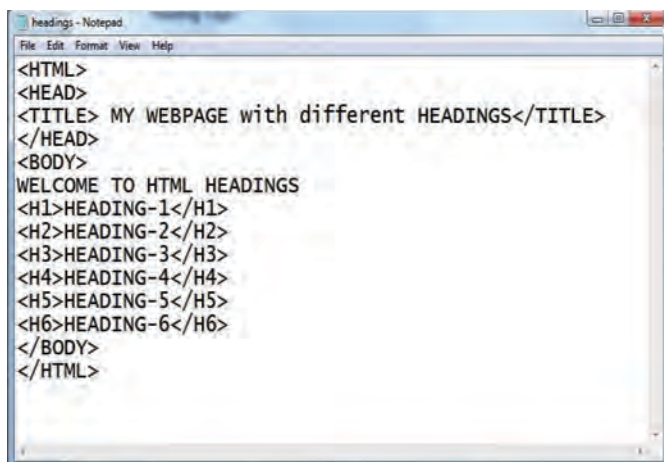
2.9.1 Heading Tags:

The heading tag is used to fix the heading. There are 6 levels of heading. The levels are numbered as heading 1 to heading 6. All the letters of the heading in a given level have same font. The font size goes on decreasing as we move from heading 1 to heading 6. The heading in level 1 is expressed by tags `<H1>` and `</H1>`. Similarly in the heading in level 2 we use the tags `<H2>` and `</H2>`. `<H6>` is the lowest level. The font size in it is the smallest. Heading tag is used to define heading in a HTML document. HTML supports Six Heading Levels H1 to H6. Heading tags are container tags.

Example: `<H1> Computer Education </H1>`

The alignment attribute is used in heading tag. This aligns the text. ALIGN attributes are of three types viz. LEFT, RIGHT and CENTER.

These are explained with an example as shown with html code and output in fig 2.13 and 2.14 with html code and output: -



```

<HTML>
<HEAD>
<TITLE> MY WEBPAGE with different HEADINGS</TITLE>
</HEAD>
<BODY>
WELCOME TO HTML HEADINGS
<H1>HEADING-1</H1>
<H2>HEADING-2</H2>
<H3>HEADING-3</H3>
<H4>HEADING-4</H4>
<H5>HEADING-5</H5>
<H6>HEADING-6</H6>
</BODY>
</HTML>

```

Fig: 2.14

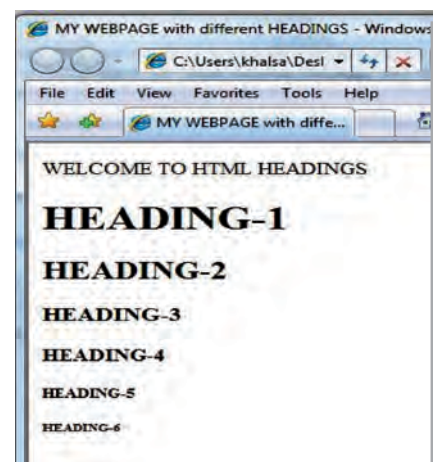


Fig: 2.15

2.9.2 FONT: -

Font is pre-defined style and size of the text. FONT is the style and shape of the text which is used in any document. It allows to format data on a given web page.

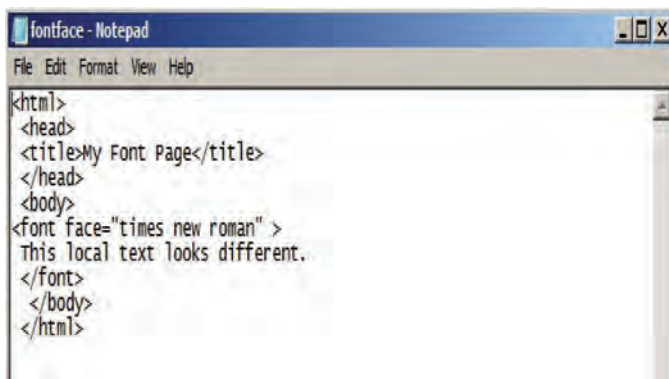
Font has four main properties:

1. Style: Font style can be changed in three ways - Bold, Italic and Underline.
 - a. Font face: Face defines the type face to be used like writing.
2. Font colour: Font colour gives different colours to the text.
3. Font size: Font size changes size of text matter.

2.9.2.1. Face defines the type face to be used for the text.eg.

```
<FONT FACE="ARIAL">WELCOME TO HTML</FONT>
```

These are defined with an example as shown with html code and output in fig 2.16 and 2.17



```
fontface - Notepad
File Edit Format View Help
<html>
<head>
<title>My Font Page</title>
</head>
<body>
<font face="times new roman" >
This local text looks different.
</font>
</body>
</html>
```

Fig: 2.16

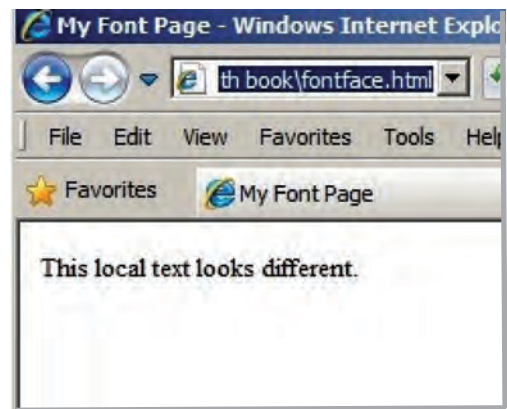
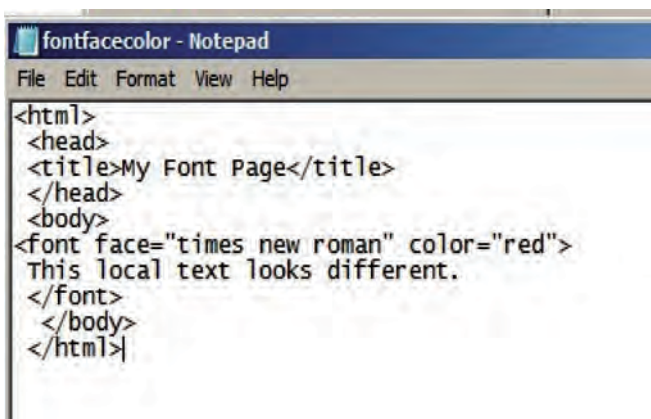


Fig: 2.17

2.9.2.2 COLOR defines the colour of the font to be used. It is defined with an example as shown with html code and output in fig 2.18 and 2.19

```
<FONT FACE="ARIAL" color="RED">WELCOME TO HTML</FONT>
```



```
fontfacecolor - Notepad
File Edit Format View Help
<html>
<head>
<title>My Font Page</title>
</head>
<body>
<font face="times new roman" color="red">
This local text looks different.
</font>
</body>
</html>
```

Fig: 2.18

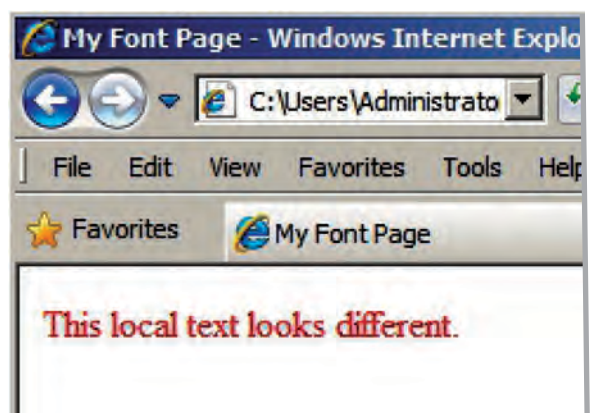
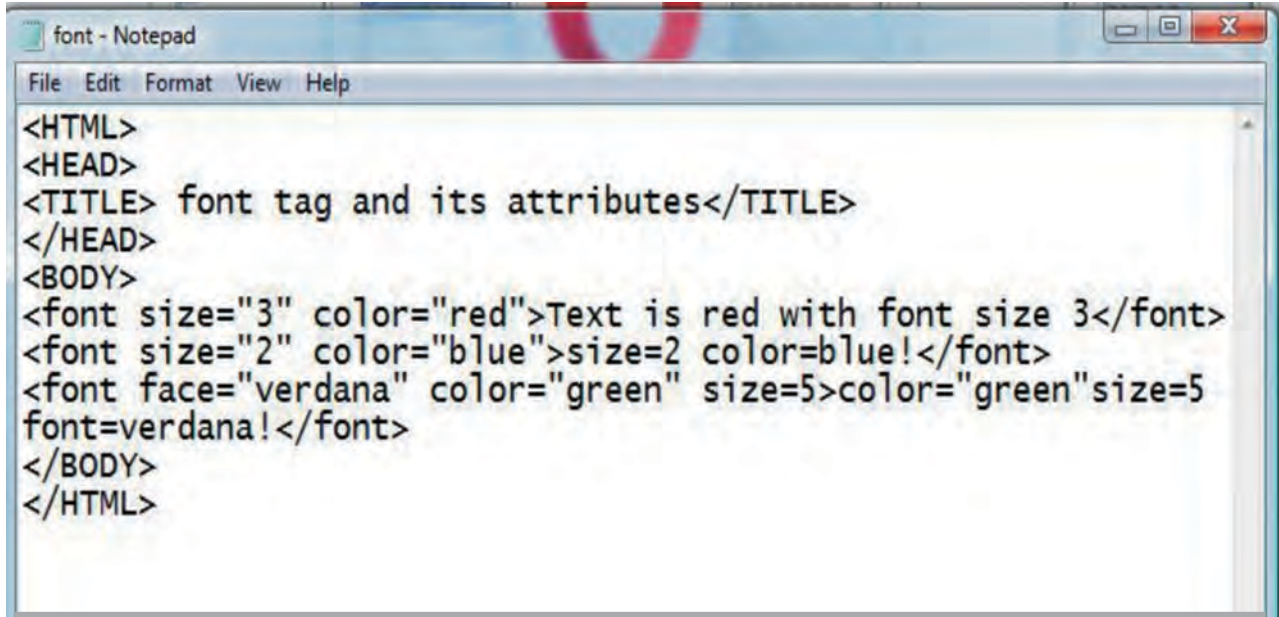


Fig: 2.19

2.9.2.3. SIZE defines the size of the font. It has values from 1 to 7, while 1 is the smallest and 7 is the largest font size. By default font size is 2. font size 1 means 6 points, 2 means 12 points and so on.

Example of font and its attributes are defined as shown with html code and output in fig 2.20 and 2.21: -



```
<HTML>
<HEAD>
<TITLE> font tag and its attributes</TITLE>
</HEAD>
<BODY>
<font size="3" color="red">Text is red with font size 3</font>
<font size="2" color="blue">size=2 color=blue!</font>
<font face="verdana" color="green" size=5>color="green"size=5
font=verdana!</font>
</BODY>
</HTML>
```

Fig: 2.20

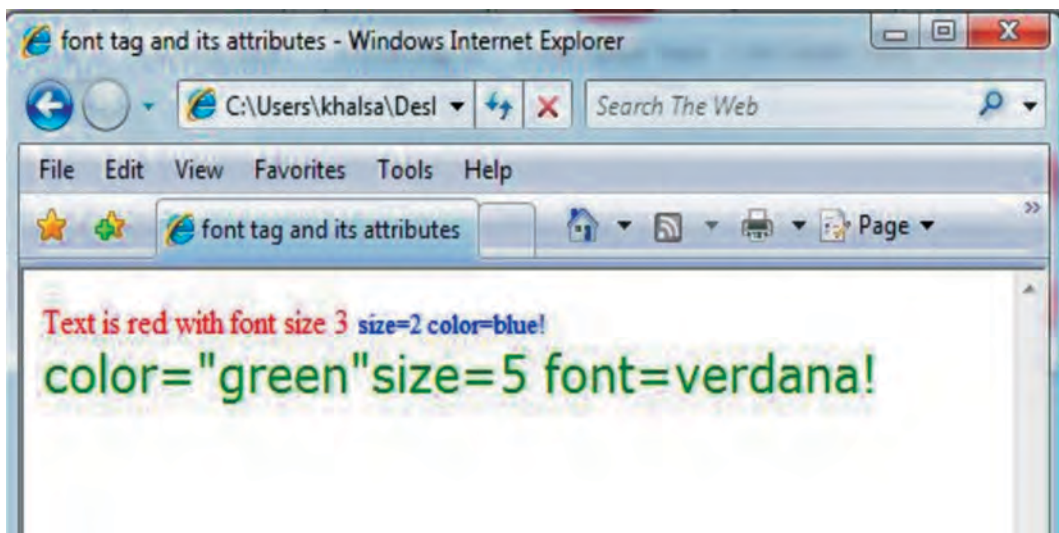


Fig: 2.21

2.9.3 Paragraph Tag:- It is a container tag which is used in Web page to make paragraph. Single large documents are not recommended in a webpage as it is not edited easily. So, it is highly recommended to divide the text or document in different sections which is possible through paragraph tag<P> When we use this tag a blank line is inserted before and after the paragraph automatically by the browser.

Ex. <BODY> Computer is an electronic Machine. It is a data processing machine. <P> and has memory </P> <BODY>

This is a container tag.

The text will automatically go to the new line after tag <P>

<P ALIGN="RIGHT">

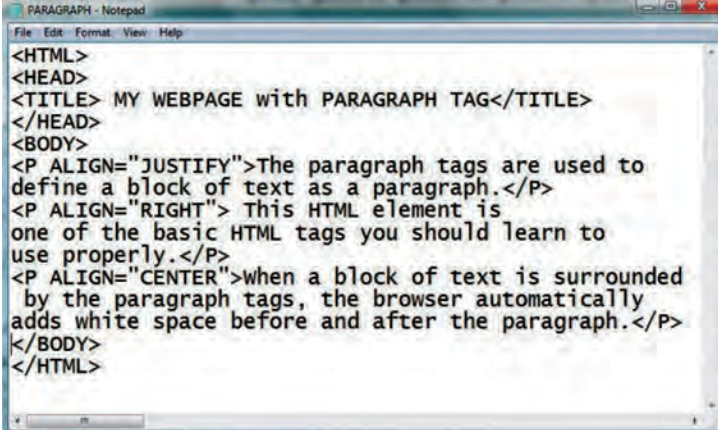
<P ALIGN="LEFT">

<P ALIGN="JUSTIFY">

<P ALIGN="CENTER">

EXAMPLE OF <P> TAG.WITH OUTPUT:-

This tag is defined with an example as shown with html code and output in fig 2.22and 2.23



```
<HTML>
<HEAD>
<TITLE> MY WEBPAGE with PARAGRAPH TAG</TITLE>
</HEAD>
<BODY>
<P ALIGN="JUSTIFY">The paragraph tags are used to
define a block of text as a paragraph.</P>
<P ALIGN="RIGHT"> This HTML element is
one of the basic HTML tags you should learn to
use properly.</P>
<P ALIGN="CENTER">when a block of text is surrounded
by the paragraph tags, the browser automatically
adds white space before and after the paragraph.</P>
</BODY>
</HTML>
```

Fig: 2.22

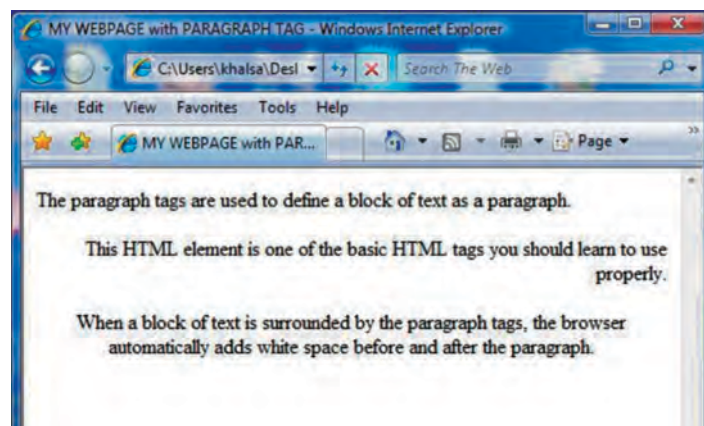


Fig: 2.23

2.9.4 Empty TAG

2.9.4.1 BREAK TAG

The line Break tag is used to start the text from the new line. This tag does not leave a blank line space as the paragraph tag does. The text jumps to the new line on using break tag. The tag
 is a symbol for line break. The
tag inserts a single line break. The
tag is an empty tag which means that it has no ending tag. This is defined with an example as shown with html code and output in fig 2.24 and 2.25

```

<html>
<head>
<title>My Font Page</title>
</head>
<body >
This webpage looks different<br> with background colour
AND TEXT colour.
</font>
</body>
</html>
    
```

Fig: 2.24

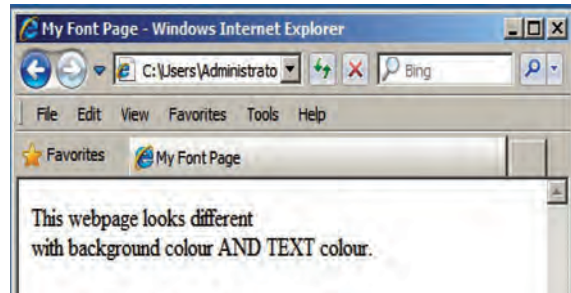


Fig: 2.25

2.9.5 Difference between Paragraph Tag and Break Tag.

Paragraph <P> Tag	Break Tag
<p><p> tag Tag is a container element which marks a block of text as a paragraph in a webpage and the web browser leaves a line between two paragraphs. This tag has an attribute ALIGN, which can take three values - left, right and center .The <p> tag denotes a paragraph and ends with a </p> and is a container tag.</p>	<p>1. < BR> tag is an empty element that is used to break a line and display the proceeding text from the next line, without giving any space between two lines. It has no attribute. The
 is a line break and is an empty tag.</p>
<p>This tag is used to define paragraphs with in your text.</p>	<p>This tag is simply a line break. It just jumps to the next line without any spacing or formatting options.</p>
<p>Example:- <p>hello world</p></p>	<p>Example :- Hello
world!</p>

2.9.6 HR Tag

The <HR> tag is used to insert horizontal line across the page. Its attributes are:

- Size : It is used to set the thickness of line.
- Width : It is used to set the length of line.
- Align : It is used to set the alignment of line.
- Color : It is used to set the color of line.

These are explained in Fig 2.26 and 2.27

```

HRTAG - Notepad
File Edit Format View Help
<HTML>
<HEAD>
<TITLE> MY WEBPAGE with different HEADINGS</TITLE>
</HEAD>
<BODY ALIGN=CENTER>
<HR SIZE=5 ALIGN=CENTER WIDTH=1000 COLOR=RED>
HR TAG WITH EXAMPLE
<HR SIZE=5 ALIGN=CENTER WIDTH=700 COLOR=GREEN>
<H1>HELLO</H1>
<HR SIZE=5 ALIGN=RIGHT WIDTH=700 COLOR=LIGHTGREEN>
<H2>WELCOME</H2>
<HR SIZE=5 ALIGN=LEFT WIDTH=500 COLOR=LIGHTBLUE>
<H3>HR</H3>
<HR SIZE=5 ALIGN=CENTER WIDTH=500 COLOR=PINK>
<H4>TAGGING</H4>
<HR SIZE=5 ALIGN=CENTER WIDTH=500 COLOR=LIGHTCYAN>
<H5>EXAMPLE</H5>
<HR SIZE=5 ALIGN=LEFT WIDTH=500 COLOR=LIGHTRED>
<H6>THANKS</H6>
</BODY>
</HTML>

```

Fig: 2.26



Fig: 2.27

2.10 Lists

While accessing some information from the web, user prefers to read only the required information from the website. So, lists play an important role in defining important information in the form of few lines. For example. As the user wants to differentiate between two distinct objects, then it will be better to represent it in the form of lists. In HTML there are three types of lists available.

These are as follow:-

1. Numbered Lists (Ordered List)
2. Bulleted Lists (Unordered List)
3. Definition Lists

2.10.1 ORDERED LIST :-

Also known as numbered list, it is used to define a list in a specific or sequential order in which numbers are used. The basic tag used for Ordered list is `` tag at the starting and `` at the end of the list. Each item is marked with an `` (List Item) tag. By default the list is started with 1. But user can change the starting number.

ATTRIBUTES USED:- In an Ordered List the attributes used are "TYPE" which have values as 1(Arabic),A(upper case letter),a(Lower case letters),I(Upper case Romans),i (Lower case Romans).

Eg. `<OL type="I">`

Second attribute used is START in which user can define his own starting value in the list.

Eg. `<OL Start="5" Type="i" >`

Ordered List example is shown as follows in example as shown with html code and output in fig 2.28 and 2.29

```

ordered listTYPE - Notepad
File Edit Format View Help
<html>
<head>
<title>ORDERED LISTS</title>
</head>
<body>
Order List of Hardware units with
different attributes
<BR>TYPE=a start=2
<ol start="2" type="a">
<li>Keyboard</li>
<li>Mouse</li>
<li>Scanner</li>
</ol>
TYPE=I
<ol type="I">
<li>Printer</li>
<li>Speaker</li>
<li>SMonitor</li>
</ol>
TYPE=1 START=5
<ol start="5" type="1">
<li>MotheBoard</li>
<li>Hard disk</li>
<li>Netwrok Interface card</li>
</ol>
</body>
</html>

```

Fig: 2.28

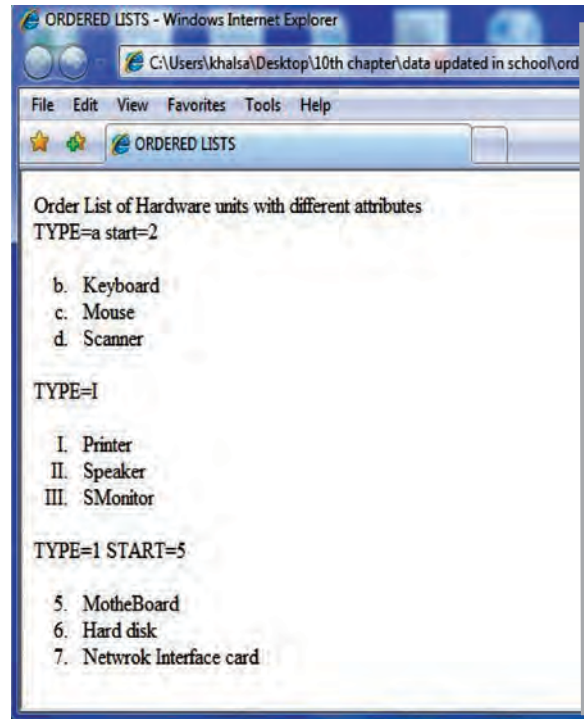


Fig: 2.29

2.10.2 Unordered List (Bulleted List) :-

The lists which have information related to each other but their sequence is not important are called Bulleted Lists. It has a starting tag as and ending tag as tag. Each item is marked with tag which stands for List Item. Any number of elements can be added in it. This is defined with an example as shown with html code and output in fig 2.30 and 2.31

```

unorderd list - Notepad
File Edit Format View Help
<html>
<head>
<title>My Font Page</title>
</head>
<body>
Unorder List showing input devices
<ul>
<li>Keyboard</li>
<li>Mouse</li>
<li>Scanner</li>
</ul>
</body>
</html>

```

Fig: 2.30

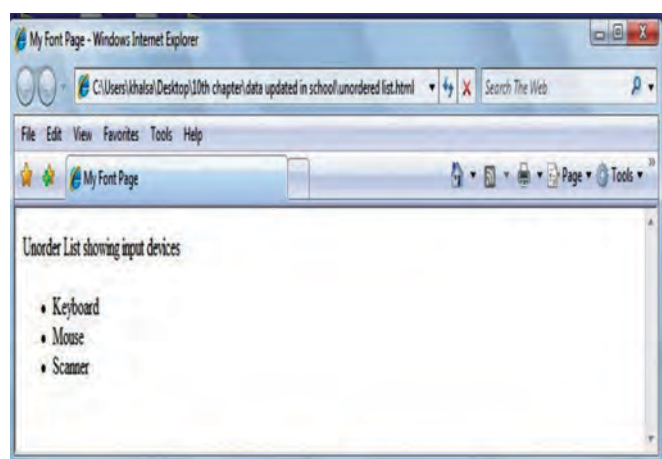


Fig: 2.31

By default attribute used for bullet list are used as disc. But these bullets can be changed by using an attribute as TYPE. It can be used in as well as in tag as per the requirement. the values support by this attribute is defined as

- Disc (●)
- CIRCLE(O)
- SQUARE(■)

These are explained and defined with an example as shown with html code and output in fig 2.32 and 2.33

```

<html>
<head>
<title>UNORDERED LISTS</title>
</head>
<body>
Unorder List of Input Devices with
different attributes
<BR>TYPE=DISC
<ul type="disc">
<li>Keyboard</li>
<li>Mouse</li>
<li>Scanner</li>
</ul>
TYPE=CIRCLE
<ul type="circle">
<li>Keyboard</li>
<li>Mouse</li>
<li>Scanner</li>
</ul>
TYPE=SQUARE
<ul type="square">
<li>Keyboard</li>
<li>Mouse</li>
<li>Scanner</li>
</ul>
</body>
</html>

```

Fig: 2.32

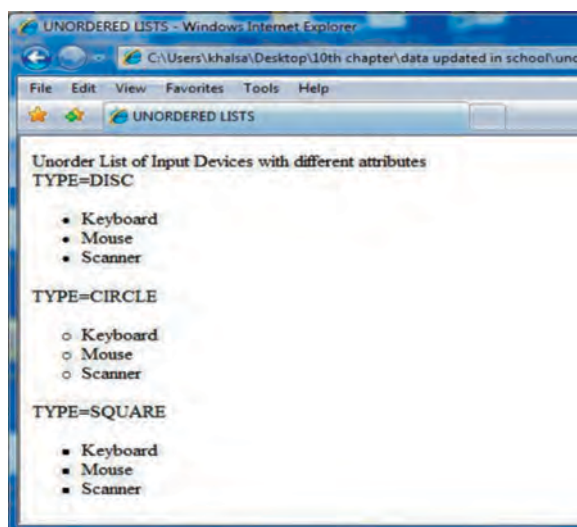


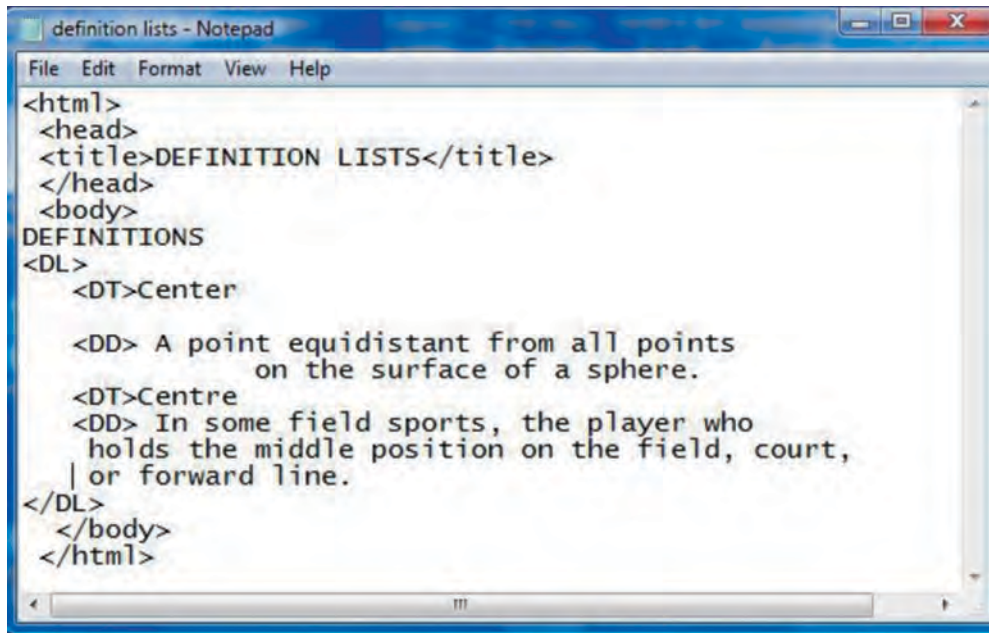
Fig: 2.33

2.10.3 Difference between Ordered List and Unordered List

Ordered List	Unordered List
1. In an Ordered List, the order of the list item is important. If we change the order, the meaning of the whole list changes.	1. In an unordered list the order of the items is not significant. We can swap two items or reverse the whole list, and it still remains the same list.
2. Ordered List starts with and ends with tag.	2. Unordered List starts with and ends with tag.
3. OL is a container tags	3. UL is container tags.
4. OL has an (List Item) tag which defines the list elements defined in the list.	4. UL has an (List Item) tag which defines the list elements defined in the list.
5. In an Ordered List the attribute used is TYPE Which has values as 1(Arabic), A(upper case letter), a(Lower case letters), I(Upper case Romans), i(Lower case Romans). Eg. <OL type="I">	5. In an Ordered List the attribute used is TYPE Which has values as "Disc(●)", "CIRCLE(O)", and "SQUARE(■)". Eg. <UL type=" disc">
6. Default value of TYPE ATTRIBUTE is 1.	6. Default value of TYPE ATTRIBUTE is "Disc(●)"

2.10.4 Definition List:-

Definition list generally contains the definitions of different terms and their meaning. It starts with <DL> tag and ends with </DL> tag. It has two main tags definition Term <DT> and Definition Description <DD> tags. These are explained in the following example as shown in figure 2.34 and 2.35 with html code and output.



```
<html>
<head>
<title>DEFINITION LISTS</title>
</head>
<body>
DEFINITIONS
<DL>
  <DT>Center
  <DD> A point equidistant from all points
      on the surface of a sphere.
  <DT>Centre
  <DD> In some field sports, the player who
      holds the middle position on the field, court,
      | or forward line.
</DL>
</body>
</html>
```

Fig: 2.34

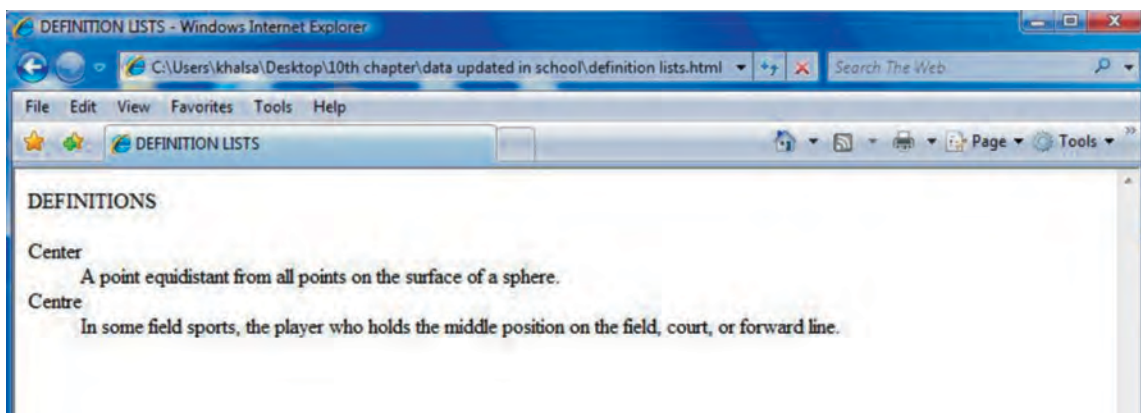
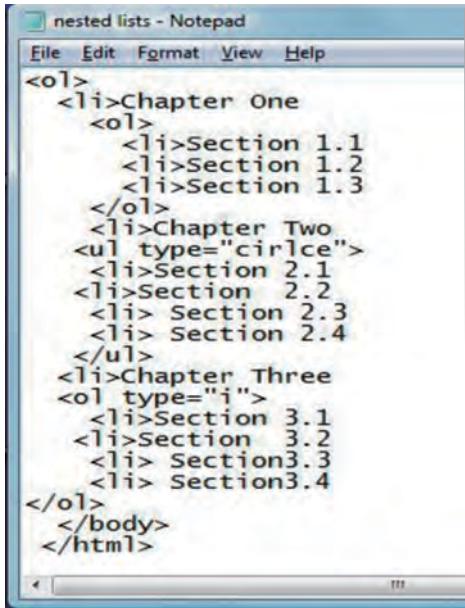


Fig: 2.35

2.10.5 Nested Lists:-

When a List is inserted in other list it is known as Nested List. We can explain the nested list with the following example as shown with html code and output in fig 2.36 and 2.37



```
<ol>
<li>Chapter One
<ol>
<li>Section 1.1
<li>Section 1.2
<li>Section 1.3
</ol>
<li>Chapter Two
<ul type="circle">
<li>Section 2.1
<li>Section 2.2
<li>Section 2.3
<li>Section 2.4
</ul>
<li>Chapter Three
<ol type="i">
<li>Section 3.1
<li>Section 3.2
<li>Section 3.3
<li>Section 3.4
</ol>
</body>
</html>
```

Fig: 2.36

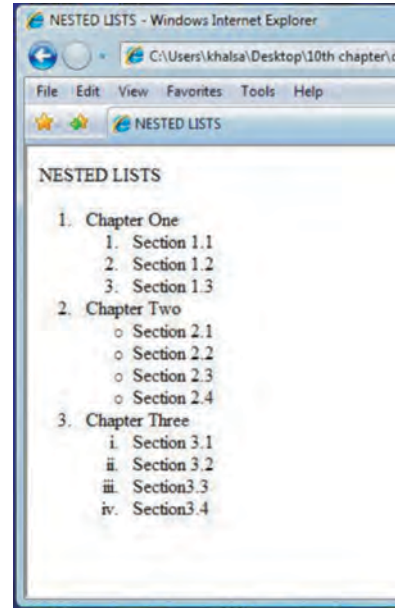


Fig: 2.37

2.11 IMAGES:-

By now you know enough to write a very nice, text-based home page in HTML, but it is the ability of the Web to provide pictures, technically called images, graphics, or sometimes icons, that has made it so popular. In this following section we'll learn how to place an image in our web page and attributes related to it. Various graphics formats used are .jpeg, .jpg, .gif, png etc.

To add an image to a webpage, the tag used is ``. Here SRC defines the source of the image and file name defines the filename with extension of the image chosen.

NOTE:-The location of the image file must be defined properly. i.e. either the file is in the same folder in which web page is stored or User has to define the complete path of the file.

Eg If file is in the same folder then it can be defined as

``

OR

``

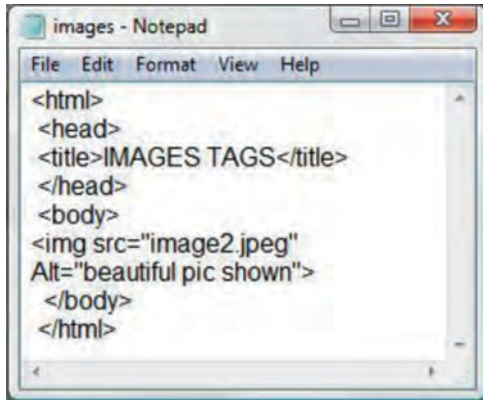
The attributes of image tag are defined below:-

1. **ALT** stands for "alternate text". This tells the browser that if it can't find the image, then just display this text. For example a disabled

user using a screen reader, visit the webpage, When the mouse over the image, the alternate text pops up.

Example for this is as follows:

`` and are explained with an example as shown with html code and output in fig 2.38 and 2.39:-



```
<html>
<head>
<title>IMAGES TAGS</title>
</head>
<body>

</body>
</html>
```

Fig: 2.38

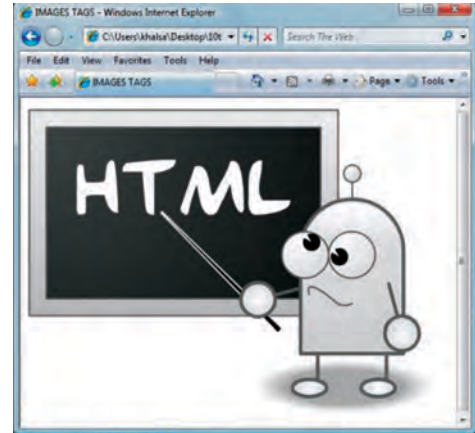
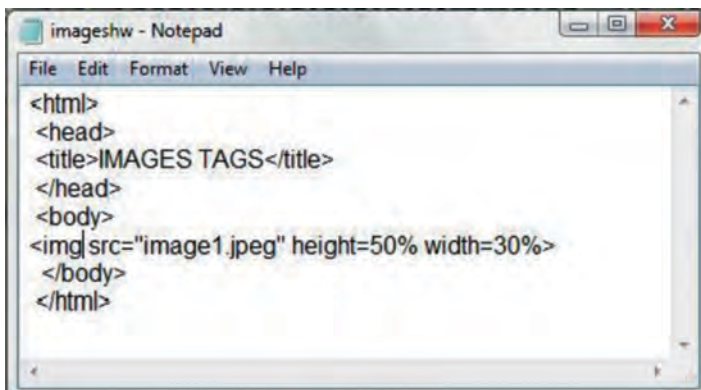


Fig: 2.39

- 2. WIDTH** stands for the image in pixels as well as percentage of the web browser window. It can range from 1 pixel to any number, but generally will be less than the width of the web browser.
- 3. HEIGHT** stands for the height of the image in pixels or percentage of the web browser windows. Again, the height can be just about anything, but generally will be less than the height of the web browser.

Example``

These are explained with an example as shown with html code and output in fig 2.40 and 2.41:-



```
<html>
<head>
<title>IMAGES TAGS</title>
</head>
<body>

</body>
</html>
```

Fig: 2.40

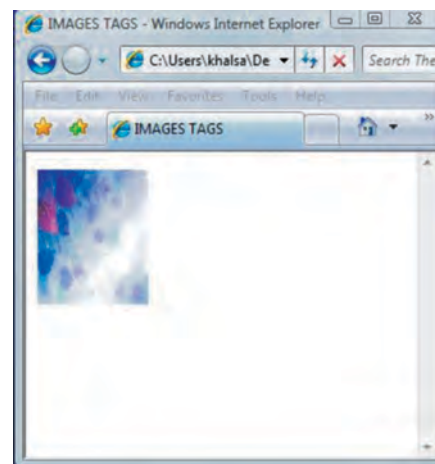


Fig: 2.41

4. **Align** defines the alignment of the attached image **in contrast to the other contents of the webpage**. It has different values left, right, top and bottom.

Example for this is as follows

```

```

Note:

To increase the space at the top and bottom of an image, use VSPACE and HSPACE.

These are explained with an example as shown with html code and output in fig 2.42 and 2.43:-



```
imagesalign - Notepad
File Edit Format View Help
<html>
<head>
<title>IMAGES TAGS</title>
</head>
<body>

Adding images to your website or social networking
profile is a great way to spruce up your page.
The HTML code for adding images is straightforward,
and often one of the first lessons for an HTML
novice.
</body>
</html>
```

Fig: 2.42



Fig: 2.43

Similarly other alignments can be performed by changing align attribute values.

2.12 Tables:

2.12.1 Creating Tables in HTML: -

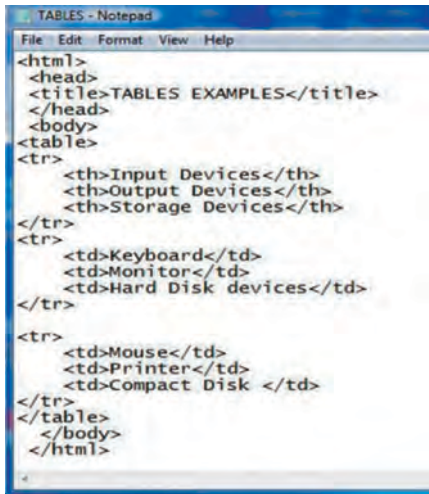
In previous topics we have explained the various aspects in which information is defined in the form of sentences and paragraphs. However, the information can be defined in the form of columns and rows or tabular form. It allows to manage the information in to multiple rows and columns. The HTML tables allow web authors to arrange data like text, images, links, other tables, etc. into rows and columns of cells. It makes the webpage attractive. Table begins with <Table> tag and ends with</Table>. Table has various attributes which will be discussed later. Table tag has various other tags which are explained below ;-

1. Table Heading<TH>.It defines the table headings of a given table. It starts with <TH> tag and ends with</TH>tags. It should be defined with in the Table Row<TR>.
2. Table Row<TR>.It defines the row in a table. Table heading and table data are defined with in the row which starts with <TR> Tag and ends

with `</TR>`

3. Table Data `<TD>` It defines the data of the table. Table data defines the information stored in the table. It starts with `<TD>` data and ends with `</TD>`.

Let us explain all these tags as shown with html code and output in fig 2.43 and 2.44.



```
<html>
<head>
<title>TABLES EXAMPLES</title>
</head>
<body>
<table>
<tr>
<th>Input Devices</th>
<th>Output Devices</th>
<th>Storage Devices</th>
</tr>
<tr>
<td>Keyboard</td>
<td>Monitor</td>
<td>Hard Disk devices</td>
</tr>
<tr>
<td>Mouse</td>
<td>Printer</td>
<td>Compact Disk </td>
</tr>
</table>
</body>
</html>
```

Fig: 2.44

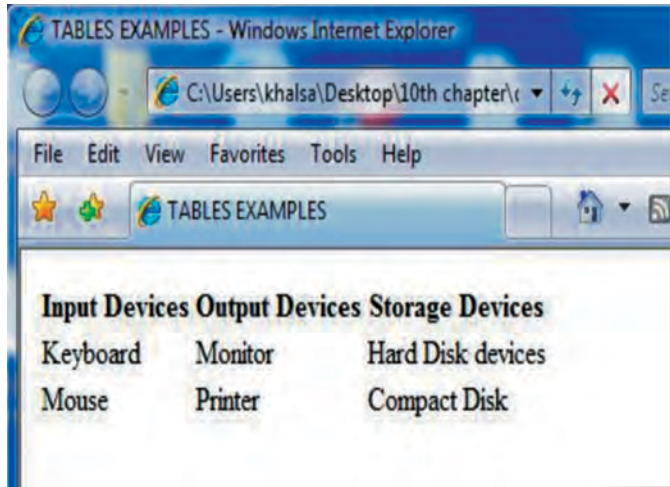


Fig: 2.45

2.12.2 Attributes of Table Tag:-

Border:- The border attribute defines the width of the table border. It has 0 value for no border and by default value is 1.

Example for this is as follows.

```
<Table Border="1">
```

ALIGN:- Align attribute defines the alignment of the table in the browser window. It has left, right and center values.

Example for this is as follows.

```
<Table align="Right" Border="1">
```

BORDERCOLOR: - It defines the color of the border.

Example for this is as follows.

```
<Table BORDER=2 BORDERCOLOR="RED">
```

WIDTH:- Width defines the width of the table. It can be defined in pixel or as a percentage of the web browser window.

Example for this is as follows.

```
<Table WIDTH="35 %">
```

It defines the 35% space of the browser.

```
<Table WIDTH=500>
```

It defines the 500 pixels space of the browser. All the above tags are explained with an example shown in fig 2.46 and 2.47

```

TABLES attri - Notepad
File Edit Format View Help
<html>
<head>
<title>TABLES EXAMPLES</title>
</head>
<body>
<table border="2" bordercolor=red bgcolor="green"
align="right" width =50%>
<tr>
<th>Input Devices</th>
<th>Output Devices</th>
<th>Storage Devices</th>
</tr>
<tr>
<td>Keyboard</td>
<td>Monitor</td>
<td>Hard Disk devices</td>
</tr>
<tr>
<td>Mouse</td>
<td>Printer</td>
<td>Compact Disk </td>
</tr>

```

Fig: 2.46

Input Devices	Output Devices	Storage Devices
Keyboard	Monitor	Hard Disk devices
Mouse	Printer	Compact Disk

Fig: 2.47

2.12.3 CELLSPACING is the pixel width between the individual data cells in the TABLE. (The thickness of the lines making the TABLE grid). The default value is zero. If the BORDER is set at 0, the CELLSPACING lines will be invisible.

Example for this is as follows.

<Table Border="2" cellspacing=12> and is explained with an example as shown with html code and output in fig 2.48and 2.49

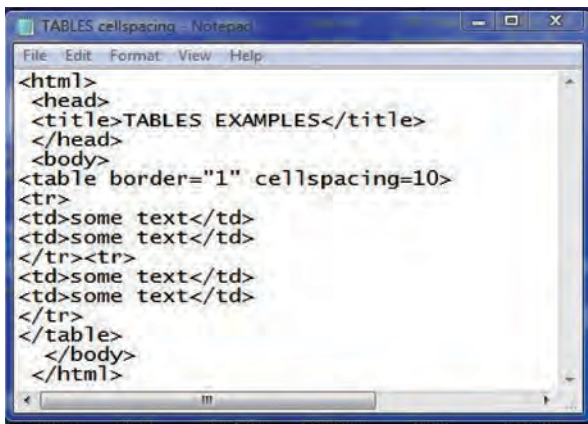


Fig: 2.48

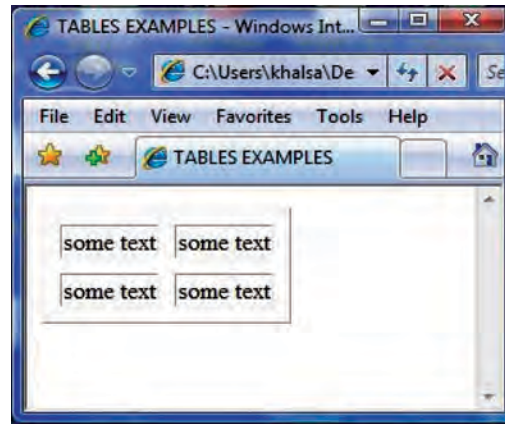


Fig: 2.49

2.12.4 CELLPADDING is the pixel space between the cell contents and the cell border. The default for this property is also zero. This feature is not used often, but sometimes comes in handy when you have your borders turned on and you want the contents to be "away" from the border a bit for easy viewing. CELLPADDING is invisible, even with the BORDER property turned on.

Example for this is as follows.

<Table Border="3" cellpadding=10>These are explained below with html code and its output as shown in fig 2.50 & 2.50

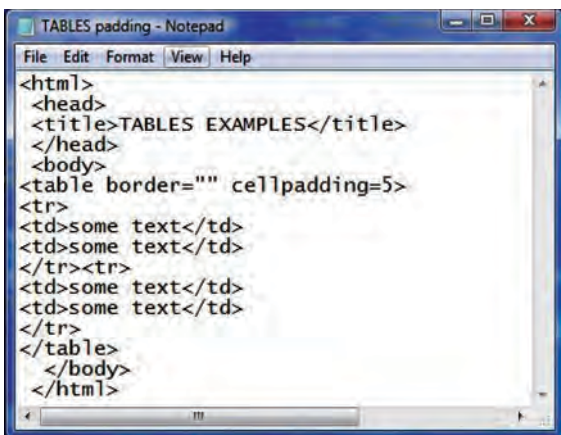


Fig: 2.50

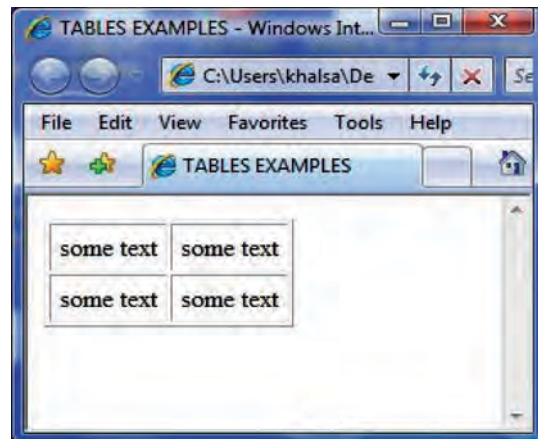


Fig: 2.51

2.12.5 COLSPAN and ROWSPAN. Table cells can span across more than one column or row. The attributes COLSPAN ("how many across") defines the combination of one or more columns together while ROWSPAN ("how many down") indicates how many rows to be combined together.

Syntax for this is as follows.

<Table Border="1" colspan=2>

<Table Border="1" rowspan=2>

These are explained with an example as shown with html code and output in fig 2.51 and 2.52:-


```

colandrowspan - Notepad
File Edit Format View Help
<html>
<head>
<title>TABLES EXAMPLES</title>
</head>
<body>
<table border=1>
<tr>
<th colspan=3 align=center>
hardware devices</th>
</tr>
<tr>
<td>Input Devices</td>
<td>Output Devices</td>
<td>Storage Devices</td>
</tr>
<tr>
<td rowspan=2>Keyboard</td>
<td>Monitor</td>
<td>Hard Disk devices</td>
</tr>
<tr>
<td>Printer</td>
<td>Compact Disk </td>
</tr>
</table>
</body>
</html>

```

Fig: 2.52

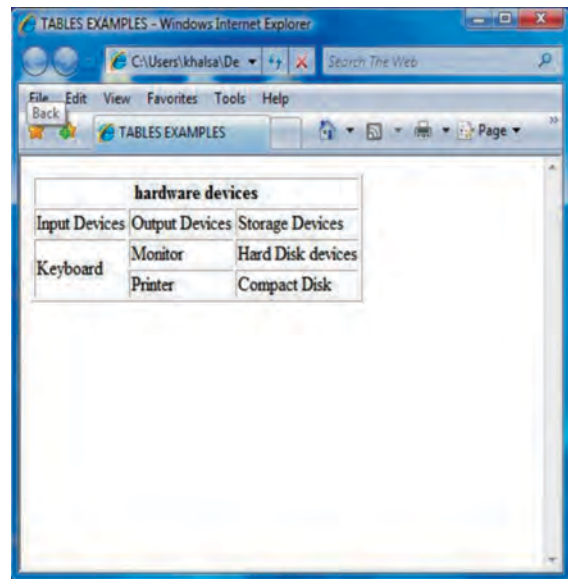


Fig: 2.53

2.12.6 Difference between Colspan and Rowspan

COLSPAN	ROWSPAN
1. Sometimes it makes sense for a cell to span multiple columns . This might be used for a header cell that titles a group of columns of entries.	1. Sometimes it makes sense for a cell to span multiple rows. This might be used for a side-bar that groups rows of entries.
2. Allows a single table cell to span the width of more than one cell or column.	2. Allows a single table cell to span the height of more than one row.
3. COLSPAN is attribute that is used in i.e. <th> and <td> tag.	3. ROWSPAN is attribute that is used in i.e. <th> and <td> tag.
4. It provides the same functionality as "merge cell" in spreadsheet programs like Excel.	4. It provide the same functionality as "merge cell" in spreadsheet programs like Excel.
5. Example:- <th colspan="2">	5. Example:- <th rowspan="2">

2.12 Table Background:-

BACKGROUND attribute is used to set the background image in the given table.

The example for this is as follows:-

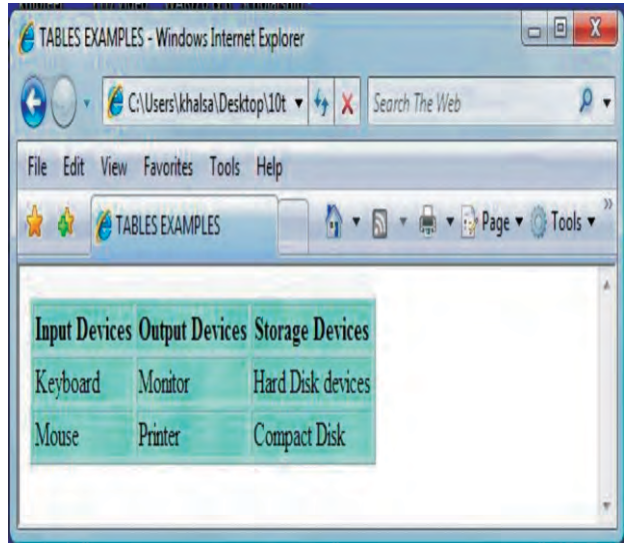
<table background="up.jpeg" border=2> This is explained below with an example.

These are explained with an example as shown with html code and output in fig 2.54 and 2.55:-


```

TABLES bg - Notepad
File Edit Format View Help
<html>
<head>
<title>TABLES EXAMPLES</title>
</head>
<body>
<table background="bgsky.jpeg" border=1>
<tr>
<th>Input Devices</th>
<th>Output Devices</th>
<th>Storage Devices</th>
</tr>
<tr>
<td>Keyboard</td>
<td>Monitor</td>
<td>Hard Disk devices</td>
</tr>
<tr>
<td>Mouse</td>
<td>Printer</td>
<td>Compact Disk </td>
</tr>
</table>
</body>
</html>

```



BGCOLOR:-BGCOLOR is used to set background colour of the table. The example used for this attribute is as follows:-
 <table bgcolor="yellow" border=2>This is explained below with an example.(Fig. 2.56 and 2.57)

```

TABLES bgcolor - Notepad
File Edit Format View Help
<html>
<head>
<title>TABLES EXAMPLES</title>
</head>
<body>
<table bgcolor="yellow" border=2>
<tr>
<th>Input Devices</th>
<th>Output Devices</th>
<th>Storage Devices</th>
</tr>
<tr>
<td>Keyboard</td>
<td>Monitor</td>
<td>Hard Disk devices</td>
</tr>
<tr>
<td>Mouse</td>
<td>Printer</td>
<td>Compact Disk </td>
</tr>
</table>
</body>
</html>

```

Fig: 2.56

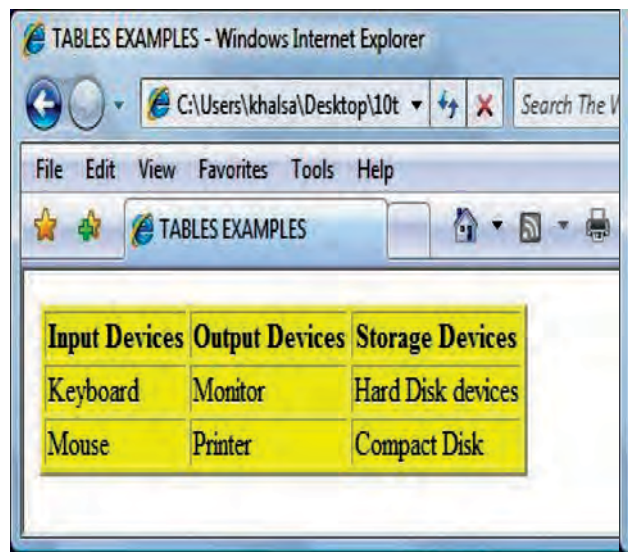


Fig: 2.57



Points to Remember

1. HTML is a Hypertext markup Language which is used to design webpage.
2. HTML codes are defined in Tags.
3. There are two types of element tags: Container and empty tags.
4. Container has both opening and closing tags while empty tags have single tag.
5. Web browser is used to see the output of html Program example Google chrome, Internet explorer, Firefox, Opera etc..
6. Heading tags can be defined between <H1> to<H6> Tags.
7. User can format his/her text using various tags example. , <U>, <I> etc.
8. .html or .htm is the extension of HTML program.
9. Each tag has some attributes which are used to define the properties of that tag.
10. There are three types of lists these are ordered, unordered and definition lists.
11. Nested Lists are used to represent list with in list.
12. User can connect multiple webpages together with linking.
13. Linking of pages can be done using Anchor<A> tag.
14. Information can be defined in the tabular form, the tag used for this is <table>.
15. Tag is used to define images in a web page.

Exercise

1. Multiple Choice Questions:

1. What should be the first tag in any HTML document?

- a. <head>
- b. <title>
- c. <html>
- d. <document>

2. What is the correct HTML tag for inserting a line break?

- a.

- b. <lb>
- c. <break>
- d. <newline>

3. A webpage displays a picture.

What tag was used to display that picture?

- a. picture
- b. mage
- c. img
- d. src

4. Page designed in HTML is called a

- a. Yellow Page
- b. Web Page
- c. Server Page
- d. Front Page

5. HTML document is saved using ____ extension.

- a. .htl
- b. .html
- c. .hml
- d. .html

6. Table tag has various other tags, these are

- a. <TR>.
- b. <TD>.
- c. <TH>
- d. All of the above.

2 Fills in the Blanks: -

1. HTML stands for_____.
2. _____list to represent an unorganized list.
3. _____Tag is used to define the elements of a list.
4. ALT stands for_____.
5. _____ is the main part of the HTML document in which whole information about the webpage resides.
6. The _____ contains title that identifies the heading of the html document.

3 True Or False:-

1. HTML is a structured Language.
2. Table heading starts with <TH> tag and ends with</TH>tags
3. Align does not defines the alignment of the attached image in contrast to the other contents of the webpage
4. CELLPADDING is the pixel space between the cell contents and the cell border.
5. Definition list generally contains the definitons of different terms and their meaning.

4 FULL FORMS:-

- 1.HTML
2.
- 3.<I>
- 4.<U>
- 5.
- 6.
7. <P>
8.

9. SRC
- 10.
11. <TR>
- 12.<TH>
- 13<TD>
14. LI
15. URL.

5 Very Short Questions

1. Name the tag which is by the beginning and ending tags.
2. Name the tag of the HTML document

in which whole information about the webpage resides.

3. Name a tag which is an empty element that is used to break a line and display the proceeding text from the next line, without giving any space between two lines.
4. Name the list which have information related to each other but their sequence is not important

6 Short questions:-

1. What is HTML?
2. What is a Tag?
3. What is tag. Explain.
4. Name different tags used to create a table.
5. Explain Font tag with its attributes.

7 Differentiate Between:-

1. Ordered and Unordered List.
2. Background and BGCOLOR.
3. Colspan and Rowspan.
4. Tag and attribute.

8. Long questions:-

1. Describe the basic structure of HTML in Details.
2. What are the various tags used in table?Explain with an example.
3. Explain ordered list with an example.
4. Explain Nesting List with an example.

Answers Key

Questions	Multiple Choice	Fill in the Blanks	True or False	Full Form	Very Short Answer
1	c	Hypertext Markup Language	TRUE	Hypertext markup language	1. Container Tag
2	a	Unordered List	TRUE	Bold	2. Body tag
3	c		FALSE	Italic	3.
4	b	Alternate	TRUE	Underline	4. Bulleted Lists
5	b	<Body>	TRUE	Ordered list	
6	d	heading	-	Unordered list	
7			-	Paragraph	-
8			-	Break	-
9			-	Source	-
10			-	Image	-
11				Table row	
12				Table heading	
13				Table data	
14				List item	
15				Uniform resource locator	