Web Technology Application

Including

HTML, CSS, JS

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Definitions:

- W W W – World Wide Web.
- HTML – HyperText Markup Language – The Language of Web Pages on the World Wide Web.

  HTML is a text formatting language.
- URL – Uniform Resource Locator.
- Browser – A software program which is used to show web pages.
- “Normal text” surrounded by bracketed tags(<>) that tell browsers how to display web pages
- Pages end with “.htm” or “.html”
- HTML Editor – A HTML Editor or Word Processor that has been specialized to make the writing of HTML documents more effortless.

What is HTML?

- HTML
  - HTML stands for Hyper Text Markup Language which is used for creating web pages and web applications.
  - HyperText: HyperText simply means "Text within Text." A text has a link within it, is a hypertext. Whenever you click on a link which brings you to a new webpage, you have clicked on a hypertext. HyperText is a way to link two or more web pages (HTML documents) with each other.
  - Markup language: A markup language is a computer language that is used to apply layout and formatting conventions to a text document. Markup language makes text more interactive and dynamic. It can turn text into images, tables, links, etc.
  - Web Page: A web page is a document which is commonly written in HTML and translated by a web browser. A web page can be identified by entering an URL. A Web page can be of the static or dynamic type. With the help of HTML only, we can create static web pages.

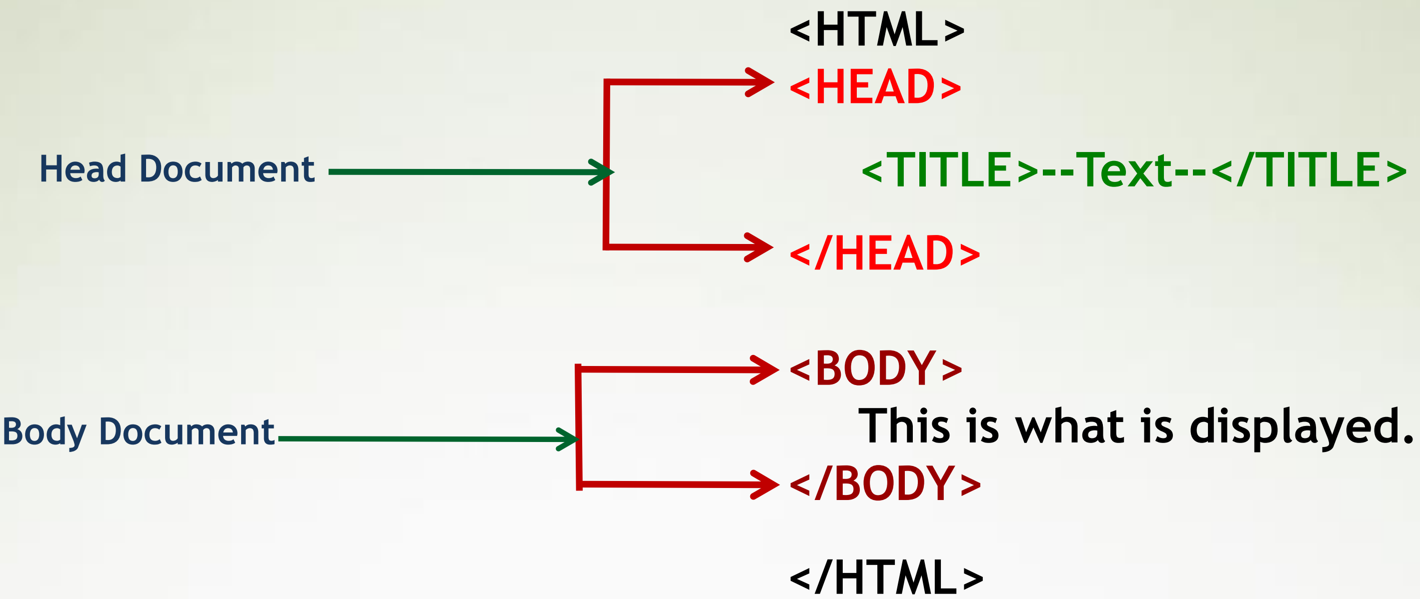
Difference between Static and Dynamic Page

- Static Page
  - **Definition :** Static web pages are generally simple HTML written pages which serve as response from browser to server in which all the information and data is static in nature and it does not get changed until someone changed it manually.
  - **Language used :** Static web pages are generally written in simpler languages such as HTML, JavaScript, CSS, etc.
  - **Time :** Static web pages due to static data take less time to get load.
  - **Database :** In Static web pages generally no involvement of database for data redecoration.

- Dynamic Page
  - **Definition :** On other hand Dynamic webpages are the pages written in some more complex language such as SERVLET, JSP, ASP.NET in which data is rendered after some interpretation and capacity to produce distinctive content for different calls.
  - **Language used :** On other Dynamic web pages are written in more complex languages such as CGI, AJAX, ASP, ASP.NET, etc.
  - **Time:** While Dynamic web pages due to dynamic data take comparatively more time as compare to static web pages.
  - **Database:** On other hand in case of Dynamic web page database is used for data redecoration.

Creating a Basic Starting Document

The Structure Of HTML program is as follows :



Head Document

Body Document

```
<HTML>
<HEAD>
        <TITLE>--Text--</TITLE>
</HEAD>

<BODY>
        This is what is displayed.
</BODY>

</HTML>
```

- @ The extension of HTML program is .html or .htm
- @ The tags are not case-sensitive.
- @ Tags and attributes are the basis of HTML.
- @ Tags are used to mark up the start of an HTML element and they are usually enclosed in angle brackets. There are two types of tags:
    1. Singular or Singleton Tag (<>)
    2. Pair Tag (<> ....</>)
- @ Attributes contain additional pieces of information. Attributes take the form of an opening tag and additional info is placed inside.
- @ To open the Notepad and write the HTML and save with the extension of filenme.html or filename.htm.

Features of HTML

- It is a very easy and simple language. It can be easily understood and modified.
- It is very easy to make an effective presentation with HTML because it has a lot of formatting tags.
- It is a markup language, so it provides a flexible way to design web pages along with the text.
- It facilitates programmers to add a link on the web pages (by html anchor tag), so it enhances the interest of browsing of the user.
- It is platform-independent because it can be displayed on any platform like Windows, Linux, and Macintosh, etc.
- It facilitates the programmer to add Graphics, Videos, and Sound to the web pages which makes it more attractive and interactive.
- HTML is a case-insensitive language, which means we can use tags either in lower-case or upper-case.

Applications of HTML

- Web pages development - HTML is used to create pages which are rendered over the web. Almost every page of web is having html tags in it to render its details in browser.
- Internet Navigation - HTML provides tags which are used to navigate from one page to another and is heavily used in internet navigation.
- Responsive UI - HTML pages now-a-days works well on all platform, mobile, tabs, desktop or laptops owing to responsive design strategy.
- Offline support - HTML pages once loaded can be made available offline on the machine without any need of internet.
- Game development- HTML5 has native support for rich experience and is now useful in gaming development arena as well.

HTML Tags

- Every HTML tag has a special meaning to the browser. Each tag performs its own function and helps in creating the proper structure of a web page. We can't create ur own tags, all tags are predefined.
- Syntax: <tag> Content </tag>

Types of Tags

® Paired Tags

® Unpaired Tags

® Paired Tags

Paired tags are those tags that comes in pair. They have an opening and a closing tag.

- Syntax: <tag> Content </tag>
- Some Paired Tags are:

<html> </html>
<table> </table>
<p> </p>

® Unpaired Tag or Singular Tag or Single Tag

Unpaired tags do not have a closing tag. These are opened same as paired tags but do not have to be closed.

- Syntax: <tag> Content
- Some Unpaired Tags are:

<!DOCTYPE>
<br>
<hr>
<meta>
<input>

HTML Documents

- All HTML documents must start with a document type declaration: <!DOCTYPE html>.
- The HTML document itself begins with <html> and ends with </html>.
- The visible part of the HTML document is between <body> and </body>.

The <!DOCTYPE> Declaration

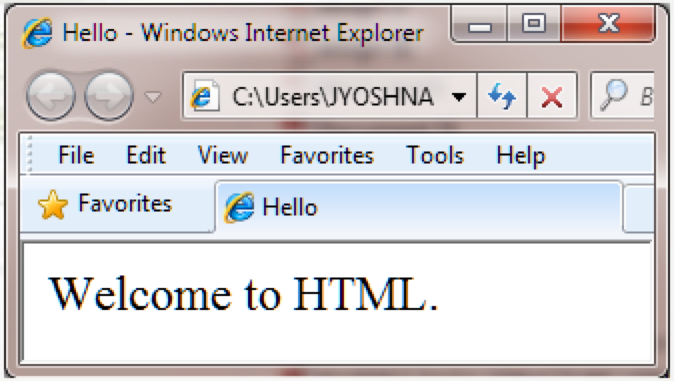
- The <!DOCTYPE html> declaration before the <html> tag. HTML <!DOCTYPE> tag is used to inform the browser about the version of HTML used in the document. It is called as the document type declaration (DTD).
- Technically <!DOCTYPE > is not a tag/element, it just an instruction to the browser about the document type. It is a null element which does not contain the closing tag, and must not include any content within it.
- The <!DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly.
- It must only appear once, at the top of the page (before any HTML tags).
- The <!DOCTYPE> declaration is not case sensitive.
- The <!DOCTYPE> declaration for HTML5 is: <!DOCTYPE html>

Example:

Coding :

```
<!DOCTYPE html>
<html>
<head>
         <title> Hello </title>
</head>
<body>
         Welcome to HTML.
</body>
</html>
```

Output :


Hello - Windows Internet Explorer
C:\Users\JYOSHNA
File Edit View Favorites Tools Help
Favorites
Hello

Welcome to HTML.

Setting Document Properties

- Document properties are controlled by attributes of the BODY element.
- For example, there are color settings for the background color of the page, the document's text and different states of links.

HTML: <body> tag

- **Description :**The HTML <body> tag defines the main content of the HTML document or the section of the HTML document that will be directly visible on your web page. This tag is also commonly referred to as the <body> element.
- **Syntax :**In HTML, the syntax for the <body> tag is:

```
<body>
</body>
```

In HTML, the syntax for the <body> tag with attribute is:

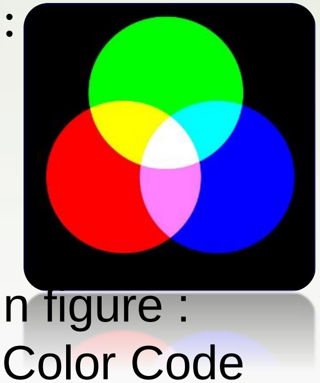
```
<body attribute_name = "attribute_value">
</body>
```

Attributes

Attribute	Description
alink	Designates the color a link turns when it is selected.
background	Designates the background image on a page.
bgcolor	Designates the background color on a page.
link	Designates the color of a link that has not yet been clicked.
text	Designates the color of text on a page.
vlink	Designates the color of visited links.

Color Codes

- Colors are set using “RGB” color codes, which are, represented as hexadecimal values. Each 2-digit section of the code represents the amount, in sequence, of red, green or blue that forms the color.
- For example, a RGB value with 00 as the first two digits has no red in the color.
- Main colors shown in figure :



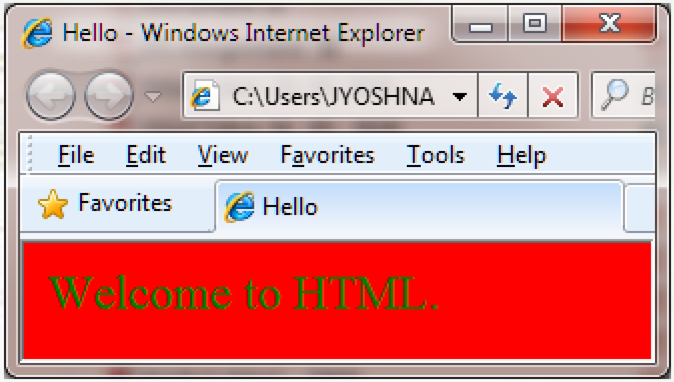
- The color codes shown in figure :

Color Name		Color Code	
1.	WHITE	1.	#FFFFFF
2.	BLACK	2.	#000000
3.	RED	3.	#FF0000
4.	GREEN	4.	#00FF00
5.	BLUE	5.	#0000FF
6.	MAGENTA	6.	#FF00FF
7.	CYAN	7.	#00FFFF
8.	YELLOW	8.	#FFFF00
9.	AQUAMARINE	9.	#70DB93
10.	BAKER’S CHOCOLATE	10.	#5C3317
11.	VIOLET	11.	#9F5F9F
12.	BRASS	12.	#B5A642
13.	COPPER	13.	#B87333
14.	PINK	14.	#FF6EC7
15.	ORANGE	15.	#FF7F00

Example : Coding

```
<!DOCTYPE html>
<html>
<head>
         <title> Hello </title>
</head>
<body bgcolor="red" text="green">

Welcome to HTML.

</body>
</html>
```

Example : Output



Welcome to HTML.

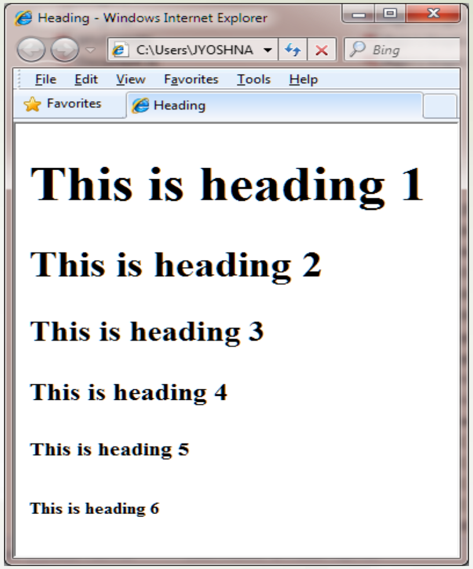
Headings, <Hx> … </Hx>

- Inside the BODY element, heading elements H1 through H6 are generally used for major divisions of the document.
- By default, browsers display headings in larger and bolder font than normal text. Also, <h1> headings are displayed in largest font, whereas <h6> headings are displayed in smallest font.
- Example :

Coding :

```
<!DOCTYPE html>
<html>
<head>
          <title> Heading </title>
</head>
<body>
          <h1>This is heading 1</h1>
          <h2>This is heading 2</h2>
          <h3>This is heading 3</h3>
          <h4>This is heading 4</h4>
          <h5>This is heading 5</h5>
          <h6>This is heading 6</h6>
</body>
</html>
```

Output:



This is heading 1

This is heading 2

This is heading 3

This is heading 4

This is heading 5

This is heading 6

Paragraphs, <P> …. </P>

- Paragraphs allow to add text to a document in such a way that it will automatically adjust the end of line to suite the window size of the browser in which it is being displayed. Each line of text will stretch the entire length of the window.

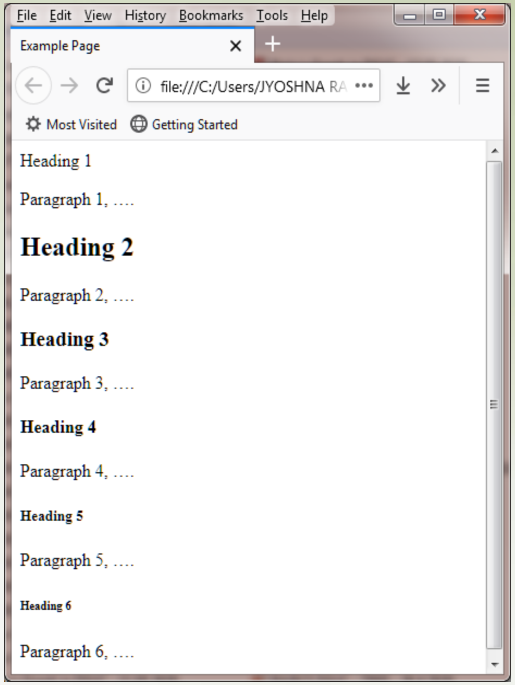
Paragraphs, <P> …. </P> (conti.)

- EXAMPLE

Coding:

```
<!DOCTYPE html>
<HTML><HEAD>
<TITLE> Example Heading and Paragraph</TITLE>
</HEAD>
<BODY></H1> Heading 1 </H1>
<P> Paragraph 1, ….</P>
<H2> Heading 2 </H2>
<P> Paragraph 2, ….</P>
<H3> Heading 3 </H3>
<P> Paragraph 3, ….</P>
<H4> Heading 4 </H4>
<P> Paragraph 4, ….</P>
<H5> Heading 5 </H5>
<P> Paragraph 5, ….</P>
<H6> Heading 6</H6>
<P> Paragraph 6, ….</P>
</BODY></HTML>
```

Output:


File Edit View History Bookmarks Tools Help
Example Page
file:///C:/Users/JYOSHNA RA
Most Visited
Getting Started

```
Heading 1

Paragraph 1, ….

Heading 2

Paragraph 2, ….

Heading 3

Paragraph 3, ….

Heading 4

Paragraph 4, ….

Heading 5

Paragraph 5, ….

Heading 6

Paragraph 6, ….
```

Break, <BR>

- Line breaks allow to decide where the text will break on a line or continue to the end of the window.
- A <BR> is an empty Element, meaning that it may contain attributes but it does not contain content.
- The <BR> element does not have a closing tag.

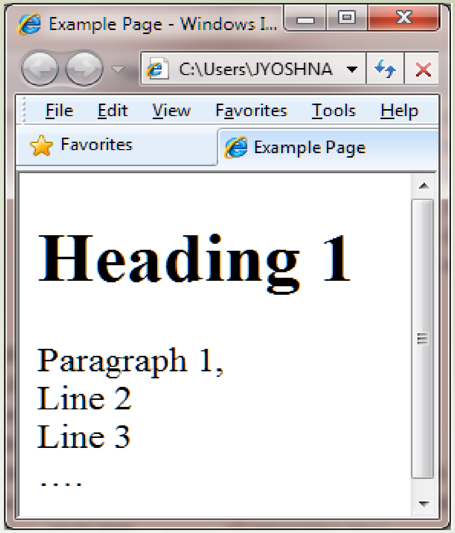
Break, <BR>(Conti.)

- EXAMPLE

Coding:

```
<!DOCTYPE html>
<HTML>
<HEAD>
<TITLE> Example Page</TITLE>
</HEAD>
<BODY>
<H1> Heading 1 </H1>
<P>Paragraph 1, <BR>
Line 2 <BR> Line 3 <BR>….
</P>
</BODY>
</HTML>
```

Output:


Example Page - Windows I...
C:\Users\JYOSHNA
File Edit View Favorites Tools Help
Favorites
Example Page

```
Heading 1

Paragraph 1,
Line 2
Line 3
....
```

Horizontal Rule, <HR>

- The <HR> element causes the browser to display a horizontal line (rule) in the document.
- <HR> does not use a closing tag, </HR>.
- Attributes of <HR> tag

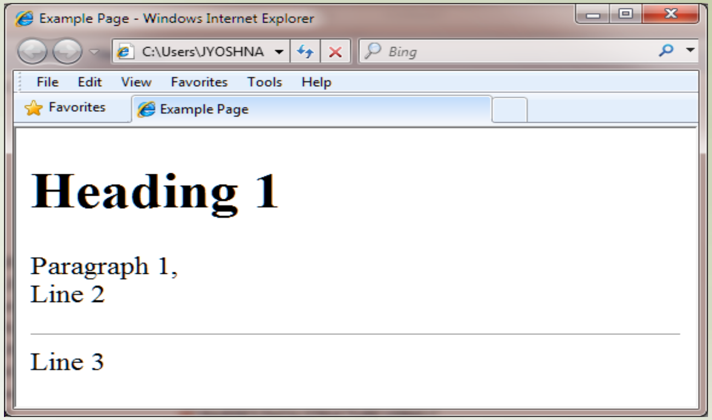
Attribute	Description	Default Value
SIZE	Height of the rule in pixels	2 pixels
WIDTH	Width of the rule in pixels or percentage of screen width	100%
NOSHADE	Draw the rule with a flat look instead of a 3D look	Not set (3D look)
ALIGN	Aligns the line (Left, Center, Right)	Center
COLOR	Sets a color for the rule (IE 3.0 or later)	Not set

Horizontal Rule, <HR>(conti.)

- Example

Coding :
```
<!DOCTYPE html>
<HTML>
<HEAD>
<TITLE> Example Page</TITLE>
</HEAD>
<BODY>
<H1> Heading 1 </H1>
<P>Paragraph 1, <BR>
Line 2 <BR>
<HR>Line 3 <BR>
</P>
</BODY>
</HTML>
```

Output:


Example Page - Windows Internet Explorer
C:\Users\JYOSHNA
Bing
File Edit View Favorites Tools Help
Favorites
Example Page

Heading 1

Paragraph 1,
Line 2

Line 3

Character Formatting

- Change the color and size of your text.
- Use Common Character Formatting Elements.
- Align your text.
- Add special characters.
- Use other character formatting elements.

Bold, Italic and other Character Formatting Elements

- <FONT SIZE="+2"> Two sizes bigger</FONT>
- The size attribute can be set as an absolute value from 1 to 7 or as a relative value using the "+" or "-" sign. Normal text size is 3 (from -2 to +4).
- <B> Bold </B>
- <I> Italic </I>
- <U> Underline </U>

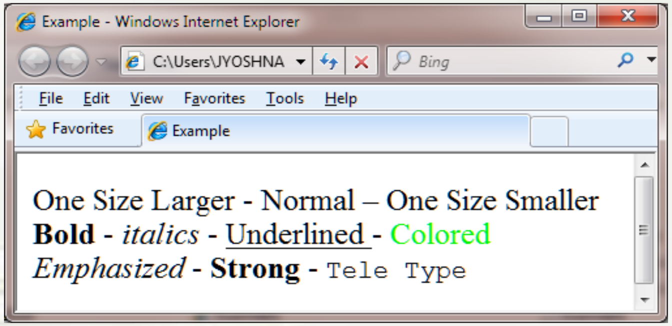
Bold, Italic and other Character Formatting Elements(conti.)

- Color = “#RRGGBB” The COLOR attribute of the FONT element. E.g., <FONT COLOR=“#RRGGBB”>this text has color</FONT>
- <PRE> Preformatted </PRE> Text enclosed by PRE tags is displayed in a mono-spaced font. Spaces and line breaks are supported without additional elements or special characters.
- <EM> Emphasis </EM> Browsers usually display this as italics.
- <STRONG> STRONG </STRONG> Browsers display this as bold.
- <TT> TELETYPE </TT> Text is displayed in a mono-spaced font. A typewriter text, e.g. fixed-width font.
- <CITE> Citation </CITE> represents a document citation (italics). For titles of books, films, etc. Typically displayed in italics. (A Beginner's Guide to HTML)
- Example :

Coding:

```
<!DOCTYPE html>
<HTML>
<HEAD>
<TITLE> Example</TITLE>
</HEAD>
<BODY>
<P> <FONT SIZE=“+1”> One Size Larger </FONT> - Normal
-
<FONT SIZE=“-1”> One Size Smaller </FONT> <BR>
<B> Bold</B> - <I> italics</I> - <U> Underlined </U> -
<FONT COLOR=“#FF0000”> Colored </FONT> <BR>
<EM> Emphasized</EM> - <STRONG> Strong </STRONG> -
<TT> Tele Type </TT> <BR>
</BODY>
</HTML>
```

Output:



One Size Larger - Normal – One Size Smaller
Bold - *italics* - Underlined - Colored
Emphasized - **Strong** - `Tele Type`

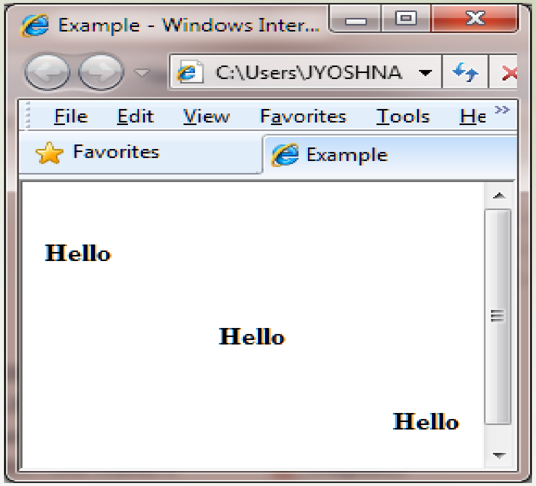
Alignment

- Some elements have attributes for alignment (ALIGN) e.g. Headings, Paragraphs and Horizontal Rules.
- The Three alignment values are : LEFT, RIGHT, CENTER.
- Example :

Coding:

```
<!DOCTYPE html>
<HTML>
<HEAD>
<TITLE> Example</TITLE>
</HEAD>
<BODY>
<h6 align="left">Hello</h6>
<h6 align="center">Hello</h6>
<h6 align="right">Hello</h6>
</BODY>
</HTML>
```

Output:



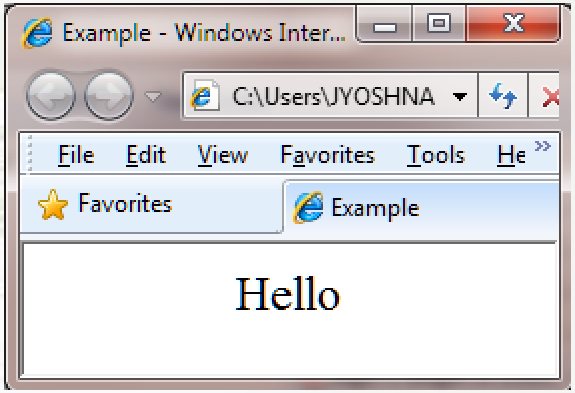
```
Hello
                Hello
                                Hello
```

- <CENTER></CENTER> will center elements.
- Example :

Coding:

```
<!DOCTYPE html>
<HTML>
<HEAD>
<TITLE> Example</TITLE>
</HEAD>
<BODY>
<center>Hello</center>
</BODY>
</HTML>
```

Output:



```
Hello
```

Alignment(condi.)

- <DIV ALIGN=“value”></DIV> : It represents a division in the document and can contain most other element type. The alignment attribute of the DIV element is well supported.
- <TABLE></TABLE> Inside a TABLE, alignment can be set for each individual cell.

Lists

- There are following type of Lists:

  a. Create an unordered list.
  b. Create an ordered list.
  c. Create a defined list.
  d. Nest Lists.

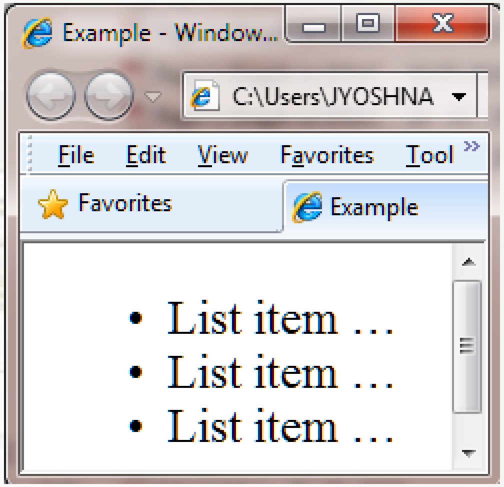
List Elements

- We have the choice of three bullet types: disc(default), circle, square.
- These are controlled in Netscape Navigator by the “TYPE” attribute for the <UL> element.
- Example :

Coding :

```
<!DOCTYPE html>
<HTML>
<HEAD>
<TITLE> Example</TITLE>
</HEAD>
<UL TYPE=“square”>
<LI> List item …</LI>
<LI> List item …</LI>
<LI> List item …</LI>
</UL>
</BODY>
</HTML>
```

Output :



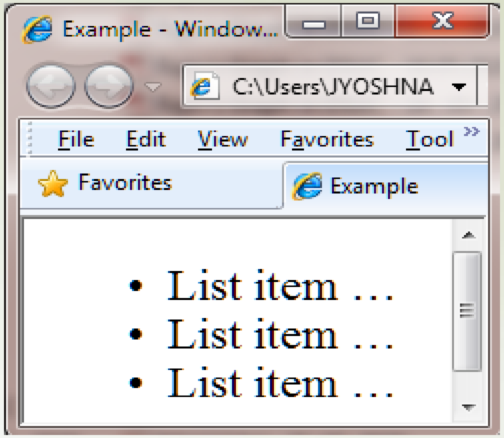
```
• List item …
• List item …
• List item …
```

List Elements (conti.)

- OL: Ordered List. Items in this list are numbered automatically by the browser.
- Example :
- Coding :

```
<!DOCTYPE html>
<HTML>
<HEAD>
<TITLE> Example</TITLE>
</HEAD>
<OL>
<LI> List item …</LI>
<LI> List item …</LI>
<LI> List item …</LI>
</OL>
</BODY>
</HTML>
```

Output :



- List item …
- List item …
- List item …

- We have the choice of setting the TYPE Attribute to one of five numbering styles.

TYPE	Numbering	Styles
1	**Arabic numbers**	**1,2,3, ……**
a	**Lower alpha**	**a, b, c, ……**
A	**Upper alpha**	**A, B, C, ……**
i	**Lower roman**	**i, ii, iii, ……**
I	**Upper roman**	**I, II, III, ……**

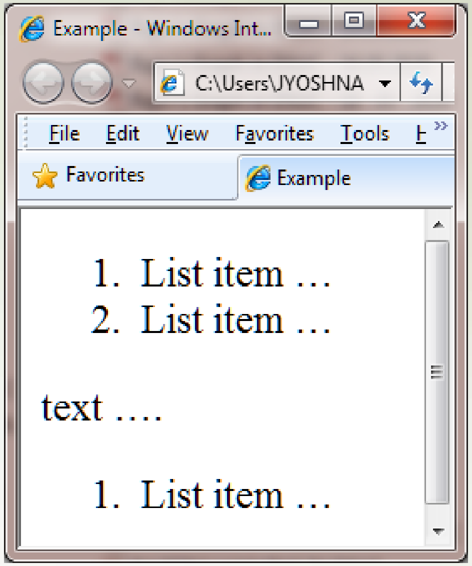
List Elements (conti.)

- We can specify a starting number for an ordered list.
- Example:

Coding :

```
<!DOCTYPE html>
<HTML>
<HEAD>
<TITLE> Example</TITLE>
</HEAD>
<BODY>
<OL TYPE =“i”>
<LI> List item …</LI>
<LI> List item …</LI>
</OL>
<P> text ….</P>
<OL TYPE=“i” START=“3”>
<LI> List item …</LI>
</OL>
</BODY>
</HTML>
```

Output :



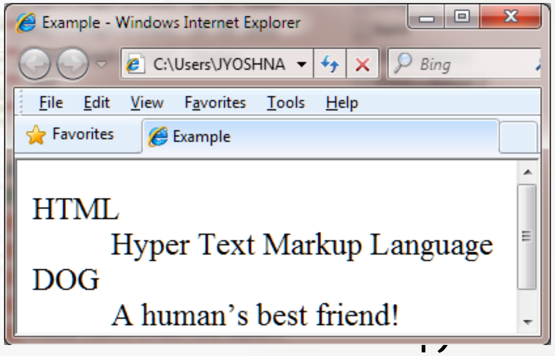
```
    1. List item …
    2. List item …

text ….

    1. List item …
```

Definition List (DL)

- This kind of list is different from the others. Each item in a DL consists of one or more Definition Terms (DT elements), followed by one or more Definition Description (DD elements).
- Example: Coding:

```
<!DOCTYPE html>
<HTML><HEAD>
<TITLE> Example</TITLE>
</HEAD><BODY>
<DL>
<DT> HTML </DT>
<DD> Hyper Text Markup Language </DD>
<DT> DOG </DT>
<DD> A human’s best friend!</DD>
</DL>
</BODY></HTML>
```

Output:


Example - Windows Internet Explorer
C:\Users\JYOSHNA
Bing
File Edit View Favorites Tools Help
Favorites
Example

```
HTML
        Hyper Text Markup Language
DOG
        A human’s best friend!
```

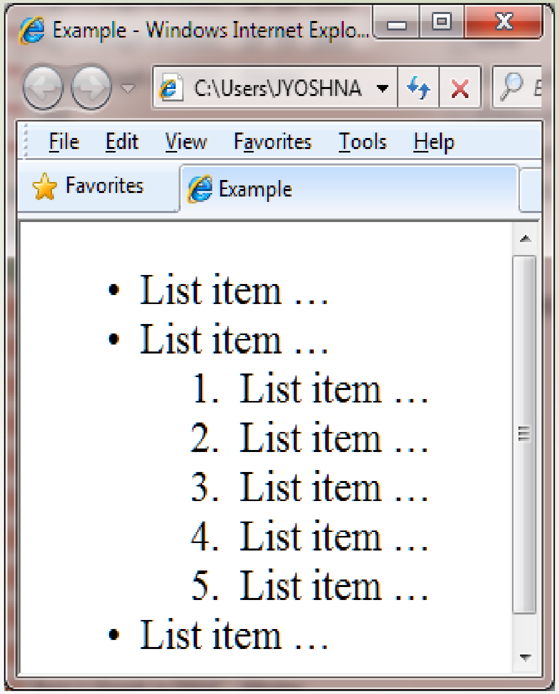
Nesting Lists

- We can nest lists by inserting a UL, OL, etc., inside a list item (LI).
- Example:

Coding :

```
<!DOCTYPE html>
<HTML><HEAD>
<TITLE> Example</TITLE>
</HEAD><BODY>
<UL TYPE = “square”>
<LI> List item …</LI>
<LI> List item …
<OL TYPE=“i” START=“3”>
<LI> List item …</LI>
<LI> List item …</LI>
<LI> List item …</LI>
<LI> List item …</LI>
<LI> List item …</LI>
</OL>
</LI>
<LI> List item …</LI>
</UL>
</BODY></HTML>
```

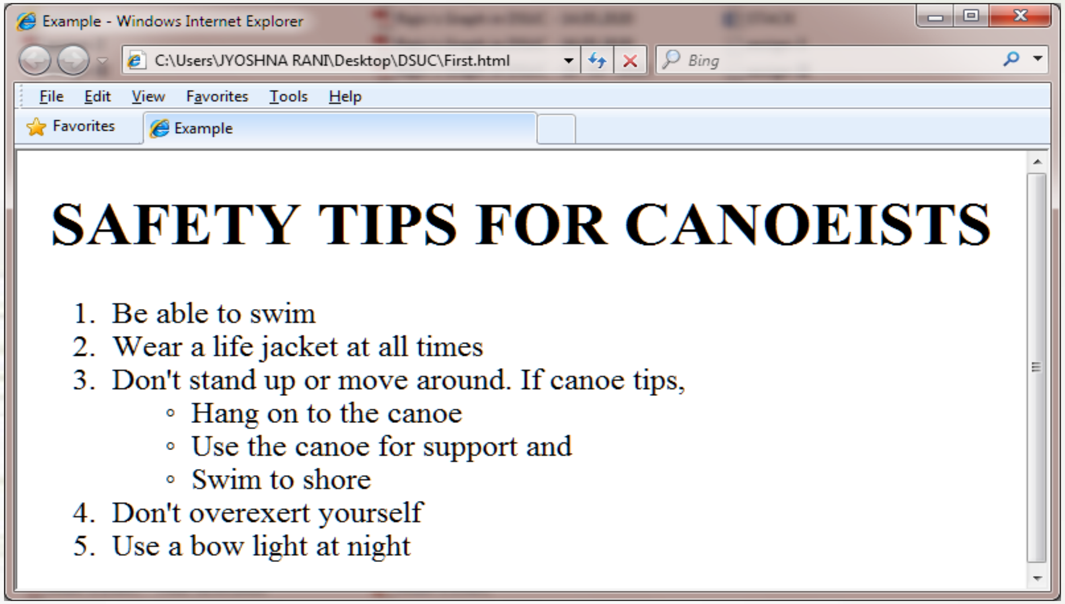
Output :



```
• List item …
• List item …
      1. List item …
      2. List item …
      3. List item …
      4. List item …
      5. List item …
• List item …
```

What will be the output?

```
<!DOCTYPE html>
<HTML><HEAD>
<TITLE> Example</TITLE>
</HEAD><BODY>
<H1 ALIGN="CENTER">SAFETY TIPS FOR CANOEISTS</H1>
<OL TYPE="a" START="2">
<LI>Be able to swim </LI>
<LI>Wear a life jacket at all times </LI>
<LI>Don't stand up or move around. If canoe tips,
<UL>
<LI>Hang on to the canoe </LI>
<LI>Use the canoe for support and </LI>
<LI>Swim to shore
</UL> </LI>
<LI>Don't overexert yourself </LI>
<LI>Use a bow light at night </LI>
</OL>
</BODY></HTML>
```



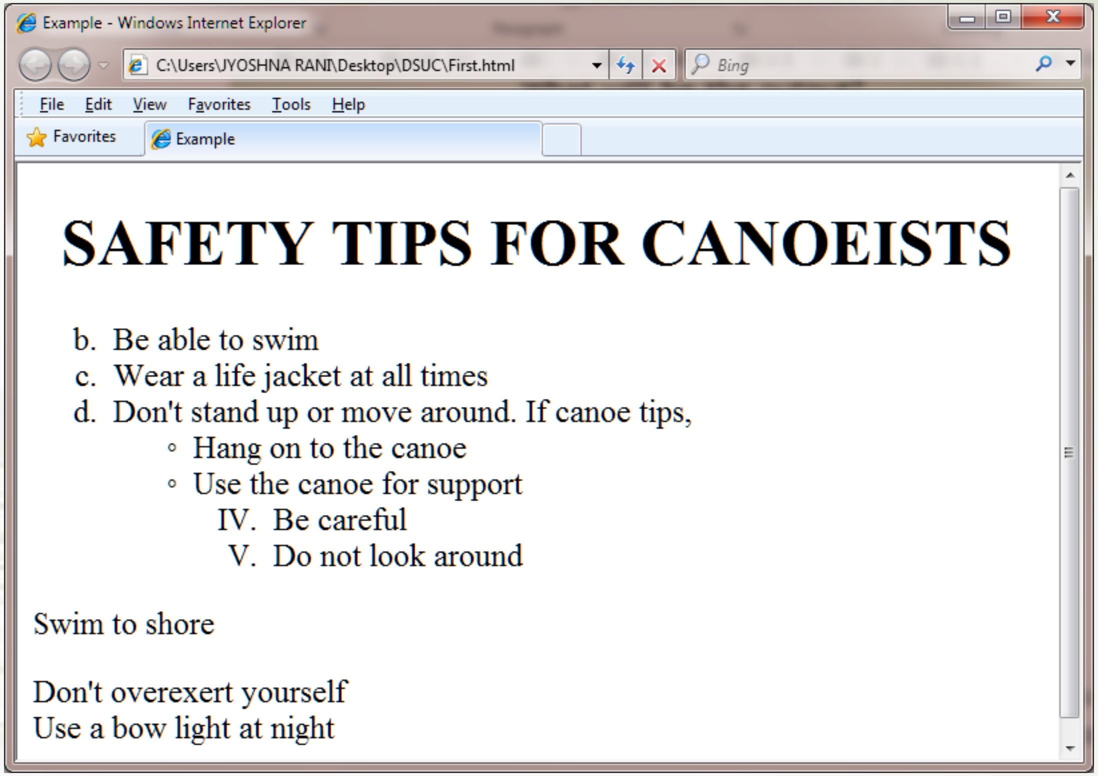
Example - Windows Internet Explorer
C:\Users\JYOSHNA RANI\Desktop\DSUC\First.html
Bing
File Edit View Favorites Tools Help
Favorites
Example

SAFETY TIPS FOR CANOEISTS

1. Be able to swim
2. Wear a life jacket at all times
3. Don't stand up or move around. If canoe tips,
    - Hang on to the canoe
    - Use the canoe for support and
    - Swim to shore
4. Don't overexert yourself
5. Use a bow light at night

What will be the output?

```
<!DOCTYPE html>
<HTML><HEAD>
<TITLE> Example</TITLE>
</HEAD><BODY>
<H1 ALIGN="CENTER">SAFETY TIPS FOR CANOEISTS</H1>
<OL TYPE="a" START="2">
<LI>Be able to swim </LI>
<LI>Wear a life jacket at all times </LI>
<LI>Don't stand up or move around. If canoe tips,
<UL>
<LI>Hang on to the canoe </LI>
<LI>Use the canoe for support
<OL type="I" start="4">
<LI> Be careful </LI>
<LI> Do not look around</LI>
</LI> </OL>
 <LI>Swim to shore
</UL> </LI>
<LI>Don't overexert yourself </LI>
<LI>Use a bow light at night </LI>
</OL>
</BODY></HTML>
```


Example - Windows Internet Explorer
C:\Users\JYOSHNA RANI\Desktop\DSUC\First.html
Bing
File
Edit
View
Favorites
Tools
Help
Favorites
Example

```
SAFETY TIPS FOR CANOEISTS

  b.  Be able to swim
  c.  Wear a life jacket at all times
  d.  Don't stand up or move around. If canoe tips,
          ◦ Hang on to the canoe
          ◦ Use the canoe for support
               IV.  Be careful
                V.  Do not look around

Swim to shore

Don't overexert yourself
Use a bow light at night
```

images

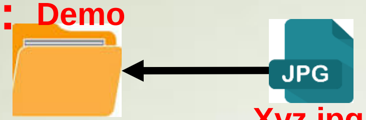
The images add to web pages.

- <IMG>This element defines a graphic image on the page.
- Image File (SRC:source): This value will be a URL (location of the image) E.g. http://www.domain.com/dir/file.ext or /dir/file.txt.
- Alternate Text (ALT): This is a text field that describes an image or acts as a label. It is displayed when they position the cursor over a graphic image.
- Alignment (ALIGN): This allows you to align the image on your page.
- Width (WIDTH): is the width of the image in pixels.
- Height (HEIGHT): is the height of the image in pixels.
- Border (BORDER): is for a border around the image, specified in pixels.
- HSPACE: is for Horizontal Space on both sides of the image specified in pixels. A setting of 5 will put 5 pixels of invisible space on both sides of the image.
- VSPACE: is for Vertical Space on top and bottom of the image specified in pixels. A setting of 5 will put 5 pixels of invisible space above and bellow the image.

- Width (WIDTH): is the width of the image in pixels.
- Height (HEIGHT): is the height of the image in pixels.
- Border (BORDER): is for a border around the image, specified in pixels.
- HSPACE: is for Horizontal Space on both sides of the image specified in pixels. A setting of 5 will put 5 pixels of invisible space on both sides of the image.
- VSPACE: is for Vertical Space on top and bottom of the image specified in pixels. A setting of 5 will put 5 pixels of invisible space above and bellow the image.

Images (conti.)

- Create a folder in C:\> or D:\> or E:\> or any other drive and store a image.



C\: >

Demo

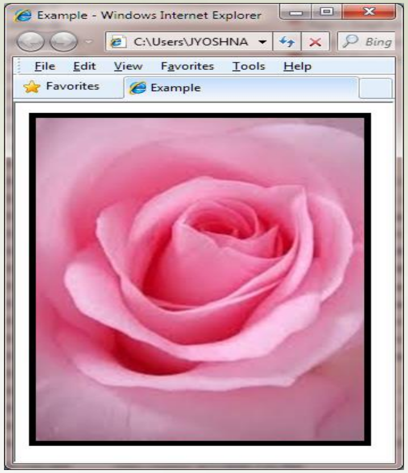
Xyz.jpg

- Example:

Coding :

```
<!DOCTYPE html>
<HTML><HEAD>
<TITLE> Example</TITLE>
</HEAD><BODY>
<IMG SRC="C:\DEMO\Xyz.jpg" border=4>
</BODY></HTML>
```

Output :



Example - Windows Internet Explorer
C:\Users\JYOSHNA
Bing
File Edit View Favorites Tools Help
Favorites
Example

In the coding of image, we can check other attributes:

- <IMG SRC="Xyz.jpg" width="60" height="60">
- <IMG SRC="Xyz.jpg" ALT="This is a text that goes with the image">
- <IMG SRC="Xyz.jpg" Hspace="30" Vspace="10" border=20>
- <IMG SRC ="Xyz.jpg" align="left"> blast blast blast blast blast

HTML Anchor (<a> … </a>) Tag

The HTML anchor tag defines a hyperlink that links one page to another page. It can create hyperlink to other web page as well as files, location, or any URL. The "href" attribute is the most important attribute of the HTML a tag. and which links to destination page or URL.

- href attribute of HTML anchor tag

  The href attribute is used to define the address of the file to be linked. In other words, it points out the destination page.

- The syntax of HTML anchor tag is given below.

  <a href = "..........."> Link Text </a>

- Example : Create two html files and link it.

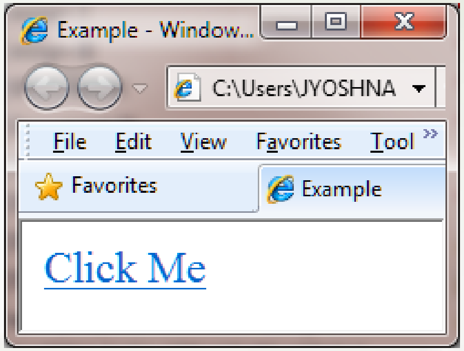
Coding : First.html

```
<!DOCTYPE html>
<HTML><HEAD>
<TITLE> Example</TITLE>
</HEAD><BODY>
<IMG SRC="C:\DEMO\Xyz.jpg" border=4>
</BODY></HTML>
```

Second.html

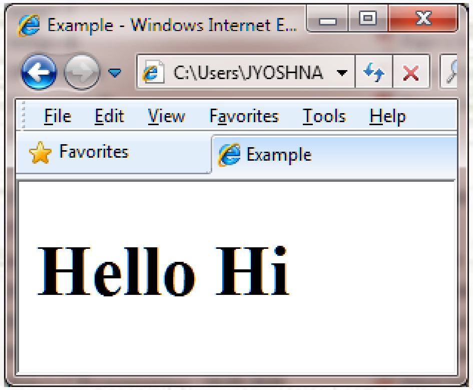
```
<!DOCTYPE html>
<HTML><HEAD>
<TITLE> Example</TITLE>
</HEAD><BODY>
<h1>Hello Hi</h1>
</BODY></HTML>
```

Output :



Click Me

After Click Me, we get output from Second.html


Example - Windows Internet E...
C:\Users\JYOSHNA
File Edit View Favorites Tools Help
Favorites
Example

Hello Hi

Tables in HTML (<table> … </table>) Tag

The tables have many uses in HTML.

- Insert a table.
- Explain a table’s attributes.
- Edit a table.
- Add a table header.

- HTML table tag is used to display data in tabular form (row * column). There can be many columns in a row.
- We can create a table to display data in tabular form, using <table> element, with the help of <tr> , <td>, and <th> elements.
- In Each table, table row is defined by <tr> tag, table header is defined by <th>, and table data is defined by <td> tags.
- HTML tables are used to manage the layout of the page e.g. header section, navigation bar, body content, footer section etc. But it is recommended to use div tag over table to manage the layout of the page .Example : Create two html files and link it.
- HTML Table Tags :

Tag	Description
<table>	It defines a table.
<tr>	It defines a row in a table.
<th>	It defines a header cell in a table.
<td>	It defines a cell in a table.
<caption>	It defines the table caption.
<colgroup>	It specifies a group of one or more columns in a table for formatting.
<col>	It is used with <colgroup> element to specify column properties for each column.
<tbody>	It is used to group the body content in a table.
<thead>	It is used to group the header content in a table.
<tfooter>	It is used to group the footer content in a table.

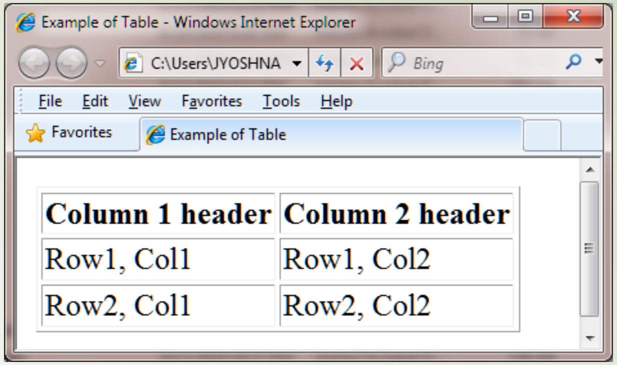
Tables in HTML (<table> … </table>) Tag

Example of table with Border attribute :

Coding :

```
<!DOCTYPE html>
<html>
<head>
<title> Example of Table</title>
</head>
<body>
<table border="1">
<tr>
<th> Column 1 header </th>
<th> Column 2 header </th>
</tr>
<tr>
<td> Row1, Col1 </td>
<td> Row1, Col2 </td>
</tr>
<tr>
<td> Row2, Col1 </td>
<td> Row2, Col2 </td>
</tr>
</table>
</body>
</html>
```

Output :


Example of Table - Windows Internet Explorer
C:\Users\JYOSHNA
Bing
File Edit View Favorites Tools Help
Favorites
Example of Table

Column 1 header	Column 2 header
Row1, Col1	Row1, Col2
Row2, Col1	Row2, Col2

Tables Attribute in HTML (<table attribute=value> … </table>) Tag

- BGColor: Some browsers support background colors in a table.
- Width: you can specify the table width as an absolute number of pixels or a percentage of the document width. You can set the width for the table cells as well.
- Border: You can choose a numerical value for the border width, which specifies the border in pixels.
- CellSpacing: Cell Spacing represents the space between cells and is specified in pixels.
- CellPadding: Cell Padding is the space between the cell border and the cell contents and is specified in pixels.
- Align: tables can have left, right, or center alignment.
- Background: Background Image, will be titled in IE3.0 and above. BorderColor, BorderColorDark.

Table Caption

- A table caption allows you to specify a line of text that will appear centered above or bellow the table.

```
<TABLE BORDER=1 CELLPADDING=2>
<CAPTION ALIGN=“BOTTOM”> Label For My Table </CAPTION>
```

- The Caption element has one attribute ALIGN that can be either TOP (Above the table) or BOTTOM (below the table).

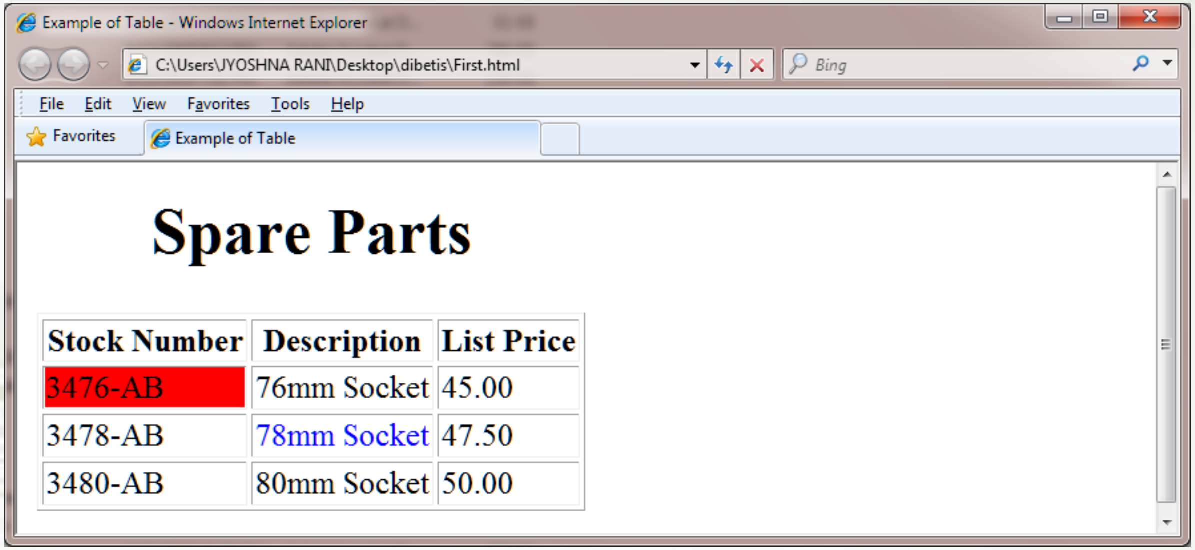
Table Header

- Table Data cells are represented by the TD element. Cells can also be TH (Table Header) elements which results in the contents of the table header cells appearing **centered and in bold text.**

Table Data and Table Header Attributes

- Colspan: Specifies how many cell columns of the table this cell should span.
- Rowspan: Specifies how many cell rows of the table this cell should span.
- Align: cell data can have left, right, or center alignment.
- Valign: cell data can have top, middle, or bottom alignment.
- Width: you can specify the width as an absolute number of pixels or a percentage of the document width.
- Height: You can specify the height as an absolute number of pixels or a percentage of the document height.
- **Example : Table Caption and Table Header.**

```
<!DOCTYPE html>
<html>
<head>
<title> Example of Table</title>
</head>
<body>
<TABLE BORDER=1 width=50%>
<CAPTION>  <h1>Spare Parts <h1> </Caption>
<TR><TH>Stock Number</TH><TH>Description</TH><TH>List Price</TH></TR>
<TR><TD bgcolor=red>3476-AB</TD><TD>76mm Socket</TD><TD>45.00</TD></TR>
<TR><TD >3478-AB</TD><TD><font color=blue>78mm Socket</font> </TD><TD>47.50</TD></TR>
<TR><TD>3480-AB</TD><TD>80mm Socket</TD><TD>50.00</TD></TR>
</TABLE>
</body>
</html>
```

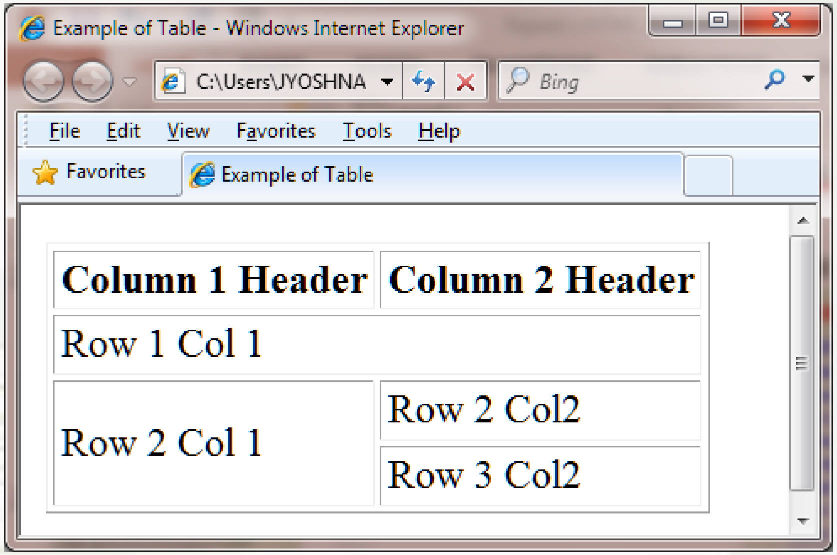

Example of Table - Windows Internet Explorer
C:\Users\JYOSHNA RANI\Desktop\dibetis\First.html
Bing
File
Edit
View
Favorites
Tools
Help
Favorites
Example of Table

Spare Parts

Stock Number	Description	List Price
3476-AB	76mm Socket	45.00
3478-AB	78mm Socket	47.50
3480-AB	80mm Socket	50.00

➢ Example : Table Caption and Table Header.

```
<!DOCTYPE html>
<html>
<head>
<title> Example of Table</title>
</head>
<body>
<Table border=1 cellpadding =2>
<tr> <th> Column 1 Header</th> <th> Column 2 Header</th> </tr>
<tr> <td colspan=2> Row 1 Col 1</td> </tr>
<tr> <td rowspan=2>Row 2 Col 1</td>
<td> Row 2 Col2</td> </tr>
<tr> <td> Row 3 Col2</td> </tr>
</table>
</body>
</html>
```



Column 1 Header	Column 2 Header
Row 1 Col 1	
Row 2 Col 1	Row 2 Col2
	Row 3 Col2

Table Rowspan And Colspan In HTML(<table attribute=value> … </table>) Tag

Attribute of

- <th> — table header — A header cell in a <table>.
- <td> — table data — A data cell in a <table>.

What does colspan= do?

- Allows a single table cell to span the width of more than one cell or column.

What does rowspan= do?

- Allows a single table cell to span the height of more than one cell or row.

Why use colspan= or rowspan=?

- Sometimes it makes sense for a cell to span multiple columns or multiple rows. This might be used for a header cell that titles a group of columns, or a side-bar that groups rows of entries.

- Both colspan= and rowspan= are attributes of the two table-cell elements, <th> and <td>.

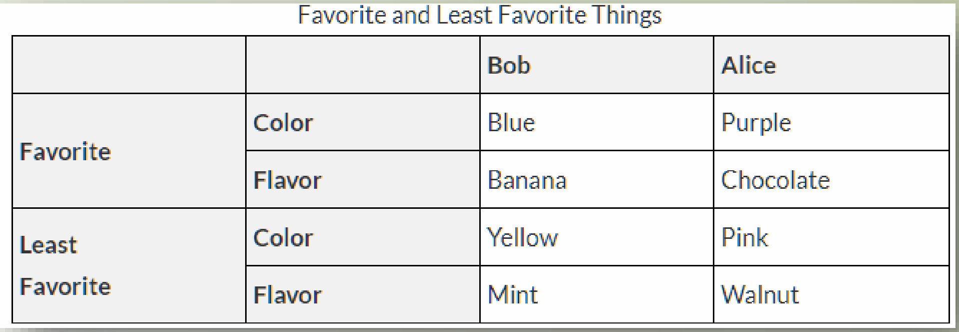
Month	Savings	Savings for holiday!
January	$100	$50
February	$80	

Table heading<th>

Table data<td>

➢ Example : rowspan attribute in <table> tag.

```
<html>
<head> <title> Example of Table</title>
</head> <body>
<table>
<caption>Favorite and Least Favorite Things</caption>
<tr>
<th></th>
<th></th>
<th>Bob</th>
<th>Alice</th>
</tr>
<tr>
<th rowspan="2">Favorite</th>
<th>Color</th>
<td>Blue</td>
<td>Purple</td>
</tr>
<tr>
<th>Flavor</th>
<td>Banana</td>
<td>Chocolate</td>
</tr>
<tr>
<th rowspan="2">Least Favorite</th>
<th>Color</th>
<td>Yellow</td>
<td>Pink</td>
</tr>
<tr>
<th>Flavor</th>
<td>Mint</td>
<td>Walnut</td>
</tr>
</table></body></html>
```



Favorite and Least Favorite Things

		Bob	Alice
Favorite	Color	Blue	Purple
	Flavor	Banana	Chocolate
Least Favorite	Color	Yellow	Pink
	Flavor	Mint	Walnut

➢ Example : rowspan attribute in <table> tag.

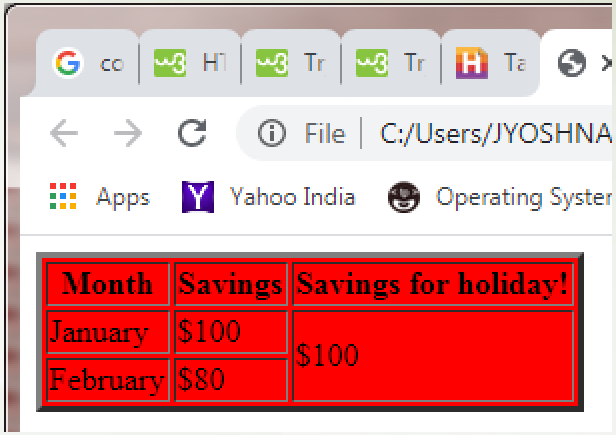
```
<!DOCTYPE html>
<html>
<head>
<title> Example of Table</title>
</head>
<body>
<table>
<caption>Life Expectancy By Current Age</caption>
<tr>
<th colspan="2">65</th>
<th colspan="2">40</th>
<th colspan="2">20</th>
</tr>
<tr>
<th>Men</th>
<th>Women</th>
<th>Men</th>
<th>Women</th>
<th>Men</th>
<th>Women</th>
</tr>
<tr>
<td>82</td>
<td>85</td>
<td>78</td>
<td>82</td>
<td>77</td>
<td>81</td>
</tr>
</table>
</body>
</html>
```

Life Expectancy By Current Age

65		40		20	
Men	Women	Men	Women	Men	Women
82	85	78	82	77	81

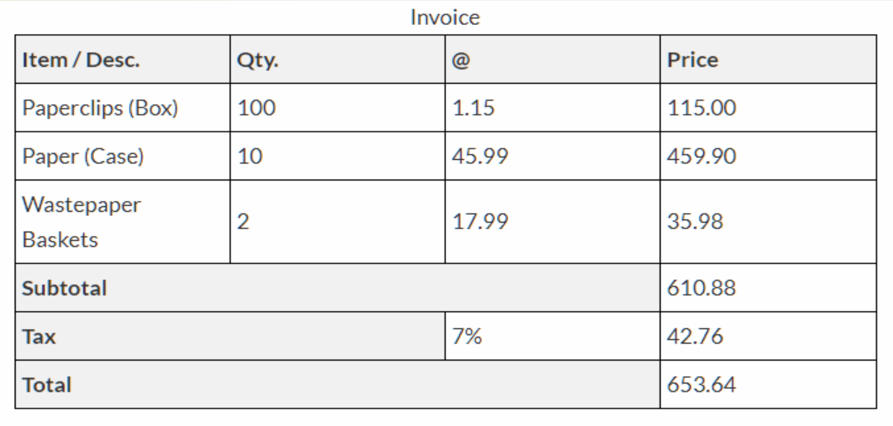
➢ Example : rowspan attribute in <table> tag.

```
<!DOCTYPE html>
<html>
<head>
<title> Example of Table</title>
</head>
<body>
<Table border="3" bgcolor="red">
<thead>
  <tr>
    <th>Month</th>
    <th>Savings</th>
    <th rowspan="3">Savings for holiday!</th>
  </tr>
</thead>
<tbody>
  <tr>
    <td>January</td>
    <td>$100</td>
    <td rowspan="0">$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$80</td>
  </tr>
</tbody>
</table>
</body>
</html>
```



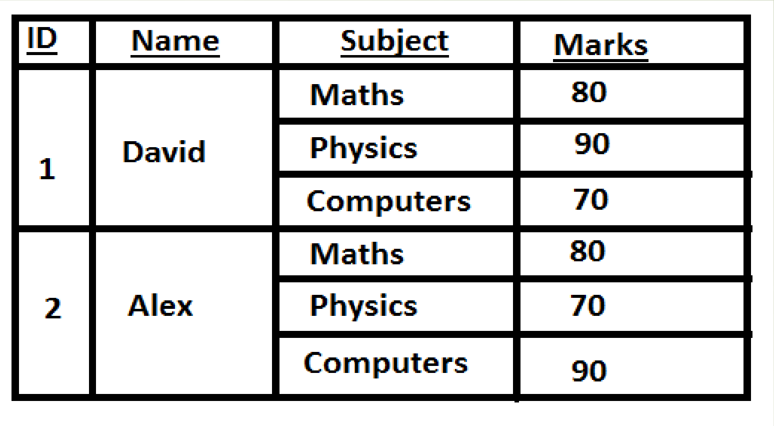
Month	Savings	Savings for holiday!
January	$100	$100
February	$80	

➢ Problem 01 : To design Table in HTML page.

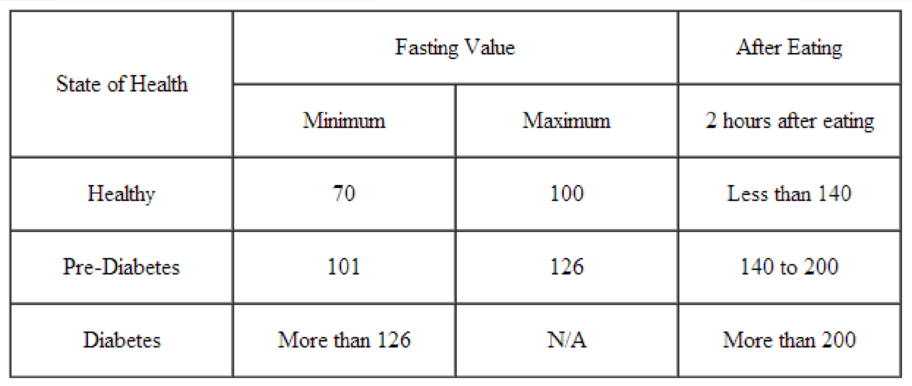


Invoice

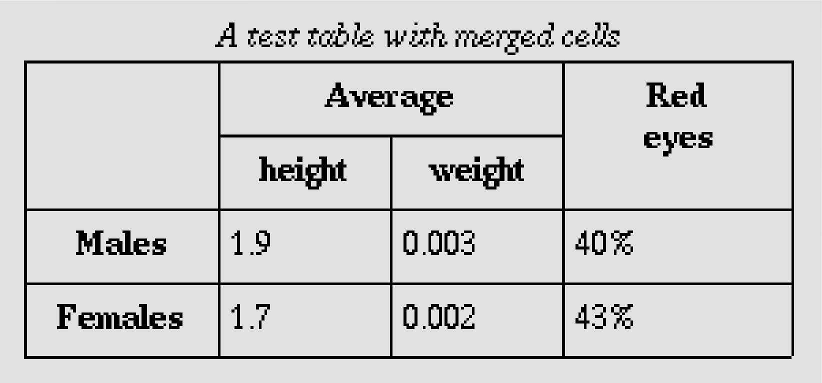
Item / Desc.	Qty.	@	Price
Paperclips (Box)	100	1.15	115.00
Paper (Case)	10	45.99	459.90
Wastepaper Baskets	2	17.99	35.98
Subtotal			610.88
Tax		7%	42.76
Total			653.64



ID	Name	Subject	Marks
1	David	Maths	80
		Physics	90
		Computers	70
2	Alex	Maths	80
		Physics	70
		Computers	90



State of Health	Fasting Value		After Eating
	Minimum	Maximum	2 hours after eating
Healthy	70	100	Less than 140
Pre-Diabetes	101	126	140 to 200
Diabetes	More than 126	N/A	More than 200



A test table with merged cells

	Average		Red eyes
	height	weight	
Males	1.9	0.003	40%
Females	1.7	0.002	43%

Form In HTML

What is HTML Form

- HTML Form is a document which stores information of a user on a web server using interactive controls. An HTML form contains different kind of information such as username, password, contact number, email id etc.
- The elements used in an HTML form are check box, input box, radio buttons, submit buttons etc. Using these elements the information of an user is submitted on a web server.
- The action is an attribute of <form> element that specifies the url of the second web page. The second page receives the form-data from the first page after the submission of a form.

Syntax

- <form action="URL of page"> .... </form>

OR

```
<form action="server url" method="get|post">
          //input controls e.g. textfield, textarea, radiobutton, button
</form>
```

This attribute specifies the URL of a web page as its value which receives the information of the form filled by the user.

<FORM> element attributes

- ACTION: is the URL of the CGI (Common Gateway Interface) program that is going to accept the data from the form, process it, and send a response back to the browser.
- METHOD: GET (default) or POST specifies which HTTP method will be used to send the form’s contents to the web server. The CGI application should be written to accept the data from either method.
- NAME: is a form name used by VBScript or JavaScripts.
- TARGET: is the target frame where the response page will show up.

Form Elements

- Form elements have properties: Text boxes, Password boxes, Checkboxes, Option(Radio) buttons, Submit, Reset, File, Hidden and Image.
- The properties are specified in the TYPE Attribute of the HTML element <INPUT></INPUT>.

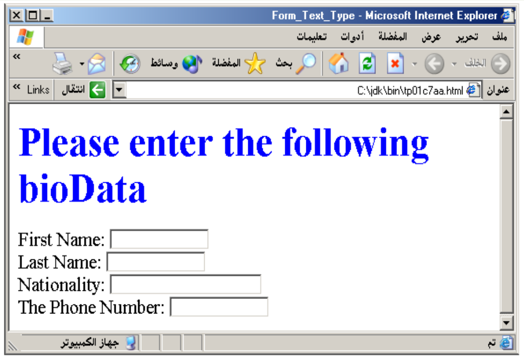
<INPUT> Element’s Properties
TYPE= Type of INPUT entry field.
NAME = Variable name passed to CGI application
VALUE= The data associated with the variable name to be passed to the CGI application
CHECKED= Button/box checked
SIZE= Number of visible characters in text field
MAXLENGHT= Maximum number of characters accepted.

Text Box

Text boxes: Used to provide input fields for text, phone numbers, dates, etc.
<INPUT TYPE= " TEXT "
Browser will display

Textboxes use the following attributes:
TYPE: text.
SIZE: determines the size of the textbox in characters. **Default=20** characters.
MAXLENGHT : determines the maximum number of characters that the field will accept.
NAME: is the name of the variable to be sent to the CGI application.
VALUE: will display its contents as the default value.

➢ Example : Example on Text Box.


Form_Text_Type - Microsoft Internet Explorer
ملف تحرير عرض المفضلة أدوات تعليمات
الخلف
بحث
المفضلة
وسائط
عنوان
C:\jdk\bin\tp01c7aa.html
انتقال
Links
تم
جهاز الكمبيوتر

Please enter the following bioData

First Name:

Last Name:

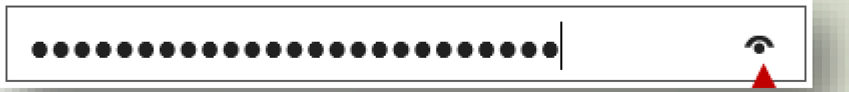
Nationality:

The Phone Number:

```
<html>
<head>
<TITLE>Form_Text_Type</TITLE>
</HEAD>
<BODY>
<h1> <font color=blue>Please enter the following bioData</font></h1>
<FORM name="fome1"  Method= " get " Action= " URL " >
First Name: <INPUT TYPE="TEXT" NAME="FName“ SIZE="15" MAXLENGTH="25">
<BR>
Last Name: <INPUT TYPE="TEXT" NAME="LName“ SIZE="15" MAXLENGTH="25">
<BR>
Nationality: <INPUT TYPE="TEXT" NAME="Country“ SIZE="25" MAXLENGTH="25">
<BR>
The Phone Number: <INPUT TYPE="TEXT" NAME="Phone“ SIZE="15" MAXLENGTH="12">
<BR>
</FORM>
</BODY>
</HTML>
```

Password

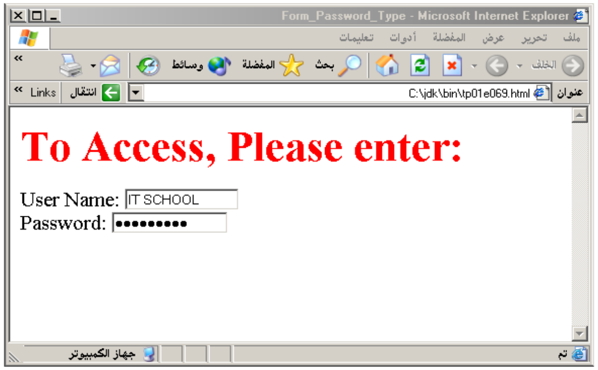
- **Password:** Used to allow entry of passwords.
- <INPUT TYPE= " PASSWORD " >
- Browser will display



- Text typed in a password box is starred out in the browser display.

Password boxes use the following attributes:

- **TYPE:** password.
- **SIZE:** determines the size of the textbox in characters.
- **MAXLENGHT:** determines the maximum size of the password in characters.
- **NAME:** is the name of the variable to be sent to the CGI application.
- **VALUE:** is usually blank.



Form_Password_Type - Microsoft Internet Explorer
ملف تحرير عرض المفضلة أدوات تعليمات
الخلف بحث المفضلة وسائط
عنوان C:\jdk\bin\tp01e069.html انتقال Links
تم جهاز الكمبيوتر

To Access, Please enter:

User Name: IT SCHOOL
Password: ••••••••••

Example on Password Box :

```
<HTML>
<HEAD>
<TITLE>Form_Password_Type</TITLE>
</HEAD>
<BODY>
<h1> <font color=red>To Access, Please enter:</font></h1>
<FORM name="fome2"  Action="url"  method="get">
User Name: <INPUT TYPE="TEXT" Name="FName“ SIZE="15" MAXLENGTH="25">
<BR>
Password: <INPUT TYPE="PASSWORD"  NAME="PWord"   value="" SIZE="15” MAXLENGTH="25">
<BR>
</FORM>
</BODY>
</HTML>
```

Hidden

Hidden: Used to send data to the CGI application that you don’t want the web surfer to see, change or have to enter but is necessary for the application to process the form correctly.

<INPUT TYPE=“HIDDEN”>

Nothing is displayed in the browser.

Hidden inputs have the following attributes:

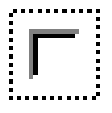
- **TYPE:** hidden.
- **NAME:** is the name of the variable to be sent to the CGI application.
- **VALUE:** is usually set a value expected by the CGI application.

Check Box

- **Check Box**: Check boxes allow the users to select more than one option.

<INPUT TYPE=“CHECKBOX”>

Browser will display

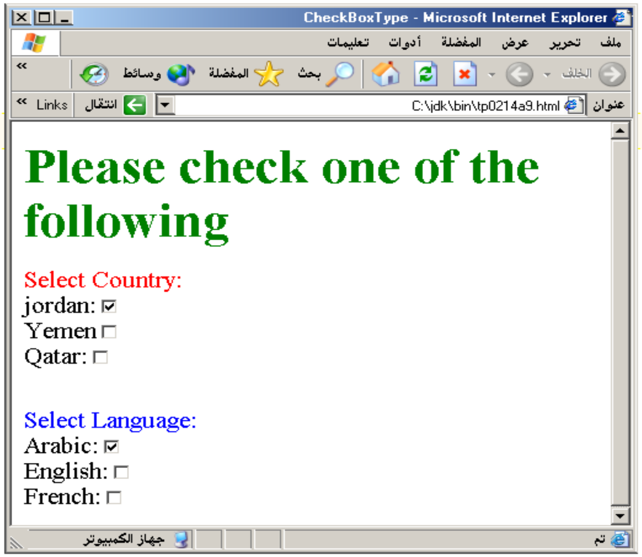


Checkboxes have the following attributes:

- **TYPE:** checkbox.
- **CHECKED:** is blank or CHECKED as the initial status.
- **NAME**: is the name of the variable to be sent to the CGI application.
- **VALUE:** is usually set to a value.

Example on Check Box :

```
<HTML> <HEAD><TITLE>CheckBoxType</TITLE> </HEAD>
<BODY>
<h1> <font color=green>Please check one of the following</font></h1>
<FORM name="fome3"  Action="url"  method="get">
<font color=red> Select Country: </font><BR>
jordan:<INPUT TYPE="CheckBox" Name="country"  CHECKED><BR>
Yemen<INPUT TYPE="CheckBox"  Name="country"><BR>
Qatar:<INPUT TYPE="CheckBox" Name="country"><BR> <BR>
<font color=blue>Select Language:</font><BR>
Arabic:<INPUT TYPE="CheckBox" Name="language"  CHECKED><BR>
English:<INPUT TYPE="CheckBox" Name="language"><BR>
French:<INPUT TYPE="CheckBox" Name="language"> <BR></FORM>
</BODY></HTML>
```


CheckBoxType - Microsoft Internet Explorer
ملف تحرير عرض المفضلة أدوات تعليمات
الخلف بحث المفضلة وسائط
عنوان C:\jdk\bin\tp0214a9.html
انتقال Links
تم
جهاز الكمبيوتر

Please check one of the following

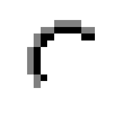
Select Country:
jordan: ☑
Yemen □
Qatar: □

Select Language:
Arabic: ☑
English: □
French: □

Radio Button

- **Radio Button**: Radio buttons allow the users to select only one option.

<INPUT TYPE=“RADIO”>
Browser will display

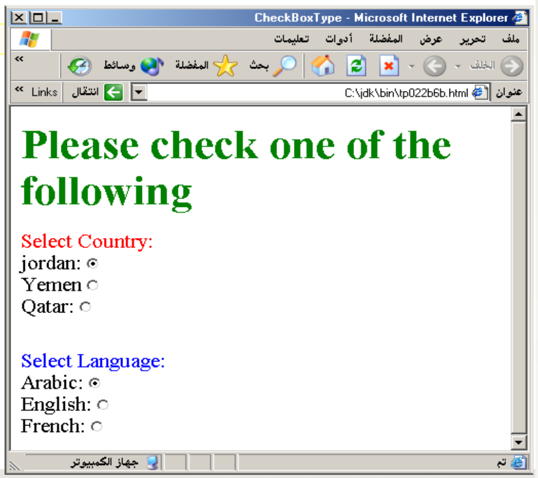


Radio buttons have the following attributes:

- **TYPE:** radio.
- **CHECKED:** is blank or CHECKED as the initial status. Only one radio button can be checked
- **NAME:** is the name of the variable to be sent to the CGI application.
- **VALUE:** usually has a set value.

Example on Radio Button:

```
<HTML> <HEAD><TITLE>Radio Button</TITLE> </HEAD>
<BODY>
<h1> <font color=green>Please check one of the following</font></h1>
<FORM name="fome3"  Action="url"  method="get">
<font color=red> Select Country: </font><BR>
jordan:<INPUT TYPE= "RADIO"  Name="country"  CHECKED><BR>
Yemen<INPUT TYPE="RADIO "  Name="country"><BR>
Qatar:<INPUT TYPE="RADIO"  Name="country"><BR> <BR>
<font color=blue>Select Language:</font><BR>
Arabic:<INPUT TYPE="RADIO"  Name="language"  CHECKED><BR> English:<INPUT TYPE=" RADIO "
Name="language"><BR>
French:<INPUT TYPE=" RADIO "  Name="language"> <BR></FORM> </BODY></HTML>
```



CheckBoxType - Microsoft Internet Explorer
ملف تحرير عرض المفضلة أدوات تعليمات
الخلف
بحث
المفضلة
وسائط
عنوان
C:\jdk\bin\tp022b6b.html
انتقال
Links
تم
جهاز الكمبيوتر

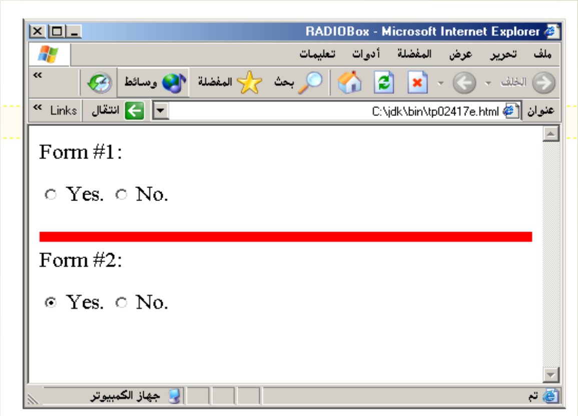
Please check one of the following

Select Country:
jordan: ●
Yemen ○
Qatar: ○

Select Language:
Arabic: ●
English: ○
French: ○

EXAMPLE :

```
<HTML><HEAD>
<TITLE>RADIOBox</TITLE> </HEAD>
<BODY>
Form #1:
<FORM>
  <INPUT TYPE="radio" NAME="choice" VALUE="one"> Yes.
   <INPUT TYPE="radio" NAME="choice" VALUE="two"> No.
</FORM>
<HR color=red size="10" >
Form #2:
<FORM>
      <INPUT TYPE="radio" NAME="choice" VALUE="three" CHECKED> Yes.
   <INPUT TYPE="radio" NAME="choice" VALUE="four"> No.
</FORM>
</BODY></HTML>
```


RADIOBox - Microsoft Internet Explorer
ملف تحرير عرض المفضلة أدوات تعليمات
الخلف بحث المفضلة وسائط
عنوان C:\jdk\bin\tp02417e.html
انتقال Links
تم
جهاز الكمبيوتر

Form #1:

○ Yes. ○ No.

Form #2:

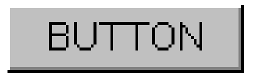
● Yes. ○ No.

Push Button

- **Push Button:** This element would be used with JavaScript to cause an action to take place.

<INPUT TYPE=“BUTTON”>

Browser will display

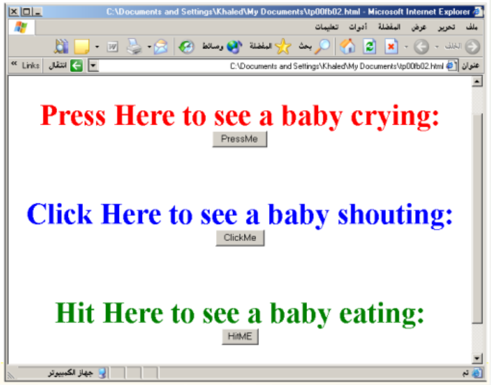


Push Button has the following attributes:

- **TYPE:** button.
- **NAME:** is the name of the button to be used in scripting.
- **VALUE:** determines the text label on the button.

EXAMPLE

```
<html><body>
<FORM>
<FONT Color=red>
<h1>Press Here to see a baby crying:<BR>
<INPUT TYPE="button" VALUE="PressMe"><BR><BR>
<FONT Color=blue>
Click Here to see a baby shouting:<BR>
<INPUT TYPE="button" VALUE="ClickMe" > <BR><BR>
<FONT Color=green>
Hit Here to see a baby eating:<BR>
<INPUT TYPE="button" VALUE="HitME" > <BR><BR>
<FONT Color=yellow>
</FORM></body></html>
```


C:\Documents and Settings\Khaled\My Documents\tp00fb02.html - Microsoft Internet Explorer
PressMe
ClickMe
HitME

Press Here to see a baby crying:

Click Here to see a baby shouting:

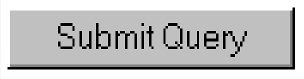
Hit Here to see a baby eating:

Submit Button

Submit: Every set of Form tags requires a Submit button. This is the element causes the browser to send the names and values of the other elements to the CGI Application specified by the ACTION attribute of the FORM element.

<INPUT TYPE=“SUBMIT”>

The browser will display

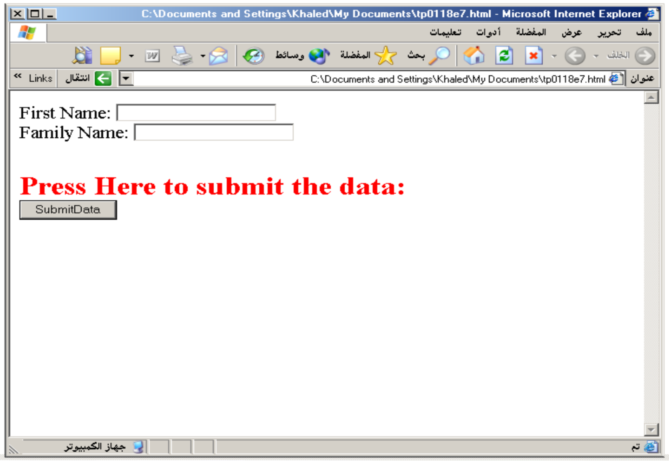


Submit has the following attributes:

- **TYPE:** submit.
- **NAME:** value used by the CGI script for processing.
- **VALUE:** determines the text label on the button, usually Submit Query.

EXAMPLE

```
<html><head></head><body>
<FORM     Action="URL"        method="get">
First Name: <INPUT TYPE="TEXT" Size=25 name="firstName"><BR>
Family Name: <INPUT TYPE="TEXT" Size=25 name="LastName"><BR>
<BR>
<FONT Color=red>
Press Here to submit the data:<BR>
<INPUT TYPE="submit" VALUE="SubmitData " >
</FORM></body></html>
```


C:\Documents and Settings\Khaled\My Documents\tp0118e7.html - Microsoft Internet Explorer
ملف تحرير عرض المفضلة أدوات تعليمات
الخلف بحث المفضلة وسائط
عنوان C:\Documents and Settings\Khaled\My Documents\tp0118e7.html
انتقال Links
تم
جهاز الكمبيوتر

First Name:
Family Name:

Press Here to submit the data:

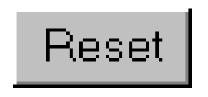
SubmitData

Reset Button

Reset: It is a good idea to include one of these for each form where users are entering data. It allows the surfer to clear all the input in the form.

<INPUT TYPE=“RESET”>

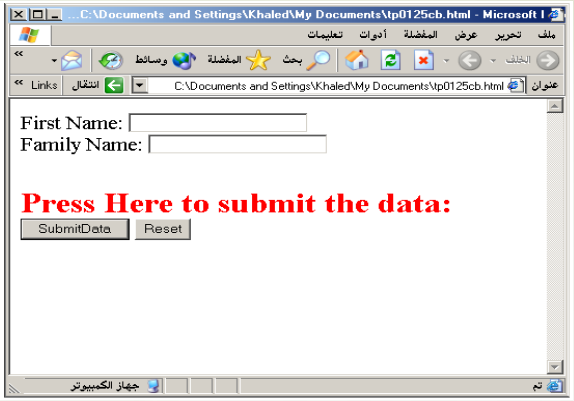
Browser will display



Reset buttons have the following attributes:
TYPE: reset.
VALUE: determines the text label on the button, usually Reset.

EXAMPLE

```
<html><body><FORM    Action="URL"       method="get">
First Name: <INPUT TYPE="TEXT" Size=25 name="firstName">
<BR>
Family Name: <INPUT TYPE="TEXT" Size=25 name="LastName">
<BR>
<BR>
<FONT Color = red>
<STRONG><font size=5>Press Here to submit the data:</font></STRONG>
<BR>
<INPUT TYPE="submit" VALUE="SubmitData">
<INPUT TYPE="RESET" VALUE="Reset">
</FORM></body></html>
```


...C:\Documents and Settings\Khaled\My Documents\tp0125cb.html - Microsoft I
ملف تحرير عرض المفضلة أدوات تعليمات
الخلف بحث المفضلة وسائط
عنوان C:\Documents and Settings\Khaled\My Documents\tp0125cb.html انتقال Links
تم جهاز الكمبيوتر

First Name:
Family Name:

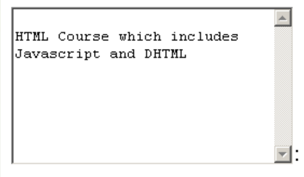
Press Here to submit the data:

SubmitData Reset

Other Elements used in Forms

- <TEXTAREA></TEXTAREA>: is an element that allows for free form text entry.

Browser will display



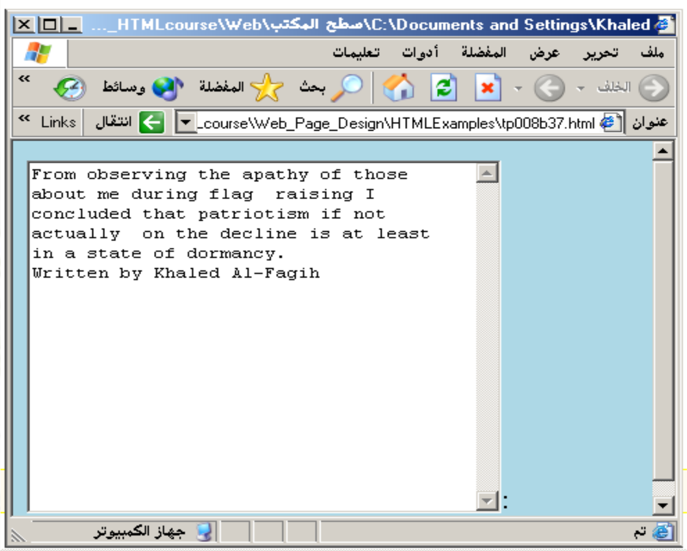
```
HTML Course which includes
Javascript and DHTML
```

Textarea has the following attributes:

- NAME: is the name of the variable to be sent to the CGI application.
- ROWS: the number of rows to the textbox.
- COLS: the number of columns to the textbox.

EXAMPLE :

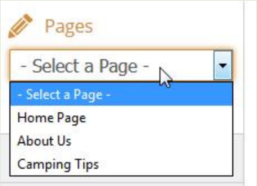
```
<HTML><BODY bgcolor=lightblue>
<form>
<TEXTAREA   COLS=40  ROWS=20  Name="comments"   >
From observing the apathy of those
about me during flag  raising I
concluded that patriotism if not
actually  on the decline is at least
in a state of dormancy.
Written by Khaled Al-Fagih
</TEXTAREA>:
</form>
</BODY></html>
```


..._HTMLcourse\Web\سطح المكتب\C:\Documents and Settings\Khaled
ملف تحرير عرض المفضلة أدوات تعليمات
الخلف بحث المفضلة وسائط
عنوان _course\Web_Page_Design\HTMLExamples\tp008b37.html
انتقال Links
تم
جهاز الكمبيوتر

```
From observing the apathy of those
about me during flag  raising I
concluded that patriotism if not
actually  on the decline is at least
in a state of dormancy.
Written by Khaled Al-Fagih
```

<SELECT></SELECT> in Form

The <SELECT></SELECT> elements in HTML page, where the attributes are set differently.



The Select elements attributes are:

- **NAME**: is the name of the variable to be sent to the CGI application.
- **SIZE**: this sets the number of **visible** choices.
- **MULTIPLE**: the presence of this attribute signifies that the user can make multiple selections. By default only one selection is allowed.

EXAMPLE:

```
<HTML><BODY bgcolor=lightblue>
<form>
Select the cities you have visited:
<SELECT name="con">
<option> London</option>
<option> Tokyo</option>
<option> Paris</option>
<option> New York</option>
<option> LA</option>
<option> KL</option>
</SELECT>
</form>
</BODY></HTML>
```

HTML List Box

The list box is a graphical control element in the HTML document that allows a user to select one or more options from the list of options.

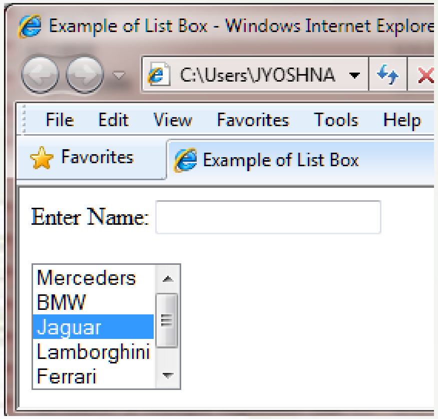
Syntax

To create a list box, use the HTML element <select> which contains two attributes Name and Size. The Name attribute is used to define the name for calling the list box, and size attribute is used to specify the numerical value that shows the how many options it contains.

```
<select Name="Name_of_list_box" Size="Number_of_options">
  <option> List item 1 </option>
  <option> List item 2 </option>
  <option> List item 3 </option>
  <option> List item N </option>
</select>
```

EXAMPLE :

```
<!DOCTYPE html>
<html>
<title>
Example of List Box
</title>
<body>
Enter Name:  <input type="text" Placeholder="Enter the
your Name"/>
<br>
<br>
<select name="Cars" size="5">
    <option value="Merceders"> Merceders </option>
    <option value="BMW"> BMW </option>
    <option value="Jaguar"> Jaguar </option>
    <option value="Lamborghini"> Lamborghini </option>
    <option value="Ferrari"> Ferrari </option>
    <option value="Ford"> Ford </option>
</select>
</body>
</html>
```



Enter Name:

Merceders
BMW
Jaguar
Lamborghini
Ferrari

Option Attribute :

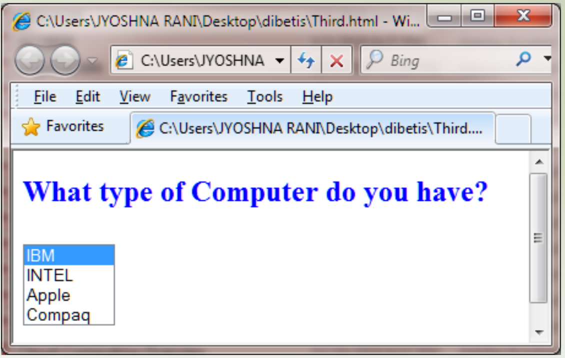
The list items are added to the **<SELECT>** element by inserting **<OPTION></OPTION>** elements.

The Option Element’s attributes are:

- **SELECTED**: When this attribute is present, the option is selected when the document is initially loaded. **It is an error for more than one option to be selected.**
- **VALUE**: Specifies the value the variable named in the select element.

EXAMPLE : 01

```
<html>
<head>
</HEAD>
<BODY>
<h2><font color=blue>What type of Computer do you have?</font><h2>
<FORM>
<SELECT NAME="ComputerType" size=4>
          <OPTION  value="IBM" SELECTED> IBM</OPTION>
          <OPTION  value="INTEL"> INTEL</OPTION>
          <OPTION value=" Apple"> Apple</OPTION>
          <OPTION value="Compaq"> Compaq</OPTION>
</SELECT>
</FORM></BODY></HTML>
```

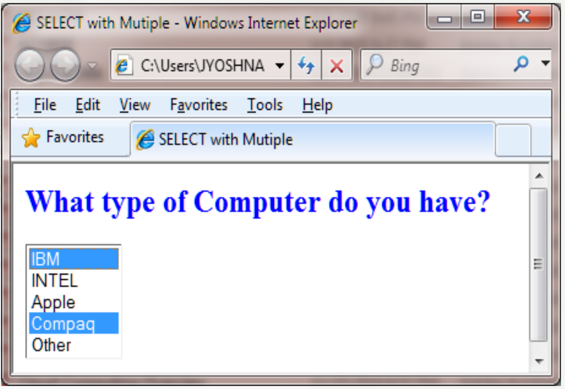

C:\Users\JYOSHNA RANI\Desktop\dibetis\Third.html - Wi...
C:\Users\JYOSHNA
Bing
File Edit View Favorites Tools Help
Favorites
C:\Users\JYOSHNA RANI\Desktop\dibetis\Third....

What type of Computer do you have?

IBM
INTEL
Apple
Compaq

EXAMPLE : 02

```
<HTML><HEAD> <TITLE>SELECT with Mutiple </TITLE> </HEAD>
<BODY>
<h2><font color=blue>What type of Computer do you have?</font><h2>
<FORM>
<SELECT NAME="ComputerType" size=5   multiple>
          <OPTION  value="IBM" > IBM</OPTION>
          <OPTION  value="INTEL"> INTEL</OPTION>
          <OPTION value=" Apple"> Apple</OPTION>
          <OPTION value="Compaq" SELECTED> Compaq</OPTION>
          <OPTION value=" other"> Other</OPTION>
</SELECT>
</FORM></BODY></HTML>
```


SELECT with Mutiple - Windows Internet Explorer
C:\Users\JYOSHNA
Bing
File Edit View Favorites Tools Help
Favorites
SELECT with Mutiple

What type of Computer do you have?

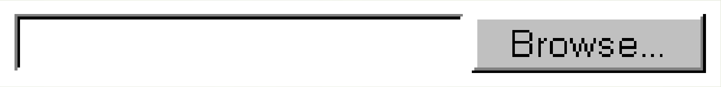
IBM
INTEL
Apple
Compaq
Other

File

File Upload: You can use a file upload to allow surfers to upload files to your web server.

<INPUT TYPE=“FILE”>

Browser will display



File Upload has the following attributes:

TYPE: file.

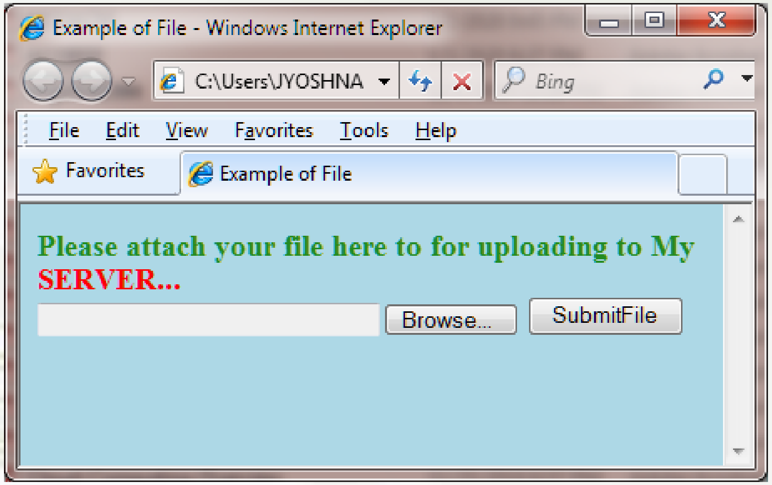
SIZE: is the size of the text box in characters.

NAME: is the name of the variable to be sent to the CGI application.

MAXLENGHT: is the maximum size of the input in the textbox in characters.

EXAMPLE :

```
<HTML><HEAD> <TITLE>Example of File </TITLE> </HEAD>
<BODY bgcolor=lightblue>
<form>
<H3><font color=forestgreen>
Please attach your file here to for uploading to
My <font color =red>SERVER...<BR>

<INPUT  TYPE="File"  name="myFile"  size="30">

<INPUT  TYPE="Submit"  value="SubmitFile">
</form>
</BODY>
</HTML>
```



Please attach your file here to for uploading to My SERVER...

Image Submit Button

- **Image Submit Button:** Allows you to substitute an image for the standard submit button.

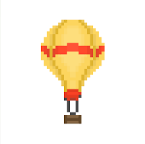
<INPUT TYPE=“IMAGE” SRC=“imageFile.gif”>

Image submit button has the following attributes:

- TYPE: Image.
- NAME: is the name of the button to be used in scripting.
- SRC: URL of the Image file.

EXAMPLE:

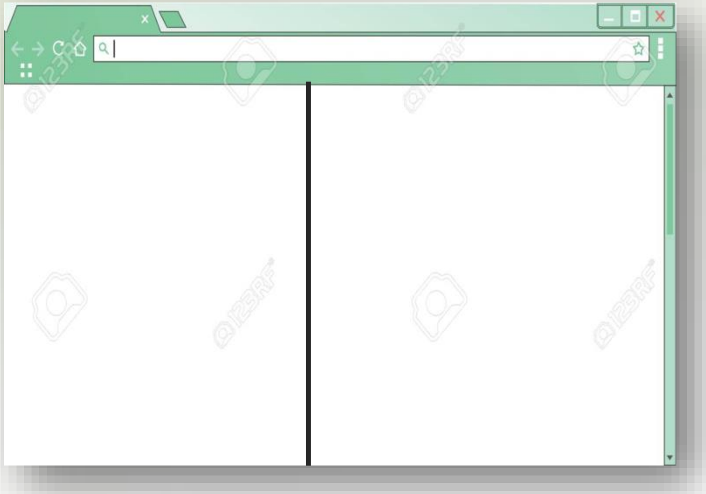
```
<HTML><HEAD> <TITLE>Example of File </TITLE>
</HEAD>
<BODY bgcolor=lightblue>
<form>
<H1>
<font color=blue>Click on BULB image:</font>

<INPUT  TYPE="IMAGE"  SRC="Bulb.gif">

</form>
</BODY>
</HTML>
```

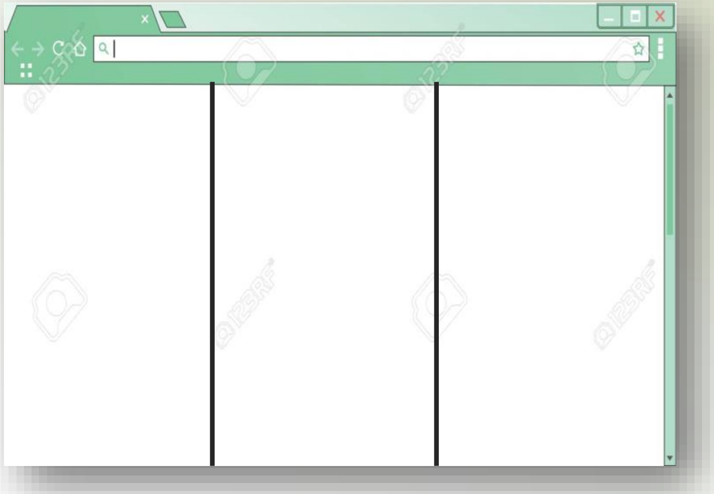


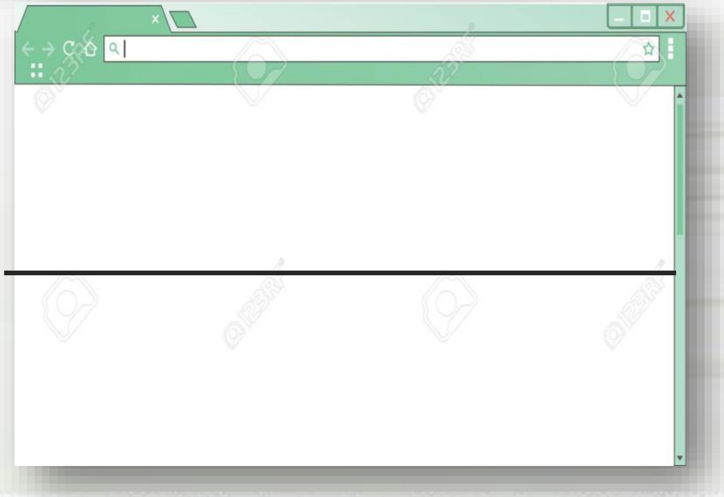
Bulb.gif

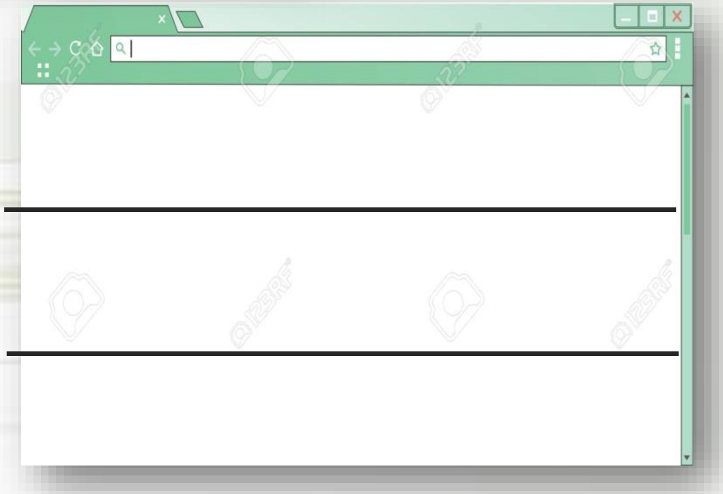
Frames

HTML frames are used to divide your browser window into multiple sections where each section can load a separate HTML document. A collection of frames in the browser window is known as a frameset. The window is divided into frames in a similar way the tables are organized: into rows and columns.



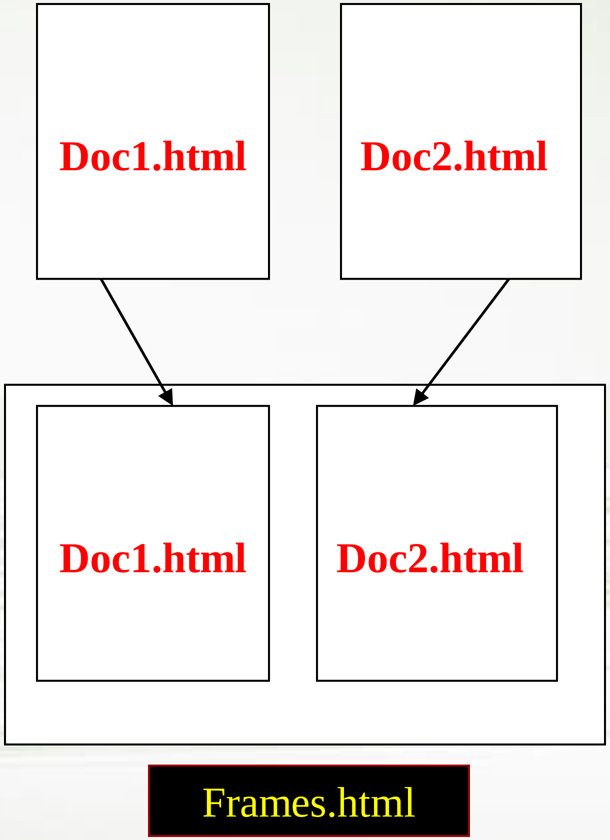






HTML <frame> tag

- HTML <frame> tag define the particular area within an HTML file where another HTML web page can be displayed.
- A <frame> tag is used with <frameset>, and it divides a webpage into multiple sections or frames, and each frame can contain different web pages.
- For Example to make a framed page with a windowpane on the left and one on the right requires three HTML pages. Doc1.html and Doc2.html are the pages that contain content. Frames.html is the page that describes the division of the single browser window into two windowpanes.



Frame Page Architecture

- A <FRAMESET> element is placed in the html document before the <BODY> element. The <FRAMESET> describes the amount of screen real estate given to each windowpane by dividing the screen into ROWS or COLS.
- The <FRAMESET> will then contain <FRAME> elements, **one per division** of the browser window.
- Note: Because there is no BODY container, FRAMESET pages can't have background images and background colors associated with them.

Doc1.html

```
<!DOCTYPE html>
<html>
<head>
<title> Example of Frame 1</title>
</head>
<body>
<h1> Hello </h1>
</body>
</html>
```

Doc2.html

```
<!DOCTYPE html>
<html>
<head>
<title> Example of Frame 2</title>
</head>
<body>
<h1> Hi</h1>
</body>
</html>
```

Main.html

```
<HTML>
<HEAD>
<TITLE> Framed Page </TITLE>
<FRAMeSET COLS=“23%,77%”>
<FRAME SRC=“Doc1.html”>
<FRAME SRC=“Doc2.html”>
</FRAMeSET >
</HEAD>
</HTML>
```

The <frameset> Tag Attributes
Following are important attributes of the <frameset> tag :

Sr.No	Attribute & Description
1	cols : Specifies how many columns are contained in the frameset and the size of each column. You can specify the width of each column in one of the four ways – Absolute values in pixels. For example, to create three vertical frames, use cols = "100, 500, 100". A percentage of the browser window. For example, to create three vertical frames, use cols = "10%, 80%, 10%". Using a wildcard symbol. For example, to create three vertical frames, use cols = "10%, *, 10%". In this case wildcard takes remainder of the window. As relative widths of the browser window. For example, to create three vertical frames, use cols = "3*, 2*, 1*". This is an alternative to percentages. You can use relative widths of the browser window. Here the window is divided into sixths: the first column takes up half of the window, the second takes one third, and the third takes one sixth.
2	rows : This attribute works just like the cols attribute and takes the same values, but it is used to specify the rows in the frameset. For example, to create two horizontal frames, use rows = "10%, 90%". You can specify the height of each row in the same way as explained above for columns.
3	border : This attribute specifies the width of the border of each frame in pixels. For example, border = "5". A value of zero means no border.
4	frameborder : This attribute specifies whether a three-dimensional border should be displayed between frames. This attribute takes value either 1 (yes) or 0 (no). For example frameborder = "0" specifies no border.
5	framespacing :This attribute specifies the amount of space between frames in a frameset. This can take any integer value. For example framespacing = "10" means there should be 10 pixels spacing between each frames.

The <frame> Tag Attributes

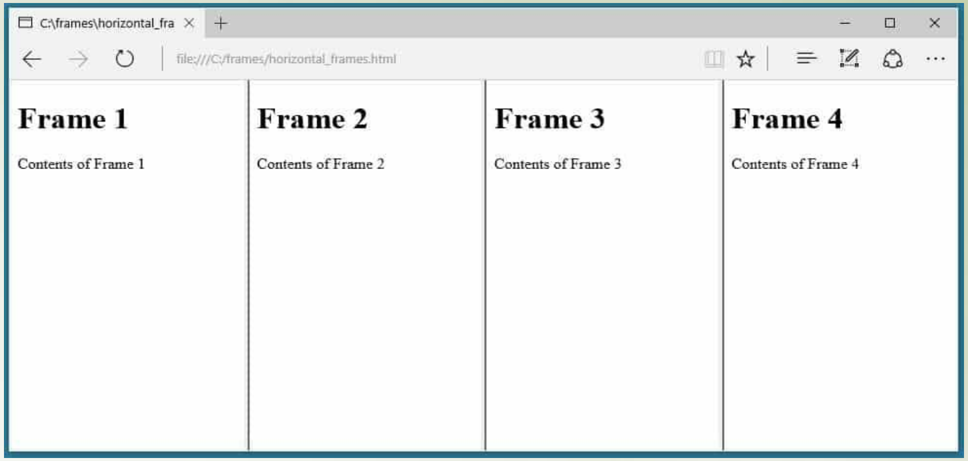
The following are the important attributes of <frame> tag

Sr.No	Attribute & Description
1	**src :** This attribute is used to give the file name that should be loaded in the frame. Its value can be any URL. For example, src = "/html/top_frame.htm" will load an HTML file available in html directory.
2	**name :** This attribute allows you to give a name to a frame. It is used to indicate which frame a document should be loaded into. This is especially important when you want to create links in one frame that load pages into an another frame, in which case the second frame needs a name to identify itself as the target of the link.
3	**frameborder :** This attribute specifies whether or not the borders of that frame are shown; it overrides the value given in the frameborder attribute on the <frameset> tag if one is given, and this can take values either 1 (yes) or 0 (no).
4	**marginwidth :** This attribute allows you to specify the width of the space between the left and right of the frame's borders and the frame's content. The value is given in pixels. For example marginwidth = "10".
5	**marginheight :** This attribute allows you to specify the height of the space between the top and bottom of the frame's borders and its contents. The value is given in pixels. For example marginheight = "10".
6	**noresize :** By default, you can resize any frame by clicking and dragging on the borders of a frame. The noresize attribute prevents a user from being able to resize the frame. For example noresize = "noresize".
7	**scrolling :** This attribute controls the appearance of the scrollbars that appear on the frame. This takes values either "yes", "no" or "auto". For example scrolling = "no" means it should not have scroll bars.
8	**longdesc :** This attribute allows you to provide a link to another page containing a long description of the contents of the frame. For example longdesc = "framedescription.htm"

Main html for Frame : 01

Creating Horizontal Cols

```
<!DOCTYPE html>
<html>
<head>
<frameset cols="*,*,*,*">
<frame src="../file_path/frame_1.html">
<frame src="frame_2.html">
<frame src="frame_3.html">
<frame src="frame_4.html">
</frameset>
</head>
 </html>
```



Frame 1

Contents of Frame 1

Frame 2

Contents of Frame 2

Frame 3

Contents of Frame 3

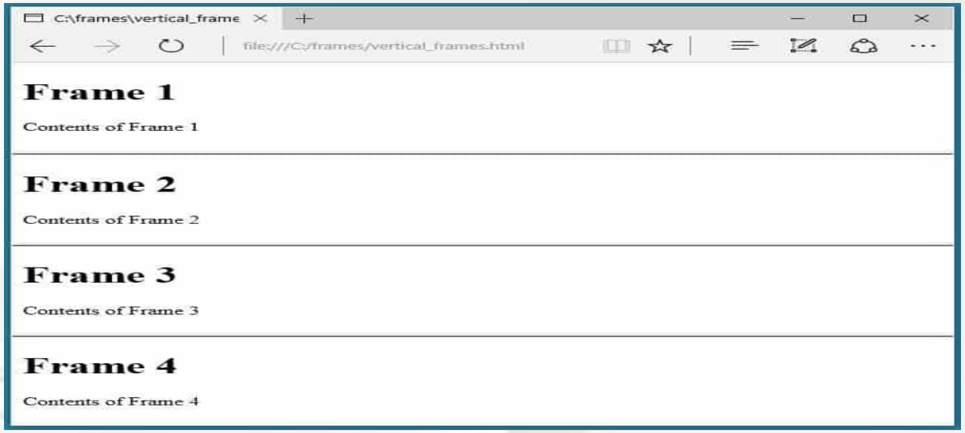
Frame 4

Contents of Frame 4

Main html for Frame : 02

Creating Horizontal Rows

```
<!DOCTYPE html> <html><head>
<frameset rows="*,*,*,*">
<frame src="frame_1.html">
<frame src="frame_2.html">
<frame src="frame_3.html">
<frame src="frame_4.html">
</frameset>
</head></html>
```



Frame 1

Contents of Frame 1

Frame 2

Contents of Frame 2

Frame 3

Contents of Frame 3

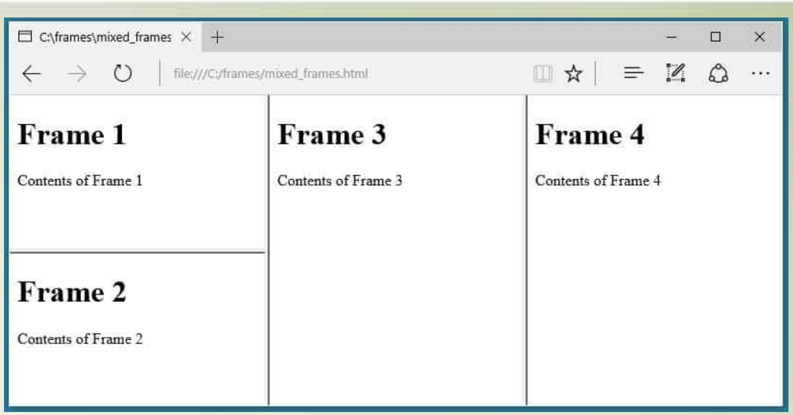
Frame 4

Contents of Frame 4

Main html for Frame : 03

Mixing Columns and Rows

```
<frameset cols="*,*,*">
<frameset rows="*,*">
<frame src="frame_1.html">
<frame src="frame_2.html">
</frameset>
<frame src="frame_3.html">
<frame src="frame_4.html">
</frameset>
```



C:\frames\mixed_frames

file:///C:/frames/mixed_frames.html

Frame 1

Contents of Frame 1

Frame 2

Contents of Frame 2

Frame 3

Contents of Frame 3

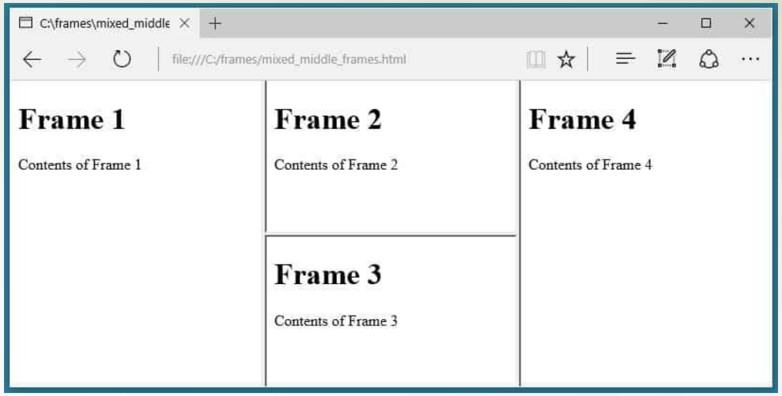
Frame 4

Contents of Frame 4

Main html for Frame : 04

Mixing Columns and Rows

```
<frameset cols="*,*,*">
<frame src="frame_1.html">
<frameset rows="*,*">
<frame src="frame_2.html">
<frame src="frame_3.html">
</frameset>
<frame src="frame_4.html">
</frameset>
```



C:\frames\mixed_middle

file:///C:/frames/mixed_middle_frames.html

Frame 1

Contents of Frame 1

Frame 2

Contents of Frame 2

Frame 3

Contents of Frame 3

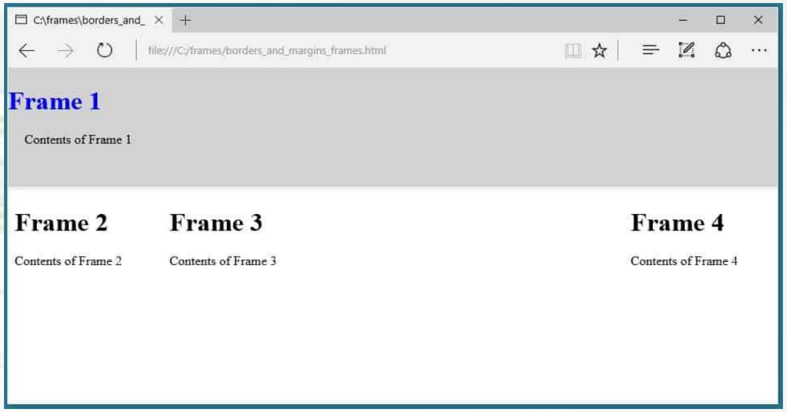
Frame 4

Contents of Frame 4

Main html for Frame : 05

Formatting Frame Margins & Borders

```
<frameset rows="150px,*">
<frame noresize src="frame_1.html" marginheight="15">
<frameset cols="20%,*,20%">
 <frame src="frame_2.html" frameborder="0">
 <frame src="frame_3.html" frameborder="0">
<frame src="frame_4.html" frameborder="0">
</frameset>
</frameset>
```



C:\frames\borders_and_

file:///C:/frames/borders_and_margins_frames.html

Frame 1

Contents of Frame 1

Frame 2

Contents of Frame 2

Frame 3

Contents of Frame 3

Frame 4

Contents of Frame 4

Generic Frame Formula :

The <FRAME> tag has six associated attributes: SRC, NAME, MARGINWIDTH, MARGINHEIGHT, SCROLLING, and NORESIZE. Here's a complete generic FRAME:

<FRAME SRC="url" NAME="window_name" SCROLLING=YES|NO|AUTO MARGINWIDTH="value" MARGINHEIGHT="value" NORESIZE>

Targets

- When you use links for use in a frames environment you will need to specify an additional attribute called **TARGET.**
- The **TARGET** attribute uses the NAME attribute of the **FRAME** element.

The HTML target Attribute is used to specify where to open the linked document. It can be used on various elements such as:
HTML | <a> target Attribute
HTML | <area> target Attribute
HTML | <base> target Attribute
HTML | <form> target Attribute

Syntax:
<element target="_blank|_self|_parent|_top|framename"\>

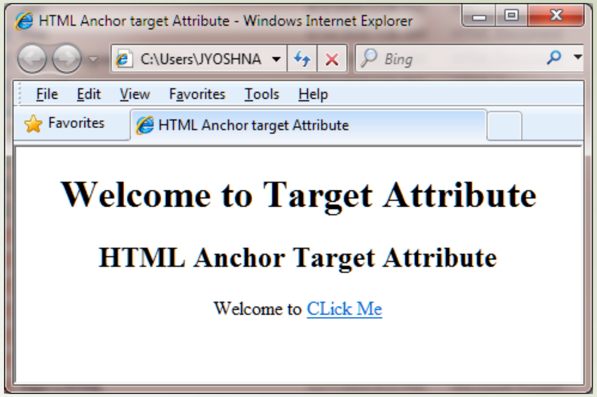
Attribute Values:

- **_blank:** It opens the link in a new window.
- **_self:** It opens the linked document in the same frame.
- **_parent:** It opens the linked document in the parent frameset.
- **_top:** It opens the linked document in the full body of the window.
- **framename:** It opens the linked document in the named frame.

Example of Targets using <a> :

Second.html

```
<!DOCTYPE html>
<html>

<head>
    <title>
        HTML Anchor target Attribute
    </title>
</head>

<body>
    <center>
        <h1>Welcome to Target Attribute</h1>

        <h2>HTML Anchor Target Attribute</h2>

        <p>Welcome to
            <a href="First.html" id="GFG" target="_self">CLick Me</a>
        </p>
    </center>
</body>

</html>
```



HTML Anchor target Attribute - Windows Internet Explorer
C:\Users\JYOSHNA
Bing
File Edit View Favorites Tools Help
Favorites
HTML Anchor target Attribute

Welcome to Target Attribute

HTML Anchor Target Attribute

Welcome to CLick Me

First.html

```
<!DOCTYPE html>
<html>
<head>
    <title>
        HTML Anchor target Attribute
    </title>
</head>
 <body>
    <center>
        <h1>Hi Hello</h1>
  </center>
</body>  </html>
```

Example of Target=“_blank” using <a> :

```
<!DOCTYPE html>
<html>
<head>
    <title>
        HTML Anchor target Attribute
    </title>
</head>
<body>
    <center>
        <h1>Welcome to Target Attribute</h1>

        <h2>HTML Anchor Target Attribute</h2>

        <p>Welcome to
            <a href="First.html" id="GFG" target="_blank">CLick Me</a>
        </p>
    </center>
</body>
</html>
```

END OF HTML