

HTML List elements

- Used to list out a list of items in your HTML document.
- HTML specify 3 different types of lists
 - *Unordered Lists*:- Collections of items that appear in no particular order
 - *Ordered Lists*:-Lists in which the sequence of the items is important.
 - *Definition Lists*:- Lists that consist of terms and definitions
- Inside a list item you can put text, line breaks, images, links, other lists, etc.

UnorderedLists

- An unordered list starts with the tag.
- Each list item starts with the tag.
- This will list items using bullets

Example

```
<html>
<title>html unordered list</title>
<body>
<ul>
<li> First Unoreder Element</li>
<li> Second Unoreder Element</li>
<li> Third Unoreder Element</li>
</ul>
</body>
</html>
```

This produce the following result

- First Unoreder Element
- Second Unoreder Element
- Third Unoreder Element

- ❖ You can use *type* attribute to specify the type of bullet you like. By default it is a disc. Following are the possible way:

<pre><ul type="square"> <ul type="disc"> <ul type="circle"></pre>		
<ul type="square">	<ul type="disc">	<ul type="circle">
<ul style="list-style-type: none"> Hindi English Maths Physics 	<ul style="list-style-type: none"> Hindi English Maths Physics 	<ul style="list-style-type: none"> Hindi English Maths Physics

Order list

- An ordered list starts with the `` tag.
- Each list item starts with the `` tag.
- The list items are marked with numbers.

Example

```
<html>

    <title>html unordered list</title>
    <body>
        <ol>
            <li> First oreder Element</li>
            <li> Second oreder Element</li>
            <li> Third oreder Element</li>
        </ol>
    </body>
</html>
```

These produce the following result

1. First oreder Element
2. Second oreder Element
3. Third oreder Element

- ❖ You can use *type* attribute to specify the type of numbers you like. By default its is a generic numbers.

Following are the other possible way:

<ol style="list-style-type: none"> - Upper-Case roman. <ol style="list-style-type: none"> - Lower-Case roman. <ol style="list-style-type: none"> - Lower-Case Letters. <ol style="list-style-type: none"> - Upper-Case Letters. 			
<ol style="list-style-type: none">	<ol style="list-style-type: none">	<ol style="list-style-type: none">	<ol style="list-style-type: none">
I. Hindi	i. Hindi	a. Hindi	A. Hindi
II. English	ii. English	b. English	B. English
III. Maths	iii. Maths	c. Maths	C. Maths
IV. Physics	iv. Physics	d. Physics	D. Physics

- ❖ Changing the starting number may be useful in a situation where your list items, you can specify a starting number for an ordered list.
- ❖ You can change the start number using **START** Attribute.

Example

```
<ol start="3">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

Result:-

```
3. Coffee
4. Tea
5. Milk
```

Definition Lists

- A definition list is a list of items, with a description of each item.
- Definition List makes use of following three tags.
 - <dl> - Defines the start of the list
 - <dt> - A term
 - <dd> - Term definition
 - </dl> - Defines the end of the list

example

```
<dl>
<dt><b>HTML</b></dt>
<dd>This stands for Hyper Text Markup Language</dd>
<dt><b>HTTP</b></dt>
<dd>This stands for Hyper Text Transfer Protocol</dd>
</dl>
```

This produces the following result

HTML

This stands for Hyper Text Markup Language

HTTP

This stands for Hyper Text Transfer Protocol

Nesting Lists

You can nest lists by inserting a UL, OL, etc...

Example:

	Result:-
<pre><html> <head><title>list</title></head> <body> List item... List item... List item... List item...</pre>	<pre>• List item... • List item... 1. List item... • List item...</pre>

<code></body></html></code>	
---	--

Insert an image

You can insert any image in your web page by using `` tag. Following is the simple syntax to use this tag.

```
<imgsrc="image URL" attr_name="attr_value"...more attributes />
```

Image Attributes:

Following are most frequently used attributes for `` tag.

- **width:** sets width of the image.
- **height:** sets height of the image.
- **border:** sets a border around the image.
- **src:** specifies URL of the image file.
- **alt:** this is an alternate text which will be displayed if image is missing.
- **align:** this sets horizontal alignment of the image and takes value either *left*, *right* or *center*.
- **name:** name of the image with in the document.
- **id:** id of the image with in the document.
- **title:** specifies a text title. The browser, perhaps flashing the title when the mouse passes over the link.

Insert video

You can add music or video into your web page. The easiest way to add video or sound to your web site is to include the special HTML tag called `<embed>`.

Attributes:

Following is the list of important attributes for `<embed>` element.

- **align** - Determines how to align the object. It takes either *center*, *left* or *right*.

- **autostart** - Indicates if the media should start automatically. Netscape default is true, Internet Explorer is false.
- **loop** - Specifies if the sound should be played continuously (set loop to true), a certain number of times (a positive value) or not at all (false). This is supported by Netscape only.
- **playcount** - Specifies the number of times to play the sound. This is alternat option for *loop* if you are usiong IE.
- **hidden** - Defines if the object shows on the page. A false value means no and true means yes.
- **height** - Height of the object in pixels or in.
- **width** - Width of the object in pixels or in.
- **pluginspage** - Specifies the URL to get the plugin software.
- **name** - A name used to reference the object.
- **src** - URL of the object to be embedded. This can be any recognizable by the user's browser. It could be .mid, .wav, .mp3, .avi and so on).
- **volume** - Controls volume of the sound. Can be from 0 (off) to 100 (full volume). This attribute is supported by Netscape only.
- **border**- sets border thickness around the embed content

HTML - Video Media Types

Flash movies (.swf), AVI's (.avi), and MOV's (.mov) file types are supported by the embed tag.

- .swf files - are the file types created by Macromedia's Flash program.
- .wmv files - are Microsoft's Window's Media Video file types.
- .mov files - are Apple's Quick Time Movie format.
- .mpeg files - are movie files created by the Moving Pictures Expert Group.

Here is a simple example to play a flash file.

```
<embed src="/html/yourfile.swf" width="100%" height="250" >
```

Object tag

The <object> tag defines an embedded object within an HTML document. Use this element to embed multimedia (like audio, video, PDF, etc...) in your web pages.

ADDING LINKS

Link Elements

- It is normal for HTML documents to contain links to other documents, which can be located anywhere on the Web.
- There is one element that makes linking possible the anchor. <a>...

content

- The content of the anchor element becomes the hypertext link.
- The HREF attribute of the anchor element specifies a URL.

E.g. XtraNet University

In this example the text "XtraNet University" represents the contents that would be highlighted as a link to the file named as the value of the HREF.

- To make an image a link, simply put the img element in the anchor element:-

<a href="<http://www.xnu.com>">

Link Types

There are three major types of links:

- **Internal Links:** are links within a document. They help in the navigation of large documents.
- **Local Links:** are links to documents on the local web server. Local links can be the full URL (Complete e.g. <http://www.yourdomain.com/sales/report.htm>) or partial (Relative to your current directory e.g. </sales/report.htm>).
- **External Links:** links to pages on other web servers. External links are always the full URL.

NOTE: Remember that the colors of the links to be displayed in the browser are controlled by attributes of the body element.

Links when viewed in a browser, the marked text is blue and underlined by default, and the linked graphic appears with a blue outline.

Changing link colors

To change the color, we use <BODY> tag with some special attributes.

LINK="color name or number", sets the link color (blue by default)

VLINK="color name or number", sets the color of visited links.

ALINK="color name or number", sets the color of active links.

Example: <BODY LINK="yellow" VLINK="red" ALINK="green">

1. Internal Links:- Linking within a page

Linking to a fragment within a page is a two part process. first you need to give the fragment a name and then you make a link to it.

Step 1: naming a Fragment

The anchor tag with the name attribute is used to give a section of the page a name that can be referenced elsewhere.

Step 2. Linking to a Fragment

The link is an ordinary link, only it includes a hash (#) symbol before the name to indicate that we are linking to a fragment.

Example: let say you have sections in one chapter (INTRODUCTION, HTML, PHP) and you want to make link for each section within a page.

to link to html section

1. Name the section using HTML

2. Link to HTML section (fragment) using HTML

<html>

<head><title>internal list</title></head>

<body>


```

<ul>
<a href="html"><li>html</li></a>
<a href="css"><li>css</li></a>
</ul>
<p>web design is .....<br>
.....
</p>
<a NAME="html"><a href="#top">top</a>
<p>Html
    Stands of hyper text markup language<br>
    It is markup language<p><a href="#top">top</a>
<a NAME="css">
Css:- It Stands for cascading style sheet
</body>
</html>

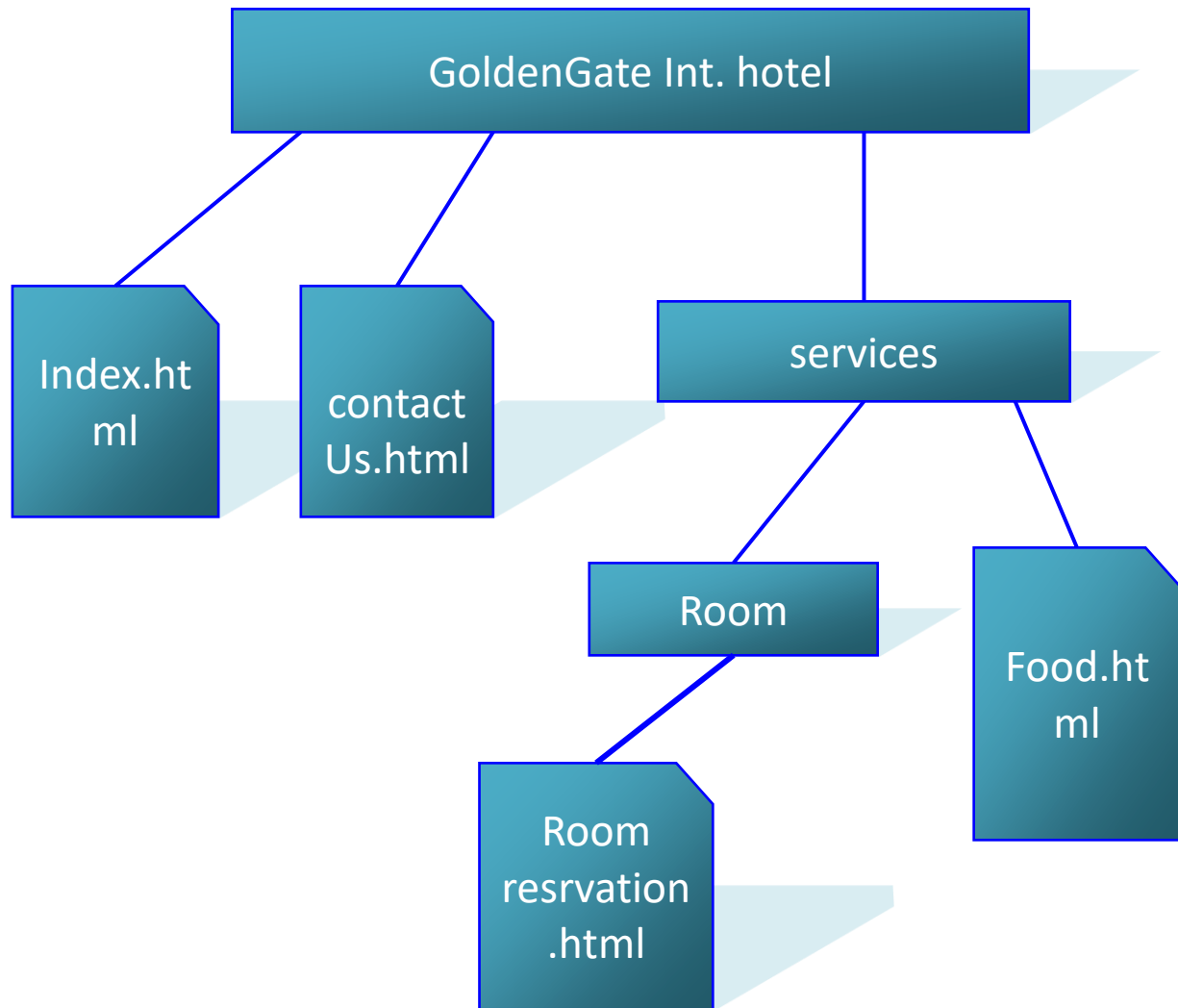
```

2. Local Links:-Linking within your own site

- To make local link you need to provide relative URLs
- Relative URLs describe the pathname to the linked file relative to the current document.
- **Pathname:** is the notation used to point to a particular file or directory, Starting with the current document, you need to describe (specify) the pathname to the target document.

A. Linking within a directory

- This links to other file within the same directory. You only need to provide the name of the file. without any other path information, the browser will assume that the file is in the some directory as the current document.
- **Example: consider the structure below(lewe hotel website structure)**



- To link from index.html to contactUs.html

```
<A HREF="contactUs.html">Contact us </A>
```
- Note: pathname=contactUs.html

B. Linking to lower directory

- If the files are not in the same director but in the same site, you have to give to the browser directions by including the path name in the URL.
- Example 1:** To link from index.html to food.html in the lewe web site structure(in the above example)

reply

Note: pathname=service/food.html

- **Example 1:** To link from index.html to Roomreservation.html

in the new web site structure(in the above example)

reply

Note: pathname=service/Room/Roomreservation.html

C. Linking to a higher directory

- When we want to link to higher directory we use the "dot-dot-slash"(..). When you begin a pathname with a ../ it is the same as telling to the browser as "go up one level" then follow the path to the specified file.

- **Example 1:** If you want to link from food.html to index.html

Home

- **Note:** pathname=../index.html

- **Example 2:** If you want to link from Roomreservation.html to index.html

Home

Note: pathname=../../index.html

External Links:-Linking to pages on the web

- Many times, you want to create links to page that is found on the web. This is known as "External" link, because it is going to a page outside of your own server or site.
- To make an external link, you need to provide absolute URL.

Example

Google.com

- Beginning with the http:// part (protocol) tells the browser, "Go out on the web and get the following document".

Table

Tables are a powerful HTML tool that can be used in many ways. Although originally intended for the display of rows and columns of data, tables were quickly coopted to serve many purposes. Some of uses for tables include:

-For data display: the beauty of the table used as it was originally intended- rows and columns full of data.

-For better text alignment: HTML alone offers little control over how text is aligned. Putting text in tables allow you to format indents and columns and add whitespace to a page.

-For overall page structure: One common use of tables is to divide a page into major sections.

-For holding together a multipart (sliced) image: Tables can be used to hold together an image.

How tables work

- Tables are defined with the <table> tag.
- A table is divided into rows with the <tr> tag (table row) and each row is divided into data cells with the <td> tag (table data).
- td holds the content of a data cell.
- A <td> tag can contain text, links, images, lists, forms, other tables, etc.

e.g.

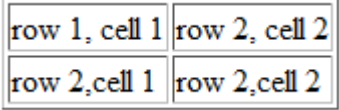
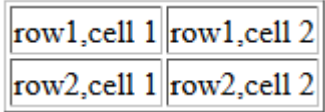
<pre><table border="1"> <tr> <td>row 1, cell 1</td> <td>row 2, cell 2</td> </tr> <tr> <td>row 2,cell 1</td> <td>row 2,cell 2</td> </tr></pre>	<p>It looks like:-</p> 
---	---

Table and the border attribute

- If you do not specify a border attribute the table will displayed without any borders.
- To display a table with borders, you will have to use the border attribute.

Table without border attribute <pre> <table> <tr> <td>row1,cell 1</td> <td>row1,cell 2</td> </tr> <tr> <td>row2,cell 1</td> <td>row2,cell 2</td> </tr> </table> </pre>	It look like this <pre> row1,cell 1 row1,cell 2 row2,cell 1 row2,cell 2 </pre>
Table with border attribute <pre> <table border="1"> <tr> <td>row1,cell 1</td> <td>row1,cell 2</td> </tr> <tr> <td>row2,cell 1</td> <td>row2,cell 2</td> </tr> </table> </pre>	It look like this 

Heading in a table

- Heading in a table are defined with the **<th>** tag.

<pre> <table border="1"> <tr> <th>heading</th> <th>another heading</th> <tr> <td>row1,cell 1</td> <td>row1,cell 2</td> </tr> <tr> <td>row2,cell 1</td> <td>row2,cell 2</td> </tr> </table> </pre>	<p>It looks like this</p> <table border="1"> <tr> <th>heading</th><th>another heading</th></tr> <tr> <td>row1,cell 1</td><td>row1,cell 2</td></tr> <tr> <td>row2,cell 1</td><td>row2,cell 2</td></tr> </table>	heading	another heading	row1,cell 1	row1,cell 2	row2,cell 1	row2,cell 2
heading	another heading						
row1,cell 1	row1,cell 2						
row2,cell 1	row2,cell 2						

Table Caption

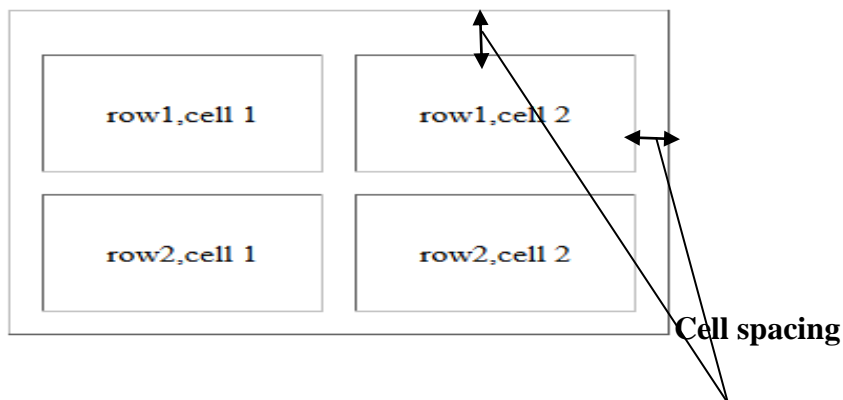
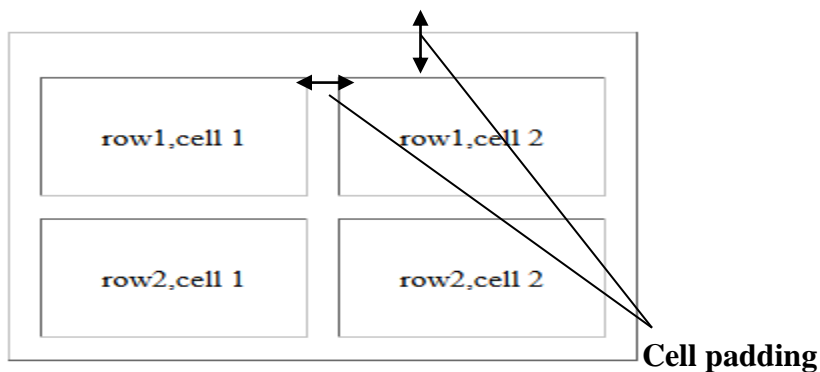
- A Table caption allows you to specify a line of text that will appear centered above or below the table.
- This can act like a title for the table.
- The caption element has one attribute ALIGN that can be either TOP or BOTTOM
- You can use standard character formatting codes inside the CAPTION element.

<pre><TABLE BORDER="1"> <CAPTION ALIGN="Top">Label for my Table</CAPTION> <tr> <td>cell1</td><td>cell2</td><td>cell3</td> </tr> </table></pre>	<p>Will result:-</p> <p style="text-align: center;">Label for my Table</p> <table><tr><td>cell1</td><td>cell2</td><td>cell3</td></tr></table>	cell1	cell2	cell3
cell1	cell2	cell3		

Table cell padding and cell spacing

There are two attributes called `cellpadding` and `cellspacing` which you will use to adjust the white space in your table cell. This attribute may be used with the table element only.

- **Cell padding:** - is the amount of space held between the content of the cell and the cell border.
 - If you don't specify any cell padding the cell will have the default value of one pixel.
 - You can't specify different amount of padding for individual cell
- **Cell spacing:** - define the width of the border.
 - If you don't specify anything the browser will use the default value of the two pixel of space between cells.



Change the background color of the table

- The **BGColor** attribute used to specify the background color of the whole table.
Syntax :- `<table BGColor="pink">`

Controlling individual cells

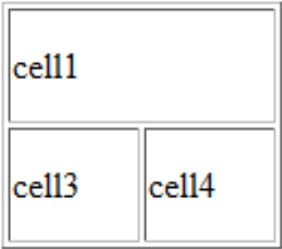
This includes

- Column and row spanning
- Cell dimension
- Alignment of cell contents
- Background color of cell

Spanning cell

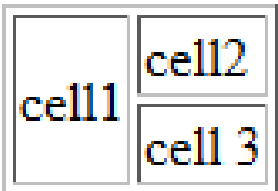
- Spanning:- is the stretching of a cell to cover several rows or columns.
- Column spans:** - created with the **colspan** attribute in the **td** element. It makes that cell expand to the right to span the specify number of column.

Example

<pre><table border="1" WIDTH=130 HEIGHT=110> <tr><td COLSPAN="2">cell1</td></tr> <tr><td>cell3</td><td>cell4</td></tr> </table></pre>	<p>will result</p> 
---	--

- Row spans:** - created with the **rowspan** attribute in the **td** element. It makes that cell expand downward to cover the number of rows you specify.

Example

<pre><table border="1"> <tr> <td ROWSPAN=2>cell1</td> <td>cell2</td> </tr> <tr> <td>cell3</td> </tr></pre>	<p>will result</p> 
--	--


```
<tr>
<td>cell 2</td>
<td>cell 3</td>
</tr>
</table>
```

Exercise:-write the following table html code

a		
b	d	e
c		f

Specify the dimension of a particular cell

- Use width and height attribute to Specify the dimension of a particular cell

Example

```
<table border="1">
<tr>
<td WIDTH=100
HEIGHT=50>cell1</td><td>cell2</td>
</tr>
<tr>
<td>cell3</td><td>cell4</td>
</tr>
</table>
```

will result

cell1	cell2
cell3	cell4

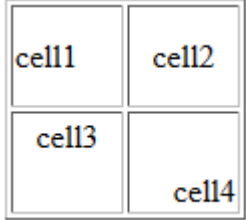
Controls the alignment of elements within cells

- Use align attribute to Controls the alignment of elements within cells.

<TD ALIGN=left|right|center VALIGN=top|middle|bottom>

- By default the text (or any elements) placed in a cell will be positioned left & center vertically.
- ALIGN:** horizontal
- VALIGN:** vertical

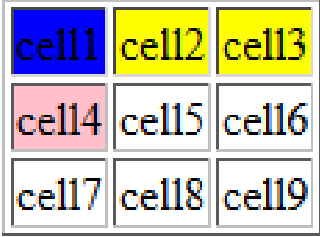
Example

<pre> <table border="1" WIDTH=120 HEIGHT=110> <tr> <td>cell1</td> <td align="center" valign="middle">cell2</td> </tr> <tr> <td align="center" valign="top">cell3</td> <td align="right" valign="bottom">cell4</td> </tr> </table> </pre>	will result 
--	--

Set Background color for a cell

- Use bgcolor attribute to set background color for the cell

Example

<pre> <table> <tr bgcolor="yellow"> <td bgcolor="blue">cell1</td><td>cell2</td><td>cell3</td> </tr> <tr> <td bgcolor="pink">cell4</td><td>cell5</td><td>cell6</td> </tr> <tr> <td>cell7</td><td>cell8</td><td>cell9</td> </tr></table> </pre>	Will result 
---	---

Frames

- A frame is a window inside the browser's client area (the area in which a web page appears). Normally a web browser just displays one web page in a client area. Frames allow multiple documents to be displayed in separate, autonomous sub-windows inside the client area.
- With frames, you can display more than one html document in the same browser window. each html document is called a frame, and each frames is independent of the other.
- Frames divide up a browser window into mini-windows, each displaying a different HTMLdocument.

What are frames used for?

- Designers primarily use frames to present consistent unmoving navigation bars. By placing navigation bars in frames, a web author can ensure that the bars are always visible when the main text is scrolled.
- Can also be used to ensure consistent and exact positioning of elements in the browser client area.

Elements for creating frames

- **Frameset element:**
 - The <frameset> tag define how to divide the window into frames
 - This allows you to define the divisions as either rows orcolumns.
 - The primary function of the FRAMESET document is to set up a structure for the page.
 - Each frameset defines rows or columns
 - The value of the rows/columns indicate the amount of screen area each rows/columns indicate the amount of screen area each row/column occupy
 - <Frameset> tag is placed in the html document before the <BODY> element.

Frameset attribute

- **ROWS:**Determines the size and number of rectangular rows within a `<FRAMESET>`. They are set from top of the display area to the bottom.
- **COLS:**Determines the size and number of rectangular columns within a `<FRAMESET>`. They are set from left to right of the display area.
- **Frame element:**
 - The frame tag defines what HTML document to put into each frame.
- **NOFRAMES element:**
 - The `<noframes>` tag is a fallback tag for browsers that do not support frames. It can contain all the HTML elements that you can find inside the `<body>` element of a normal HTML page.
 - The `<noframes>` element goes inside the `<frameset>` element.
 - Browsers that don't support frames will ignore all frame elements, and interpret the `<NOFRAMES>` content, beginning with the `<BODY>` element.
 - This element does not have any attributes.
- Older browsers are written to ignore tags/elements that they don't understand so they will ignore the `<FRAMESET>`, `<FRAME>`, and `<NOFRAMES>` tags. As a result older browsers will be able to display the contents placed between the `<BODY></BODY>` tags.
- In the example below we have a frameset with two columns. The first column is set to 25% of the width of the browser window. The second column is set to 75% of the browser window. The html document "doc1.html" is put the first column and the HTML document "doc2.html" is put into the second column.

Example

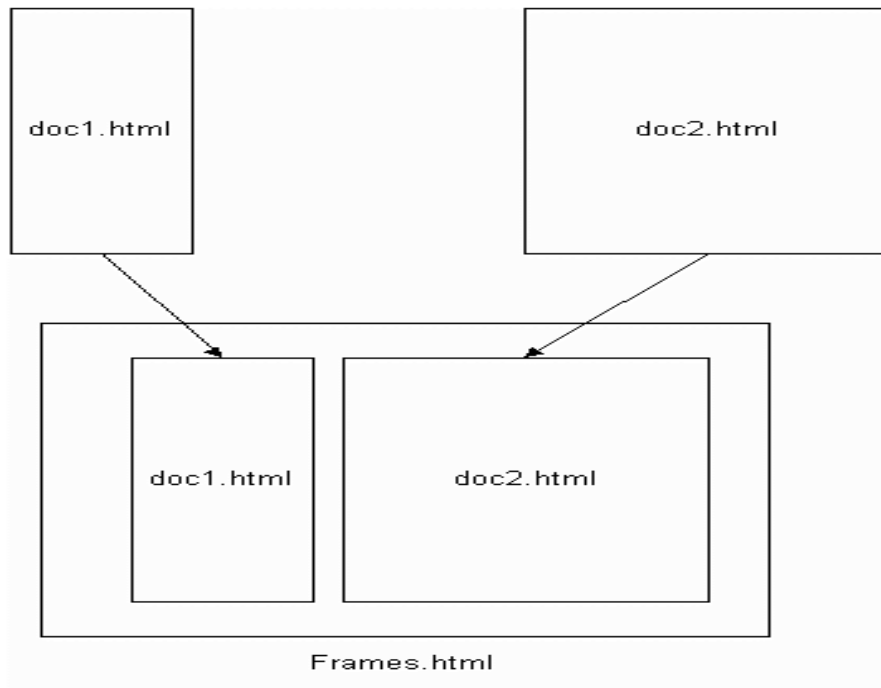
```
<HTML><HEAD>
<TITLE>Framed Page<TITLE></HEAD>
<FRAMESET COLS="25%,75%">
<FRAME SRC="doc1.htm" SCROLLING="NO">
<FRAME SRC="doc2.htm" SCROLLING="YES">
```

```

<NOFRAMES>
<BODY>
<!-- Document for browsers that do not support Frames -->
</BODY></NOFRAMES></FRAMESET></HTML>

```

- The diagram below is a graphical view of the document described above.



Other Key Attributes of the <FRAMESET> Element:

- FRAMEBORDER:** Possible values 0, 1, YES, NO. A setting of zero will create a borderless frame.
- FRAMESPACING:** This attribute is specified in pixels. If you go to borderless frames you will need to set this value to zero as well, or you will have a gap between your frames where the border used to be.
- BORDER:** Possible values 0, 1. A setting of zero will create a borderless frame.
- BORDERCOLOR:** This attribute allows you to choose a color for your border. This attribute is rarely used.

<FRAME> tag attributes

- SRC:** Required, as it provides the URL for the page that will be displayed in the frame.

- **NAME:** Required for frames that will allow targeting by other HTML documents. All names must begin with an alphanumeric value and not the underscore character.
- **MARGINWIDTH:** Determines horizontal space between the <FRAME> contents and the frame's borders.
- **MARGINHEIGHT:** Determines vertical space between the <FRAME> contents and the frame's borders.
- **SCROLLING:** Displays a scroll bar(s) in the frame. Possible values are:
 - yes – always display scroll bar(s)
 - no – never display scroll bar(s)
 - auto – browser will decide based on frame contents
- ❖ The default value for this attribute is “auto”.
- **NORESIZE:** Optional - prevents viewers from resizing the frame. By default the user can stretch or shrink the frame's display by selecting the frame's border and moving it up, down, left, or right.

Targets

- When you are creating links for use in a frames environment you will need to specify an additional attribute for anchor (A) tag called TARGET. The TARGET attribute uses the NAME attribute of the FRAME element.

For example if we were to place a link in doc1.htm that linked to doc3.htm and we wanted doc3.htm to be displayed in the right window pane; the HTML code would appear in doc1.htm as follows:

```
<A HREF="doc3.htm" TARGET="right_pane">Link to Document 3</A>
```

Warning:-

- If you fail to specify a TARGET frame name the linked document will be displayed in the current frame.
- Frame NAMES and TARGET values are case sensitive and must match exactly to work.

Special Targets

There are 4 special target names that cannot be assigned by the NAME attribute of the FRAME tag. Each of these reserved names serves a special function when used with the TARGET attribute. These special names and functions are:

- TARGET="_top":- This loads the linked document into the full browser window with the URL specified by the HREF attribute.
- TARGET="_blank":-Opens a new browser window and loads the document specified in the URL attribute into that new window. The window is not named.
- TARGET="_self":-Loads the document in the same window where the anchor was *{Clicked}*.
- TARGET="_parent":-Loads the page into the parent window, which in the case of a single frameset is the main browser window..

Example

```
<HTML><HEAD>
<TITLE>Document 1, doc1.htm</TITLE>
</HEAD><BODY>
<P>
Links<BR>
<A HREF="doc3.htm" TARGET="right_pane">Document 3 in the rightPane</A><BR>
<A HREF="doc4.htm" TARGET="_top">Document 4 in top</A><BR>
<A HREF="doc4.htm" TARGET="_blank">Document 4 in blank</A><BR>
<A HREF="doc4.htm" TARGET="_self">Document 4 in self</A><BR>
</P>
</BODY></HTML>
```

Pros of Using HTML Frames

- The ability to have one portion of the window always visible while others scroll through longer content is the primary advantage to using frames.
- Frames allow you to keep relevant information on the screen at all times.
If you have information about your page like a copyright that you want to be present at all times, you can use HTML frames to put that content in a frame.
- Frames let you put your navigation on every page of a site without editing every page.
If the navigation is in a separate frame, then when you change it, it will change for every page that uses that frameset.
- Frames hide the URLs.
It's not extremely secure, but if you want your readers to not know the URL of your pages automatically, frames can hide it. Plus, when people bookmark your pages, the URL is the main page, rather than a deep link, which some sites prefer.

Cons of using frame

- Inhabit search engine effectiveness.
- May not fit your visitor's monitor.
- Can't be printed correctly.
- Longer download time.
- Consumption of screen space.
- Since each framed page is comprised of several HTML documents, this means more work for developers and heavier load for the server.

