

OBJECT™
TECHNOLOGIES

Tables and Frames

What will be covered

- HTML tables
- Table attributes
- Table sections
- Table with rowspan
- Table with colspan
- HTML frames
- Creating frames
- Nesting frames
- Displaying content in adjacent frame
- Need of iframe

HTML tables

OBJECT

- An HTML table is defined with the `<table>` tag.
- Each table row is defined with the `<tr>` tag. A table header is defined with the `<th>` tag. By default, table headings are bold and centered. A table data/cell is defined with the `<td>` tag.
- The `<td>` elements are the data containers of the table.
- They can contain all sorts of HTML elements; text, images, lists, other tables, etc.
- By default, tables will have no borders. To add the borders, border attribute needs to be used

HTML tables

OBJECT

Example

```
<table border="1">
<tr>
<th>Name</th>
<th>Salary</th>
</tr>
<tr>
<td>Ramesh Raman</td>
<td>5000</td>
</tr>
<tr>
<td>Shabbir Hussein</td>
<td>7000</td>
</tr>
</table>
```

Name	Salary
Ramesh Raman	5000
Shabbir Hussein	7000



Table attributes

OBJECT

- **border** : This integer attribute defines, in pixels, the size of the frame surrounding the table. If it is set to 0, table will not have any border. It does not define the width.
- **cellpadding** : This attribute defines the space between the content of a cell and its border
- **cellspacing** : This attribute defines the size of the space between two cells in a percentage value or pixels
- **colspan** : this attribute is used to make a cell span more than one columns
- **: this attribute is used to make a cell span more than one rows**

Table sections

OBJECT

Table Header, Body, and Footer

- Tables can be divided into three portions: a head, a body, and a foot. The head and foot are rather similar to headers and footers in a word-processed document. While the body is the main content holder of the table.
- The three elements for separating the head, body, and foot of a table are:
 - <thead> - to create a separate table header.
 - <tbody> - to indicate the main body of the table.
 - <tfoot> - to create a separate table footer.

Example of table with rowspan

OBJECT

```
<table border="1" cellpadding="10">
<tr>
<th rowspan="4">Users Info</th>
</tr>
<tr>
<td>1</td>
<td>John Carter</td>
<td>johncarter@mail.com</td>
</tr>
<tr>
<td>2</td>
<td>Peter Parker</td>
<td>peterparker@mail.com</td>
</tr>
<tr>
<td>3</td>
<td>John Rambo</td>
<td>johnrambo@mail.com</td>
</tr>
</table>
```

Example of Table Rowspan

Users Info	1	John Carter	johncarter@mail.com
	2	Peter Parker	peterparker@mail.com
	3	John Rambo	johnrambo@mail.com

Example of table with colspan

OBJECT

```
<h2>Example of Table Colspan</h2>
<table border="1" cellpadding="10">
  <tr>
    <th colspan="3">Users Info</th>
  </tr>
  <tr>
    <td>1</td>
    <td>John Carter</td>
    <td>johnCarter@mail.com</td>
  </tr>
  <tr>
    <td>2</td>
    <td>Peter Parker</td>
    <td>peterparker@mail.com</td>
  </tr>
  <tr>
    <td>3</td>
    <td>John Rambo</td>
    <td>johnrambo@mail.com</td>
  </tr>
</table>
```

Example of Table Colspan

Users Info		
1	John Carter	johnCarter@mail.com
2	Peter Parker	peterparker@mail.com
3	John Rambo	johnrambo@mail.com

HTML Frames

OBJECT

- 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
- To use frames on a page we use <frameset> tag instead of <body> tag. The <frameset> tag defines how to divide the window into frames.
- The rows attribute of <frameset> tag defines horizontal frames and cols attribute defines vertical frames. Each frame is indicated by <frame> tag and it defines which HTML document shall open into the frame.

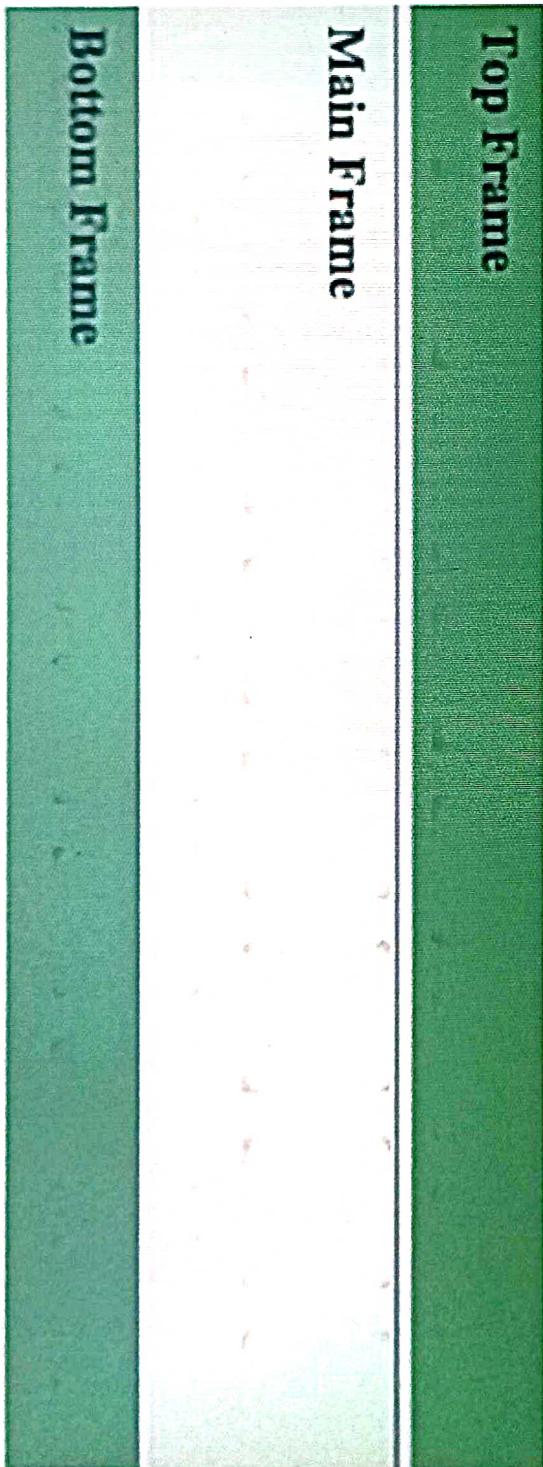
Creating Frames

OBJECT

```
<frameset rows="10%,80%,10%">
<frame name="top" src="/html/top_frame.htm" />
<frame name="main" src="/html/main_frame.htm" />
<frame name="bottom" src="/html/bottom_frame.htm" />
<noframes>
</body>
</frameset>
```

Your browser does not support frames.

```
</body>
</noframes>
</frameset>
```



Creating Frames

OBJECT

The <frameset> Tag Attributes:

- cols - specifies how many columns are contained in the frameset and the size of each column.
- 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
- border - This attribute specifies the width of the border of each frame in pixels.
- frameborder - This attribute specifies whether a three-dimensional border should be displayed between frames. This attribute takes value either 1 (yes) or 0 (no).
- framespacing - This attribute specifies the amount of space between frames in a frameset.

Creating Frames

OBJECT

The <frame> Tag Attributes

- **src** : This attribute is used to give the file name that should be loaded in the frame. Its value can be any URL.
- **name** : This attribute allows you to give a name to a frame.
- **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.
- **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.
- **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.
- **scrolling** : This attribute controls the appearance of the scrollbars that appear on the frame. This takes values either "yes", "no" or "auto"

Nested frames

OBJECT

- As the name indicate nested frame is frame with another frame.
This can be nested in any level.

```
<frameset rows="50%,50%">
<frame src="frame_a.htm">
<frameset cols="25%,75%">
<frame src="frame_b.htm">
<frame src="frame_c.htm">
</frameset>
</frameset>
```

Frame A

Note: The frameset, frame, and noframes elements are not sup

Frame B

Frame C

Displaying content in adjacent frame

OBJECT

- The frame may become the destination display window for a hypertext-linked document selected within a document displayed in some other frame.
- This can be done by adding the special target attribute to the anchor that references the document.
- 'target' attribute can take following values.

Value	Description
_blank	Opens the linked document in a new window or tab
_self	Opens the linked document in the same frame as it was clicked (this is default)
_parent	Opens the linked document in the parent frame
_top	Opens the linked document in the full body of the window
framename	Opens the linked document in a named frame
e	

Displaying content in adjacent frame

OBJECT

Creating frames

```
<frameset cols="200, *">
  <frame src="/html/menu.htm" name="menu_page" />
  <frame src="/html/main.htm" name="main_page" />
<noframes>
<body>
  Your browser does not support frames.
</body>
</noframes>
</frameset>
```

Modified 'target' of hyperlinks

```
<body bgcolor="#4a7d49">
<a href="https://www.google.com" target="main_page">Google</a>
<br /><br />
<a href="https://www.microsoft.com" target="main_page">Microsoft</a>
<br /><br />
<a href="https://news.bbc.co.uk" target="main_page">BBC News</a>
</body>
```

Need of iframe

- Most (if not all) search engines are unable to index frames-based websites properly. Because frames are made up of multiple pages, only one frame is indexed at a time.
- HTML pages displayed in frames can not be bookmarked
- Some browsers may not support frames
- HTML5 does not support frames
- Frameset can not have their own content as body tag is removed from frameset

Need of iframe

OBJECT

- The <iframe> tag specifies an inline frame.
- An inline frame is used to embed another document within the current HTML document.
- Use the **height** and **width** attributes to specify the size of the iframe.

```
<iframe src="demo_iframe.htm" height="200" width="300"></iframe>
```

- An iframe can be used as the target frame for a link.
- The target attribute of the link must refer to the name attribute of the iframe:

```
<iframe src="demo_iframe.htm" name="iframe_a"></iframe>  
<p><a href="http://www.google.com" target="iframe_a">GOOGLE SEARCH</a></p>
```

Tables and Frames

In this chapter we are going to learn very important tag like **table** which is very frequently needed when HTML is generated dynamically on server side. We will understand about frames which are used for creating subwindows. We will learn it's replacement in the form of **iframe** tag.

Creating tables

In HTML, you can create tables for your website using the **<table>** tag in conjunction with the **<tr>**, **<td>** and **<th>** tags.

The HTML tables allow displaying the data (e.g. image, text, link) in columns and rows of cells. Table rows can be grouped into a **head**, **foot**, and **body** sections through the **<thead>**, **<tfoot>** and **<tbody>** elements, respectively.

It is possible to extend rows and columns of a table across many other rows and columns.

Commonly, a table cell cannot pass into the space, which is below or above another cell. But, if you want to span several rows or columns in a table, you can use the **colspan** or **rowspan** attributes.

You can use the **<caption>** element to specify a caption for tables. It should be placed immediately after the opening **<table>** tag. By default, the caption will be at the top of the table,

After creating an HTML table, you should add a border to it, as borders are not added by default.

```
<table border="1">
```

By default separate border gets added to cells and entire table. If 2 borders should be merged together to get a single line border :

```
<table border="1" style="border-collapse:collapse">
```

Important table attributes are :

border : This integer attribute defines, in pixels, the size of the frame surrounding the table. If it is set to 0, table will not have any border. It does not define the width.

cellpadding : This attribute defines the space between the content of a cell and its border

cellspacing : This attribute defines the size of the space between two cells in a percentage value or pixels

colspan : this attribute is used to make a cell span more than one columns

rowspan : this attribute is used to make a cell span more than one rows

Examples :

Examples :

```
<table border="1">
```

```
<tr>
```

```
<th>Person</th>
```

```
<th>Age</th>
```

```
</tr>
```

```
<tr>
```

```
<td>Ann</td>
```

```
<td>19</td>
```

```
</tr>
```

```
<tr>
```

```
<td>Susie</td>
```

```
<td>22</td>
```

```
</tr>
```

```
<table border="1" style="border-collapse:collapse">
```

```
<tr>
```

```
<th>Person</th>
```

```
<th>Age</th>
```

```
</tr>
```

```
<tr>
```

```
<td>Ann</td>
```

```
<td>19</td>
```

```
</tr>
```

```
<tr>
```

```
<td>Susie</td>
```

```
<td>22</td>
```

```
</tr>
```

```
</table>
```

displays table like :

Person	Age
Ann	19
Susie	22

displays table like :

Person	Age
Ann	19
Susie	22

```
<table border="1">
```

```
<tr>
```

```
<th>S No</th>
```

```
<th>Name</th>
```

```
<th>Email Id</th>
```

```
<th>Score</th>
```

```
</tr>
```

```
<tr>
```

```
<td>1</td>
```

```
<td>abc </td>
```

```
<td>abc@domain.com</td>
```

```
<td>88</td>
```

```
</tr>
```

```
<tr>
```

```
<td>2</td>
```

```
<td>xyz </td>
```

```
<td>xyz@domain.com</td>
```

```
<td>78</td>
```

```
</tr>
```

```
<tr>
```

```
<td colspan="3">Total</td>
```

```
<td>166</td>
```

```
</tr>
```

displays table like :

S No	Name	Email Id	Score
1	abc	abc@domain.com	88
2	xyz	xyz@domain.com	78
Total			166

```
<table border="1">
```

```
  <tr>
```

```
    <th>S No</th>
```

```
    <th>Name</th>
```

```
    <th>Class</th>
```

```
  </tr>
```

```
  <tr>
```

```
    <td>1</td>
```

```
    <td>abc</td>
```

```
    <td rowspan="2">9th</td>
```

```
  </tr>
```

```
  <tr>
```

```
    <td>2</td>
```

```
    <td>pqr</td>
```

```
  </tr>
```

```
  <tr>
```

```
    <td>3</td>
```

```
    <td>xyz</td>
```

```
    <td rowspan="2">7th</td>
```

```
  </tr>
```

```
  <tr>
```

```
    <td>4</td>
```

```
    <td>xyz</td>
```

```
  </tr>
```

```
  <tr>
```

```
    <td colspan="2">Total</td>
```

```
  </tr>
```

```
</table>
```

displays table like :

S No	Name	Class
1	abc	9th
2	jk	
3	pqr	
4	xyz	7th
Total		4

HTML Frames

The `<frame>` tag was used in HTML 4 to define one particular window (frame) within a `<frameset>`.

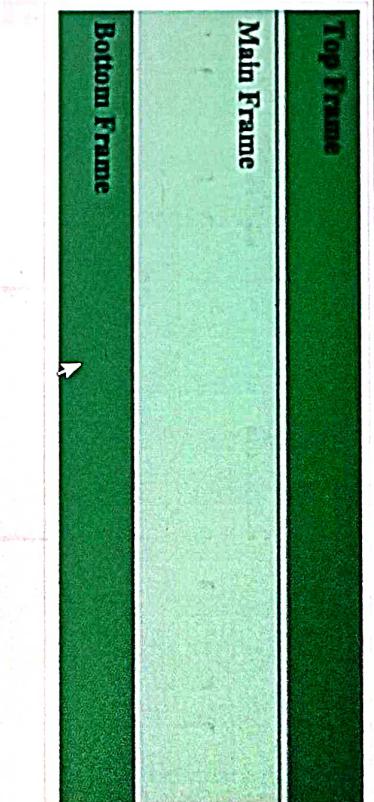
HTML frameset and frame elements were used to create page layouts in which certain content remained visible while other content was scrollable.

The Basic Idea Behind Frames

1. Use the `frameset` element in place of the `body` element in an HTML document.
2. Use the `frame` element to create frames for the content of the web page.
3. Use the `src` attribute to identify the resource that should be loaded inside each frame.
4. Create a different file with the contents for each frame.

```
<frameset rows="10%,80%,10%">
  <frame name="top" src="/html/top_frame.htm" />
  <frame name="main" src="/html/main_frame.htm" />
  <frame name="bottom" src="/html/bottom_frame.htm" />
</frameset>

<body>
  Your browser does not support frames.
</body>
</noframes>
```



Nested frames :

As the name indicate nested frame is frame with another frame. This can be nested in any level.

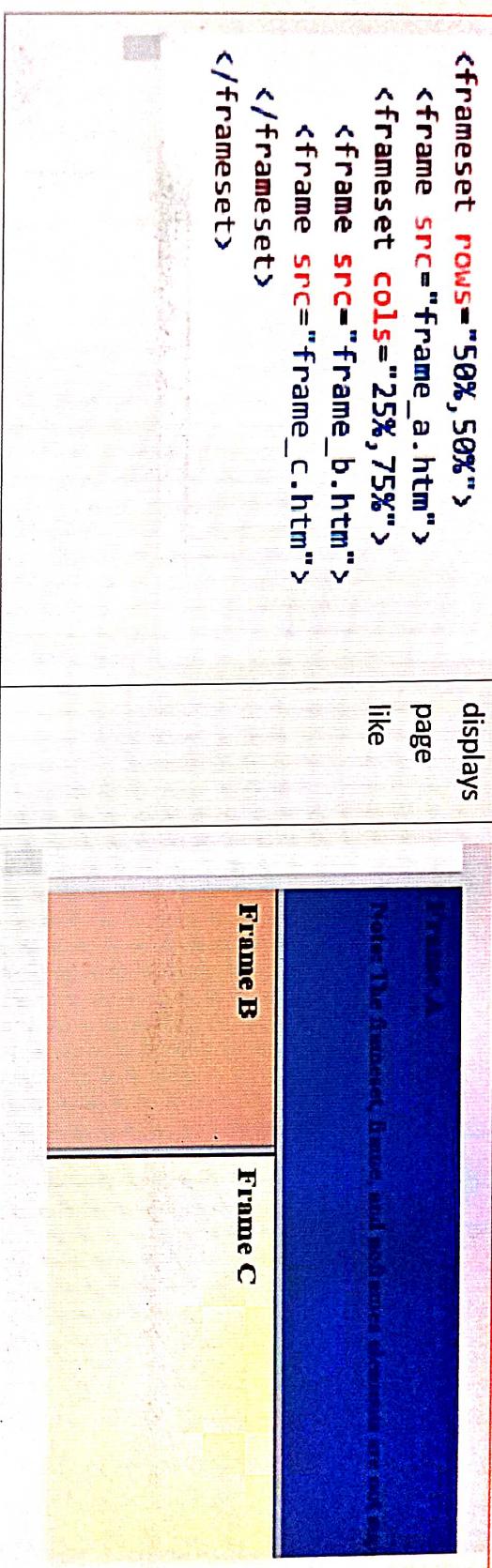
```
<frameset rows="50%, 50%">
  <frame src="frame_a.htm">
<frameset cols="25%, 75%">
  <frame src="frame_b.htm">
  <frame src="frame_c.htm">
</frameset>
</frameset>
```

Nested frames :

As the name indicate nested frame is frame with another frame. This can be nested in any level.

```
<frameset rows="50%,50%">
<frame src="frame_a.htm">
<frameset cols="25%,75%">
<frame src="frame_b.htm">
<frame src="frame_c.htm">
</frameset>
```

displays
page
like



Displaying content in adjacent frame :

The frame may become the destination display window for a hypertext-linked document selected within a document displayed in some other frame. This can be done by adding the special target attribute to the anchor that references the document. 'target' attribute can take following values.

Value	Description
_blank	Opens the linked document in a new window or tab
_self	Opens the linked document in the same frame as it was clicked (this is default)
_parent	Opens the linked document in the parent frame
_top	Opens the linked document in the full body of the window
framename	Opens the linked document in a named frame

parent Opens the linked document in the parent frame

top Opens the linked document in the full body of the window

framename Opens the linked document in a named frame

Need of iframe

There are some disadvantages of using frames.

- Most (if not all) search engines are unable to index frames-based websites properly.
- Because frames are made up of multiple pages, only one frame is indexed at a time.
- HTML pages displayed in frames can not be bookmarked Some browsers may not support frames
- HTML5 does not support frames
- Frameset can not have their own content as body tag is removed from frameset.

Because of these disadvantages, frames are removed from HTML 5 and have been replaced by iframes. Iframes means inlined frames which can be shown in the existing content of web page. Frames always need a parent as frameset but iframe does not need any specific parent.

1. You can define an inline frame with HTML tag <iframe>. The <iframe> tag is not somehow related to <frameset> tag, instead, it can appear anywhere in your document.
2. The <iframe> tag defines a rectangular region within the document in which the browser can display a separate document, including scrollbars and borders.
3. An inline frame is used to embed another document within the current HTML document.
4. The src attribute is used to specify the URL of the document that occupies the inline frame.

```
<!DOCTYPE html>
<html>
<head>
<title>HTML Iframes</title>
</head>
```

Need of iframe

There are some disadvantages of using frames.

- Most (if not all) search engines are unable to index frames-based websites properly.
- Because frames are made up of multiple pages, only one frame is indexed at a time.
- HTML pages displayed in frames can not be bookmarked Some browsers may not support frames
- HTML5 does not support frames
- Frameset can not have their own content as body tag is removed from frameset.
- Because of these disadvantages, frames are removed from HTML 5 and have been replaced by iframes. Iframes means inlined frames which can be shown in the existing content of web page. Frames always need a parent as frameset but iframe does not need any specific parent.

1. You can define an inline frame with HTML tag <iframe>. The <iframe> tag is not somehow related to <frameset> tag, instead, it can appear anywhere in your document.
2. The <iframe> tag defines a rectangular region within the document in which the browser can display a separate document, including scrollbars and borders.
3. An inline frame is used to embed another document within the current HTML document.
4. The src attribute is used to specify the URL of the document that occupies the inline frame.

```
<!DOCTYPE html>
<html>
<head>
<title>HTML Iframes</title>
</head>
<body>
<p>Document content goes here...</p>
<iframe src = "mypage.html" width = "555" height = "200">
    Sorry your browser does not support inline frames.
</iframe>
<p>Document content also go here...</p>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<head>
<title>HTML Iframes</title>
</head>
<body>
<p>Document content goes here...</p>
<iframe src = "mypage.html" width = "555" height = "200">
    Sorry your browser does not support inline frames.
</iframe>
<p>Document content also go here...</p>
</body>
</html>
```

Assignments

1. Create numbered list of all the modules in your course
2. Create descriptive list of all the submodules in web programming module
3. Create a table as below

red	
blue	
green	
orange	

4. Create a web page with following layout

	Monday	Tuesday	Wednesday	Thursday	Friday
1.00					
1.30	Office		Office		Office
2.00		Dept Meeting			
2.30	MAT 108		Office		MAT 108

3. Create a table as below

red	
blue	
green	
orange	

4. Create a web page with following layout

	Monday	Tuesday	Wednesday	Thursday	Friday
1:00					
1:30	Office		Office		Office
2:00		Dept Meeting			
2:30	MAT 108		MAT 108		
3:00				Office Hours by Appt	MAT 108
3:30		ECC Meeting			
4:00	CSC 205		CSC 205		CSC 205
4:30					

5. Create a web page with different types of lists displayed in tabular form

Sports:	Fruits:	Players:
<ul style="list-style-type: none"> • Football • Basketball • Cricket 	<ul style="list-style-type: none"> - Banana - Apple - Grapes 	<ul style="list-style-type: none"> <input type="radio"/> Batsman <input type="radio"/> Bowler <input type="radio"/> Fielder <input type="radio"/> Wicket keeper
Subjects:	Topics:	Employees:
<ol style="list-style-type: none"> 1. C Programming 2. OOP 3. Data Structures 	<ol style="list-style-type: none"> I. Selection Statement II. Control Structures III. Functions 	<ol style="list-style-type: none"> a. Programmer b. Admin c. Sales Manager

Web Development

Web development is a broad term for the work involved in developing a web site for the Internet (World Wide Web) or an intranet (a private network). This can include web design, web content development, client liaison, client-side/server-side scripting, web server and network security configuration, and e-commerce development. However, among web professionals, "web development" usually refers to the main non-design aspects of building

green
orange

4. Create a web page with following layout

	Monday	Tuesday	Wednesday	Thursday	Friday
1:00	Office		Office		Office
1:30		Dept Meeting			
2:00			MAT 108		
2:30				MAT 108	
3:00					Office Hours by Appx
3:30		EC Meeting		CSC 205	
4:00	CSC 205				CSC 205
4:30					

5. Create a web page with different types of lists displayed in tabular form

Sports:	<ul style="list-style-type: none"> • Football • Base ball • Cricket 	Fruits:	<ul style="list-style-type: none"> - Banana - Apple - Grapes 	Players	<ul style="list-style-type: none"> ○ Batsman ○ Bowler ○ Fielder ○ Wicket Keeper
Subjects:		Topics:	<ol style="list-style-type: none"> I. Selection Statement II. Control Structures III. Functions 	Employees:	<ol style="list-style-type: none"> a. programmer b. Admin c. Sales Manager
1. C Programming					
2. OOP					
3. Data Structures					

Web Development

Web development is a broad term for the work involved in developing a website for the Internet (World Wide Web) or an intranet (a private network). This can include web design, web content development, client liaison, client-side/server-side scripting, web server and network security configuration, and e-commerce development. However, among web professionals, "web development" usually refers to the main non-design aspects of building websites: writing markup and coding. Web development can range from developing the simplest static single page or plain text to the most complex web based internet applications, electronic businesses, or social network services.

6. Use iframe to display contents of another page in a web page. Give border to ifar