



## Chapter 3

# Tables

### Learning Objectives

By the end of this chapter, learner will be able to:

- Describes the various uses of the TABLE tag and its sub elements in HTML.
- Recognize the different attributes of each tag for each of the TABLE elements.
- Use the TABLE and its sub elements to create web layout.
- Given a design use appropriate tabs from the TABLE group.
- Use Frames in the HTML page to divide the browser into different sections.
- Display data in a tabular form using table tag.

### INTRODUCTION

The data on the webpage can be represented in tabular form. In HTML the format can be defined using <TABLE > tag.

The <TABLE > tag arranges the data items on the web page in rows and columns. The *basic* syntax of table tag along with the attributes is given as under:

The TABLE Element (<TABLE >) represents data in two or more dimensions.

```
<body>
<TABLE border = "number"
        align= "left/right/center"
        width= "number%"
        bgcolor= "NameOfColor"
        background= "addressOfTheFile"
        bordercolor= "#hexadecimalNumberOfColour">
<TR>
        <TD> text 1</TD>
        <TD> text 2</TD>
</TR>
</TABLE>
</body>
```

## 1. STRUCTURE OF <TABLE> TAG

The structure of table is formed using the Table tag.

The rows of the table are formed using the TR tag.

The data in the cells of the rows are inserted using either the TH tag or the TD tag. The TH tag encloses the Header object and makes the data boldface and center aligned. The TD keeps the data in regular font and left aligned by default. The TH and TD tags are nested inside the TR tag and the TR tag in turn is nested within the TABLE tag.

### 1.1. The attributes of table tag are discussed below one by one

#### 1.1.1. Border

This attribute is used to insert the lines on four sides of the table. The inside lines shows the rows and columns of the table and the outside lines displays the dimensions of the table. This attribute takes the value as a number starting from 1 to any number. The value one displays one pixel line on inside and outside of the table. However, the value larger than one only thickens the outer lines (giving a 3D effect) leaving the inside lines to one pixel point. When this attribute is omitted, neither inside nor outside lines are visible. Let us take the 3 cases one by one:

**Case 1.1:** The border attribute takes the value one, results in both inside and outside border.

In the above code, the attribute “border” takes the value as one. This displays both the inside and outside border of one point. The table row is formed using <TR> tag and the <TD> tag helps in inserting the text – “thin bordered cell” in the cells of the rows and columns of the table. The code produces the output in figure 1.

```
<HTML>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE border = 1>
    <TR>
        <TD> thin bordered cell 1</TD>
        <TD> thin bordered cell 2</TD>
    </TR>
    <TR>
```

```

<TD> thin bordered cell 3</TD>
        <TD> thin bordered cell 4</TD>
    </TR>
</TABLE>
</BODY>
</HTML>

```

Output produced by the above HTML code:

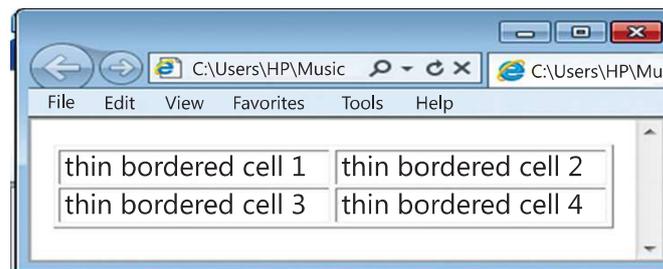


Figure 1

**Case 1.2:** If the value is taken to be as high as 40, the outer border width changes.

The table tag uses the border attribute with the value 40. This increases the length and the height of the entire table. The outside border thickens, giving the table a 3D effect. The <TR> tag defines the rows of the table and the <TD> tag is used to insert “thick bordered cell” in each of the cells of the two rows as shown in the output figure 2.

```

<HMTL>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE border = 40>
    <TR>
        <TD> thick bordered cell 1</TD>
        <TD> thick bordered cell 2</TD>
    </TR>
    <TR>
        <TD> thick bordered cell 3</TD>
        <TD> thick bordered cell 4</TD>
    </TR>
</TABLE>
</BODY>
</HTML>

```

Output produced by the above HTML code:

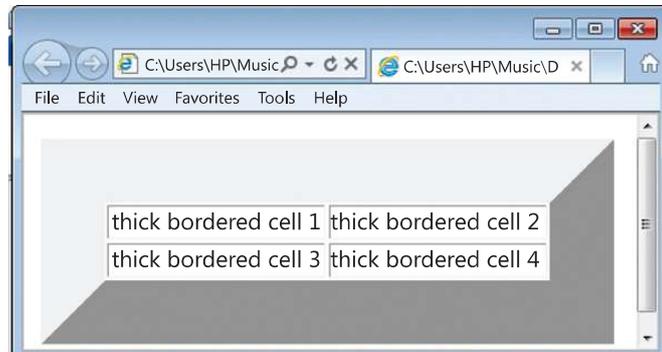


Figure 2

**Case 1.3:** If the border attribute is omitted:

The output from the above code is shown in figure 3. The table is shown without the inside and outside border. Also, note in the output that the data in the first row is bolder than that in the second row. This is due to the use of `<TH>` element in the first row and `<TD>` in the second row. The `<TH>` tag is meant to prepare the header of the table. Since the text of header is bolder than the rest of the text, it makes the text bold but keeps the font size similar to the rest of the text.

```
<HMTL>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE >
    <TR>
        <TH> no border cell 1</TH>
        <TH> no border cell 2</TH>
    </TR>
    <TR>
        <TD> no border cell 3</TD>
        <TD> no border cell 4</TD>
    </TR>
</TABLE>
</BODY>
</HTML>
```

The output from the above code is shown in figure 3. The table is shown without the inside and outside border. Also, note in the output that the data in the first row is bolder

than that in the second row. This is due to the use of <TH> element in the first row and <TD> in the second row. The <TH> tag is meant to prepare the header of the table. Since the text of header is bolder than the rest of the text, it makes the text bold but keeps the font size similar to the rest of the text.

Output produced by the above HTML code:

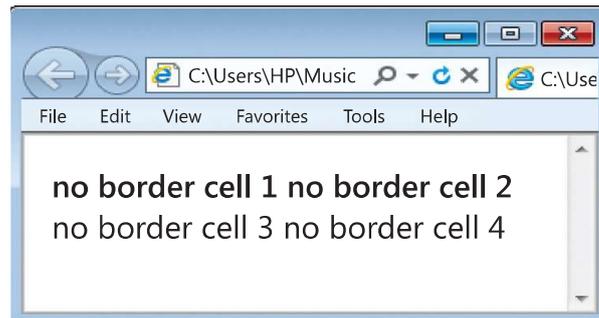


Figure 3

### 1.1.2. Align

The align attribute helps in placing the table on the webpage. If you want to place it in the center of the webpage, use the “center” value, for right side use “right” and for the left side of the web page, the value “left”. If you omit this attribute in the <TABLE > tag, the table will be placed at its default position which is usually “left”.

**Case 2.1:** The following code assigns the value “center” to the align attribute.

```
<HTML>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE Border = 1 Align="Center">
  <TR>
    <TD> center aligned1</TD>
    <TD> center aligned2</TD>
  </TR>
  <TR>
    <TD> center aligned3</TD>
    <TD> center aligned4</TD>
  </TR>
</TABLE>
</BODY>
</HTML>
```

The output from the above code positions the table in the center of the web page as below:

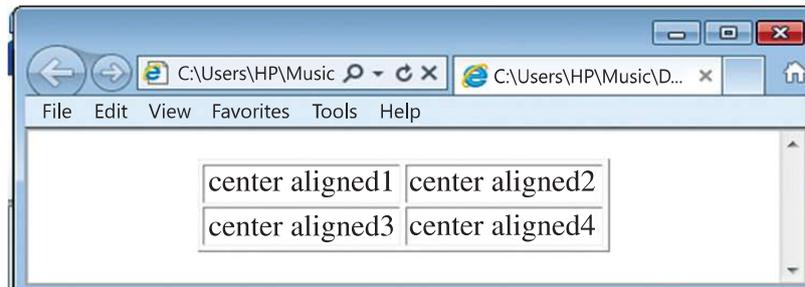


Figure 4

### 1.1.3. Width

The width attribute helps in identifying the breadth of the table in comparison to the webpage. It accepts the value as a number (in pixels) or in percentage (in proportion to the width of the webpage). If you omit this attribute, the width of the table is set according to the length of the characters inside the cells.

**Case 3.1:** Where, the width of the table is set to 30% of the web page's width.

```
<HTML>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE border=1 width = 30%>
  <TR>
    <TH> width of table 30% </TH>
    <TH> of width of the window </TH>
  </TR>
  <TR>
    <TD> if the size of window is small </TD>
    <TD> the width of table will be 30% of small size</TD>
  </TR>
</TABLE>
</BODY>
</HTML>
```

The above code displays the breadth of the table to be 30% of the width of the webpage as shown below:

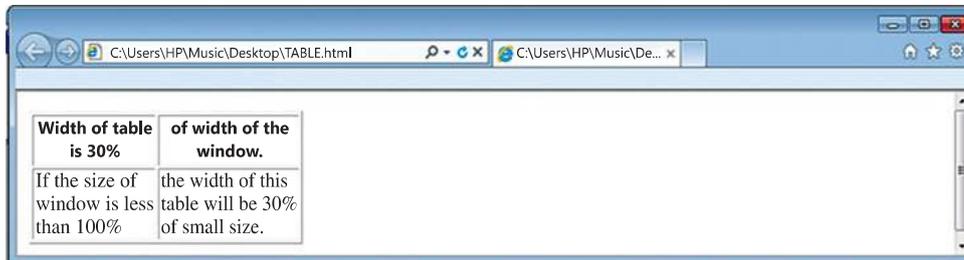


Figure 5

**Case 3.2:** Where, the width of the table is set to 100% of the web page's width.

```
<HTML>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE border=1 width = 100%>
  <TR>
    <TH>100% width of the table - cell 1</TH>
    <TH>100% width of the table - cell 2</TH>
  </TR>
  <TR>
    <TD> cell 3</TD>
    <TD> cell 4</TD>
  </TR>
</TABLE>
</BODY>
</HTML>
```

The code above displays the table with the breadth equal to the breadth of the webpage as shown in the figure 6. The table occupies 100% of the width of the web page.

Output produced by the above HTML code:

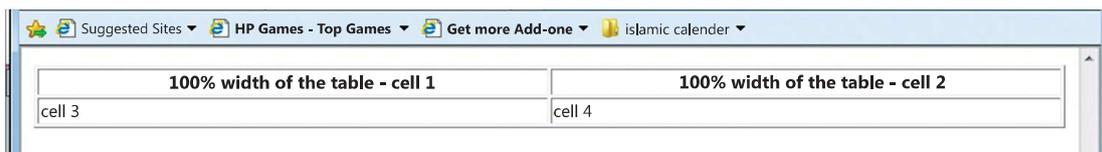


Figure 6

#### 1.1.4. Border color

The colour of the lines inside and outside the table can also be changed using the “Border Color” attribute. It accepts the value as name of the colour. If you omit this attribute, the colour of the table border is set to its default grey.

**Case 4.1:** Let us set the lines of table as red in the following code:

```
<HTML>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE border=10 border color=red>
  <TR>
    <TD>border line thickness is set to 10</TD>
    <TD>border colour is red</TD>
  </TR>
  <TR>
    <TD>red as tomato</TD>
    <TD>red as apple</TD>
  </TR>
</TABLE>
</BODY>
</HTML>
```

The Microsoft Internet Explorer displays the output in figure 7. The table is shown with red coloured border lines on both inside and outside the table. The outside line gets its thickness from the border attribute which has the value equal to 10. This means the width of the outside border is 10 pixels wide.

Output produced by the above HTML code:

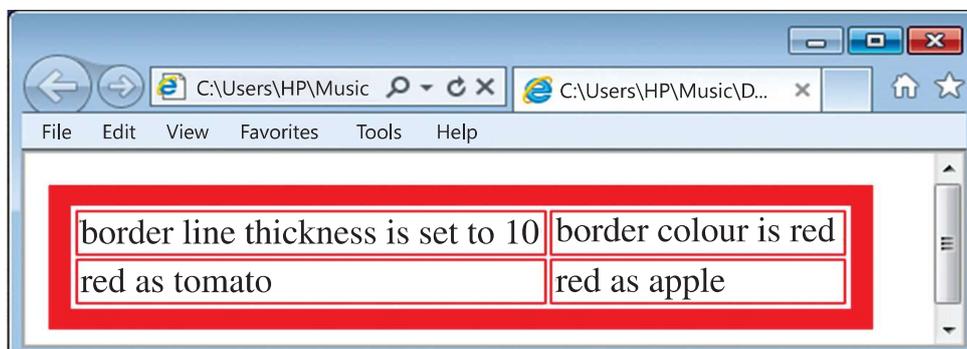


Figure 7

### 1.1.5. Bgcolor

The background color of a table can be set using the attribute bgcolor. This attribute takes the name of the colour or hexadecimal number as value.

#### Case 5.1:

```
<HTML>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE border =1 bgcolor= pink>
  <TR>
    <TH>border line point 1</TH>
    <TH> pink as lily </TH>
  </TR>
  <TR>
    <TD> background colour of the table is pink </TD>
    <TD>&nbsp;</TD>
  </TR>
</TABLE>
</BODY>
</HTML>
```

The above code gives a background colour to the table. Here the background is set to the colour pink as shown in figure 8. The breadth of the table is set according to the contents in the cells of the table. The last cell is formed and is empty because one character space is assigned to this cell using the special character &nbsp; The special character provides the result only when used in lowercase.

**Note:** If you want to set individual cells of the table with different background colour, the attribute bgcolor can be used with either <TH> tag or <TD> tag.

Output produced by the above HTML code:

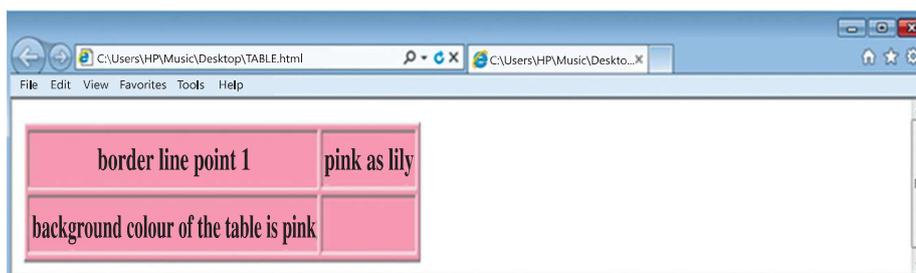


Figure 8

### 1.1.6. Background

If you want to place an image or a picture at the background of the table, you can do so using the background attribute. This attribute takes the value as the address or the path of the picture. The picture may be a bitmap or a graphic image. In the following code, the image named “yelloww.jpg” is set as background to the entire table.

```
<HMTL>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE border =”1” background=”c:\yelloww.jpg”>
  <TR>
    <TH>lily</TH>
    <TH>rose</TH>
    <TH>lotus</TH>
  </TR>
  <TR>
    <TD>white, yellow</TD>
    <TD>white, yellow</TD>
    <TD>white, pink</TD>
  </TR>
</TABLE>
</BODY>
</HTML>
```

The above code displays the output in figure 9. The background of the entire table is set to the image named yelloww.jpg.

Output produced by the above HTML code:

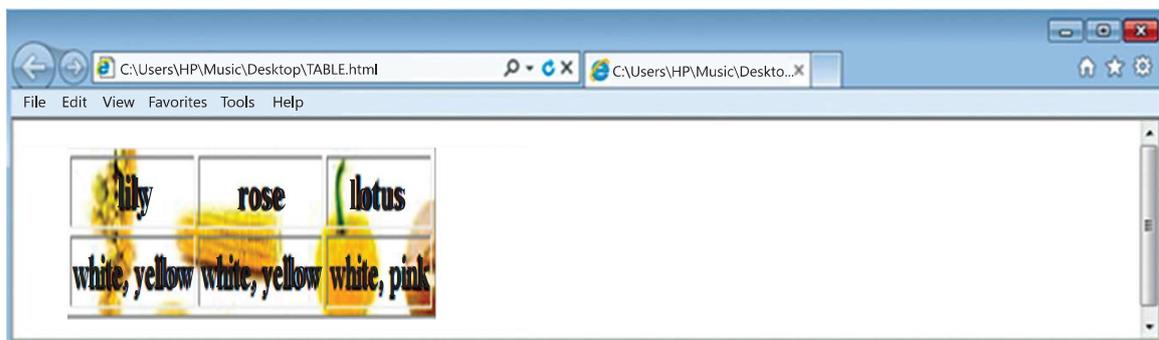


Figure 9

**Note:** The image can set to individual cells as well by using the background attribute in the <TH> and <TD> tag.

## 2. THE TH OR TD ELEMENT

The TH element or <TH> tag helps in identifying a table header. Correspondingly, TD element or <TD> tag identifies the table data cell. The text inserted using the TH element is in boldface and centred by default. Compared to this, TD element or the <td> tag is aligned to the left and the text is in regular font. The attributes used with <TD> or <TH> tag are: Align, Colspan, No wrap, Rowspan, Valign.

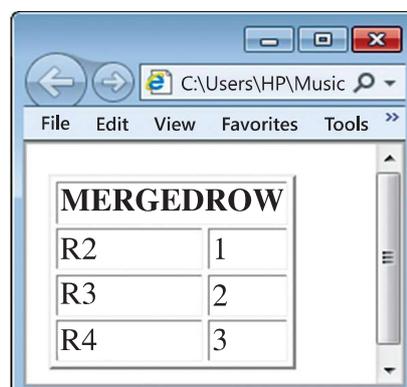
The align attribute is similar to that of table, except that it align the text inside the cell rather than the table. Valign takes the value top, middle, bottom to vertically align the text inside a cell.

The Nowrap attribute does not allow the text to flow to the next line in the cell. If the sentence is wider than the width of the cell, nowrap will show the sentence in one straight line. Let us now discuss colspan and rowspan.

### 3.1. COLSPAN

The colspan attribute helps in merging the columns of a row. This attribute is not used with table tag but with the <TH> or the <TD> tag.

**Case Colspan:** If you want to prepare the table where there are 4 rows and the all the other rows except the first row are divided into two columns. In other words, the two columns of the first row are merged into a row, use the following code:



The screenshot shows a web browser window with the address bar set to C:\Users\HP\Music. The browser's menu bar includes File, Edit, View, Favorites, and Tools. The main content area displays a table with the following structure:

MERGEDROW	
R2	1
R3	2
R4	3

Figure 10

```

<HTML>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE border=2>
  <TR>
    <TH colspan=2>MERGEDROW</TH>
  </TR>
  <TR>
    <TD>R2</TD>
    <TD>1</TD>
  </TR>
  <TR>
    <TD> R3</TD>
    <TD>2</TD>
  </TR>
  <TR>
    <TD>R4</TD>
    <TD>3</TD>
  </TR>
</TABLE>
</BODY>
</HTML>

```

**Case No Colspan:** If the row in the example above does not span across three columns, the code will be:

```

<HTML>
<HEAD><TITLE> </TITLE></HEAD>
<BODY>
<TABLE border=2>
  <TR>
    <TH>MERGEDROW</TH>
  </TR>
  <TR>
    <TD>R2</TD>
    <TD>1</TD>
  </TR>
  <TR>

```

```

        <TD>R3</TD>
        <TD>2</TD>
    </TR><TR>
        <TD>R4</TD>
        <TD>3</TD>
    </TR>
</TABLE>
</BODY>
</HTML>

```

This code produces the result shown in figure 11. The table shows the empty cells, also referred to as Ghost Cells. These empty cells do not give proper presentation to the table and its contents. To display a header row followed by two columns at the bottom, colspan is the only option.

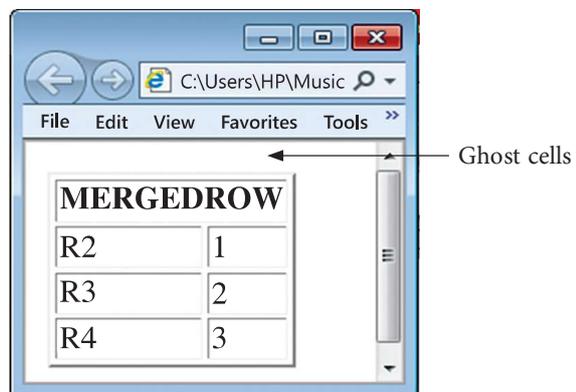


Figure 11

### 3.2. ROWSPAN

When the table's cells spans across more than one row, it is called ROWSPAN. If we want to give the table a nice sidebar, this attribute is used. The rowspan appears as merged cells. We use this attributes in the <TH> or <TD> tags. We have to assign a number for how many rows we wish to span downwards.

**Case Rowspan:** Taking the similar example as above, we have the following code:

```

<TABLE border=1>
    <TR>
        <td rowspan=2> MERGEDCOLUMN </TD>
        <TD>Col2Row1 </TD>
    </TR>
    <TR>
        <TD>Col2Row2</TD>
    </TR>
</TABLE>

```

The code here produces the output in figure 12. The output displays how rowspan merges the two rows into one to form a sidebar. In other words, this sidebar acts as a single row that gets divided into two rows in the next column of the table.

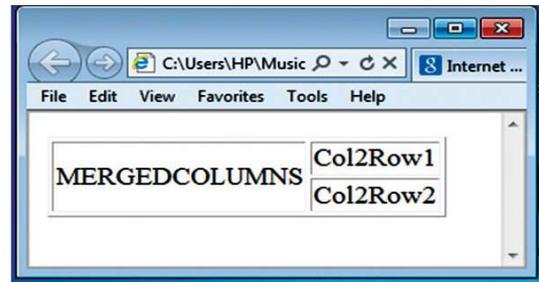


Figure 12

**Case NoRowspan:** In case you don't wish to use rowspan, then you might end up creating a ghost cell as shown by the following code:

```
<TABLE border=1>
<TR>   <TD> Col1Row1</TD>
        <TD>Col2Row1 </TD>
</TR>
<TR>   <TD>Col1Row2</TD>
</TR>
</TABLE>
```

The above code produces the output in figure 13:

The table does not give the clear picture as to whether the ghost cell be used for some purpose, whether the last be merged into the cell above it or cell on its left. In order to get rid of such question and to better present data, we make use of the attribute provided by HTML called **Rowspan**.

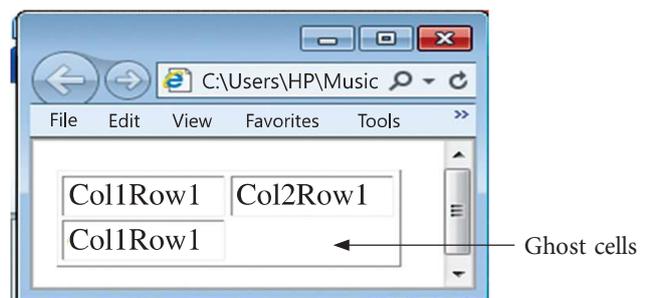


Figure 13

### 3. THE CAPTION TAG

The <caption> tag is used to provide a text to the table so as to explain the contents of the table. It is generally in bold, at center with respect to the table. However, the position of the caption can be on either the top or the bottom of the table using the 'align' attribute as shown below:

```

TABLE BORDER = 1>
<CAPTION align=bottom>Table with caption</CAPTION>
<TR>
    <TH> coordinates 1, 1 </TH>
    <TH> 1, 2</TH>
</TR>
<TR>
    <TD> 2, 1</TD>
    <TD> coordinates 2, 2</TD>
</TR>
</TABLE>

```

Figure 14 displays the result of the code. The bottom of the table is captioned with “Table with caption”.

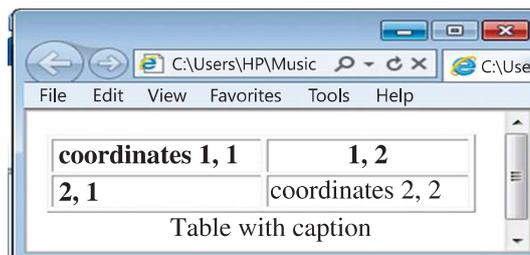


Figure 14

Let us quickly revise the list of attributes used with TABLE, TH, TD elements, before moving on to the next section on frames. The following table displays a list of function, tags, attributes and values associated with <TABLE >, <TH> and <TD> element.

S.No.	Description	Tags and Attributes	Values
1.	Define Table	<TABLE ></TABLE>	
2.	Table Border	<TABLE BORDER=?> </TABLE>	
3.	Desired Width	<TABLE WIDTH=?>	(in pixels)
4.	Width Percent	<TABLE WIDTH="%">	(percentage of page)
5.	Table Row	<TR></TR>	
6.	Alignment	<TR ALIGN=LEFT RIGHT  CENTER MIDDLE BOTTOM>	
7.	Table Cell	<TD></TD>	(must appear within table rows)

8.	Table Header	<TH></TH>	(same as data, except bold & centered)
9.	Alignment	<TH or TD ALIGN=LEFT RIGHT  CENTER MIDDLE BOTTOM>	
10.	No Linebreaks	<TH or TD NOWRAP>	
11.	Desired Width	<TH or TD WIDTH=?>	(in pixels)
12.	Width Percent	<TH or TD WIDTH="%">	(percentage of table)
13.	Cell Color	<TH or TD BGCOLOR="#\$\$\$\$\$">	
14.	Columns to Span	<TH or TD COLSPAN=?>	
15.	Rows to Span	<TH or TD ROWSPAN=?>	
16.	Table Caption	<CAPTION></CAPTION>	
17.	Alignment	<CAPTION ALIGN=TOP BOTTOM>	(above/below table)

#### 4. FRAMES

A frame divides the screen into separate windows with both vertical and horizontal scroll bars. The windows so formed may appear to be sub-windows of the main window (the webpage). This allows the user to access different pages of a website from one screen if designed to do so. Frames are needed when you want to have menus on one side and the contents or the operations on the other side. When the user clicks on one of the menu items, the contents become visible on the other side.

A frame divides the webpage into different windows. It makes some structural changes to the main window. Hence, it is not written inside the body element, but it forms its own element, outside the head section of HTML document called the FRAMESET. A FRAMESET element is the parent element that defines the characteristics of individual frame pages. The basic *syntax* of FRAMESET element is:

```
<html>
<head> ... </head>
<FRAMESET cols= "number%,number%"
<frame src = "address of HTML document">
<frame src = "address of HTML document">
</FRAMESET>
</html>
```

The attributes used with the FRAMESET element are given in the table below:

Attributes	Value accepted	Description
Rows	Number in percentage or star (*) indicating the rest of the window	Divides the main window horizontally in proportion to main window
Cols	Number in percentage or star (*) indicating the rest of the window	Divides the main window vertically in proportion to main window
Border	Number	Increases the width of the outer border.
Frame border	Number	Used with netscape navigator to surround the sub-window with a border. If value is set to zero, no outer lines appear around the frame.
Frame spacing	Number	If set to zero, it removes the ugly grey lines appearing between the two frames, otherwise it increases the width of the grey line.

The FRAMESET element works in conjunction with the FRAME tag whose attributes are discussed below:

S No	Attributes	Value	Description
1	src (mandatory attribute)	Address of the HTML document	To load the HTML webpage in the frame defined by FRAMESET element
2	scrolling	Yes/Auto/No	<b>Yes</b> will insert both the scrolls irrespective of the size of the sub-window. <b>Auto</b> will insert the scrolls only when the contents of the sub-window are not visible <b>No</b> will not insert any scrolls even when all the contents are not visible.
3	Noresize	Noresize	when used this attribute does not allow the user to adjust the size of the frame in the webpage.
4.	Name	A noun	Assign a name to the frame
	Target	The noun of name attribute	This attribute specifies the name of a frame where a document is to be opened.

If you want to make a webpage that uses two frames divided in columns, you should follow these steps:

1. Create an HTML document with the FRAMESET element as shown below.

```
<FRAMESET cols="120,*">
<frame src="menu.html" name="menu">
<frame src="main.html" name="main">
</FRAMESET>
```

In the above code, the left side of the column is 120 pixels and the Star indicates the rest of the screen. A star has been used because the screen size varies; it may be 640 pixels across, or 800 or 1024 pixels across. The 'src' attribute opens the menu.html document in left side frame and main.html gets opened in right side frame. Both the frames are given a name through the 'name' attribute. The names are used by navigational frame which has been discussed later in the chapter.

2. Create a number of HTML documents (containing the body tag) that you would like to load into the frames. (Atleast as many as the frames that are there in the FRAMESET element of step 1 here you need to have two documents; menu.html and main.html)
3. When a FRAMESET page is loaded, the browser automatically loads the HTML documents designed in step2 as requested by each of the FRAME tag within the FRAMESET.

The rest of the chapter discusses the different types of frames that you can design.

#### **For example 1:**

If you want to divide the webpage in equal sizes horizontally, and want to display a.html in first and b.html in second, you will use the following code:

```
<html>
<head>...</head>
<FRAMESET rows= "50%,50%">
<frame src = "a.html">
<frame src = "b.html">
</FRAMESET>
</html>
```

### For example 2:

If you want to divide the webpage in the form of a “T”, where there are two horizontal sub-windows and the second sub-window (frame) is again divided into two columns, you can use the following code:

```
<html><head>...</head>
<FRAMESET rows="20%,*">
<frame src="a.html">
<FRAMESET cols="30%,*">
<frame src="b.html">
<frame src="c.html">
</FRAMESET>
</FRAMESET>
</html>
```

### For example 3:

If you want to divide the webpage in the form of an “inverted T”, where there are two horizontal frames and the first frame is again divided into two columns, you can use the following code:

```
<FRAMESET rows="16%,84%">
<FRAMESET cols="50%,50%">
<frame src="a.html" name="topleft">
<frame src="b.html" name="topright">
</FRAMESET>
<frame src="secondrow.html" name="2row">
</FRAMESET>
```

The first FRAMESET divides the screen into two rows. Now since the control has come to the first row of the new screen, the second FRAMESET can divide it into two columns, open the two HTML documents, a.html and b.html, give them a name and then move the control to the second row of the new screen. Since now the control is on the second screen, SRC can now open secondrow.html as shown in figure 15.

Output produced by the above HTML code:

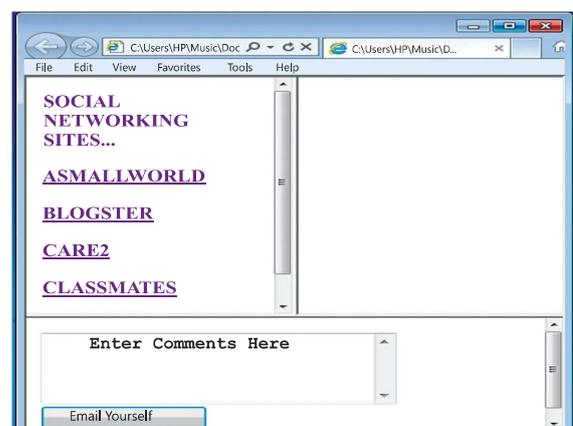


Figure 15

#### For example 4:

If you do not want to show the grey border dividing the frames and there is 50 pixels space between the two frames, you can use the following code. The output of this code is given below:

```
<html
<head>
</head>
<FRAMESET cols="120,*" frameborder=0 framespacing=50>
    <frame src ="a.html">
    <frame src ="formbutton.html">
</FRAMESET>
</html>
```

Output produced by the above HTML code:

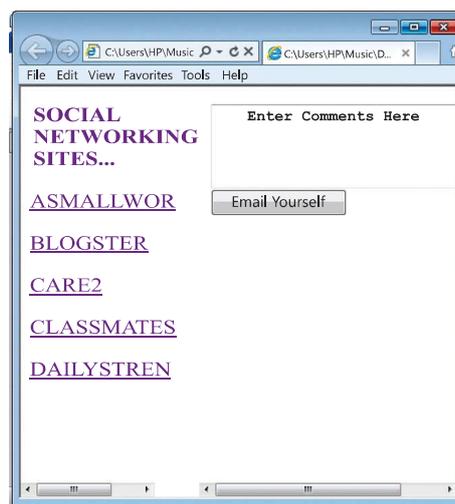


Figure 16

#### For example 5:

If you want to insert scrolls in the frames when the contents of the frame are not visible, use the value “auto” as shown below:

```
<html
<head>
</head>
<FRAMESET cols="120,*" frameborder=0 framespacing=50>
    <frame src ="a.html" scrolling=auto>
    <frame src ="formbutton.html" scrolling=no>
</FRAMESET>
</html>
```

The difference between example 4 and example 5 is that the latter does not show horizontal scroll bars in the right side frame

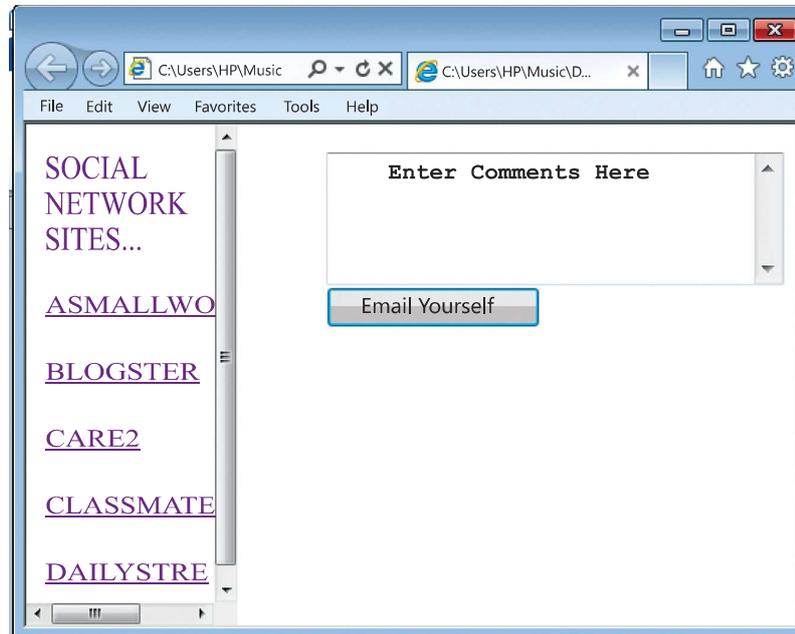


Figure 17

#### For example 6:

If you do not want the user to adjust the frame size in the webpage, use `noresize` attribute. Since it takes the value "noresize", you can omit the value and simply write the attribute as shown below:

```
<html>
<head>...</head>
<FRAMESET cols= "120,*" frameborder= "0" framespacing = "0">
<frame src = "a.html" scrolling= no noresize>
<frame src = "b.html" scrolling = auto noresize>
</FRAMESET>
</html>
```

#### For example 7: Jumping from one section to another

If you want to navigate from one section to another in a frame then you may have to name each section using anchor tag and use the name (S12) in `src` attribute of the `<frame>` tag as shown below. Notice that the name of the HTML document is followed by hash symbol (#). This symbol separates the name of the HTML file and the section within it.

```
<html>
<head>...</head>
<FRAMESET cols= "120,*">
<frame src = "a.html">
<frame src = "Jump.html#S12">
</FRAMESET>
</html>
```

Further, the HTML document named “jump.html” should contain a section with the name S12. To implement this, we prepare the body of “jump.html” as under:

```
<html>
<head> ... </head>
<body>
<a name = "S1"> </a>
<h1> Section 1 </h1> This is section 1.
<h1> Section 2 </h1> This is section 2.
<h1> Section 3 </h1> This is section 3.
<h1> Section 4 </h1> This is section 4.
<h1> Section 5 </h1> This is section 5.
<h1> Section 6 </h1> This is section 6.
<h1> Section 7 </h1> This is section 7.
<h1> Section 8 </h1> This is section 8.
<h1> Section 9 </h1> This is section 9.
<h1> Section 10 </h1> This is section 10.
<h1> Section 11 </h1> This is section 11.
<a name = "S12"> </a>
<h1> Section 12 </h1> This is section 12.
<h1> Section 13 </h1> This is section 13.
<h1> Section 14 </h1> This is section 14.
<h1> Section 15 </h1> This is section 15.
</body>
</html>
```

Now when the first code is executed, it calls the HTML document i.e. jump.html. The section number S12 of jump.html becomes visible the moment it gets loaded in the second frame.

### For example 8: Navigational frame

If you want to show the menu items as links on the first frame and display the content of the click on the second frame, you need to prepare a navigational frame.

First divide the webpage into frames as done earlier. Also give a name to each frame as shown below. Save this file as **b.html**.

```
<html>
<head>...</head>
<FRAMESET cols="30%,*">
    <frame src ="a.html" name="menu">
    <frame src ="b.html" name="content">
</FRAMESET>
</html>
```

Secondly, prepare **a.html** using the HTML code given below:

```
<html>
<head></head>
<body>
    <font face="Felix Titling" size="4" color="purple">
    Social Networking Sites...
    <a href= "http://www.asmallworld.net/" target= "content">
        <h4> ASmallWorld</h4></a>
    <a href= "http://www.blogster.com/" target= "content">
        <h4>Blogster</h4></a>
    <a href= "http://www.care2.com/" target= "content"> <h4>Care2</h4></a>
    <a href= "http://www.classmates.com/" target= "content">
        <h4>Classmates</h4></a>
    <a href= "http://www.dailystrength.org/" target= "content">
        <h4>DailyStrength</h4></a>
</font>
</body>
</html>
```

The output window of a.html is shown in figure 18

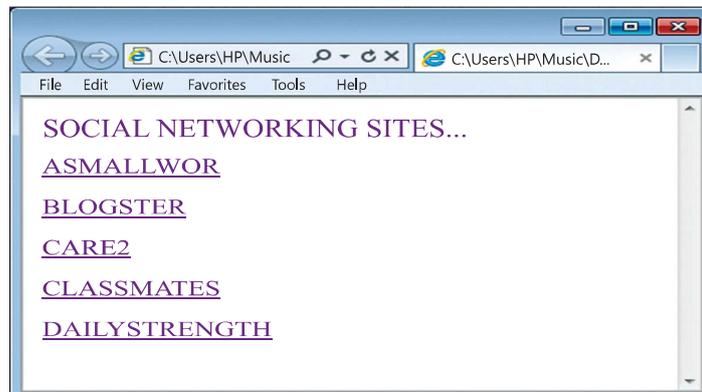


Figure 18

When a user clicks on one of the social networking sites like A Small World or the Class Mates, the webpage will get opened in the second frame on the right hand side of b.html. It is this frame whose name is “content” and which is being called by **target** attribute in **anchor** tag in a.html.

The figure 19 shows a navigational frame, which means that you can navigate from one social networking site to another without changing the webpage or moving from one window to another. By remaining in the existing window, you can switch from one site to another, i.e. you can navigate from one social networking site to another. Just run the HTML document (b.html), see the output in figure 19 and enjoy the fun...

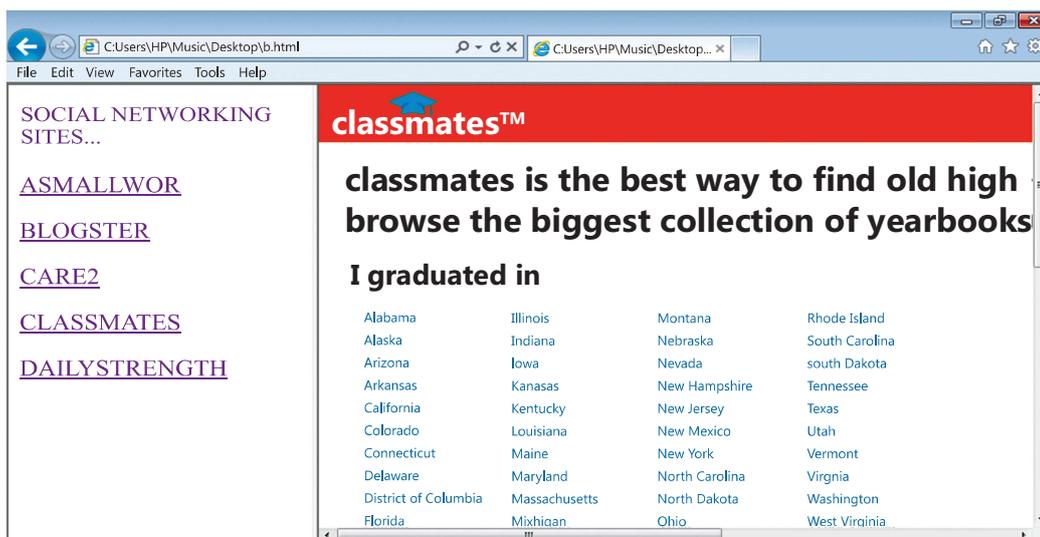


Figure 19

## Summary

1. The <TABLE > tag arranges the data items on the web page in rows and columns.
2. The TH tag encloses the Header object and makes the data boldface and center aligned.
3. The TD keeps the data in regular font and left aligned by default.
4. TR tag in turn is nested within the TABLE tag and is used to define rows in a table.
5. The colspan attribute helps in merging the columns of a row. This attribute is not used with table tag but with the <TH> or the <TD> tag.
6. When the table's cells spans across more than one row, it is called ROWSPAN. If we want to give the table a nice sidebar, this attribute is used. The rowspan appears as merged cells.
7. The <caption> tag is used to provide a text to the table so as to explain the contents of the table. It is generally in bold, at center with respect to the table.
8. A frame divides the screen into separate windows with both vertical and horizontal scroll bars.. The windows so formed may appear to be sub-windows of the main window (the webpage).
9. A FRAMESET element is the parent element that defines the characteristics of individual frame pages.

## EXERCISE

### A. Multiple choice questions

1. <TR> belongs to Frameset tag.  
(a) <Table> (b) <DIV>  
(c) <Frameset> (d) <TD>
2. \_\_\_\_\_ tag is used to add columns to a table  
(a) definition list (b) definition list term  
(c) definition list description (d) none of the above
3. Which attribute is used to define cell contents to left ?  
(a) VAlign (b) Align  
(c) GAlign (d) HAlign
4. Tag to add a row to a table.  
(a) TR (b) TD  
(c) TH (d) TC
5. Which of the following is used to specify the beginning of a table's row?  
(a) TROW (b) TABLER  
(c) TR (d) ROW

6. In order to add border to a table, BORDER tag is specified in which tag
  - (a) THEAD
  - (b) TBORDER
  - (c) TABLE
  - (d) TR
7. Which of these tags are called table tags?
  - (a) <Thead><body ><tr>
  - (b) <Table><tr><td>
  - (c) <Table><head><tfoot>
  - (d) <Table><tr><tt>
8. \_\_\_\_\_ tag is used to define the heading of a table
  - (a) TABLE
  - (b) COLUMN
  - (c) HEADING
  - (d) TITLE
9. Which HTML command is used to align the contents of the cell to right.
  - (a) <TR align= right->
  - (b) <TD align = right>
  - (c) <TD> align = right
  - (d) All of the above
10. Which of the following statements is incorrect:
  - (a) < frame rows = "20% , 80 %">
  - (b) < frame cols = "40% , 60 %">
  - (c) < frame rows = "60% , 60 %">
  - (d) < frame rows = "60% , 40 %">

### B. Answer the following questions:

1. What attribute will be used on the CAPTION tag to put the table description at the bottom of the table?
2. Write the code to display a 'ghost cell'.
3. Name the tag that defines how to divide the window into frames.
4. Name the tag that is used to put HTML document into frames.
5. Where the text is displayed which is specified in the <caption> tag?
6. Which attribute will you use if you do not want frame windows to be resizable?
7. Differentiate between <TH> and <Caption> tags.
8. How <TD> and <TR> are different from each other?
9. What is the purpose of using Frames in HTML pages?
10. Discuss all the tags with their attributes to create a frame.
11. What does 'n' stands for in the following tags?
  - (a) <Table border=n>
  - (b) <table bgcolor = "n">
  - (c) <td bgcolor = "n">
  - (d) <td width = n>
  - (e) <a href= "n">

12. Which code snippet will display the following? Explain why

MERGEDROW	
R2	1
R3	2
R4	3

<p>Option A</p> <pre>&lt;TABLE border=2&gt;   &lt;TR&gt;     &lt;TH&gt;MERGEDROW&lt;/TH&gt;     &lt;TH&gt; &lt;/TH&gt;   &lt;/TR&gt;   &lt;TR&gt;     &lt;TD&gt;R2&lt;/TD&gt;     &lt;TD&gt;1&lt;/TD&gt;   &lt;/TR&gt;   &lt;TR&gt;     &lt;TD&gt;R3&lt;/TD&gt;     &lt;TD&gt;2&lt;/TD&gt;   &lt;/TR&gt;   &lt;TR&gt;     &lt;TD&gt;R4&lt;/TD&gt;     &lt;TD&gt;3&lt;/TD&gt;   &lt;/TR&gt; &lt;/TABLE&gt;</pre>	<p>Option B</p> <pre>&lt;TABLE border=2&gt;   &lt;TR&gt;     &lt;TH&gt;MERGEDROW&lt;/ TH&gt;     &lt;TH&gt;&amp;nbsp;&lt;/TH&gt;   &lt;/TR&gt;   &lt;TR&gt;     &lt;TD&gt;R2&lt;/TD&gt;     &lt;TD&gt;1&lt;/TD&gt;   &lt;/TR&gt;   &lt;TR&gt;     &lt;TD&gt;R3&lt;/TD&gt;     &lt;TD&gt;2&lt;/TD&gt;   &lt;/TR&gt;   &lt;TR&gt;     &lt;TD&gt;R4&lt;/TD&gt;     &lt;TD&gt;3&lt;/TD&gt;   &lt;/TR&gt; &lt;/TABLE&gt;</pre>
---	---

### C. Lab Session

**Task 1:** Create a website with a header area and two columns below to contain the navigation bar on the left and the content bar to the right. Given below is the task you must complete with this unit

#00FFFF	
30% #00CCCC	70% #00EEEE

Create a folder to store all your project files in one place

Create your HTML page

Define the table and the required elements to display the image given here.

The 30% and 70% define the column widths

The hash code in each area define the colour code to be used

**Task 2:** Make the required changes to the original file to create the following display. Save it as task2.html

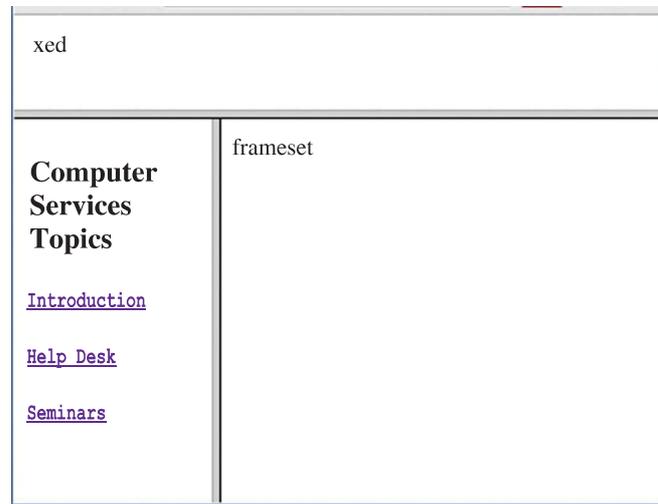
<b>My First Web Page</b>	
Main page Photographs History	70% #00EEEE

More information about the TABLE element can be found at

<https://developer.mozilla.org/en-US/docs/Web/HTML/Element/table>

**Task 3:** Now create the same kind of visual effect that you did with tables but use frames instead. Save the document as task3.html

When displayed it should look like this.



**Note:** The Frameset and Frame are not supported in HTML5.

**Task 4:** Write the coding in HTML to create a Table as shown below:

#### STUDENT MARKSHEET

Roll no.	Name	Marks		
		First Term	Second Term	Third Term
1	Arpit Kumar	140	160	175
2	Nilima Kapoor	190	180	116
3	Prerna Sharma	130	115	178

**Hyperlink the names with the following files**

1. Arpit Kumar: Arpit.ppt
2. Nilima Kapoor: Nilima.ppt
3. Prerna Sharma: Prerna.ppt