

Activity 1: Creating a Table

The objective of this Activity is to create a timetable for CSC4370/6370 students to be displayed on a Web page as shown below:

CSC4370/6370

	Monday	Tuesday	Wednesday	Thursday	Friday
6 -7pm	look at website	free	Study	free	free
7 -8pm	look at website	free	Study	free	free

1. Begin a new Web page in your text editor. The header is shown below. When entering the text, try to spot the deliberate mistake in code below and correct it as necessary.

```
<HTML>
  <HEAD>
    <TITLE>
      HTML Table Design
    </HEAD>
  </TITLE>
  <BODY>
  </BODY >
</HTML >
```

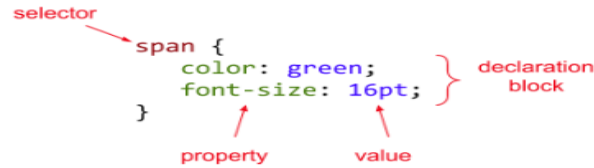
2. Save your file as tab_ex1.html

3. The next stage is to open the table. To open and close a table, use respectively the <TABLE> and </TABLE> tags within the document's BODY.

```
<HTML>
<HEAD>
<TITLE>
  HTML Table
  Design
</HEAD>
</TITLE
>
<BODY>
<TABLE>
</TABLE>
</BODY >
</HTML >
```

4. Save the file and load it in your browser. At first you will notice a blank screen as the table is not visible. A border and rows may be added to make the table visible. If you do not specify a border for the table, it will be displayed without borders. When adding a border, its size can be defined in pixels, for example: <TABLE border=10 style= "width: 80%" >. Notice the use of the width attribute to set the table to a width of 80% of the screen's size (this can also be defined in pixels). However, it is worth noting that the border attribute is on its way out of the HTML standard! It is better to use CSS by first creating a <style> tag within the <head> tag then leave using only the style attribute within the table tag. 'td' stands for 'table data' and 'th' stands for 'table header'.

- A CSS **selector** specifies the HTML elements to which the specific style rule applies.
- A **declaration block** contains one or more declarations separated by semicolons (;).
- A CSS styling **declaration** is a CSS property followed by a colon (:) and the property value.



```
<style>
table,
th, td
{
border:
1px
solid
black;
}
</style>
>

....
<TABLE style=
"width: 80%" >
```

5. The <TR> tag is used to add rows. Each row is composed of several data cells. Their dimensions can be defined using width and height attributes: <TD width=25% height=20 bgcolor="darkred"> Notice that the cell's color can also be defined. Try to create the table below

red cell	light blue cell
----------	-----------------

Table with one row and two columns

6. Reopen the file tab_ex1.html in your text editor and make the following amendments to <TABLE> and <tr> tags. Note the <CENTER> tag centers the table horizontally and it also centers the text within each cell in the row.

```
<TABLE style= "width: 80%" align = "center">
<tr align = "center">
```

7. Save this file as tab_ex2.html and view it in your browser. It should look as below.

red cell	light blue cell
----------	-----------------

Table with centered text

8. We can see that the text is still not given any specific font. HTML tag is deprecated in version 4.0, onwards (hence it is not supported in HTML5) and now all fonts are set by using CSS.

Try to assign the Comic Sans MS font by making the following addition to the style section. Save the file as tab_ex4.html.

font-family: Comic Sans MS;

This sets all the text in in each cell to have the same font. What if you want to have different fonts in each cell? To do this, you can use the <p style > tag within each <TD> tag. Modify your <TD> tags to the following:

```
<TD width=25% height=70 bgcolor="red"> <p style="font-family:
verdana">red cell </p> </td>
```

```
<TD width=75% bgcolor="lightblue"> <p style="font-family: Comic Sans
MS"> light blue cell </p></td>
```

9. To add a caption to a table use the <caption> tag within the <table> body. This caption appears on top of the table. Add the caption “Tabling” to your table thus:

```
<caption> Tabling </caption>
```

10. Save the file as tab_ex3.html and view it in your browser. It should look as below.

red cell	light blue cell
----------	-----------------

Table with caption and text with different font

11. In order to meet the objective of this Activity — that is, to create a timetable for CSC4370/6370 — use the HTML code in the next page. Save this as tab_ex4.html. One extra HTML tag needs to be introduced: the TH tag, which inserts a table header cell. It is similar to the TD tag and has the same attributes (i.e. align, bgcolor, height etc.). However, TH is used to set the cell's text apart from the rest of the table's text, usually setting it bold and slightly larger. Now that you have completed Activity 1, you should have a good idea of how to create a basic data table.

```

<HTML>
<HEAD>
<TITLE>
    HTML Table Design
</TITLE>
<style> table, th, td {
    border: 1px solid black;    }
</style>
</HEAD>
<BODY>
    <TABLE style= "width: 80%" align = "center">
    <caption> CSC4370/6370 timetable </caption>
    <tr >
        <td width=50%> </td>
        <th width = 150> Monday </th>
        <th width = 150> Tuesday</th>
        <th width = 150> Wednesday </th>
        <th width = 150> Thursday</th>
        <th width = 150> Friday</th>
    </tr>
    <tr >
        <td > 6-7pm </td>
        <td > Look at website</td>
        <td > free </td>
        <td > Implementation </td>
        <td > free </td>
        <td > free </td>
    </tr>
    <tr >
        <td > 7-8pm </td>
        <td > Take some notes</td>
        <td > free </td>
        <td > Implementation </td>
        <td > free </td>
        <td > free </td>
    </tr>

    </TABLE>
</BODY>
</HTML>

```

Here are instructions on how to organize and display data in a table:

1. Insert the <TABLE> tag and decide on the table's dimensions (if required)
2. Add a row using the <TR> tag
3. In the newly created row, insert a cell <TD> with the necessary dimensions and other attributes
4. Add the data to be displayed
5. Terminate the data cell </TD>
6. Repeat steps 3-5 as necessary
7. Terminate the row </TR>
8. Repeat steps 2-7 until all the necessary rows have been added
9. Terminate the table </TABLE>

To Do on spare time

Look up the basic table structure via the Internet. Draw up a list of the tags for your own use and reference.

Check your list against this one:

HTML tag	Comments
<TABLE> </TABLE>	Table definition and end tag
<CAPTION> </CAPTION>	Caption definition and end tag
<TR> </TR>	Row definition and end tag
<TD> </TD>	Cell definition and end tag

Activity 2: HTML Color Table

This Activity's objective is to write the HTML code to display the following table. Feel free to add more colors.

Some HTML Colors

Colour	Name	hexidecimal	RGB value
	Salmon	FA8072	250-128-114
	Gold	FFD700	255-215-0

Activity 3: Using rowspan

This Activity introduces you to the attribute **rowspan**. The objective of this Activity is to create the following table.

red cell	silver cell
	gold cell

1. Let us start by creating the necessary code for displaying the silver and gold cells.

```
<TABLE style= "width: 30%" align = "center">
<tr >
    <td bgcolor = "silver" height =100> silver cell</td>
</tr>

<tr >
    <td bgcolor = "gold" height =100> gold cell</td>
</tr>
</TABLE>
```

2. Save this file as adv_tab1.html and view it in your browser. It should appear as so:

silver cell
gold cell

3. Now we insert a red cell spanning two rows. This is done with the **rowspan** attribute. The following syntax is used when designing tables that include **rowspan**.

`<td rowspan=x>` where **x** is the number of rows to be spanned.

Reopen adv_tab1.html and make the amendment shown in bold, below.

```
<TABLE style= "width: 30%" align = "center">
<tr >
    <td bgcolor = "red" rowspan = 2 width = 75> red cell</td>
    <td bgcolor = "silver" height =100> silver cell</td>
</tr>

<tr >
    <td bgcolor = "gold" height =100> gold cell</td>
</tr>
</TABLE>
```

4. Save this exercise as adv_tab2.html and view it in your browser. It should now look as below:

red cell	silver cell
	gold cell

Activity 4: Using colspan, cellspacing and cellpadding

This Activity introduces you to the attributes **colspan**, **cellspacing** and **cellpadding**. The objective of this Activity is to create the following table.

red cell	
silver cell	gold cell

1. Let us begin by creating the silver and gold cells.

```
<TABLE style= "width: 30%" align = "center">
<tr >
    <td bgcolor = "silver" height =100> silver cell</td>
    <td bgcolor = "gold" height =100> gold cell</td>
</tr>
</TABLE>
```

2. Save this file as adv_tab3.html and view it in your browser. It should appear as below:

silver cell	gold cell
-------------	-----------

3. For the next step we insert a cell that spans the two columns, using the **colspan** attribute:

<td **colspan=x**> where **x** is the number of columns to be spanned.

Reopen adv_tab3.html and make the amendment as shown in bold, below:

```
<TABLE style= "width: 30%" align = "center">
<tr>
    <td colspan=2 height=100 bgcolor="red">red cell</td>
</tr>
<tr >
    <td bgcolor = "silver" height =100> silver cell</td>
    <td bgcolor = "gold" height =100> gold cell</td>
</tr>
</TABLE>
```

4. Save this exercise as adv_tab4.html and view it in your browser. It should appear as below.

red cell	
silver cell	gold cell

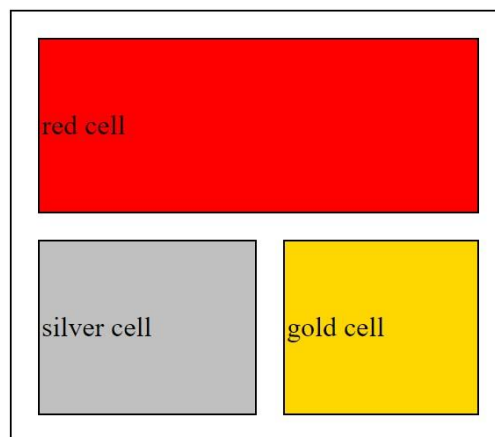
5. The space between the cells is known as the cellpadding. This is controlled with the table attribute **cellspacing**. The following syntax is used with **cellspacing**:

`<table cellpadding=x>` where **x** is the amount of cellpadding required.

Reopen adv_tab4.html and make the following alterations to the code, as shown in bold.

```
<TABLE style= "width: 30%" align = "center" cellspacing = 15>
  <tr>
    <td colspan=2 height=100 bgcolor="red">red cell</td>
  </tr>
  <tr >
    <td bgcolor = "silver" height =100> silver cell</td>
    <td bgcolor = "gold" height =100> gold cell</td>
  </tr>
</TABLE>
>
```

6. Save this exercise as adv_tab5.html and view it in your browser. It should appear as below:



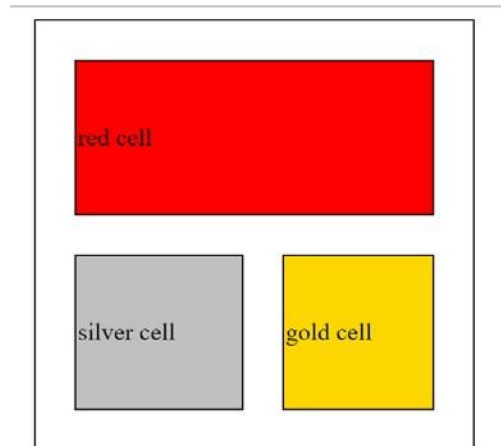
7. The space between the text 'red cell' and the cell's border is known as the cellpadding. This can be altered with the attribute **cellpadding**:

`<table cellpadding = x>` where **x** is the thickness, measured in pixels, of the desired cellpadding.

Reopen adv_tab5.html and make the following amendments to the code, shown in bold.

```
<TABLE style= "width: 30%" align = "center" cellspacing = 2>
  <tr>
    <td colspan=2 height=100 bgcolor="red">red cell</td>
  </tr>
  <tr >
    <td bgcolor = "silver" height =100> silver cell</td>
    <td bgcolor = "gold" height =100> gold cell</td>
  </tr>
</TABLE>
```

8. Save this exercise as adv_tab6.html and view it in your browser. It should appear as required.



Activity 5: More cellspacing and cellpadding

The objective of this Activity is to create the table shown below.



This Activity also introduces some of the anomalies that Web page developers deal with during Web page design. In particular, we focus on anomalies with the cellspacing attribute.

Three points should be noted for the above table:

- There are no visible borders, therefore **border=0** is needed.
- There is no cellspacing between cells, so **cellspacing=0**.
- There is no cellpadding, therefore **cellpadding=0**. Now follow these steps to complete the activity.

1. Begin a new file in a text editor and enter the following HTML code:

```
<TABLE style= "width: 30%" height = 30 align = "center" cellspacing = 0
cellpadding = 0>
  <tr>
    <td height=15 bgcolor="darkred"></td>
    <td bgcolor="red"></td>
    <td bgcolor="pink"></td>
  </tr>
  <td height=15 bgcolor="darkblue"></td>
  <td bgcolor="blue"></td>
  <td bgcolor="lightblue"></td>
</TABLE>
```

2. Save your file as adv_tab7.html and view it in your browser. It should appear as required.

Activity 6: Time Table

Write the necessary HTML code for your own study timetable. This should look similar to the one shown below. (Hint: use the **colspan** and **rowspan** attributes).

Ian's Timetable

		Morning			lunch	afternoon				evening		
		9-10 am	10-11 am	11-12 am	1-2 pm	2-3 pm	3-4 pm	4-5 pm	5-6 pm	6-7 pm	7-8 pm	8-9 pm
Work	Monday	Development Meeting				Client Meeting		commute		Free		
	Tuesday	in Office				in Office						
Lecture	Wednesday	CSC205				preparation						
	Thursday	MAM200				Tutorials for MAM200		Free				
Research	Friday	Research				Research						