

WEBSITE AUTHORING – Lesson #4: Creating tables

Objectives:

When you have completed this lesson you will:

- Understand how a table can be used to organise a page's information
- be able to create a table in a page
- be able to organise information in a table
- be able to use the tags <table>, <tr>, <td>, <colspan> and <rowspan> successfully

1 How a table helps to organise information

A web page can display many things. From the view point of anyone visiting the web page these items might seem to be arranged in a complex way. Not everything will appear evenly along neat lines or text flow around a single picture.

Tables are very good at displaying a lot of related information that needs to fit neatly on the screen. Anything that might be organised into columns would be very well presented in a table.

In Notepad, open up **Firstpage.html** that you created in *Lesson#3*.

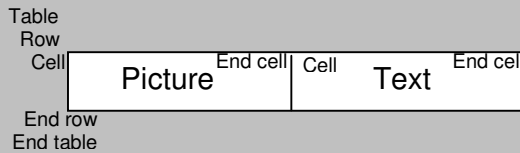
The <body> of this document consists of two elements: the picture of the satellite and the text below it.

You are going to create a simple table which has just one row and two cells within that row. Into the left hand cell will go the picture and into the right hand cell the text.

The tags will go like this:

```

<table>
  <tr>
    <td>
      <img.../>
    </td>
    <td>
      text for the cell
    </td>
  </tr>
</table>
    
```



<tr> and </tr> are the opening and closing tags for a **row**
 <td> and </td> are the opening and closing tags for a **cell** in the row

Immediately after the <body> tag type in these tags. Make sure that you get them in the right order and indent them slightly to make reading them easier.

Complete the new tag to be exactly the same as the tag you already have from *Lesson #3*, and then delete the older tag.

Cut and paste the text to put it into its new position. Do not cut and paste the <p> tag – delete it.

When you have completed these steps there should be nothing between the </table> and </body> tags.

Save the HTML document and the open it in a web browser. The picture and the text should appear as we wanted with the picture to the left and the text to the right.

Our page could do with a heading of some sort. We could add a new row to our table. This row should run all the way across the table and only be one cell, like this:

TITLE	
PICTURE	TEXT

Adding a row is very easy. You just add <tr> and </tr> tags. They will go between the <table> and first <tr> tags that are there already. The cells need a little bit more consideration. The row is not going to have 2 cells. When a browser sees the <table> tag and starts to display it, the assumption, quite naturally, is that all the rows have the same number of columns. Do not forget that a table is a kind of grid where initially all the columns are the same width.

In order for us to just have one cell in the first row of the table we have to say that the cell we are opening with the <td> tag is going to *span* or run across 2 columns. To do this we add the tag <colspan="?"> in the <td> tag. The ? represents the number of columns we want to span.

The tag for the cell covering the first row should then be <td colspan="2">. The text for the title follows and the cell closes with the </td> tag.

Go back to the source code of **Firstpage** in Notepad.

Immediately after the <table> tag on a new line type in these lines:

```
<tr>
  <td colspan="2">
    This is my first ever page using a table
  </td>
</tr>
```

Save the html document and refresh the browser.

The title is placed above the picture of the satellite and runs across the second column where the text is.

Now add a tag so that the title will appear in the **centre** of the cell.

Save and refresh.

At this stage it is difficult to know where the cells are and whether anything is centred or not. Change the <table> tag so that it now reads:

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

Save and refresh.

You can now clearly see the outline of the cells which is a great help and something which you might want to display anyway.

Now a task for you.

Add a new row to the table to be row 3. It will have two cells just like row 2.

In the left hand cell copy the text that is in row 2 and in the right hand cell place the picture of the camel you created in *Lesson #2*.

Save and refresh. Did it work? If not try and fix it. Be careful with what you type because the browser will try and do exactly what you ask. If it does not understand the command it is ignored.

At the moment the table fits across the whole width of the screen. Sometimes you may want the table to be a different size. The width of the table can be defined in 2 ways:

- by saying what % of the screen width the table is to take up
- by saying how many pixels (small dots that make up the screen display) wide the table is to be

For example, if the table was only to go half way across the screen the <table> tag could be extended by:

- adding *width="50%"*.
- adding *width="???"* (where ??? is the number of pixels wide that the table should be, so if your screen resolution is set to 800x600, you would put 400 instead of the ???)

Go back to the source code of **Firstpage** in Notepad.

Change the <table> tag again to now read:

```
<table width="50%" border="1">
```

Save and refresh. Does it work?

Try: <table **width="400"** border="1">

You are now going to add two more rows. However this is what the complete table is to look like:

This is my first ever page using a table	
Satellite picture	text
text	Camel picture
Boat picture	text
	text

The items in **red** are the new ones.

This time you will see that although there are 2 rows the left hand side has them combined into 1 cell. In this case the *column spans 2 rows* – it is the same idea as with row 1, where the *row spanned 2 columns*.

You might be able to guess what the tag will be: *rowspan="?"*. This is placed in the `<td>` tag of what will be row 4. But, this means that for row 5 we only need to include information about 1 cell – the one on the right because the one on the left has already been dealt with in row 4.

The tags will look like:

```

<tr>
  <td rowspan="2">
    picture of the boat
  </td>
  <td>
    text
  </td>
</tr>
<tr>
  <td>
    text
  </td>
</tr>

```

Row 4

Row 5

Go back to the source code of **Firstpage** in Notepad.

Set the table width back to 100%

Add these tags after the last row declaration – after the last `</tr>` and before the `</table>` tag.

Create the `` to display the image of the boat from *Lesson #2*, copy and place the text that is used in row 3.

Save and refresh.

Does it work? It should. If not, check everything really carefully. Do not forget. If the browser does not understand what you have asked for it will ignore the command.

From now on whenever you look at a web page try and see where the table is. The border will not usually be displayed. However nearly all web pages have their contents built into a table because it is so easy to manage how the contents are arranged. As you can see, *rowspan* and *colspan* gives real flexibility while still maintaining the structure of the table (grid).

If you have got this far and everything works as planned –a big well done!!! In these four lessons you have covered many things. In the coming lessons all of these will be revised and put into use, so do not worry.

This is a list if tags you have used so far:

- `<html></html>` used at the beginning and end of HTML document
- `<head></head>` used to separate out some important declarations
- `<title></title>` used in the `<head>` section to place a title in the window title bar
- `<body></body>` starts the main part of the HTML document
- `<center></center>` places whatever is between the tags in the centre of the line, row, cell..
- `<hr>` produces a thin horizontal line
- `` places an image, also *border*, *width*, *height*, *alt*, *align*
- `<table></table>` defines the beginning and end of a table, also *border*, *width*
- `<tr></tr>` defines the beginning and end of a row in a table, also *colspan*
- `<td></td>` surrounds the contents of one cell in a row, also *rowspan*

Quite a list. Now there is an idea for the next lesson – making a bulleted list in a cell!!!