

## Tables

HTML tables have often been misused as a way of creating page layouts, but this practice is rapidly being replaced by the use of CSS-based designs due to their greater flexibility and accessibility benefits. However, the intended use of tables is still something we're happy with, and you probably see it in many websites as you browse the web, that is, to display **tabular data** - calendars, price lists, etc. To make the most basic table, we need three different tags:

- `<table>` - defines a table
- `<tr>` - defines a row
- `<td>` - defines a cell

By default, there is no border, and the size of the table will increase to accommodate whatever's inside it. We can add a border and fix the width using the table attributes (though you can also use CSS for this). You can set the width as a percentage of the available space, or just specify a number to set the width in pixels.

Code	Output	
<pre>&lt;table&gt; &lt;tr&gt; &lt;td&gt; Text Goes Here &lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table><tr><td>Text Goes Here</td></tr></table>	Text Goes Here
Text Goes Here		
<pre>&lt;table border="1"&gt; &lt;tr&gt; &lt;td&gt; Text Goes Here &lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"><tr><td>Text Goes Here</td></tr></table>	Text Goes Here
Text Goes Here		
<pre>&lt;table width="50%" border="1"&gt; &lt;tr&gt; &lt;td&gt; Text Goes Here &lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"><tr><td>Text Goes Here</td></tr></table>	Text Goes Here
Text Goes Here		
<pre>&lt;table width="200" border="1"&gt; &lt;tr&gt; &lt;td&gt; Text Goes Here &lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"><tr><td>Text Goes Here</td></tr></table>	Text Goes Here
Text Goes Here		

Note that the `<tr>` tag follows immediately after the `<table>` tag, and `<td>` follows immediately after `<tr>`. Nothing is allowed between `<table>` and `<tr>`, or between `<tr>` and `<td>`. This is similar to the rules we have for lists - just a teeny bit more complicated.

To make more complex tables, simply add more rows and cells:

Code	Output									
<pre>&lt;table width="200" border="1"&gt; &lt;tr&gt; &lt;td&gt;Cell&lt;/td&gt; &lt;td&gt;Cell&lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"><tr><td>Cell</td><td>Cell</td></tr></table>	Cell	Cell							
Cell	Cell									
<pre>&lt;table width="200" border="1"&gt; &lt;tr&gt; &lt;td&gt;Cell&lt;/td&gt; &lt;/tr&gt; &lt;tr&gt; &lt;td&gt;Cell&lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"><tr><td>Cell</td></tr><tr><td>Cell</td></tr></table>	Cell	Cell							
Cell										
Cell										
<pre>&lt;table width="200" border="1"&gt; &lt;tr&gt; &lt;td&gt;Cell 1&lt;/td&gt; &lt;td&gt;Cell 2&lt;/td&gt; &lt;td&gt;Cell 3&lt;/td&gt; &lt;/tr&gt; &lt;tr&gt; &lt;td&gt;Cell 4&lt;/td&gt; &lt;td&gt;Cell 5&lt;/td&gt; &lt;td&gt;Cell 6&lt;/td&gt; &lt;/tr&gt; &lt;tr&gt; &lt;td&gt;Cell 7&lt;/td&gt; &lt;td&gt;Cell 8&lt;/td&gt; &lt;td&gt;Cell 9&lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"><tr><td>Cell 1</td><td>Cell 2</td><td>Cell 3</td></tr><tr><td>Cell 4</td><td>Cell 5</td><td>Cell 6</td></tr><tr><td>Cell 7</td><td>Cell 8</td><td>Cell 9</td></tr></table>	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6	Cell 7	Cell 8	Cell 9
Cell 1	Cell 2	Cell 3								
Cell 4	Cell 5	Cell 6								
Cell 7	Cell 8	Cell 9								

## Merging table cells

You can merge cells within a column using the `colspan` attribute:

Code	Output												
<pre>&lt;table width="200" border="1"&gt; &lt;tr&gt; &lt;td colspan="2"&gt;Animals&lt;/td&gt; &lt;td colspan="2"&gt;Plants&lt;/td&gt; &lt;/tr&gt; &lt;tr&gt; &lt;td&gt;Cat&lt;/td&gt; &lt;td&gt;Dog&lt;/td&gt; &lt;td&gt;Grass&lt;/td&gt; &lt;td&gt;Sunflower&lt;/td&gt; &lt;/tr&gt; &lt;tr&gt; &lt;td&gt;Snake&lt;/td&gt; &lt;td&gt;Bear&lt;/td&gt; &lt;td&gt;Tree&lt;/td&gt; &lt;td&gt;Bonsai&lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"><tr><td colspan="2">Animals</td><td colspan="2">Plants</td></tr><tr><td>Cat</td><td>Dog</td><td>Grass</td><td>Sunflower</td></tr><tr><td>Snake</td><td>Bear</td><td>Tree</td><td>Bonsai</td></tr></table>	Animals		Plants		Cat	Dog	Grass	Sunflower	Snake	Bear	Tree	Bonsai
Animals		Plants											
Cat	Dog	Grass	Sunflower										
Snake	Bear	Tree	Bonsai										

As well as merging columns together, you can also merge rows together:

Code	Output										
<pre>&lt;table width="200" border="1"&gt; &lt;tr&gt; &lt;td rowspan="2"&gt;Animals&lt;/td&gt; &lt;td&gt;Cat&lt;/td&gt; &lt;td&gt;Dog&lt;/td&gt; &lt;/tr&gt; &lt;tr&gt; &lt;td&gt;Snake&lt;/td&gt; &lt;td&gt;Bear&lt;/td&gt; &lt;/tr&gt; &lt;tr&gt; &lt;td rowspan="2"&gt;Plants&lt;/td&gt; &lt;td&gt;Grass&lt;/td&gt; &lt;td&gt;Sunflower&lt;/td&gt; &lt;/tr&gt; &lt;tr&gt; &lt;td&gt;Tree&lt;/td&gt; &lt;td&gt;Bonsai&lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"><tr><td rowspan="2">Animals</td><td>Cat</td><td>Dog</td></tr><tr><td>Snake</td><td>Bear</td></tr><tr><td rowspan="2">Plants</td><td>Grass</td><td>Sunflower</td></tr><tr><td>Tree</td><td>Bonsai</td></tr></table>	Animals	Cat	Dog	Snake	Bear	Plants	Grass	Sunflower	Tree	Bonsai
Animals	Cat		Dog								
	Snake	Bear									
Plants	Grass	Sunflower									
	Tree	Bonsai									

As you can see, the second and the fourth rows only have **two cells each**, while the first and the third have three. If you look at the table, it has three

cells per row, so what is this all about? Well, the first cell in the first row spans over the second row, and the first cell in the third row spans over the fourth. Therefore, they have been lent to the row above, and neither of these two rows have a first cell anymore. That's why it's called **rowspan**, it spans over two or more rows.

## Table headings

You can change a table cell to a table heading by using the `<th>` tag (instead of `<td>`). Browsers usually display text within `<th>` tags in **bold**:

Code	Output	
<pre>&lt;table border="1"&gt; &lt;tr&gt; &lt;td&gt;I'm a normal cell&lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"> <tr> <td>I'm a normal cell</td> </tr> </table>	I'm a normal cell
I'm a normal cell		
<pre>&lt;table border="1"&gt; &lt;tr&gt; &lt;th&gt;I'm a title cell&lt;/th&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"> <tr> <td><b>I'm a title cell</b></td> </tr> </table>	<b>I'm a title cell</b>
<b>I'm a title cell</b>		

## Cellpadding and cellspacing

The **cellpadding** and **cellspacing** attributes can be added to the `<table>` tag. Cellpadding adds padding **within** the table cells; cellspacing adds space **between** the cells:

Code	Output				
<pre>&lt;table width="200" border="1" cellpadding="5"&gt; &lt;tr&gt; &lt;td&gt;Cell 1&lt;/td&gt; &lt;td&gt;Cell 2&lt;/td&gt; &lt;/tr&gt; &lt;tr&gt; &lt;td&gt;Cell 3&lt;/td&gt; &lt;td&gt;Cell 4&lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"> <tr> <td>Cell 1</td> <td>Cell 2</td> </tr> <tr> <td>Cell 3</td> <td>Cell 4</td> </tr> </table>	Cell 1	Cell 2	Cell 3	Cell 4
Cell 1	Cell 2				
Cell 3	Cell 4				
<pre>&lt;table width="200" border="1" cellspacing="5"&gt; &lt;tr&gt; &lt;td&gt;Cell 1&lt;/td&gt; &lt;td&gt;Cell 2&lt;/td&gt; &lt;/tr&gt; &lt;tr&gt; &lt;td&gt;Cell 3&lt;/td&gt; &lt;td&gt;Cell 4&lt;/td&gt; &lt;/tr&gt; &lt;/table&gt;</pre>	<table border="1"> <tr> <td>Cell 1</td> <td>Cell 2</td> </tr> <tr> <td>Cell 3</td> <td>Cell 4</td> </tr> </table>	Cell 1	Cell 2	Cell 3	Cell 4
Cell 1	Cell 2				
Cell 3	Cell 4				

## More fun with tables

There are a few other tags and attributes you can add to tables to make them more user-friendly, such as:

- `<caption>`
- `<thead>`
- `<tbody>`
- `<tfoot>`
- the `summary` attribute in the `<table>` tag

You can find useful resources on tables at [www.w3schools.com/tags/](http://www.w3schools.com/tags/) and [www.idocs.com/tags/tables/](http://www.idocs.com/tags/tables/). Remember that the best use of these tags and attributes is to structure the data and make the table more user-friendly, rather than to make presentational changes (it's better to use CSS to change the appearance of the table).