

Fundamentals
of **WEB
DESIGN**

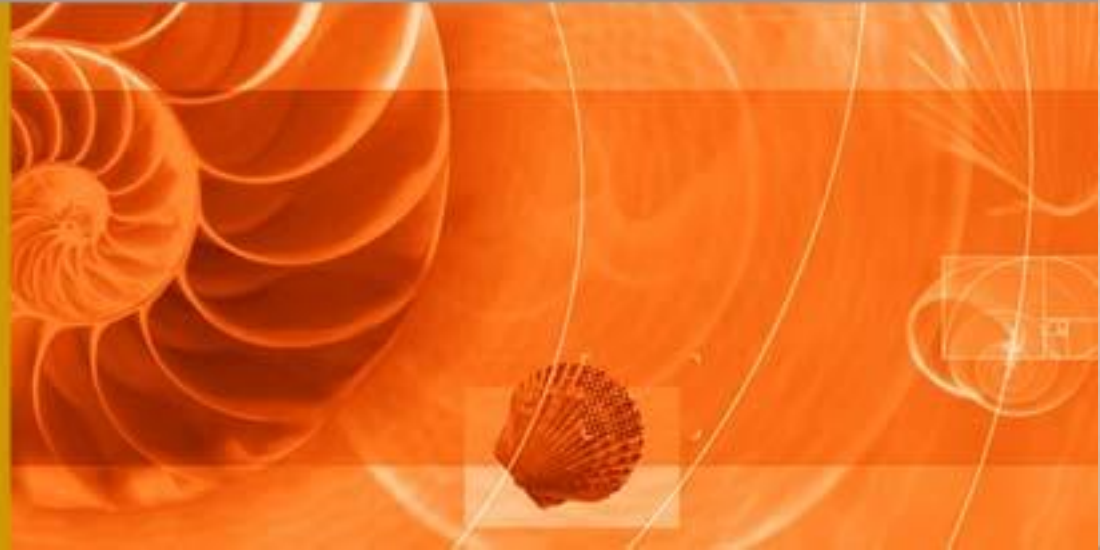


Table Tags

XHTML

Table Tags

- The `<table>` and `</table>` tags start and end a table. In this example, the border attribute has been added to the table tag to display the table border and lines between the cells. If you don't close all table tags correctly, neither the table nor anything past it is likely to display.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Basic Table Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Basic Table Example</h2>
</center>
<table border="1" align="center">
<tr><td>Row1Data1</td><td>Row1Data2</td><td>Row1Data3</td></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td><td>Row2Data3</td></tr>
<tr><td>Row3Data1</td><td>Row3Data2</td><td>Row3Data3</td></tr>
</table>
</body>
</html>
```

Summary="Table Name"

Table Row Tag

- The `<tr>` and `</tr>` tags start and end a table row. Notice that three separate rows make up this table and that the first row must be closed before the next row can start. It is not required that these tags be on the same line as they are in the example below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Basic Table Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Basic Table Example</h2>
</center>
<table border="1" align="center">
<tr><td>Row1Data1</td><td>Row1Data2</td><td>Row1Data3</td></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td><td>Row2Data3</td></tr>
<tr><td>Row3Data1</td><td>Row3Data2</td><td>Row3Data3</td></tr>
</table>
</body>
</html>
```

Table Data Tag

- The `<td>` tag starts and the `</td>` tag ends a table data cell. Notice that three separate table data cells make up each row in the table and that each table data cell must be closed before the next one can start.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Basic Table Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Basic Table Example</h2>
</center>
<table border="1" align="center">
<tr><td>Row1Data1</td><td>Row1Data2</td><td>Row1Data3</td></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td><td>Row2Data3</td></tr>
<tr><td>Row3Data1</td><td>Row3Data2</td><td>Row3Data3</td></tr>
</body>
</html>
```

Table Border Tag

- The thickness of the table border can be controlled by setting the border attribute to a positive integer. The higher the number, the thicker the border.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Basic Table Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Basic Table Example</h2>
</center>
<table border="10" align="center">
<tr><td>Row1Data1</td><td>Row1Data2</td><td>Row1Data3</td></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td><td>Row2Data3</td></tr>
<tr><td>Row3Data1</td><td>Row3Data2</td><td>Row3Data3</td></tr>
</table>
</body>
</html>
```

Table Border Tag

- Setting the border attribute to zero (or not using the border attribute at all) gives you a table with no border or cell walls displayed.
- Even though the cell walls are not displayed, they still take up space between the cells.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Basic Table Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Basic Table Example</h2>
</center>
<table align="center">
<tr><td>Row1Data1</td><td>Row1Data2</td><td>Row1Data3</td></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td><td>Row2Data3</td></tr>
<tr><td>Row3Data1</td><td>Row3Data2</td><td>Row3Data3</td></tr>
</table>
</body>
</html>
```

Cell Spacing Tab

- The "cellspacing" attribute controls the thickness of the cell walls. The border attribute is turned on so that the table border and cell walls are displayed, but the cell spacing works whether the border attribute is used or not.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Cell Spacing Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Cell Spacing Example</h2>
</center>
<table border="1" cellspacing="15" align="center">
<tr><td>Row1Data1</td><td>Row1Data2</td><td>Row1Data3</td></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td><td>Row2Data3</td></tr>
<tr><td>Row3Data1</td><td>Row3Data2</td><td>Row3Data3</td></tr>
</table>
</body>
</html>
```

Cell Padding Tag

- The "cellpadding" attribute controls the padding inside each cell, between the cell content and the cell wall. The border attribute is turned on so that the table border and cell walls are displayed, but the cell padding works whether the border attribute is used or not.

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Cell Padding Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Cell Padding Example</h2>
</center>
<table border="1" cellpadding="20" align="center">
<tr><td>Row1Data1</td><td>Row1Data2</td><td>Row1Data3</td></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td><td>Row2Data3</td></tr>
<tr><td>Row3Data1</td><td>Row3Data2</td><td>Row3Data3</td></tr>
</table>
</body>
</html>

```

Spacing and Padding

- The "cellpadding" and "cellspacing" attributes can be used separately or at the same time. If they are not specified, the browser default settings are used. As with all browser defaults, these settings can vary between both make and version of the browser.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Cell Padding & Spacing Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Cell Padding & Spacing Example</h2>
</center>
<table border="1" align="center" cellpadding="10"
cellspacing="15">
<tr><td>Row1Data1</td><td>Row1Data2</td><td>Row1Data3</td></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td><td>Row2Data3</td></tr>
</table>
</body>
</html>
```

Table Header Tag

- The `<th></th>` tags start and end a table header cell. These tags work the same as the `<td></td>` tags, except that the cell contents are bolded and centered automatically.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Table Header Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Table Header Example</h2>
</center>
<table border="1" align="center">
<tr><th>Row1Data1</th><th>Row1Data2</th><th>Row1Data3</th></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td><td>Row2Data3</td></tr>
<tr><td>Row3Data1</td><td>Row3Data2</td><td>Row3Data3</td></tr>
</table>
</body>
</html>
```

Table Cell Color

- The background color of all cells in a table can be controlled by applying the bgcolor attribute to the <table> tag.

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Cell Color Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Cell Color Example</h2>
</center>
<table border="1" bgcolor="#ff9999" align="center">
<tr><td>Row1Data1</td><td>Row1Data2</td></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td></tr>
</table>
</body>
</html>

```

Background Color

- The background color of any row in a table can be controlled by applying the bgcolor attribute to the <tr> tag for that row. This will override the bgcolor attribute found in the <table> tag.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Cell Color Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Cell Color Example</h2>
</center>
<table border="1" bgcolor="#ff9999" align="center">
<tr bgcolor="#cc99ff"><td>Row1Data1</td><td>Row1Data2</td></tr>
<tr><td>Row2Data1</td><td>Row2Data2</td></tr>
</table>
</body>
</html>
```

Background Color

- The background color of any cell in a table can be controlled by applying the bgcolor attribute to the <td> tag for that cell. This will override the bgcolor attribute found in the <table> tag and the <tr> tag for that row.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Cell Color Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Cell Color Example</h2>
</center>
<table border="1" bgcolor="#ff9999" align="center">
<tr><td bgcolor="#cc99ff">Row1Data1</td><td>Row1Data2</td></tr>
<tr><td>Row2Data1</td><td bgcolor="#cc99ff">Row2Data2</td></tr>
</table>
</body>
</html>
```

Background Texture

- The background texture of all cells in a table can be controlled by applying the background attribute to the <table> tag. Use this option sparingly as browser support for textures in tables is limited to the newest browsers, and only Netscape supports the background attribute in the <tr> and <td> tags. All text in the table is set to bold to make it easier to read on the texture.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Cell Texture Example</title>
</head>
<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Cell Texture Example</h2>
</center>

<table border="1" cellpadding="15" background="images\marble.jpg"
bgcolor="#dfd0bf" align="center">
<tr><td><b>Row1 Data1</b></td><td><b>Row1 Data2</b></td></tr>
<tr><td><b>Row2 Data1</b></td><td><b>Row2 Data2</b></td></tr>

</table>
</body>
</html>
```

Table Cell Alignment

- The "align" and "valign" attributes control horizontal and vertical alignment respectively in tables. The below example is color coded to indicate the two separate rows in the table. Since no alignment attributes are used, the browser default alignment of left justified and centered top to bottom is used in all cells.

```
<table border="1" align="center">
<tr>
  <th></th>
  <th width="100">Left </th>
  <th width="100">Center</th>
  <th width="100">Right </th>
</tr>
<tr>
  <th>
    <font size="-1"><br />T<br />o<br />p<br /><br /></font>
  </th>
  <td>Top<br />Left</td>
  <td>Top<br />Center</td>
  <td>Top<br />Right</td>
</tr>
```

Vertical Alignment

- The "valign" attribute, which affects vertical alignment, can be applied to the <table>, <tr>, or <td> tags. In the below example, the "valign" attribute has been applied to the <tr> tag of rows 2 thru 4. All cells in each row are affected by this unless another "valign" attribute is used in the <td> itself.

Does not validate!

```
<table border="1" align="center">
<tr>
  <th></th>
  <th width="100">Left </th>
  <th width="100">Center</th>
  <th width="100">Right </th>
</tr>
<tr valign="top">
  <th>
    <font size="-1"><br />T<br />o<br />p<br /></font>
  </th>
  <td>Top<br />Left</td>
  <td>Top<br />Center</td>
  <td>Top<br />Right</td>
</tr>
<tr valign="middle">
  <th>
    <font size="-1">M<br />i<br />d<br />d<br />l<br />e</font>
  </th>
  <td>Middle<br />Left</td>
  <td>Middle<br />Center</td>
  <td>Middle<br />Right</td>
</tr>
<tr valign="bottom">
  <th>
```

Horizontal Alignment

- The "align" attribute, which affects horizontal alignment, can be applied to the <table>, <tr>, or <td> tags. In the below example, the "align" attribute has been applied to the <td> tags.

```
<table border="1" align="center">
<tr>
  <th></th>
  <th width="100">Left </th>
  <th width="100">Center</th>
  <th width="100">Right </th>
</tr>
<tr valign="top">
  <th>
    <font size="-1"><br />T<br />O<br />P<br />C<br />E</font>
  </th>
  <td align="left">Top<br />Left</td>
  <td align="center">Top<br />Center</td>
  <td align="right">Top<br />Right</td>
</tr>
<tr valign="middle">
  <th>
    <font size="-1">M<br />I<br />D<br />D<br />L<br />E</font>
  </th>
  <td align="left">Middle<br />Left</td>
  <td align="center">Middle<br />Center</td>
  <td align="right">Middle<br />Right</td>
</tr>
<tr valign="bottom">
  <th>
    <font size="-1">B<br />O<br />T<br />T<br />O<br />M</font>
  </th>
  <td align="left">Bottom<br />Left</td>
  <td align="center">Bottom<br />Center</td>
  <td align="right">Bottom<br />Right</td>
</tr>
```

Table and Column Width

- Controlling the width attributes for both tables and table columns can be unpredictable at best. The control seems to vary by both browser and browser version. The following examples are true in most cases but certainly not an exhaustive list of all the possible width considerations.

Table Width

- Without setting the width of a table, it will grow only as large as needed. Notice in this example that the table is just big enough to hold the data within the cells.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Table and Column Width Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Table and Column Width Example</h2>
</center>
<table border="1" align="center">
<tr><td>Row1 Data1</td><td>Row1 Data2</td></tr>
<tr><td>Row2 Data1</td><td>Row2 Data2</td></tr>
</table>
</body>
</html>
```

Table Width

- Setting the width attribute to 100% causes the table to grow as wide as the browser window. The height attribute can be applied to tables in the same way as width, but browser support for the height attribute is limited and works marginally at best.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Table and Column Width Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Table and Column Width Example</h2>
</center>
<table border="1" width="100%" align="center">
<tr><td>Row1 Data1</td><td>Row1 Data2</td></tr>
<tr><td>Row2 Data1</td><td>Row2 Data2</td></tr>
</table>
</body>
</html>
```

Table Width

- Setting the width attribute to less than the needed space causes the table to grow as wide as needed. In this example the width is set to 1%, but the table is much wider. To get the table as narrow as possible, the browser wrapped the cell content.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Table and Column Width Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Table and Column Width Example</h2>
</center>
<table border="1" width="1%" align="center">
<tr><td>Row1 Data1</td><td>Row1 Data2</td></tr>
<tr><td>Row2 Data1</td><td>Row2 Data2</td></tr>
</table>
</body>
</html>
```

Table Width

- The width attribute can be set to a fixed number of screen pixels as well. This keeps the table the same width regardless of the size of the browser window.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Table and Column Width Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Table and Column Width Example</h2>
</center>
<table border="1" width="300" align="center">
<tr><td>Row1 Data1</td><td>Row1 Data2</td></tr>
<tr><td>Row2 Data1</td><td>Row2 Data2</td></tr>
</table>
</body>
</html>
```

Table Width

- The width attribute can be set in the `<td>` tag as well. Notice that in this example the browser made just enough room for "Data1" and used the width of that cell to calculate the other two columns. Since "Data1" took up less than 10% of the browser window, the whole table is less than the width of the browser window. The width of a column should only be set in one row.

```
<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Table and Column Width Example</h2>
</center>
<table border="1" align="center">
<tr>
<td width="10%">10%</td>
<td width="40%">40%</td>
<td width="50%">50%</td>
<tr>
<td>Data1</td>
<td>Data2</td>
<td>Data3</td>
</tr>
</table>
</body>
```

Table Width

- The total of the width percentages on any row should equal 100%. Using values that sum up to less than 100% is only moderately predictable, and using values that sum up to more the 100% is very unpredictable.

```
<table border="1" align="center">
<tr>
<td width="1%">1%</td>
<td width="4%">4%</td>
<td width="5%">5%</td>
<tr>
<td>Data1</td>
<td>Data2</td>
<td>Data3</td>
</tr>
</table>
```

Table Width

- The width attribute within the `<td>` tag can also be set using screen pixels. This causes the columns to be a set width regardless of the browser window size.

```
<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Table and Column Width Example</h2>
</center>
<table border="1" align="center">
<tr>
<td width="50" >50</td>
<td width="150">150</td>
<td width="50" >50</td>
<tr>
<td>Data1</td>
<td>Data2</td>
<td>Data3</td>
</tr>
</table>
</body>
</html>
```

Table Width

- Below are more examples using percentages on the columns with a fixed table width of 400. The most interesting is the last one where all four columns should be 25%, but since the text in column one is so wide, it does not leave enough space for the other cells to grow to 25%.

10%	20%	70%	
10%	30%	60%	
5%	15%	30%	
25%	25%	25%	25%
TwentyFivePercent	25%	25%	25%

Table Width

- Below are more examples using screen pixels on the columns with the table width undefined. The most interesting is the last one where a 72 dot per inch screen ruler is produced. It is widely accepted that, on average, 72 screen pixels is roughly equal to 1 inch at a resolution of 800x600.

10	20	30	40	50	60	70	80
TwentyFive				25	25	25	
72 1 inch	144 2 inches		216 3 inches				

Empty Table Cells

- Some browsers will not display empty cells in a table as hollow. The example below is a table with row and column headers defined, but the data cells are empty. When viewed in some browsers, the empty cells appear as one large block.

Hollow Display

1	2	3
2		
3		
4		

Block Display

1	2	3
2		
3		
4		

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Empty Table Cells Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Empty Table Cells Example</h2>
</center>
<table border="1" width="300" align="center">
<tr><td>1</td><td>2</td><td>3</td></tr>
<tr><td>2</td><td></td><td></td></tr>
<tr><td>3</td><td></td><td></td></tr>
<tr><td>4</td><td></td><td></td></tr>
</body>
</html>
```

Space

- Placing a non-breaking space in each empty cell will force them to show up as hollow cells in the table. Note, there does not appear to be a method to ensure empty cells will appear as one large block in all browsers.

Hollow Display

1	2	3
2		
3		
4		

Block Display

1	2	3
2		
3		
4		

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Empty Table Cells Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Empty Table Cells Example</h2>
</center>
<table border="1" width="300" align="center">
<tr><td>1</td><td>2</td><td>3</td></tr>
<tr><td>2</td><td>&nbsp;</td><td>&nbsp;</td></tr>
<tr><td>3</td><td>&nbsp;</td><td>&nbsp;</td></tr>
<tr><td>4</td><td>&nbsp;</td><td>&nbsp;</td></tr>
</table>
</body>
</html>
```

Empty Rows

- Inserting empty rows in a table results in horizontal cell spacing at the point they are inserted. Depending on which browser you are using, you will either see a hollow display or a block display.

Hollow Display

1	2	3
2		
3		
4		

Block Display

1	2	3
2		
3		
4		

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Empty Table Rows Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Empty Table Rows Example</h2>
</center>
<table border="1" width="300" align="center">
<tr><td>1</td><td>2</td><td>3</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>2</td><td>&nbsp;</td><td>&nbsp;</td></tr>
<tr><td>3</td><td>&nbsp;</td><td>&nbsp;</td></tr>
<tr><td>4</td><td>&nbsp;</td><td>&nbsp;</td></tr>
</table>
</body>
</html>
```

Empty Cells

- Inserting an empty cell in the same position of each table row results in thicker vertical cell spacing at the point they are inserted. In this example, the thickness of the vertical cell spacing is thicker than preferred. Again, depending on your browser, you will see one of the two below.

Hollow Display

1		2	3
2			
3			
4			

Block Display

1		2	3
2			
3			
4			

```
<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Empty Table Column Example</h2>
</center>
<table border="1" width="300" align="center">
<tr><td>1</td><td></td><td>2</td><td>3</td></tr>
<tr><td>2</td><td></td><td>&nbsp;</td><td>&nbsp;</td></tr>
<tr><td>3</td><td></td><td>&nbsp;</td><td>&nbsp;</td></tr>
<tr><td>4</td><td></td><td>&nbsp;</td><td>&nbsp;</td></tr>
</table>
</body>
</html>
```

Width Attribute

- In this example, the thickness of the vertical spacing is better controlled by adding width attributes to each <td> tag in the first row.

Hollow Display

1	2	3
2		
3		
4		

Block Display

1	2	3
2		
3		
4		

```
<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Empty Table Column Example</h2>
</center>
<table border="1" align="center">
<tr>
  <td width="100">1</td>
  <td width="1" ></td>
  <td width="100">2</td>
  <td width="100">3</td>
</tr>
<tr><td>2</td><td></td><td>&nbsp;</td><td>&nbsp;</td></tr>
<tr><td>3</td><td></td><td>&nbsp;</td><td>&nbsp;</td></tr>
<tr><td>4</td><td></td><td>&nbsp;</td><td>&nbsp;</td></tr>
</table>
</body>
```

Width Attribute

- It is interesting to see the results of using empty rows and columns at the same time.

Hollow Display

1	2	3
2		
3		
4		

Block Display

1	2	3
2		
3		
4		

```
<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Empty Table Column Example</h2>
</center>
<table border="1" align="center">
<tr>
  <td width="100">1</td>
  <td width="1" >1</td>
  <td width="100">1</td>
  <td width="100">1</td>
</tr>
<tr><td>/td><td>/td><td>/td><td>/td></tr>
<tr><td>2</td><td>/td><td>&nbsp;</td><td>&nbsp;</td></tr>
<tr><td>3</td><td>/td><td>&nbsp;</td><td>&nbsp;</td></tr>
<tr><td>4</td><td>/td><td>&nbsp;</td><td>&nbsp;</td></tr>
</table>
</body>
```

Table Column Span Attribute

- The "colspan" attribute, which works with both the <td> and <th> tags, is used to allow table cells to span multiple columns. All rows must have the same number of cells defined for the table to display correctly. The below example uses colspan="4" in the first row which causes the first row to become one large cell, and the following rows each have four separate cells defined.

```
<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Table Column Span Example</h2>
</center>
<table border="1" align="center">
<tr><th colspan="4">STOCKS PORTFOLIO</th></tr>
<tr><th>Stock </th><th>Symbol</th><th>Own</th><th>Value</th></tr>
<tr><td>Google</td><td>GOOG </td><td>10</td><td>$3680</td></tr>
<tr><td>Ebay </td><td>EBAY </td><td>50</td><td>$2000</td></tr>
<tr><td>Yahoo </td><td>YHOO </td><td>20</td><td> $660</td></tr>
</table>
</body>
</html>
```

Row Span Attribute

- The "rowspan" attribute, which works with both the <td> and <th> tags, is used to allow table cells to span multiple rows. The below example uses rowspan="7" in the first cell which causes the first column to be one large cell. Because the first column is already defined for all 7 rows, only the first row must define a second cell, all others only define a cell for column 2.

```
<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Table Row Span Example</h2>
</center>
<table border="1" cellpadding="5" align="center">
<tr><th rowspan="7">W<br />E<br />E<br />K<br /><br />1</th>
<td>Monday</td></tr>
<tr><td>Tuesday</td></tr>
<tr><td>Wednesday</td></tr>
<tr><td>Thursday</td></tr>
<tr><td>Friday</td></tr>
<tr><td>Saturday</td></tr>
<tr><td>Sunday</td></tr>
</table>
</body>
</html>
```

Nested Tables

- Nested tables are probably the most useful tool in HTML that is also backward compatible. The simplest nested table is a single cell table inside a single cell table.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Nested Tables Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<center>
<h2>Nested Tables Example</h2>
</center>
<table border="1" cellpadding="10" align="center"><tr><td>
  <table border="1" cellspacing="5"><tr><td>
    <center>
<font size="+2">Welcome to the</font><br />
<font size="+3">World Wide Web</font><br />
<font size="+1"><i>By: Charlotte</i></font>
    </center>
  </td></tr></table>
</td></tr></table>
</body>
</html>
```

Nested Tables

- By default, multiple tables will display end-to-end down the page.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Non-Nested Tables Example</title>
</head>

<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<table border="1" bgcolor="#ffcccc"><tr><td>
  <font size="+5">A</font><br />
</td></tr></table>
<table border="1" bgcolor="#ccccff"><tr><td>
  <font size="+5">B</font><br />
</td></tr></table>
<table border="1" bgcolor="#ccffcc"><tr><td>
  <font size="+5">C</font><br />
</td></tr></table>
</body>
</html>
```

Nested Tables

- Nesting the same three tables inside another table will force them to sit side-by-side. In the below example the outside table (highlighted in yellow) has three data cells, and each one holds a nested table.

```
<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">  
<table border="1" align="center"><tr><td>  
  <table border="1" bgcolor="#ffcccc"><tr><td>  
    <font size="+5">A</font><br />  
  </td></tr></table>  
</td><td>  
  <table border="1" bgcolor="#ccccff"><tr><td>  
    <font size="+5">B</font><br />  
  </td></tr></table>  
</td><td>  
  <table border="1" bgcolor="#ccffcc"><tr><td>  
    <font size="+5">C</font><br />  
  </td></tr></table>  
</td></tr></table>  
</body>  
</html>
```

Nested Tables

- If the "border" attribute is removed from the outside table, the nested tables will cleanly sit next to each other.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-us">
<head>
<title>Nested Tables Example</title>
</head>
<body bgcolor="#bdbdbd" text="black" link="blue" vlink="purple">
<table align="center"><tr><td>
  <table border="1" bgcolor="#ffcccc"><tr><td>
    <font size="+5">A</font><br />
  </td></tr></table>
</td></tr>
<td>
  <table border="1" bgcolor="#ccccff"><tr><td>
    <font size="+5">B</font><br />
  </td></tr></table>
</td></tr>
<td>
  <table border="1" bgcolor="#ccffcc"><tr><td>
    <font size="+5">C</font><br />
  </td></tr></table>
</td></tr></table>
</body>
</html>
```