

topicSeven

HTML Tables

Learning Objectives

- At the end of this chapter the students should be able to:
 - Understand table format, elements, attributes, width and height.
 - Use colspan and rowspan.
 - Manipulate table to design the web page

Introduction

- Tables are used on websites for two major purposes.
- The obvious purpose of arranging information in a table whiles the less obvious but more widely used is for the purpose of creating a page layout with the use of hidden tables.
- Using tables to divide the page into different sections is an extremely powerful tool.
- Almost all major sites on the web are using invisible tables to layout the pages

Introduction

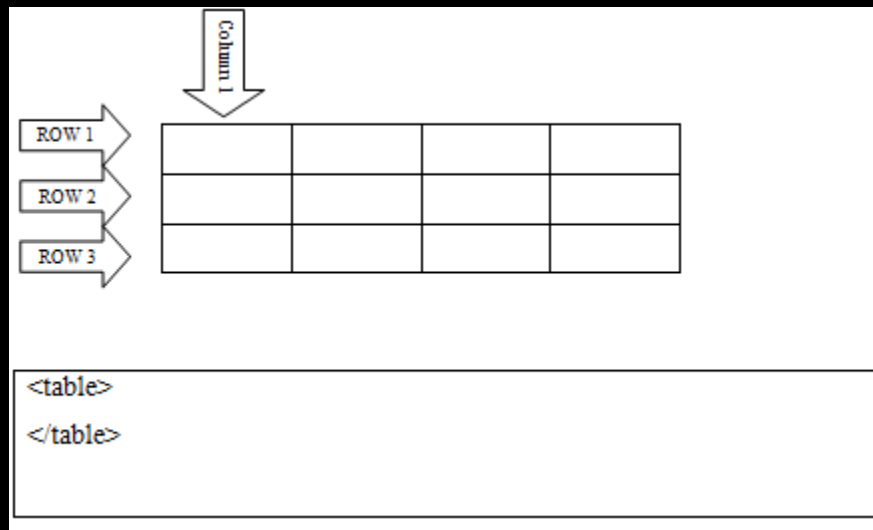
- The most important layout aspects that can be done with tables are:
 - Dividing the page into separate sections:
 - An invisible table is excellent for this purpose.
 - Creating menus:
 - Typically with one color for the header and another for the links following in the next lines.
 - Adding interactive form fields:
 - Typically a gray area containing a search option.
 - Creating fast loading headers for the page:
 - A colored table with a text on it loads like a bullet compared to even a small banner.
 - Easy alignment of images that have been cut into smaller pieces.
 - A simple way to allow text to be written in two or more columns next to each other.

Introduction

- The importance of using tables for these layout purposes can't be overrated.
- However there are a few things to keep in mind when doing so.
- Most important is, that the content of a table is not shown until the entire table is loaded.
- If you have extremely long pages, you should divide it into two or more tables thus allowing the user to start reading the upper content while the rest of the page is loading

Creating Simple Table

- Tables are defined with the <table> tag.
- It consists of row and column.
- To insert a table on your page you simply add these tags where you want the table to occur:



Inserting Row

- To add rows to your table use the `<tr>` and `</tr>` tags.
- It doesn't make sense to write the above lines in itself, because you can't write content outside of table cells.
- If you do write things outside of cells it will appear right above the table

```
<table>
```

```
  <tr></tr>
```

```
</table>
```

Inserting Column

- You can divide rows into columns with `<td>` and `</td>` tags:

```
<table>
<tr>
<td>This is row one, left side.</td>
<td>This is row one, right side.</td>
</tr>
<tr>
<td>This is row two, left side.</td>
<td>This is row two, right side.</td>
</tr>
</table>
```

Result:

This is row one, left side.	This is row one, right side.
This is row two, left side.	This is row two, right side.

Property	Description
align= left center right	left align table center table right align table
background=filename	image inserted behind the table
bgcolor=#rrggbb	background color
border=n	border thickness
bordercolor=#rrggbb	border color
bordercolordark=#rrggbb	border shadow
cellpadding=n	distance between cell and content
cellspacing=n	space between cells
nowrap	protects against linebreaks, even though the content might be wider than the browser window.
frame= void, above, below, lhs, rhs, hsides, vsides, box	removes all outer borders shows border on top of table shows border on bottom of table shows border on left side of table shows border on right side of table shows border on both horizontal sides shows border on both vertical sides shows border on all sides of table
valign= top bottom	aligns content to top of cells aligns content to bottom of cells
width= n, n n, n%	minimum width of table in pixels minimum width in percentage of window size

These settings can be added to both <tr> and <td> tags.

PROPERTY	DESCRIPTION
align= left right center	aligns content to the left of cells aligns content to the right of cells aligns content to the center of the cells
background=filename	sets a background image for the cells
bgcolor=#rrggbb	sets a background color for the cells
bordercolor=#rrggbb	sets color for the border of cells
bordercolordark=#rrggbb	sets color for the border shadow of cells
valign= top middle bottom	aligns to the top of cells aligns to the middle of the cells aligns to the bottom of cells
width= n n%	specify a minimum width for the cells in pixels specify a minimum width for the cells in percent of the table width
height= n n%	minimum height of cells in pixels minimum height of cells in percentage of table height

These settings are only valid for <td> tags.

PROPERTY	DESCRIPTION
colspan=n	number of columns a cell should span
nowrap	protects against linebreaks, even though the content of a cell might be wider than the browser window
rowspan=n	number of rows a cell should span

Adding a Border

- If you do not specify a border attribute, the table will be displayed without borders.
- Sometimes this can be useful, but most of the time, we want the borders to show.
- To display a table with borders, specify the border attribute:

```
<table border="1">  
<tr>  
<td>Row 1, cell 1</td>  
<td>Row 1, cell 2</td>  
</tr>  
</table>
```

```
<table border="1">
<tr>
<th>Header 1</th>
<th>Header 2</th>
</tr>
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td>row 2, cell 2</td>
</tr>
</table>
```

Header 1	Header 2
row 1, cell 1	row 1, cell 2
row 2, cell 1	row 2, cell 2

Header information in a table is defined with the <th> tag. All major browsers will display the text in the <th> element as bold and centered.

Setting the Width

- The width attribute specifies the width of a table.
- If the width attribute is not set, a table takes up the space it needs to display the table data.
- It can be either in pixel or percentage.
- To display a table with specified width, specify the width attribute

```
<table border="1" width="400">
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$80</td>
  </tr>
</table>
```

Centering a Table on the Page

- The align attribute specifies the alignment of a table according to surrounding text.
- Normally, an HTML table will have a break before and after it.
- The align attribute allows other HTML elements to wrap around the table.

<code><table align="value"></code>	
Attribute Values	
Value	Description
left	Left-aligns the table
right	Right-aligns the table
center	Center-aligns the table


```
<table border="1" align="center">
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$80</td>
  </tr>
</table>
```

Combining Tables

- Several tables can be combined together to create a more systematic page arrangement.
- Its like creating a table in a table:

```
<table border="1">  
<tr>  
<td>  
<table border="3">  
<tr>  
<td>  
</td>  
</tr>  
</table>  
</td>  
</tr>  
</table>
```

Aligning a Cell's Contents

- To align cell contents, we must used align attribute within the <td> tags

```
<table border="1">  
<tr>  
<td align="right">Align Right</td>  
<td align="center">Align Center</td>  
</tr>  
</table>
```

Aligning a Cell's Contents

- You can also use another alignment command for your cells, the vertical alignment command.
- The vertical alignment commands come in useful if your table cells don't have the same number of lines inside each cell.

Tags	Functions
<code>valign="top"</code>	Aligns contents to the top of the cell.
<code>valign="middle"</code>	Aligns contents halfway between the top and bottom of the cell.
<code>valign="bottom"</code>	Aligns contents to the bottom of the cell.

```

<table width="550" border="2" cellspacing="7" cellpadding="0">
<tr>
<td align="center" valign="top">
I'm on top! <br />
So i start on top!
</td>
<td align="center" valign="middle">
I'm in the middle
</td>
<td align="center" valign="bottom">
I start at the bottom.
</td>
</tr>
</table>

```

The table looks like this:

I'm aligned to the top! So I start on top!	I'm in the middle.	I start at the bottom.
---	--------------------	------------------------

Changing the Background

- Background is a nonstandard attribute supported by Netscape Navigator (NN), Microsoft Internet Explorer (MSIE), and Web TV.
- The value is the URL of the background image.
- If the image dimensions are smaller than the table dimensions and there is enough space in the table, the image will tile.

Changing the Background

- Browsers vary in handling table backgrounds.
- The results will not always be what you had anticipated.
- MSIE places background images behind the entire table.
- Netscape Navigator 4.x tries to place the background image into each table cell.
- If BACKGROUND and BGCOLOR are both coded with appropriate values the BACKGROUND will take precedence if the image can load.

Changing the Background

- If for some reason the image fails to load, the browser will use the value of BGCOLOR.
- You must not to get carried away with background images in tables.
- Rarely are they effective and download time increases with the use of images.
- Sometimes users will not wait for images to download

Changing the Background

- If you have to code BACKGROUND for a table try to use a very subtle image, such as a watermark.
- Tables with background images are often difficult to read.

```
<table background="oakwood.gif">
```

```
<table bgcolor="gold">
```

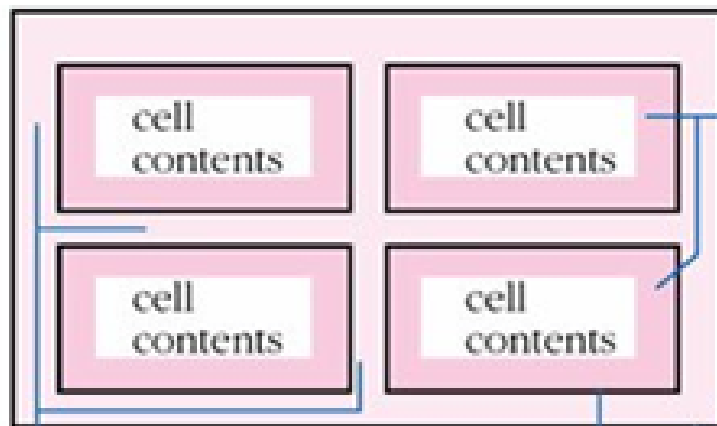
Controlling the Space

- The space in the table can be control using the cellpadding and cellspacing attribute.
- Think of cellpadding as the width of the inside cell borders for the table cells.
- It is an attribute of the <table> element which is set for the entire table in the table tag.
- Cellspacing, on the other hand, refers to how space is left between each cell wall in a table.
- If you want no spaces at all, you MUST set cellspacing="0", otherwise the default is cellspacing="1", even if you don't even mention cellspacing

All cells have a cellpadding of "18"

I left the middle cell empty, except for a space.
I also started the first sentence of this cell with a space.

```
<table width="550" border="2" cellspacing="7" cellpadding="4">
```



Cell padding is between a cell's contents and its border (dark pink)

Table border

Cell borders

Cell spacing is between the borders of each cell (light pink)

Spanning a Cell across Columns and Rows

- These two features, Colspan and Rowspan, allow you to extend columns and rows across multiple other columns and rows when they would usually be forced to stop.
- In this section you will learn how to extend columns and rows.

Colspan

- Column Span extends cells on a horizontal row (left and right).
- The line to add for Column Span is `colspan="X"`.
- This line adds onto the `<td>` cell so the final result would look like this
`<td colspan="x">`.
- The "X" in the line, is replaced with the number of cells it extends past.
- So for example, if it is covering the distance that of 3 cells above or below it, the line would look like `<td colspan="3">`

Rowspan

- Row Span meanwhile extends cells on a vertical row (up and down).
- The line to add for Row Span is `rowspan="x"`.
- This line adds onto the `<td>` cell so the final result would look like this
`<td rowspan="x">`.
- The "X" in the line, is replaced with the number of cells it extends.
- So for example, if it is covering the distance that of 3 cells left or right of it, the line would look like `<td rowspan="3">`.

index.html - Notepad

```
....<BODY>
```

```
<TABLE BORDER="1">
```

```
<TR> <TD> Cell 1 </TD> <TD> Cell 2
```

```
</TD> </TR>
```

```
<TR> <TD COLSPAN="2"> Cell 3 </TD>
```

```
</TR>
```

```
</TABLE>
```

```
</BODY>....
```

My Homepage - Microsoft Internet Explorer

Cell 1	Cell 2
--------	--------

Cell 3

index.html - Notepad

....<BODY>

```
<TABLE BORDER="1">
```

```
<TR> <TD ROWSPAN="2"> Cell 1 </TD>
```

```
<TD> Cell 2 </TD> </TR> <TR> <TD> Cell  
3 </TD> </TR>
```

```
</TABLE>
```

```
</BODY>....
```

My Homepage - Microsoft Internet Explorer

Cell 1	Cell 2
	Cell 3


```
Normal_Table.html - Notepad
File Edit Format View Help

<html>
<head><title>Table</title></head>

<body>

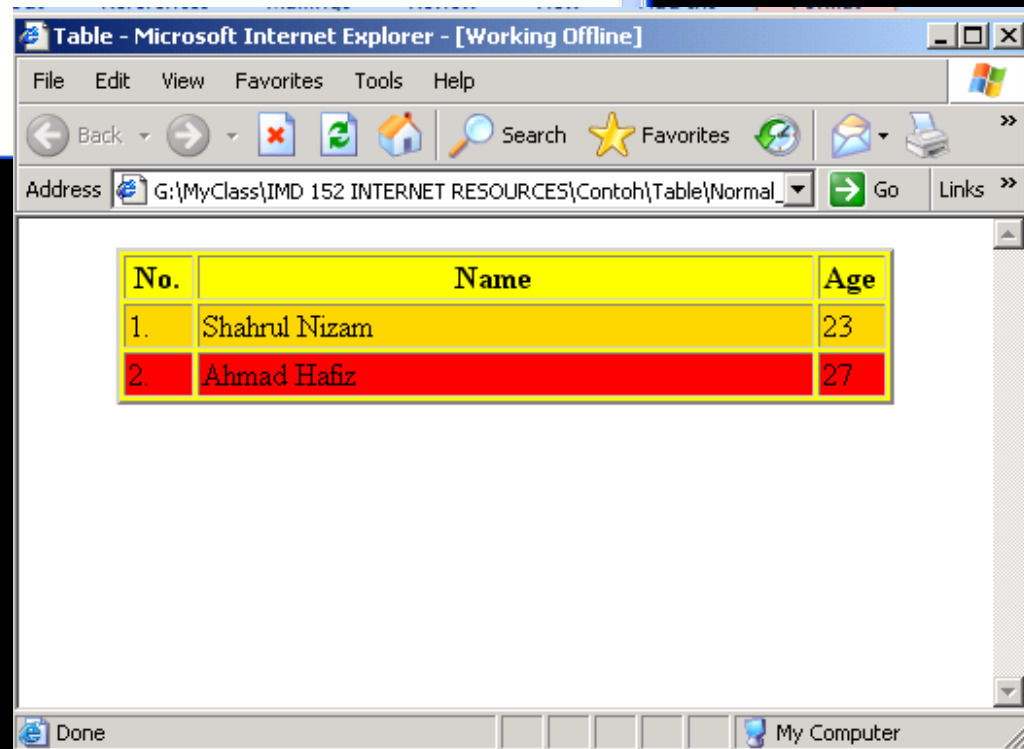
<table border="2" align="center" width="400" bgcolor="yellow">
<tr>
<th width="30">No.</th>
<th width="300">Name</th>
<th width="30">Age</th>

<tr>
<td width="30" bgcolor="gold">1.</td>
<td width="300" bgcolor="gold">Shahrul Nizam</td>
<td width="30" bgcolor="gold">23</td>
</tr>

<tr bgcolor="red">
<td width="30">2.</td>
<td width="300">Ahmad Hafiz</td>
<td width="30">27</td>
</tr>

</table>

</body>
</html>
```



```
colspan.html - Notepad
File Edit Format View Help

<html>
<head> <title>Table</title></head>

<body>

<table border="1" width="400" bordercolor="red">
<tr>
<th width="30">No.</th>
<th width="300">Name</th>
<th width="30">Age</th>

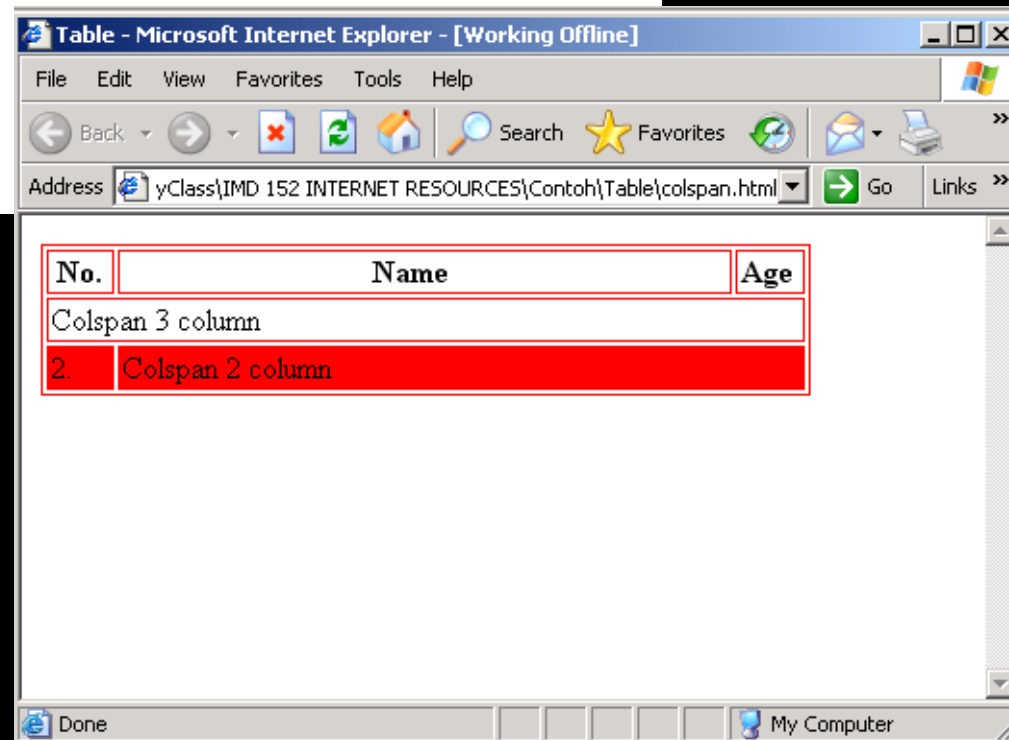
<tr>
<td colspan="3">Colspan 3 column</td>
</tr>

<tr bgcolor="red">
<td width="30">2.</td>
<td colspan="2">Colspan 2 column</td>

</tr>

</table>

</body>
</html>
```



```
rowspan.html - Notepad
File Edit Format View Help

<html>
<head><title>Table</title></head>

<body>

<table border="1" width="400" bordercolor="red">
<tr>
<th width="30">No.</th>
<th width="300">Name</th>
<th width="30">Age</th>

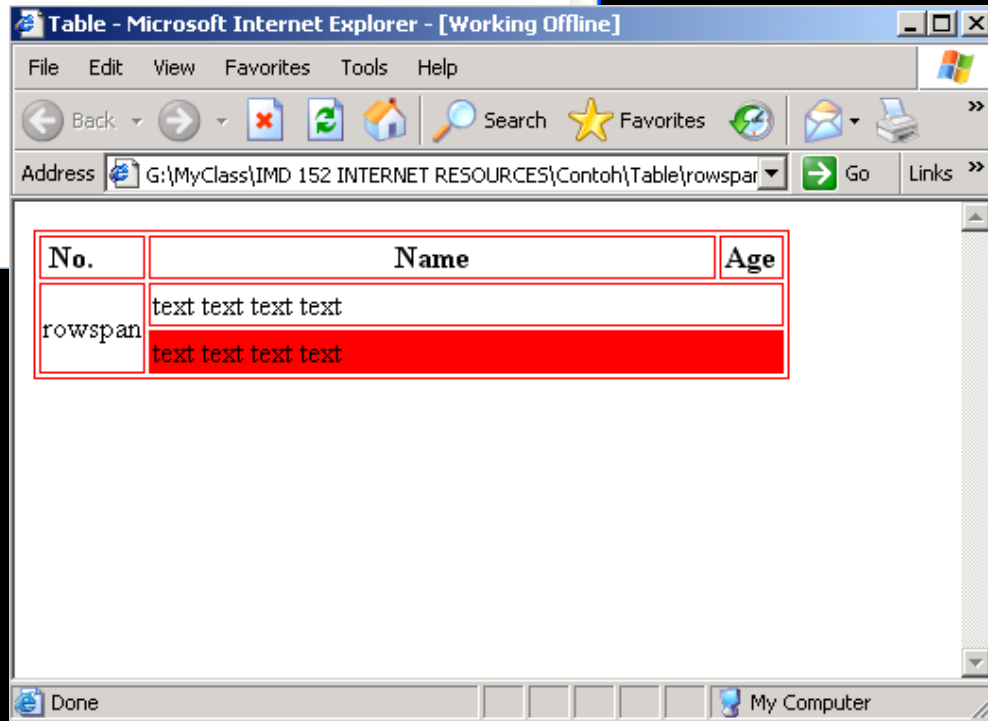
<tr>
<td rowspan="2">rowspan</td>
<td colspan="2">text text text text</td>
</tr>

<tr bgcolor="red">
<td colspan="2">text text text text</td>

</tr>

</table>

</body>
</html>
```



Mapping Out Your Page

- Before you create a complicated table, it's really important to have a vision of what you're about to construct.
- You should know how many rows and columns you need, how big these should be, and where each of the items on your page should go.

To map out your page:



Design your page on a piece of paper with a pen



Figure out how many rows and columns you will need. Identify any rows or columns that will span more than one space.



If necessary, you can nest one table inside another. However, you should keep nesting to a minimum as it tends to slow browsers down and sometimes causes them to break down altogether.



If you're going to make a static, fixed design, measure how wide your table should be (the standard is around 600 pixels) and then decide how many pixels wide each column should be. For liquid designs, use percentages.



Create the skeleton of your page with just the table tags but little or no content.



Finally, create or insert the content.

