

TUTORIAL 06

“Working with Tables”

“HTML TABLES”

Introduction to HTML TABLES

- **HTML tables**

Seasons		
March/April	Spring	Cold
		Warm
		Warm

Introduction to HTML TABLES

- The **HTML tables** allow web developers to arrange data like text, images, links, etc. into **rows** and **columns of cells**.
- The HTML tables are created using the **<table>** tag in which the **<tr>** tag is used to create table rows and **<td>** tag is used to create data cells.

Introduction to HTML TABLES

```
<body>
```

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

```
<tr>
```

```
<th>Code</th>
```

```
<th>Program Name</th>
```

```
</tr>
```

```
<tr>
```

```
<td>B990</td>
```

```
<td>Mobile Applications Development</td>
```

```
</tr>
```

```
<tr>
```

```
<td>B949</td>
```

```
<td>Web Development</td>
```

```
</tr>
```

```
</table>
```

```
</body>
```

Tables code (example)

Code	Program Name
B990	Mobile Applications Development
B949	Web Development

Introduction to HTML TABLES

Tables are used on websites for two major purposes:

- The obvious purpose of arranging / displaying information in a table

Id	Name	Email	Investments
261	Alfred Alan	aalan@gmail.com	Stocks
227	Alison Smart	asmart@biztalk.com	Residential Property
246	Ally Emery	alife@easymail.com	Stocks
212	Andrew Phips	andyp@mycorp.com	Stocks
218	Andy Mitchel	andym@hotmail.com	Stocks
221	Ann Melan	ann_melan@inet.com	Residential Property
243	Ben Bessel	benb@hotmail.com	Stocks

- The less obvious - but more widely used - purpose of creating a page layout with the use of hidden tables, where data is displayed on the web page in columns.

T _{K1} percentage	80%	95%	100%
APD90min (ms)	139.9	134.7	133.1
APD90max (ms)	312.9	285.5	269.1
WLmin (mm)	35.9	30.1	28.2
WLmax (mm)	312.4	281.7	274.2

Introduction to HTML TABLES

Let's take a look at the

Tutorial 6: Dakota Listener Radio TABLE

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
6:00 PM	National News						
6:30 PM	World News						
7:00 PM	Opera Fest	Radio U	Science Week	The Living World	Word Play	Agri-Week	Folk Fest
7:30 PM					Brain Stew	Bismarck Forum	
8:00 PM	The Classical Music Connection				Old Time Radio	Saturday Nite Jazz	The Indie Connection
8:30 PM					The Inner Mind		
9:00 PM					Open Mike Nite		
9:30 PM							
10:00 PM	World News Feed						
DLR ends its broadcast day at 10:30 p.m.							

All Times Central

Introduction to HTML TABLES

The purpose: To arrange / display information in a table

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
6:00 PM	National News						
6:30 PM	World News						
7:00 PM	Opera Fest	Radio U	Science Week	The Living World	Word Play	Agri-Week	Folk Fest
7:30 PM					Brain Stew	Bismarck Forum	
8:00 PM	The Classical Music Connection				Old Time Radio	Saturday Nite Jazz	The Indie Connection
8:30 PM					The Inner Mind		
9:00 PM					Open Mike Nite		
9:30 PM							
10:00 PM	World News Feed						
DLR ends its broadcast day at 10:30 p.m.							

All Times Central

1. **Tables** are defined with the `<table>` tag.

```
<table>
```

```
...
```

```
</table>
```


2. ROWS:

To add rows to your table use the `<tr>` and `</tr>` tags

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

row 1

row 2

row 3

row 11

Time	Mon
6:00 PM	Nationa
6:30 PM	World N
7:00 PM	Opera F
7:30 PM	
8:00 PM	The Cla
8:30 PM	
9:00 PM	
9:30 PM	
10:00 PM	World N
DLR ends its broadcast d	

3. COLUMNS:

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

row {

```
<table>
  <tr>
    <td>Time</td>
    <td>Mon</td>
    ...
  </tr>
  <tr>
  </tr>
</table>
```



Time	Mon
6:00 PM	National News

Introduction to HTML TABLES

How many **ROWS** and **COLUMNS** does this table contain?

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
6:00 PM	National News						
6:30 PM	World News						
7:00 PM	Opera Fest	Radio U	Science Week	The Living World	Word Play	Agri-Week	Folk Fest
7:30 PM					Brain Stew	Bismarck Forum	
8:00 PM	The Classical Music Connection				Old Time Radio	Saturday Nite Jazz	The Indie Connection
8:30 PM					The Inner Mind		
9:00 PM					Open Mike Nite		
9:30 PM							
10:00 PM	World News Feed						
DLR ends its broadcast day at 10:30 p.m.							

All Times Central

4. Table **<caption>**

The **HTML Table Caption element** (**<caption>**) specifies the caption (or title) of a table, and if used is *always* the first child of a **<table>**.

Styling and physical position relative to the table may be changed using the SS **caption-size** and **text-align** properties.



A screenshot of a television schedule table. The table has a light purple background. The first column contains time slots: 8:30 PM, 9:00 PM, 9:30 PM, and 10:00 PM. The second column contains program names: The Inner Mind, Open Mike Nite, and World News Feed. A black bar at the bottom of the table contains the text "DLR ends its broadcast day at 10:30 p.m.". Below the table, a green box contains the text "All Times Central", which is circled in blue.

8:30 PM	The Inner Mind
9:00 PM	Open Mike Nite
9:30 PM	
10:00 PM	World News Feed

DLR ends its broadcast day at 10:30 p.m.

All Times Central

Example:

```
<table>  
  <caption>All Times Central</caption>
```

5. COLUMNS using <th>:

You can define a column using the `<th>` and `</th>` tags:

The `<th>` **element** defines a cell as header of a group of table cells.

```
<tr>
  <th>Time</th>
  <th>Mon</th>
  <th>Tue</th>
  <th>Wed</th>
  <th>Thu</th>
  <th>Fri</th>
  <th>Sat</th>
  <th>Sun</th>
</tr>
```

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun

6. **COLUMN** and **ROW** span:

`colspan=""` [Number of columns a cell should span]

`rowspan=""` [Number of rows a cell should span]

Example:

```
<tr>
<th>6:00 PM</th>
<td colspan="7">National News</td>
</tr>
```

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
6:00 PM	National News						
6:30 PM	World News						

6. **COLUMN** and **ROW** span:

colspan="" [Number of columns a cell should span]

rowspan="" [Number of rows a cell should span]

```
<tr>
```

```
<th>7:00 PM</th>
```

```
<td rowspan="2">Opera Fest</td>
```

```
<td rowspan="2">Radio U</td>
```

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

Example:

7:00 PM	Opera Fest	Radio U	S
7:30 PM			V

7. Table with (**thead**, **tbody** or **tfoot**) tags:

- **thead** is used to enclose a group of rows in a table as a header.
- **tfoot** is used to enclose a group of rows in a table as a footer, such as last row or two of a table.
i.e. Summary information
- **tbody** is for main body of the table.

The {thead, tbody, tfoot} do not have any default rendering.
Use CSS for styling.

When using thead or tfoot, you can use th or td.

7. Table with (**thead**, **tbody** or **tfoot**) tags:

Example:

```

<table border="1">
  <thead>
    <tr>
      <th>North</th>
      <th>South</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>12</td>
      <td>8</td>
    </tr>
    <tr>
      <td>14</td>
      <td>2</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <th colspan="2">North wins!</th>
    </tr>
  </tfoot>
</table>

```

North	South
12	8
14	2
North wins!	

Introduction to HTML TABLES

8. The **<colgroup>** element defines a group of columns within a table.

<colgroup>

<col span="4">

style="background-color:#FFF9C4;">

<col style="background-color:yellow;">

</colgroup>

<thead>

<tr>

<th>Club</th>

<th>W</th>

<th>D</th>

<th>L</th>

<th>PTS</th>

</tr>

</thead>..

<tbody>

<tr>

<td>Milan</td>

<td>6</td>

<td>2</td>

<td>0</td>

<td>20</td>

</tr>

</tbody> </table>

Club	W	D	L	PTS
Milan	6	2	0	20

TUTORIAL 06

“Dakota Listener Radio”

“dlr_evenings.html”

TABLE 11 ROWS 8 COLUMNS

Row#1

Row#2

Row#3

Row#4

Row#5

Row#6

Row#7

Row#8

Row#9

Row#10

Row 11

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
6:00 PM	National News						
6:30 PM	World News						
7:00 PM	Opera Fest	Radio U	Science Week	The Living World	Word Play	Agri-Week	Folk Fest
7:30 PM					Brain Stew	Bismarck Forum	
8:00 PM	The Classical Music Connection				Old Time Radio	Saturday Nite Jazz	The Indie Connection
8:30 PM					The Inner Mind		
9:00 PM					Open Mike Nite		
9:30 PM							
10:00 PM	World News Feed						
DLR ends its broadcast day at 10:30 p.m.							

All Times Central

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
------	-----	-----	-----	-----	-----	-----	-----

<table>

Row#1

<tr>

<th>Time</th>

<th>Mon</th>

<th>Tue</th>

<th>Wed</th>

<th>Thu</th>

<th>Fri</th>

<th>Sat</th>

<th>Sun</th>

</tr>

<th> - by default is
bold and centered

6:00 PM	National News						
---------	---------------	--	--	--	--	--	--

Row#2

```
<tr>  
  <th>6:00 PM</th>  
  <td colspan="7">National News</td>  
</tr>
```

“One cell that spans 7 columns”

Row#1

Row#2

Row#3

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
6:00 PM	National News						
6:30 PM	World News						

<tr>

<th>6:30 PM</th>

<td colspan="7">World News</td>

</tr>

Row#3

All eight (8) columns defined!

"One cell that spans 7 columns"

Row#4	7:00	Opera Fest	Radio U	Science Week	The Living World	Word Play	Agri-Week	Folk Fest
Row#5	7:30					Brain Stew	Bismarck Forum	

<tr>

<th>7:00 PM</th>

Row#4

<td rowspan="2">Opera Fest</td>

<td rowspan="2">Radio U</td>

<td rowspan="2">Science Week</td>

<td rowspan="2">The Living World</td>

<td>Word Play</td>

<td>Agri-Week</td>

<td rowspan="2">Folk Fest</td>

</tr>

Rows #4 & 5

Row#4	7:00	Opera Fest	Radio U	Science Week	The Living World	Word Play	Agri-Week	Folk Fest
Row#5	7:30					Brain Stew	Bismarck Forum	

<tr>

<th>7:00 PM</th>

<td rowspan="2">Opera Fest</td>

<td rowspan="2">Radio U</td>

<td rowspan="2">Science
Week</td><td rowspan="2">The Living
World</td>

<td>Word Play</td>

<td>Agri-Week</td>

<td rowspan="2">Folk Fest</td>

</tr>

Row#4

<tr>

<th>7:30</th>

<td>Brain Stew</td>

<td>Bismarck Forum</td>

</tr>

Row#5

Row#6	8:00	The Classical Music Connection	Old Time Radio	Saturday Nite Jazz	The Indie Connection
Row#7	8:30		The Inner Mind		
Row#8	9:00		Open Mike Nite		
Row#9	9:30				

<tr>

Row#6

<th>8:00</th>

<td rowspan="4" colspan="4">The Class...</td>

<td>Old Time Radio</td>

<td rowspan="4">Saturday Nite Jazz</td>

<td rowspan="4">The Indie Connection</td>

</tr>

Row#6	8:00	The Classical Music Connection	Old Time Radio	Saturday Nite	The Indie
Row#7	8:30		The Inner Mind	Jazz	Connection
Row#8	9:00		Open Mike Nite		
Row#9	9:30				

Row#7

```
<tr>
  <th>8:30</th>
  <td>The Inner
Mind</td>
</tr>
```

Row#6	8:00	The Classical Music Connection	Old Time Radio	Saturday Nite Jazz	The Indie Connection
Row#7	8:30		The Inner Mind		
Row#8	9:00		Open Mike Nite		
Row#9	9:30				

<tr>

<th>9:00</th>

<td rowspan="2">Open Mike Nite</td>

</tr>

Row#8

<tr>

<th>9:30</th>

</tr>

Row#9

Row#10	10:00 PM	World News Feed
Row 11	DLR ends its broadcast day at 10:30 p.m.	

All Times Central

```

<tr>
  <th>10:00 PM</th>
  <td colspan="7">World News Feed</td>
</tr>

```

Row#10

```

<tr>
  <td colspan="8">DLR ends its broadcast ... </td>
</tr>
</table>

```

Row#11

TABLE 11 ROWS 8 COLUMNS

Row#1

Row#2

Row#3

Row#4

Row#5

Row#6

Row#7

Row#8

Row#9

Row#10

Row 11

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
6:00 PM	National News						
6:30 PM	World News						
7:00 PM	Opera Fest	Radio U	Science Week	The Living World	Word Play	Agri-Week	Folk Fest
7:30 PM					Brain Stew	Bismarck Forum	
8:00 PM	The Classical Music Connection				Old Time Radio	Saturday Nite Jazz	The Indie Connection
8:30 PM					The Inner Mind		
9:00 PM					Open Mike Nite		
9:30 PM							
10:00 PM	World News Feed						
DLR ends its broadcast day at 10:30 p.m.							

All Times Central

All Times Central

Table code and styling

dlr_evenings.html

```
<table class="schedule">  
  <caption>All Times Central</caption>
```

...

DLR ends its broadcast day at 10:30 p.m.

All Times Central

```
/* Table Caption Styles */  
table.schedule caption {  
  caption-side: bottom;  
  text-align: right;  
}
```

```

<table class="schedule">
  <caption>All Times Central</caption>

  <colgroup>
    <col id="firstCol" />
    <col class="dayCols" span="7" />
  </colgroup>

```

```

col#firstCol {
  background: rgb(218, 210, 218);
  width: 16%; }
col.dayCols {
  background: rgb(255, 220, 255);
  width: 12%; }

```

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
6:00 PM	National News						
6:30 PM	World News						
7:00 PM	Opera Fest	Radio U	Science	The Living	Word Play	Agri-Week	Folk Fest

<thead>**<tr>**

<th>Time</th>

<th>Mon</th>

<th>Tue</th>

<th>Wed</th>

<th>Thu</th>

<th>Fri</th>

<th>Sat</th>

<th>Sun</th>

</tr>**</thead>**

```
table.schedule thead {
    background: rgb(153, 0, 153);
    color: white;
}
```

```
table.schedule tfoot {
    background: black;
    color: white;
}
```

```
table.schedule thead tr {
    height: 30px;
}
```

```
table.schedule tbody tr {
    height: 40px;
}
```

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
6:00 PM	National News						
6:30 PM	World News						
DLR ends its broadcast day at 10:30 p.m.							

7:00 PM	Opera Fest	Radio U	Science Week	The Living World	W
7:30 PM					Br
8:00 PM	The Classical Music Connection				Ol
8:30 PM					Ra
9:00 PM					Th
9:30 PM					Mi
					Op
					Nit

```

/* Table Cell Styles */

table.schedule th, table.schedule td {
    border: 1px solid gray;
    padding: 5px;
    vertical-align: top;
}

```

“Working with Tables”



HTML TABLES -



- A table is defined using the **<table>** element and contains a number of table cells (**<td>**, for “table data”) which are organized into table rows (**<tr>**).
- Table cells which act as column headers or row headers should use the **<th>** (table header) element

HTML TABLES -



- Table cells can be merged using the **colspan** and **rowspan** attributes.

```
<tr>
  <th>6:30 PM</th>
  <td colspan="7">World News</td>
</tr>
<tr>
  <th>7:00 PM</th>
  <td rowspan="2">Opera Fest</td>
```

HTML TABLES -



- Tables can be broken into sections using the following elements:

<thead> - Table header is used to identify one or more rows of a table that contain column labels rather than table data.

<tbody> - Table body The <tbody> element must be a direct descendant of a <table> element and is used to identify <tr> elements that comprise the body of the table. The <tbody> element should always come after a <thead> element and may come before or after a <tfoot> element.

<tfoot> - Table footer. In HTML5, <tfoot> can be placed either before or after <tbody> and <tr> elements, but must appear after any <caption>, <colgroup>, and <thead> elements.

HTML TABLES -



- A caption can be added to a table using the `<caption>` element.

A `<caption>` must appear in an HTML document as the first descendant of a parent `<table>`, but it may be positioned visually at the bottom of the table with CSS.

HTML TABLES -



- You can use **<col>** and **<colgroup>** to define table columns for styling.

```
<table class="schedule">  
  <caption>All Times Central</caption>  
  <colgroup>  
    <col id="firstCol" />  
    <col class="dayCols" span="7" />  
  </colgroup>
```


HTML TABLES -



*You should not layout your web content using 'table-based layout'.
Use CSS for this task.*

- **Tables should be used whenever you need to present information in a tabular format.**