

# 8

## TABLE MARKUP

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# OVERVIEW

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- **How tables are structured**
- **Table headers**
- **Cell spanning (rows and columns)**
- **Table captions**
- **Row and column groups**

# Tabular Data

HTML table markup is for data arranged into rows and columns.

PM	7:30	8:00	8:30	9:00	9:30	10:00	10:30
ABC	<i>The Adventures of Ozzie and Harriet</i>	The Patty Duke Show	<i>Gidget</i>	<i>The Big Valley</i>		Amos Burke — Secret Agent*	
CBS	Lost in Space		<i>The Beverly Hillbillies</i> #8 25.9 rating	<i>Green Acres</i> #11 24.6 rating	<i>The Dick Van Dyke Show</i> #16 23.6 rating	<i>The Danny Kaye Show</i>	
NBC	<i>The Virginian</i> #25 22.0 rating			Bob Hope Presents the Chrysler Theatre / Chrysler Presents a Bob Hope Special		<i>I Spy</i>	

[wikipedia.org](http://wikipedia.org)



Providence/Stoughton Line

[Print this Schedule](#)
[Service Alerts](#)
[Holiday Schedule Information](#)

[Providence/Stoughton Line Schedule](#)
[South Station and Back Bay Schedule](#)

Direction:

Inbound

Timing:

Weekday

Redisplay Time

PROVIDENCE/STOUGHTON LINE INBOUND : Weekday Effective 11/14/11

Train Number	800 AM	802 AM	902 AM	804 AM	904 AM	806 AM	832 AM	808 AM	906 AM	810 AM	908 AM	812 AM	834 AM	910 AM	814 AM	912 AM	816 AM	818 PM	914 PM	916 PM
<a href="#">TF Green Airport</a>		05:05				06:13		06:52		07:15					09:23		11:45			
<a href="#">Providence</a>	05:07	05:25		06:07		06:33		07:12		07:35		08:10			09:43		12:05	01:30		
<a href="#">South Attleboro</a>	05:17	05:35		06:16		06:42		07:22		07:45		08:20			09:52		12:15	01:42		
<a href="#">Attleboro</a>	05:27	05:45		06:28		06:52		07:32		07:55		08:30	09:00		10:02		12:25	01:51		
<a href="#">Mansfield</a>	05:36	05:55		06:38		07:04	07:26	07:44		08:05		08:38	09:09		10:10		12:33	01:58		
<a href="#">Sharon</a>	05:44	06:04		06:48		07:13	07:35			08:14		08:47	09:17		10:19		12:42	02:06		
<a href="#">Stoughton</a>			06:28		06:56				07:48		08:28			09:40		10:40			02:20	03:23
<a href="#">Canton Center</a>			06:36		07:04				07:57		08:36			09:49		10:49			02:27	03:30
<a href="#">Canton Junction</a>	05:51	06:11	06:39		07:08		07:41		08:01	08:24	08:40	08:54	09:24	09:52	10:28	10:52	12:50		02:30	03:33
<a href="#">Route 128</a>	05:58	06:16	06:44	06:58	07:14	07:24	07:47		08:07	08:30	08:45	08:59	09:28	09:57	10:31	10:57	12:55	02:16		03:38
<a href="#">Hyde Park</a>	06:01	06:21	06:49		07:19		07:52		08:13	08:36	08:49	09:04		10:02	10:36	11:02	01:00		02:39	03:43

[mbta.org](http://mbta.org)

# HTML Table Structure

Tables are made up of cells arranged into rows.

## A simple table

Menu item	Calories	Fat (g)
Chicken noodle soup	120	2
Caesar salad	400	26

table

row	Menu item header cell	Calories header cell	Fat header cell
row	Chicken noodle soup data cell	120 data cell	2 data cell
row	Caesar salad data cell	400 data cell	26 data cell

## HTML Table Structure (cont'd.)

How it looks using markup (**table**, **tr**, **th**, and **td**):

Menu item	Calories	Fat
Chicken noodle soup	120	2
Caesar salad	400	26

**NOTE:** Columns are implied by the number of cells in each row (not created with column elements).

# HTML Table Structure (cont'd)

The same table written in code:

```
<table>
  <tr>
    <th>Menu item</th>
    <th>Calories</th>
    <th>Fat (g)</th>
  </tr>
  <tr>
    <td>Chicken noodle soup</td>
    <td>120</td>
    <td>2</td>
  </tr>
  <tr>
    <td>Caesar salad</td>
    <td>400</td>
    <td>26</td>
  </tr>
</table>
```

Default browser display:

Menu item	Calories	Fat (g)
Chicken noodle soup	120	2
Caesar salad	400	26

# The table Element

`<table> </table>`

- Identifies tabular material
- Contains some number of row (**tr**) elements
- Optionally, may also have a **caption** element and row and column group elements

# Table Row (tr) Element

`<tr> </tr>`

- **tr** stands for “table row.”
- The only thing that can go between **tr** tags is some number of **th** (header) and **td** (data cell) elements.
- There may be no text content in a row that is not contained within a header or data cell.



# Table Cells

`<td> </td>`

- **td** stands for “table data.”
- Cells can contain any type of web content.
- All content in a table must be contained in **td** tags.

# Table Headers

`<th> </th>`

- **th** stands for “table header.”
- Headers provide information about the cells in the row or column they precede.
- They are key tools for making table content accessible. Screen readers may read headers aloud before each data cell, providing context that is missing when you can’t see the table.
- Headers are often rendered in a bold font by default.

# Table Columns Are Implied

This table would have 2 rows and 3 columns (because there are 3 cells defined in each row):

```
<table>
  <tr>
    <th>Burgers</th>
    <td>Organic Grass-fed Beef</td>
    <td>Black Bean Veggie</td>
  </tr>
  <tr>
    <th>Fries</th>
    <td>Hand-cut Idaho potato</td>
    <td>Seasoned sweet potato</td>
  </tr>
</table>
```

# Spanning Cells

## Spanning

Stretching a cell to cover several rows or columns

## Column span

Stretching a cell *to the right* over subsequent columns

## Row span

Stretching a cell *downward* over several rows

# Column Spans

Use the **colspan** attribute to specify the number of columns the cell should span over:

Fat	
Saturated Fat (g)	Unsaturated Fat (g)

```
<table>
  <tr>
    <th colspan="2">Fat</th>
  </tr>
  <tr>
    <td>Saturated Fat (g)</td>
    <td>Unsaturated Fat (g)</td>
  </tr>
</table>
```

Notice that the first **tr** element only has one cell in it now. Every row should have the same number of cells or equivalent **colspan** values.

# Row Spans

The **rowspan** attribute to specifies the number of rows the cell spans:

```
<table>
  <tr>
    <th rowspan="3">Serving Size</th>
    <td>Small (8oz.)</td>
  </tr>
  <tr>
    <td>Medium (16oz.)</td>
  </tr>
  <tr>
    <td>Large (24oz.)</td>
  </tr>
</table>
```

Serving Size	Small (8oz.)
	Medium (16oz.)
	Large (24oz.)

Notice that the **td** elements that were spanned over are no longer in the source.

# Table Caption

`<caption> </caption>`

- Provides a title or description for the table
- Improves table accessibility
- The **caption** element must appear first in the table element.
- The caption displays above the table by default.

## Table Caption (cont'd)

Nutritional Information

Menu item	Calories	Fat (g)
Chicken noodle soup	120	2
Caesar salad	400	26

```
<table>
  <caption>Nutritional Information</caption>
  <tr>
    <th>Menu item</th>
    <th>Calories</th>
    <th>Fat (g)</th>
  </tr>
  ...table continues...
</table>
```



# Row and Column Groups

- For complicated tables, you can create **semantic groups of rows and/or columns** that describe the table's structure.
- **Row group** and **column group** elements also provide more “hooks” for scripting and styling.

# Row Groups

`<thead> </thead>`

`<tbody> </tbody>`

`<tfoot> </tfoot>`

- Provide additional semantic structure
- Row group elements may contain one or more **tr** elements (no direct text content).
- Some browsing agents may repeat the header and footer rows on tables that span multiple pages.

# Row Groups (cont'd)

```
<table>
...
<thead>
  <!-- headers -->
  <tr></tr>
  <tr></tr>
  <tr></tr>
</thead>
<tbody>
  <!-- data -->
  <tr></tr>
  <tr></tr>
  <tr></tr>
  <tr></tr>
  <tr></tr>
  <tr></tr>
  <tr></tr>
</tbody>
<tfoot>
  <!-- footnote -->
  <tr></tr>
</tfoot>
</table>
```

Bidi control codes injected by ['unicode-bidi'](#) at the start/end of ['display: inline'](#) boxes

<a href="#">'unicode-bidi'</a> value	<a href="#">'direction'</a> value			
	<a href="#">'ltr'</a>		<a href="#">'rtl'</a>	
	start	end	start	end
<a href="#">'normal'</a>	—	—	—	—
<a href="#">'embed'</a>	LRE (U+202A)	PDF (U+202C)	RLE (U+202B)	PDF (U+202C)
<a href="#">'isolate'</a>	LRI (U+2066)	PDI (U+2069)	RLI (U+2067)	PDI (U+2069)
<a href="#">'bidi-override'</a> *	LRO (U+202D)	PDF (U+202C)	RLO (U+202E)	PDF (U+202C)
<a href="#">'isolate-override'</a> *	FSI,LRO (U+2068,U+202D) PDF,PDI (U+202C,U+2069)		FSI,RLO (U+2068,U+202E) PDF,PDI (U+202C,U+2069)	
<a href="#">'plaintext'</a>	FSI (U+2068) PDI (U+2069)		FSI (U+2068) PDI (U+2069)	

\* The LRO/RLO+PDF pairs are also applied to the root inline box of a [block container](#) if these values of ['unicode-bidi'](#) were specified on the [block container](#).

NOTE: this table also utilizes row and column spans.

# Column Groups

`<colgroup> </colgroup>`

`<col> </col>`

- Allows you to assign **id** and **class** names to columns so they can be accessed by scripts or styles
- **colgroup** elements go at the start of the table, after the **caption** element if there is one.
- **colgroup** elements contain no content; they only provide an indication of column structure

## Column Groups (cont'd)

The number of columns in a group is noted with the **span** attribute:

```
<table>
  <caption>...</caption>
  <colgroup></colgroup>
  <colgroup span="2"></colgroup>
  <colgroup span="2"></colgroup>

  <!-- rest of table... -->
```

If you need to access individual columns, identify them with **col** elements:

```
<colgroup></colgroup>
  <colgroup>
    <col class="start">
    <col class="end">
  </colgroup>
  <colgroup>
    <col class="start">
    <col class="end">
  </colgroup>
```