8
TABLE MARKUP

OVERVIEW

- **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.

wikipedia.org

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

HTML Table Structure (cont'd.)

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

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

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:

Default browser display:

```
<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>
```

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>
```

	Small (8oz.)
Serving Size	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>
</tbody>
<tfoot>
  <!-- footnote -->
  <tr></tr>
</tfoot>
</table>
```

Bidi control codes injected by 'unicode-bidi' at the start/end of 'display: inline' boxes

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