

## Notes: Basic Table and related elements and attributes

Tables can be used in the usual way -- that is to store data<sup>1</sup>. A table is made up of rows (across) and columns (up and down). Think of columns like columns of a building - they go up and down. The intersection of a row and a column is a cell.

table elements:

**<table></table>** - surrounds the entire table

**<tr></tr>** - tr stands for "table row", surrounds an entire row.

**<td></td>** - td stands for "table data", surrounds the contents of each cell

**<th></th>** - th stands for "table heading". If the first row of the table is holding column headings (e.g. labels), then use <th> instead of <td> to mark each cell in it. The content of each cell will become bold and centered. Likewise, for cells in the first column holding row headings, replace <td> with <th>.

The following elements are useful for identifying particular row groups of a table to which to apply styles afterward. (Carey, p460):

**<thead></thead>** surrounds the rows that you identified as the *head* of the table

**<tfoot></tfoot>** surrounds the rows that you identified as the *foot* of the table

**<tbody></tbody>** surrounds the rows that you identified as the *body* of the table

### Table example:

*Code to left, table rendered to the right.*

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

```
<tr>
```

```
    <th>First</th>      *
```

```
    <th>Middle</th>    *
```

```
    <th>Last</th>      *
```

```
</tr>
```

```
<tr>
```

```
    <td>Henry</td>
```

```
    <td>Humberto</td>
```

```
    <td>Higgins</td>
```

```
</tr>
```

```
<tr>
```

```
    <td>Mariah</td>
```

```
    <td>Ann</td>
```

```
    <td>Sierra</td>
```

```
</tr>
```

```
</table>
```

First	Middle	Last
Henry	Humberto	Higgins
Mariah	Ann	Sierra

← <th>'s in row 1

**Note1:** Notice the 3 cells in the first row of the table above are marked with asterisks \* because they contain headings (labels). Thus, they should be marked with <th>'s instead of <td>'s. <th> will bold and center the content.

**Note2:** The table caption element is used to describe the table's content. It appears above the table in the webpage. It makes the page *accessible*. A screen reader will read this caption to a blind user. Place the caption element on the line directly below the opening <table> tag. Example: **<caption>**names of contacts**</caption>**. This element replaces the deprecated summary attribute of the table element.

<sup>1</sup> Tables used to be used for page layout.

## Table Attributes are deprecated:

Historically, tables were formatted using attributes instead of CSS styles. (Recall an attribute is contained inside of the opening element's tag and it controls the behavior or appearance of the element.) For example, the following would apply a yellow fill color to a table row:

`<tr bgcolor="yellow">contents here</tr>`. But now, most of these attributes are **deprecated** and their use should be avoided. CSS styles are used in their place.

Table Attributes and associated elements					
Attribute	deprecated ?	What is it	Element applies to	value	CSS style to use instead
border	yes	Line around the table and cells	<b>table</b>	Pixels (px) (may leave units off; example: border="1")	border (apply it to table, td and th elements)
summary	yes	Used to describe table contents for speech or Braille-based browsers for accessibility	<b>table</b>	Short description in your own words	Use the <caption> element (HTML)
width, height (deprecated for cell)	yes	Width, height	<b>table, cell, row, other elements</b>	pixels or %	width height
align	yes	Horizontal alignment	<b>table, cell, row, other elements</b>	left, right, center	to align text inside a cell use text-align; To align table on page use margin, width styles
valign	yes	Vertical alignment	<b>cell, row, other elements</b>	top, middle, bottom	
cellspacing	yes	Space between cells	<b>table element</b>	Pixels (px); example: cellspacing="2"	border-collapse: separate <sup>2</sup> , with border-spacing style
cellpadding	yes	Margin in each cell	<b>table element</b>	Pixels (px)	padding
bgcolor	yes	Background color	<b>Table, cell elements</b>	color, ex: #ffffcc	background-color
colspan	no	to merge cells across columns (horizontal)	<b>cell element</b>	number of cells to merge	none
rowspan	no	to merge cells across rows (vertically)	<b>cell element</b>	number of cells to merge	none

### How to merge 2 or more cells using colspan or rowspan:

- To merge, say, 2 cells horizontally across, ("across **columns**"), insert **colspan="2"** into the <td> tag of first (leftmost) cell effected.
- To merge, say, 2 cells vertically, ("across **rows**") insert **rowspan="2"** into the <td> tag of first (topmost) cell effected.

Assume you start with a rectangular table. After inserting a colspan or rowspan, use visual inspection, and delete the "extra cells" that protrude out of the right side of the table.

**REQUIRED FOR THE TEST:** Elements: <table>, <tr>, <td>, <th>, <thead>, <tfoot>, <tbody>, <caption>, and Attributes: colspan, rowspan

Deprecated attributes: border, cellspacing, cellpadding, bgcolor. I recommend using the border attribute in a quickie "draft" table. But the use of the CSS border style is preferred.

<sup>2</sup> border-collapse: collapse -- This style rule will collapse adjacent cell and table borders into 1 border.

**OPTIONAL:** This page is optional. It pertains to the <col> element. <col> stands for column.

### Tables using <col>

**Defn: Columns...** The <col> element, once defined, allows one to use CSS to format certain columns and not others, for instance. (This discussion is included in our textbook along with several other ways to style tables.) Columns are implicitly created when you set up table rows (tr elements) and nest table cells (td or th elements) in them. Nonetheless, if you wanted to format a column(s), say, you would first identify them by using the <col></col> and <colgroup></colgroup> pairs. They correspond to column and group of columns of a table, respectively. (See Carey, 6e, p464 and 466 for more explanation.) See an example of the use of <col> below.]

Refer to the example table and code from page 1. As you can see the code on page 1 used no <col> elements to indicate the columns. They are not necessary because columns are implicitly created by the <td> (cell) tags. Nonetheless, if you wanted to format the columns, say, format the first column one way and the remaining columns another way, then you would first identify these columns. Just below the <table> tag, you could include, for example:

```
<colgroup>
<col class="myfirstcolumn" />
<col class="remainingcols" span="2" />
</colgroup>
```

Note: span="2" indicates 2 columns, the current one and the next one.

Code to left, table rendered (with CSS colors) to the right.

```
<table border="1">
<colgroup>
<col class="myfirstcolumn" />
<col class="remainingcols" span="2" />
</colgroup>
<tr>
<th>First</th>
<th>Middle</th>
<th>Last</th>
</tr>
<tr>
<td>Henry</td>
<td>Humberto</td>
<td>Higgins</td>
</tr>
<tr>
<td>Mariah</td>
<td>Ann</td>
<td>Sierra</td>
</tr>
</table>
```

Then afterward I can format with CSS:

```
.myfirstcolumn {background-color:
lightyellow}
```

```
.remainingcols {background-color:
lightblue}
```

First	Middle	Last
Henry	Humberto	Higgins
Mariah	Ann	Sierra

light yellow

light blue