Chapter 9

How to work with tables

Objectives

Applied

1. Use HTML to create tables with merged cells, captions, headers, and footers.

2. Use CSS and the CSS3 structural pseudo-classes to format the tables that you create.

3. Use the HTML5 figure and figcaption elements to treat a table as a figure.

4. Use HTML to provide accessibility for tables.

Knowledge

1. Describe these components of a table: rows, columns, cells, header cells, data cells, table header, table footer, and table body.

2. Describe the proper use of tables, now that CSS should be used for page layout.

Objectives (cont.)

3. Describe the use of nesting and wrapping with tables.

4. Describe the use of the table attributes for accessibility.

A simple table with basic formatting

Total Sales by Book

Book	Year Published	Sales
PHP and MySQL	2010	$372,381
JavaScript and DOM Scripting	2009	$305,447
Java Programming	2011	$392,444
Java Servlets and JSP	2008	$328.992
Total Sales		**$2,154,786**

Common elements for coding tables

- table

- tr

- th

- td

All table components are nested within a <table> element. (E.g. <tr>, <td>, and <td>)

<tr> (rows) elements are within a table

Then, <td> (columns) and <th> are within the rows

Note: <td> and <th> are centered by default

The HTML for the Sales by Book table

```
<table>
    <tr>
        <th class="left">Book</th>
        <th>Year Published</th>
        <th>Sales</th>
    </tr>
    <tr>
        <td class="left">PHP and MySQL</td>
        <td>2010</td>
        <td>$372,381</td>
    </tr>
    <tr>

            .
            .
    </tr>
    <tr id="total">
        <th class="left">Total Sales</th>
        <td></td>
        <td>$2,154,786</td>
    </tr>
</table>
```

The table in a web browser with no formatting

Book	Year Published	Sales
PHP and MySQL	2010	$372,381
JavaScript and DOM Scripting	2009	$305,447
Java Programming	2011	$392,444
Java Servlets and JSP	2008	$328.992
Total Sales		$2,154,786

Common properties for formatting tables

- border-collapse

- border-spacing

- padding

- text-align

- vertical-align

CSS for the Sales by Book table

```
table {
    border: 1px solid black;
    border-collapse: collapse; }
th, td {
    border: 1px solid black;
    padding: .2em .7em;
    text-align: right; }
th.left, td.left { text-align: left; }
#total { font-weight: bold; }
```

The table in a web browser

Book	Year Published	Sales
PHP and MySQL	2010	$372,381
JavaScript and DOM Scripting	2009	$305,447
Java Programming	2011	$392,444
Java Servlets and JSP	2008	$328.992
Total Sales		**$2,154,786**

The table without collapsed borders

Book	Year Published	Sales
PHP and MySQL	2010	$372,381
JavaScript and DOM Scripting	2009	$305,447
Java Programming	2011	$392,444
Java Servlets and JSP	2008	$328.992
Total Sales		**$2,154,786**

The elements for the header, body, and footer

- thead
- tbody
- tfoot

HTML for a table with a header, body, and footer

```
<table>
    <thead>
        <tr>
            <th class="left">Book</th>
            <th>Year published</th>
            <th>Total sales</th>
        </tr>
    </thead>
    <tbody>
        <tr>
            <td class="left">PHP and MySQL</td>
            <td>2010</td>
            <td>$372,381</td>
        </tr>
        .
        .
    </tbody>
```

A table with a header, body, and footer (cont.)

```
<tfoot>
    <tr>
        <th class="left">Total Sales</th>
        <td></td>
        <td>$2,154,786</td>
    </tr>
</tfoot>
</table>
```

The CSS for the header and footer

```
thead, tfoot { background-color: aqua; }
tfoot { font-weight: bold; }
```

The table in a web browser

Book	Year Published	Sales
PHP and MySQL	2010	$372,381
JavaScript and DOM Scripting	2009	$305,447
Java Programming	2011	$392,444
Java Servlets and JSP	2008	$328.992
Total Sales		$2,154,786

CSS3 structural pseudo-class selectors

```
:nth-child(n)
:nth-last-child(n)
:nth-of-type(n)
:nth-last-of-type(n)
```

Typical n values

```
odd
even
n
2n
3n
2n+1
3n+1
```

A table within a figure

Total Sales by Book

Book	Year Published	Sales
PHP and MySQL	2010	$372,381
JavaScript and DOM Scripting	2009	$305,447
Java Programming	2011	$392,444
Java Servlets and JSP	2008	$328.992
ASP.NET with Visual Basic	2011	$351,200
ASP.NET with C#	2011	$404.332
Total Sales		**$2,154,786**

Attributes for merging cells

- colspan

- rowspan

A table with merged cells

Book	Sales			
	North	South	West	Total
PHP and MySQL	$55,174	$73,566	$177,784	$306,524
JavaScript and DOM Scripting	$28,775	$24,349	$168,228	$221,352
Java Programming	$27,688	$39,995	$239,968	$307,651
Java Servlets and JSP	$23,082	$24,858	$129,619	$177,559
Sales Totals	$140,775	$165,550	$762,794	$1,069,119

>

The HTML for the table

```
<table>
    <thead>
        <tr>
            <th rowspan="2">Book</th>
            <th colspan="4">Sales</th>
        </tr>
        <tr>
            <th>North</th>
            <th>South</th>
            <th>West</th>
            <th>Total</th>
        </tr>
    </thead>
    <tbody>
        .
        .
    </tbody>
```

Attributes that can be used for accessibility

- caption
- headers
- scope

Accessibility guideline

- Use these attributes to make a table more accessible to visually-impaired users who use screen readers.

A table with another table nested within one cell

Region	YTD sales	
West	$68,684.34	
Central	North $21,223.08	
	South $41,274.06	
East	$72,741.06	

The HTML for the table

```
<table id="outer">
    <caption>YTD Sales by Region</caption>
    <tr>
        <th>Region</th>
        <th>YTD sales</th>
    </tr>
    <tr>
        <th>West</th>
        <td>$68,684.34</td>
    </tr>
    <tr>
        <th>Central</th>
        <td>
            <table id="inner">
                <tr>
                    <th>North</th>
                    <td>$21,223.08</td>
                </tr>
```

The property that stops wrapping

```
table { white-space: nowrap; }
```