Working with Tables

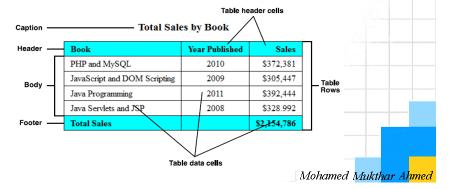*Mohamed Mukthar Ahmed*

Working with Tables

Outline

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Intro to Tables

- Use tables to display tabular data

- A table consists of one or more rows and columns

- We define a table by defining its rows and within each row we define a cell for each column

- Two different kinds of cells – Header cells & Data cells

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**

Caption: Total Sales by Book

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Creating a Table

- The FOUR most common elements that define a table.
  - The <table> element. The <tr> table row element
  - The <th> table header element. The <td> table data element

- By default, the contents of the header cell is boldfaced and centered, where as the data cell is left-aligned

- The width is determined by the data the data cell contains

Element	Description
table	Defines a table. The other elements for the table are coded within this element.
tr	Defines a row.
th	Defines a header cell within a row.
td	Defines a data cell within a row.

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CSS to format a Table

- To format a table use the CSS properties

- The common properties for formatting table, tr, th and td elements

Property	Description
border-collapse	A keyword that determines whether space exists between the borders of adjacent cells or the borders are collapsed to a single border between cells. Possible values are collapse and separate. The default is separate.
border-spacing	A relative or absolute value that specifies the space between cells when the borders aren't collapsed. Not supported by IE7 and earlier.
padding	The space between the cell contents and the outer edge of the cell.
text-align	The horizontal alignment of text.
vertical-align	The vertical alignment of text.

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CSS to format a Table

- To format a table use the CSS properties

- The common properties for formatting table, tr, th and td elements

The CSS for the 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; }
```

- In HTML5 the attributes that were commonly used to format a table have been deprecated.

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Adding Header & Footer
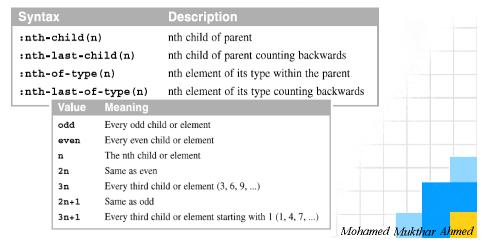
- Between the <thead> element the row(s) that make up the header is specified

- The row(s) between the <tfoot> element make up the footer

- The row(s) between the <tbody> element make up the table body

Element	Description
thead	Groups one or more rows into a table header.
tbody	Groups the rows between the header and footer into a table body.
tfoot	Groups one or more rows into a table footer.

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CSS3 pseudo-classes

- CSS3 structural pseudo-classes can be used to format a table without using the class or id attributes

- The common one that are used for formatting a table

Syntax	Description
:nth-child(n)	nth child of parent
:nth-last-child(n)	nth child of parent counting backwards
:nth-of-type(n)	nth element of its type within the parent
:nth-last-of-type(n)	nth element of its type counting backwards

Value	Meaning
odd	Every odd child or element
even	Every even child or element
n	The nth child or element
2n	Same as even
3n	Every third child or element (3, 6, 9, ...)
2n+1	Same as odd
3n+1	Every third child or element starting with 1 (1, 4, 7, ...)

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HTML5 figure & figcaption Elements

- The figure and figcaption elements can be used in conjunction with the table element

```
<figure>
    <figcaption>Total Sales by Book</figcaption>
    <table>
        .
        .
    </table>
</figure>
```

The CSS for the figure and figcaption elements

```
figure, figcaption {
    margin: 0;
    padding: 0; }
figure {
    border: 1px solid black;
    width: 450px;
    padding: 15px; }
figcaption {
    display: block;
    font-weight: bold;
    text-align: center;
    font-size: 120%;
    padding-bottom: .25em; }
table {
    border-collapse: collapse;
    border: 1px solid black;
    margin: 10px auto; }
```

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Merge Cells in a column or row

- It make sense to merge some cells to create complicated tables

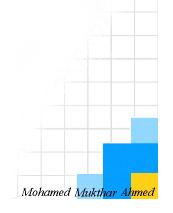- Use the two attributes of the <th> and <td> elements to merge cells

Attribute	Description
colspan	Identifies the number of columns that a cell will span. The default is 1.
rowspan	Identifies the number of rows that a cell will span. The default is 1.

```
<table>
    <thead>
        <tr>
            <th rowspan="2">Book</th>
            <th colspan="4">Sales</th>
        </tr>
```
```
th:first-child { vertical-align: bottom; }
th:nth-child(2) { text-align: center; }
tr:nth-child(2) th { text-align: right; }
```

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Provide Accessibility

- HTML provides few attributes that can improve accessibility

Attribute	Description
caption	Describes the contents of the table. The other alternative is to treat the table as a figure and use the figcaption element to describe the table.
headers	Identifies one or more header cells that describe the content of the cell.
scope	A keyword that tells if a cell is associated with a column or row. Common keywords are col and row. You can also use the keyword rowgroup to refer to merged cells.

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Nested Tables

- To code a table within another table, we simply code the table element within a td element

- In general we should not nest tables for two reasons
  - We can get the same result in other ways
  - It is better to keep tables simple

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

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Control Wrapping

- The contents of the cell in a table will wrap to two or more lines if we size the browser window

- If we don't want the heading and the data to wrap, we can use the white-space property to prevent that from happening

- In CSS we set the value of white-space to nowrap for the table element

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

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