

# Lists and Tables

# Acknowledgements

- *Slides for this course are from:*
  - Fundamentals of Web Development by Connolly and Hoar
  - Murach's HTML5 and CSS3 by Zak Ruvalcaba and Anne Boehm. Fresno, CA: Mike Murach & Associates
  - Internet and the World Wide Web. How to Program. P. Deitel, H. Deitel and A. Deitel.
  - Principles of Web Design, Joel Sklar, Course Technology, Cengage Learning
  - JavaScript and jQuery the Missing Manual by David Sawyer McFarland, O'Reilly
  - Code.org
  - Other Textbooks / Online Resources
  - Rachel Adler (my own thoughts/code)

## Properties for formatting unordered lists

- list-style-type
- list-style-image

## Values for the list-style-type property of an unordered list

- disc
- circle
- square
- none

## HTML for two unordered lists

```
<h2>Popular web browsers include</h2>
<ul class="circle">
  <li>Internet Explorer</li>
  <li>Firefox</li>
  <li>Chrome</li>
</ul>
<h2>Prime skills for web developers are</h2>
<ul class="star">
  <li>HTML5 and CSS3</li>
  <li>JavaScript</li>
  <li>PHP</li>
</ul>
```

## CSS that changes the bullets

```
ul.circle { list-style-type: circle; }
ul.star { list-style-image: url("../images/star.png"); }
```

### Popular web browsers include

- Internet Explorer
- Firefox
- Chrome

### Prime skills for web developers are

- ★ HTML5 and CSS3
- ★ JavaScript
- ★ PHP

## Common values for the list-style-type property of an ordered list

Value	Example
decimal	1, 2, 3, 4, 5 ...
decimal-leading-zero	01, 02, 03, 04, 05 ...
lower-alpha	a, b, c, d, e ...
upper-alpha	A, B, C, D, E ...
lower-roman	i, ii, iii, iv, v ...
upper-roman	I, II, III, IV, V ...

## HTML for an ordered list

```
<h2>How to create an executable file</h2>
<ol class="lower_alpha">
  <li>Run the WinZip Self Extractor program and click
    through the first three dialog boxes.</li>
  <li>Enter the name of the zip file in the fourth
    dialog box.</li>
  <li>Click the Next button to test the
    executable.</li>
</ol>
```

## CSS that formats the list

```
ol.lower_alpha { list-style-type: lower-alpha; }
```

### How to create an executable file

- a. Run the WinZip Self Extractor program and click through the first three dialog boxes.
- b. Enter the name of the zip file in the fourth dialog box.
- c. Click the Next button to test the executable.

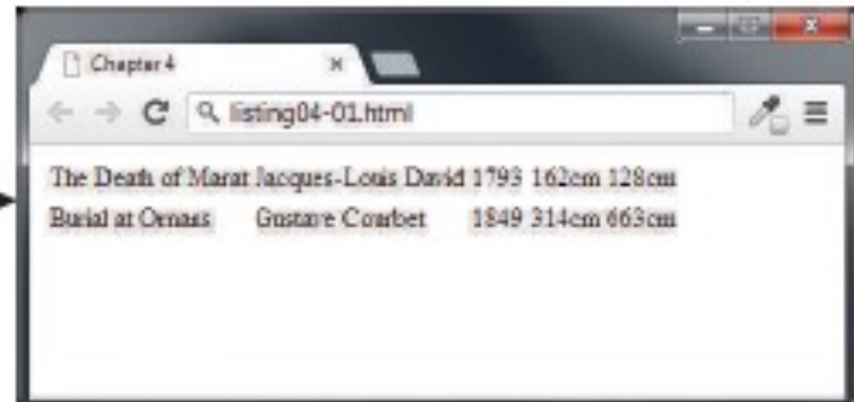
# Table

- An HTML `<table>` contains any number of rows (`<tr>`);
- each row contains any number of table data cells (`<td>`).

```
<table>
```

The Death of Marat	Jacques-Louis David	1793	162cm	128cm
Burial at Ornans	Gustave Courbet	1849	314cm	663cm

```
<table>
  <tr>
    <td>The Death of Marat</td>
    <td>Jacques-Louis David</td>
    <td>1793</td>
    <td>162cm</td>
    <td>128cm</td>
  </tr>
  <tr>
    <td>Burial at Ornans</td>
    <td>Gustave Courbet</td>
    <td>1849</td>
    <td>314cm</td>
    <td>663cm</td>
  </tr>
</table>
```





# Headers

- Many tables will contain some type of **headings** in the first row.
- In HTML, you indicate header data by using the `<th>` instead of the `<td>` element.
- Browsers tend to make the content within a `<th>` element bold, but you could style it anyway you would like via CSS.
- use the `<th>` element for **accessibility reasons** (it helps those using screen readers and for **search engine optimization** reasons).

`<tr> <th>`

**tr**

Defines individual table rows

**td**

Contains table data elements

**th**

Defines a header cell

`<table>`

<code>&lt;tr&gt;</code>	<b>Title</b> <code>&lt;th&gt;</code>	<b>Artist</b> <code>&lt;th&gt;</code>	<b>Year</b> <code>&lt;th&gt;</code>	<b>Width</b> <code>&lt;th&gt;</code>	<b>Height</b> <code>&lt;th&gt;</code>
<code>&lt;tr&gt;</code>	The Death of Marat <code>&lt;td&gt;</code>	Jacques-Louis David <code>&lt;td&gt;</code>	1793 <code>&lt;td&gt;</code>	162cm <code>&lt;td&gt;</code>	128cm <code>&lt;td&gt;</code>
<code>&lt;tr&gt;</code>	Burial at Ornans <code>&lt;td&gt;</code>	Gustave Courbet <code>&lt;td&gt;</code>	1849 <code>&lt;td&gt;</code>	314cm <code>&lt;td&gt;</code>	663cm <code>&lt;td&gt;</code>

`<table>`

`<tr>`

`<th>Title</th>`

`<th>Artist</th>`

`<th>Year</th>`

`<th>Width</th>`

`<th>Height</th>`

`</tr>`

`<tr>`

`<td>The Death of Marat</td>`

`<td>Jacques-Louis David</td>`

`<td>1793</td>`

`<td>162cm</td>`

`<td>128cm</td>`

`</tr>`

`<tr>`

`<td>Burial at Ornans</td>`

`<td>Gustave Courbet</td>`

`<td>1849</td>`

`<td>314cm</td>`

`<td>663cm</td>`

`</tr>`



# Rowspan/colspan

- If you want a given cell to cover several columns or rows, then you can do so by using the **colspan** or **rowspan** attributes

Title	Artist	Year	Size (width x height)	
The Death of Marat	Jacques-Louis David	1793	162cm	128cm
Burial at Ornans	Gustave Courbet	1849	314cm	663cm

Notice that this row now only has four cell elements.

```

<table>
  <tr>
    <th>Title</th>
    <th>Artist</th>
    <th>Year</th>
    <th colspan="2">Size (width x height)</th>
  </tr>
  <tr>
    <td>The Death of Marat</td>
    <td>Jacques-Louis David</td>
    <td>1793</td>
    <td>162cm</td>
    <td>128cm</td>
  </tr>
  ...
</table>

```

# Table Element

```
<table>
<tr>
  <th>Month</th>
  <th>Savings</th>
</tr>
<tr>
  <td>January</td>
  <td>$100</td>
</tr>
<tr>
  <td>February</td>
  <td>$50</td>
</tr>
</table>
```

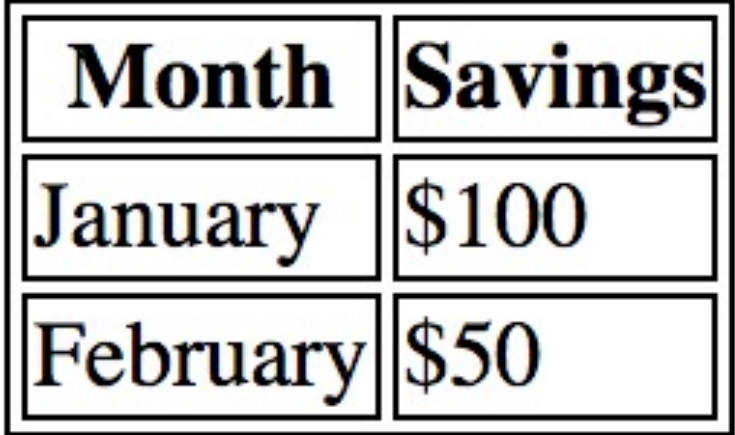
<b>Month</b>	<b>Savings</b>
January	\$100
February	\$50

# Borders

- borders can be assigned to both the `<table>` and the `<td>` element (they can also be assigned to the `<th>` element as well)

# Add a Border

```
<table>
  <caption>Table 1. Monthly
Savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
```



Month	Savings
January	\$100
February	\$50

```
table, th, td {  
  border: 1px solid black;  
}
```



# Collapse the border a Border

```
<table>
  <caption>Table 1. Monthly
Savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
```

Month	Savings
January	\$100
February	\$50

```
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
```

# Add a Caption

- Caption - provide a brief title or description of the table, which improves the accessibility of the table, and is strongly recommended. You can use the caption-side CSS property to change the position of the caption below the table.

```
<table>  
  <caption>Table 1. Monthly Savings</caption>  
  <tr>  
    <th>Month</th>  
    <th>Savings</th>  
  </tr>  
  <tr>  
    <td>January</td>  
    <td>$100</td>  
  </tr>  
  <tr>  
    <td>February</td>  
    <td>$50</td>  
  </tr>  
</table>
```

Table 1. Monthly Savings

Month	Savings
January	\$100
February	\$50

```
table, th, td {  
  border: 1px solid black;  
}
```

## The table in a web browser

<b>Book</b>	<b>Year Published</b>	<b>Sales</b>
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
<b>Total Sales</b>		<b>\$2,154,786</b>

## The table without collapsed borders

<b>Book</b>	<b>Year Published</b>	<b>Sales</b>
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
<b>Total Sales</b>		<b>\$2,154,786</b>

Chapter 4  
figure04-07.html

19th Century French Paintings

Title	Artist	Year
The Death of Marat	Jacques-Louis David	1793
Burial at Ornans	Gustave Courbet	1849
The Sleepers	Gustave Courbet	1860
Liberty Leading the People	Eugene Delacroix	1830
Total Number of Paintings	4	

```
table {
  border: solid 1pt black;
}
```

figure04-07.html

19th Century French Paintings

Title	Artist	Year
The Death of Marat	Jacques-Louis David	1793
Burial at Ornans	Gustave Courbet	1849
The Sleepers	Gustave Courbet	1860
Liberty Leading the People	Eugene Delacroix	1830
Total Number of Paintings	4	

```
table {
  border: solid 1pt black;
}
td {
  border: solid 1pt black;
}
```

Chapter 4  
figure04-07.html

19th Century French Paintings

Title	Artist	Year
The Death of Marat	Jacques-Louis David	1793
Burial at Ornans	Gustave Courbet	1849
The Sleepers	Gustave Courbet	1860
Liberty Leading the People	Eugene Delacroix	1830
Total Number of Paintings	4	

```
table {
  border: solid 1pt black;
  border-collapse: collapse;
}
td {
  border: solid 1pt black;
}
```

19th Century French Paintings

Title	Artist	Year
The Death of Marat	Jacques-Louis David	1793
Burial at Ornans	Gustave Courbet	1849
The Sleepers	Gustave Courbet	1860
Liberty Leading the People	Eugene Delacroix	1830
Total Number of Paintings		4

```
table {
  border: solid 1pt black;
  border-collapse: collapse;
}
td {
  border: solid 1pt black;
  padding: 10pt;
}
```

19th Century French Paintings

Title	Artist	Year
The Death of Marat	Jacques-Louis David	1793
Burial at Ornans	Gustave Courbet	1849
The Sleepers	Gustave Courbet	1860
Liberty Leading the People	Eugene Delacroix	1830
Total Number of Paintings		4

```
table {
  border: solid 1pt black;
  border-spacing: 10pt;
}
td {
  border: solid 1pt black;
}
```

## Additional Table Elements

- A table can be split into three distinct sections:
  - Head (`thead` element)
    - Table titles
    - Column headers
  - Body (`tbody` element)
    - Primary table data
  - Table Foot (`tfoot` element)
    - Calculation results
    - Footnotes
    - Above body section in the code, but displays at the bottom in the page

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

```
<table>
  <thead>
    <tr>
      <th>Items</th>
      <th>Expenditure</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <th>Donuts</th>
      <td>3,000</td>
    </tr>
    <tr>
      <th>Stationery</th>
      <td>18,000</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <th>Totals</th>
      <td>21,000</td>
    </tr>
  </tfoot>
</table>
```

Items	Expenditure
Donuts	3,000
Stationery	18,000
Totals	21,000

## Th CSS

```
thead, tfoot {  
background-color: aqua;  
}  
  
table {  
border-collapse: collapse;  
border: 2px solid grey;  
}  
  
td, th {  
border: 1px solid grey;  
padding: 5px;  
}
```

<b>Items</b>	<b>Expenditure</b>
<b>Donuts</b>	3,000
<b>Stationery</b>	18,000
<b>Totals</b>	21,000



## CSS3 structural pseudo-class selectors

`:nth-child(n)`

`:nth-last-child(n)`

### Typical n values

odd

even

n

2n

**Try this:**

[https://www.w3schools.com/cssref/tryit.asp?filename=trycss3\\_nth-child](https://www.w3schools.com/cssref/tryit.asp?filename=trycss3_nth-child)

# Common CSS pseudo-classes

`:link`

`:visited`

`:active`

`:hover`

`:focus`

Chapter 4

figure04-09.html

19TH CENTURY FRENCH PAINTINGS

Title	Artist	Year
The Death of Marat	Jacques-Louis David	1793
Burial at Omans	Gustave Courbet	1849
The Sleepers	Gustave Courbet	1860
Liberty Leading the People	Eugene Delacroix	1830
Mademoiselle Caroline Riviere	Jean-Auguste-Dominique Ingres	1806

```
tbody tr:hover {
  background-color: #9e9e9e;
  color: black;
}
```

Chapter 4

figure04-09.html

19TH CENTURY FRENCH PAINTINGS

Title	Artist	Year
The Death of Marat	Jacques-Louis David	1793
Burial at Omans	Gustave Courbet	1849
The Sleepers	Gustave Courbet	1860
Liberty Leading the People	Eugene Delacroix	1830
Mademoiselle Caroline Riviere	Jean-Auguste-Dominique Ingres	1806

```
tbody tr:nth-child(odd) {
  background-color: white;
}
```