

# Web Design with HTML5 & CSS3

Chapter 8

Creating Tables

# Chapter Objectives

- Define table elements
- Describe the steps used to plan, design, and code a table
- Create a table with rows and data
- Insert a table caption

# Tables

- Consist of rows, columns, and cells
  - Cell - Intersection of a row and a column that usually contains data
  - **Should not be used to design a layout for a webpage**

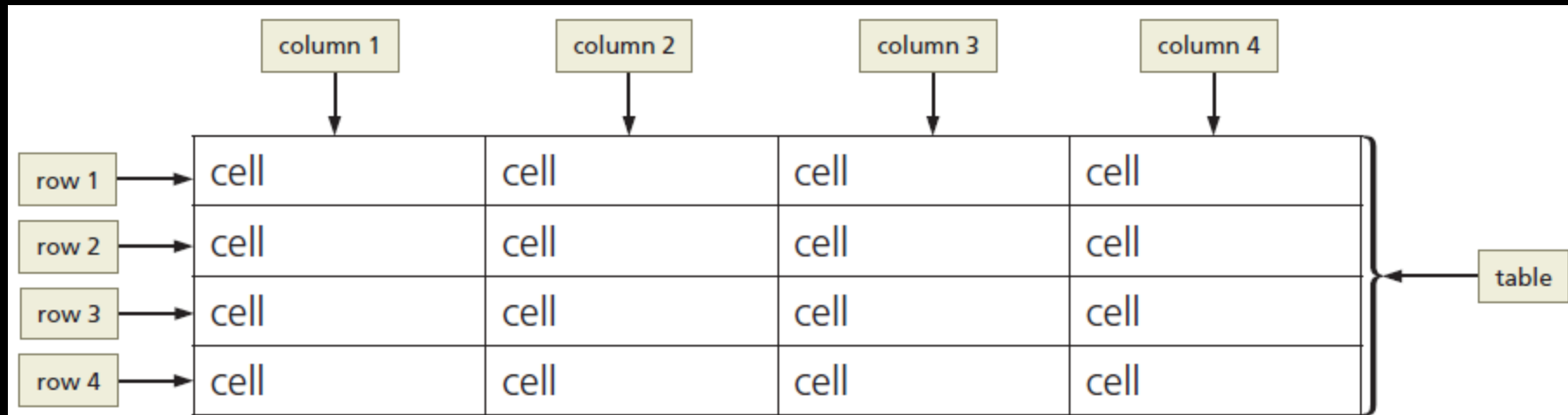


Figure 8-4

# Creating a Table with HTML Elements

- Creating a table:
  - `<table>` and `</table>` tags indicate the starting/ending of a table
  - `<th>` and `</th>` tags
    - Starting/ending of table header
    - Displays text as bold and center-aligned
  - `<tr>` and `</tr>` tags indicate the starting/ending of each table row
  - `<td>` and `</td>` tags
    - Starting/ending tags for data elements within the table row elements
    - Displays normal, left-aligned text

# Basic Table Structure

```
<table>  
  <tr>  
    <td>15</td>  
    <td>15</td>  
    <td>30</td>  
  </tr>  
  <tr>  
    <td>45</td>  
    <td>60</td>  
    <td>90</td>  
  </tr>  
</table>
```

15	15	30
45	60	45

# Table Structure - <table> tag

```
<table>  
  <tr>  
    <td>15</td>  
    <td>15</td>  
    <td>30</td>  
  </tr>  
  <tr>  
    <td>45</td>  
    <td>60</td>  
    <td>90</td>  
  </tr>  
</table>
```

15	15	30
45	60	45

# Table Structure - <tr> tag

```
<table>  
  <tr>  
    <td>15</td>  
    <td>15</td>  
    <td>30</td>  
  </tr>  
  <tr>  
    <td>45</td>  
    <td>60</td>  
    <td>90</td>  
  </tr>  
</table>
```

15	15	30
45	60	45

# Table Structure - <td> tag

```
<table>  
  <tr>  
    <td>15</td>  
    <td>15</td>  
    <td>30</td>  
  </tr>  
  <tr>  
    <td>45</td>  
    <td>60</td>  
    <td>45</td>  
  </tr>  
</table>
```

15	15	30
45	60	45



# Table Headings - <th> tag

```
<th></th>
```

```
<th>Saturday</th>
```

```
<th>Sunday</th>
```

```
<th>Tickets sold</th>
```

	<b>Saturday</b>	<b>Sunday</b>
<b>Tickets sold:</b>	120	135

# Table Borders - Default

- Table Border – the line that defines the perimeter of the table
- By default, a table is displayed without a border

```
<!DOCTYPE html>
<html>
<body>

<h2>Basic HTML Table</h2>

<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>

</body>
</html>
```

## Basic HTML Table

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

# Table Borders

- A border is set using the CSS border property:

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

# Table Borders – Default Borders

- By default, each cell has its own border, making the table appear to have double lines between each table data cell

## Bordered Table

Use the CSS border property to add a border to the table.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
    border: 1px solid black;
}
</style>
</head>
<body>

<h2>Bordered Table</h2>
<p>Use the CSS border property to add a border to the table.</p>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>

</body>
</html>
```

## Bordered Table

Use the CSS border property to add a border to the table.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

# Table Borders – Collapsed Borders

- To collapse the borders into one border, add the CSS border-collapse property:

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

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
</style>
</head>
<body>
```

```
<h2>Collapsed Borders</h2>
```

```
<p>If you want the borders to collapse into one border, add the CSS border-collapse property.</p>
```

```
<table style="width:100%">
```

```
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
```

```
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
```

```
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
```

```
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
```

```
  </tr>
</table>
```

```
</body>
```

```
</html>
```

## Collapsed Borders

If you want the borders to collapse into one border, add the CSS border-collapse property.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80



# Table Borders – Cell Padding

- Specifies the space between the cell content and its borders
- Default is no cell padding
- To set the CSS padding property:

```
th, td {  
    padding: 15px;  
}
```

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
</style>
</head>
<body>

<h2>Default Cellpadding</h2>
<p>Cell padding specifies the space between the cell content and its borders.</p>

<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>

</body>
</html>
```

## Default Cell Padding

Cell padding specifies the space between the cell content and its borders.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

```
<html>
<head>
<style>
table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
}
th, td {
    padding: 15px;
}
</style>
</head>
<body>

<h2>Table with Cell Padding</h2>
<p>Cell padding specifies the space between the cell content and its borders.</p>

<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>

</body>
</html>
```

## Table with Cell Padding

Cell padding specifies the space between the cell content and its borders.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

# Table Headings - Default

- By default, table headings are bold and centered

## Table with Cell Padding

Cell padding specifies the space between the cell content and its borders.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

# Table Headings – Left-align

- Use the CSS text-align property:

```
th {  
    text-align: left;  
}
```

```
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th, td {
  padding: 5px;
}
th {
  text-align: left;
}
</style>
</head>
<body>

<h2>Left-align Headings</h2>
<p>To left-align the table headings, use the CSS text-align property.</p>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
```

## Left-align Headings

To left-align the table headings, use the CSS text-align property.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

# Table Border Spacing

- Specifies the space between the cells
- Use the CSS border-spacing property:

```
table {  
    border-spacing: 5px;  
}
```

```
<style>
table, th, td {
  border: 1px solid black;
  padding: 5px;
}
table {
  border-spacing: 15px;
}
</style>
</head>
<body>

<h2>Border Spacing</h2>
<p>Border spacing specifies the space between the cells.</p>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
```

## Border Spacing

Border spacing specifies the space between the cells.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80



# Spanning Columns – colspan attribute

...

```
<tr>
  <th>          </th>
  <td colspan="2">          </td>
  <td>          </td>
  <td>          </td>
</tr>
```

...

	9am	10am	11am	12am
Monday	Geography		Math	Art

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
}
th, td {
    padding: 5px;
    text-align: left;
}
</style>
</head>
<body>

<h2>Cell that spans two columns</h2>
<p>To make a cell span more than one column, use the colspan attribute.</p>

<table style="width:100%">
  <tr>
    <th>Name</th>
    <th colspan="2">Telephone</th>
  </tr>
  <tr>
    <td>Betty Smith</td>
    <td>55577854</td>
    <td>55577855</td>
  </tr>
</table>

</body>
</html>
```

## Cell that spans two columns

To make a cell span more than one column, use the colspan attribute.

Name	Telephone	
Betty Smith	55577854	55577855

# Spanning Rows - rowspan attribute

...

```
<tr>
  <th>6pm - 7pm</th>
  <td rowspan="2">Movie</td>
  <td>Comedy</td>
  <td>News</td>
</tr>
<tr>
  <th>7pm - 8pm</th>
  <td>Sport</td>
  <td>Current Affairs</td>
</tr>
```

6pm - 7pm	Movie	Comedy	News
7pm - 8pm		Sport	Current Affairs

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
}
th, td {
    padding: 5px;
    text-align: left;
}
</style>
</head>
<body>

<h2>Cell that spans two rows</h2>
<p>To make a cell span more than one row, use the rowspan attribute.</p>

<table style="width:100%">
  <tr>
    <th>Name:</th>
    <td>Betty Smith</td>
  </tr>
  <tr>
    <th rowspan="2">Telephone:</th>
    <td>55577854</td>
  </tr>
  <tr>
    <td>55577855</td>
  </tr>
</table>

</body>
</html>
```

## Cell that spans two rows

To make a cell span more than one row, use the rowspan attribute.

<b>Name:</b>	Betty Smith
<b>Telephone:</b>	55577854
	55577855

# Table Caption

- A descriptive text that serves as a title or identifies the table's purpose
- Defined with `<caption>` and `</caption>` tags
- Inserted immediately after the `<table>` tag
- A table can have only one caption
- Tables can include headers and captions individually or in combination

# Table Caption

`<caption>Monthly savings</caption>`

Monthly savings

Month	Savings
January	\$100
February	\$50

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th, td {
  padding: 5px;
  text-align: left;
}
</style>
</head>
<body>

<h2>Table Caption</h2>
<p>To add a caption to a table, use the caption tag.</p>

<table style="width:100%">
  <caption>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>

</body>
</html>
```

## Table Caption

To add a caption to a table, use the caption tag.

Month	Savings
January	\$100
February	\$50

# Styling a Table

- Use the `id` attribute to style a table

```
table#t01 {  
    width: 100%;  
    background-color: #f1f1c1;  
}
```

```
<table id="t01">  
  <tr>  
    <th>Firstname</th>  
    <th>Lastname</th>  
    <th>Age</th>  
  </tr>  
  <tr>  
    <td>Eve</td>  
    <td>Jackson</td>  
    <td>94</td>  
  </tr>  
</table>
```



```
<style>
table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
}
th, td {
    padding: 15px;
    text-align: left;
}
table#t01 {
    width: 100%;
    background-color: #f1f1c1;
}
</style>
```

```
<table id="t01">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
```

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

```
<style>
table {
  width:100%;
}
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th, td {
  padding: 15px;
  text-align: left;
}
table#t01 tr:nth-child(even) {
  background-color: yellow;
}
table#t01 tr:nth-child(odd) {
  background-color: lightblue;
}
table#t01 th {
  background-color: black;
  color: white;
}
</style>
```

```
<h2>Styling Tables</h2>
<table id="t01">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
```

## Styling Tables

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

# This week

- Chapter 8 Tables only
- Forms is next week