

HTML Tables and Forms

Chapter 5

Randy Connolly and Ricardo Hoar

Fundamentals of Web Development

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Chapter 5

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2 Styling Tables

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Introducing Tables

Basic Table Structure (Figure 5.1)



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Introducing Tables

Basic Table Structure (Figure 5.2)

```

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

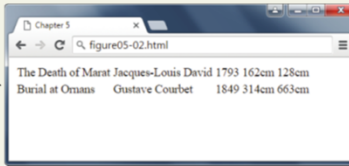
```

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>

```



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Introducing Tables

Adding Headings (Figure 5.3)

```

<table>
<tr>
  Title
  Artist
  Year
  Width
  Height
</tr>
<tr>
  The Death of Marat
  Jacques-Louis David
  1793
  162cm
  128cm
</tr>
<tr>
  Burial at Ornans
  Gustave Courbet
  1849
  314cm
  663cm
</tr>
</table>


```

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

```

<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>
</table>

```



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Introducing Tables

Spanning Columns (**Figure 5.4**)

<table>					
<tr>		<th>		<th>	
Title		Artist		Year	
				<th colspan="2">	
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>
```

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Introducing Tables

Spanning Rows (**Figure 5.5**)

<table>		
Artist<th>	Title<th>	Year<th>
Jacques-Louis David	The Death of Marat<td>	1793<td>
	The Intervention of the Sabine Women<td>	1799<td>
	Napoleon Crossing the Alps<td>	1800<td>

Notice that these two rows now only have two cell elements.

```
<table>
<tr>
<th>Title</th>
<th>Artist</th>
<th>Year</th>
</tr>
<tr>
<td rowspan="3">Jacques-Louis David</td>
<td>The Death of Marat</td>
<td>1793</td>
</tr>
<tr>
<td>The Intervention of the Sabine Women</td>
<td>1799</td>
</tr>
<tr>
<td>Napoleon Crossing the Alps</td>
<td>1800</td>
</tr>
</table>
```

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Introducing Tables

Additional Table Elements (Figure 5.6)

A title for the table is good for accessibility.

These describe our columns, and can be used to aid in styling.

Table header could potentially also include other <tr> elements.

Yes, the table footer comes *before* the body.

Potentially, with styling the browser can scroll this information, while keeping the header and footer fixed in place.

```
<table>
  <caption>19th Century French Paintings</caption>
  <col class="artistName" />
  <colgroup id="paintingColumns">
    <col />
    <col />
  </colgroup>

  <thead>
    <tr>
      <th>Title</th>
      <th>Artist</th>
      <th>Year</th>
    </tr>
  </thead>

  <tfoot>
    <tr>
      <td colspan="2">Total Number of Paintings</td>
      <td>2</td>
    </tr>
  </tfoot>

  <tbody>
    <tr>
      <td>The Death of Marat</td>
      <td>Jacques-Louis David</td>
      <td>1793</td>
    </tr>
    <tr>
      <td>Burial at Ornans</td>
      <td>Gustave Courbet</td>
      <td>1849</td>
    </tr>
  </tbody>
```

Title	Artist	Year
The Death of Marat	Jacques-Louis David	1793
Burial at Ornans	Gustave Courbet	1849
Total Number of Paintings		2

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Introducing Tables

Using Tables for Layout (Figure 5.7a, Figure 5.7b with green border, embedded CSS)



```
<table>
  <tr>
    <td>
      
    </td>
    <td>
      <h2>Castle</h2>
      <p>Lewes, UK</p>
      <p>Photo by: Michele Brooks</p>
      <p>Built in 1069, the castle has a tremendous view of the town of Lewes and the surrounding countryside.</p>
    </td>
  </tr>
  <tr>
    <td>
      <h3>Other Images by Michele Brooks</h3>
      <table>
        <tr>
          <td></td>
          <td></td>
        </tr>
        <tr>
          <td></td>
          <td></td>
        </tr>
      </table>
    </td>
  </tr>
</table>
```

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Styling Tables

Table Borders (Figure 5.8)

The figure shows three browser windows displaying a table titled "19th Century French Paintings". The table has four columns: Title, Artist, Year, and an unlabeled column for the total number of paintings. The data rows are: 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), and Total Number of Paintings (4).

The three screenshots illustrate different border styles:

- Top screenshot:** No borders are visible on the table.
- Middle screenshot:** Every cell in the table has a solid black border.
- Bottom screenshot:** The table has a solid black border, and the individual cells are separated by a collapsed border.

Corresponding CSS code snippets are provided for each style:

```

table {
  border: solid 1pt black;
}

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

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

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Styling Tables

Table Borders (Figure 5.8)

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;
}
```

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;
}
```

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Styling Tables

Boxes (Figure 5.9)

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
Mademoiselle Caroline Riviere Jean-Auguste-Dominique Ingres		1806

```
caption {
  font-weight: bold;
  padding: 0.25em 0 0.25em 0;
  text-align: left;
  text-transform: uppercase;
  border-top: 1px solid #DCA806;
}
table {
  font-size: 0.8em;
  font-family: Arial, sans-serif;
  border-collapse: collapse;
  border-top: 4px solid #DCA806;
  border-bottom: 1px solid white;
  text-align: left;
}
```

`<link rel="stylesheet" href="figure05-09.css" />`

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Styling Tables

Boxes (Figure 5.9 CSS)

```
table {
    font-size: 0.8em;

    font-family: Arial, Helvetica, sans-serif;

    border-collapse: collapse;

    border-top: 4px solid #DCA806;

    border-bottom: 1px solid white;

    text-align: left;
}
```

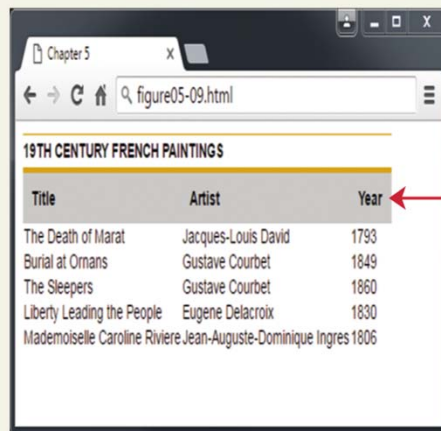
```
caption {
    font-weight: bold;
    padding: 3px 0 4px 0;
    text-align: left;
    text-transform: uppercase;
    border-top: 1px solid #DCA806;
}
```

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Styling Tables

Boxes (Figure 5.9a)



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
Mademoiselle Caroline Riviere	Jean-Auguste-Dominique Ingres	1806

```
thead tr {
    background-color: #CACACA;
}
th {
    padding: 0.75em;
}
```

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Styling Tables

Boxes (Figure 5.9c)

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
Mademoiselle Caroline Riviere	Jean-Auguste-Dominique Ingres	1806

```
tbody tr {
  background-color: #F1F1F1;
  border-bottom: 1px solid white;
  color: #6E6E6E;
}
tbody td {
  padding: 0.75em;
}
```

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Styling Tables

Hover & Zebras (Figure 5.10)

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
Mademoiselle Caroline Riviere	Jean-Auguste-Dominique Ingres	1806

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

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
Mademoiselle Caroline Riviere	Jean-Auguste-Dominique Ingres	1806

```
tbody tr:nth-child(even) {
  background-color: lightgray;
}
```

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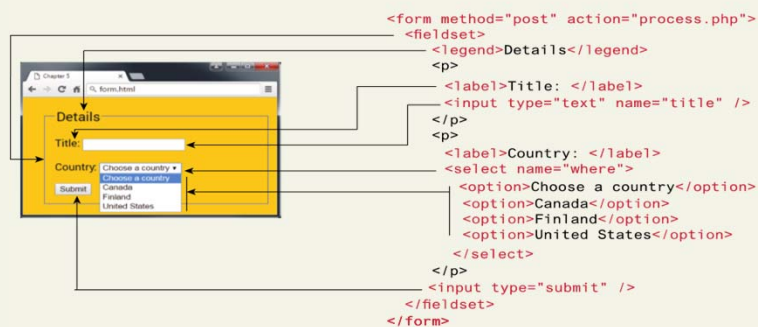
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Introducing Forms

Form Structure (Figure 5.11)

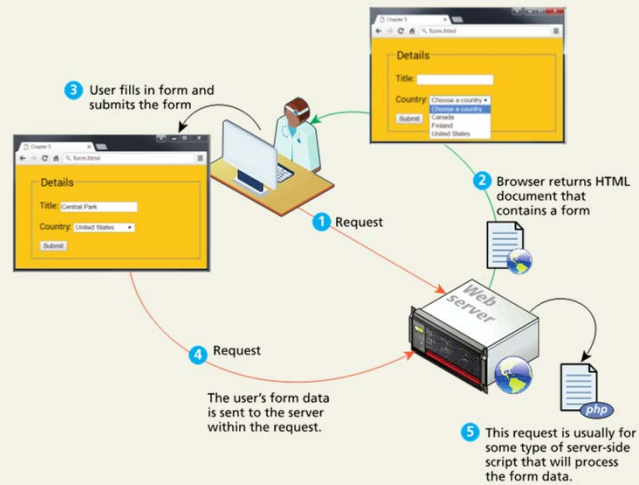


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Introducing Forms

How Forms Work (Figure 5.12)

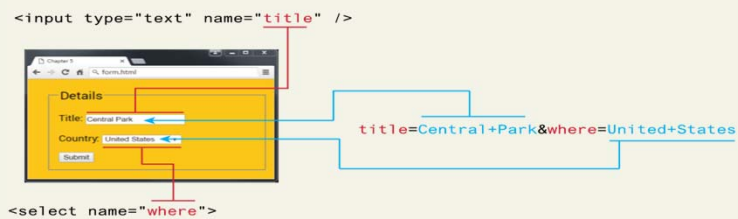


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Query Strings (Figure 5.13)

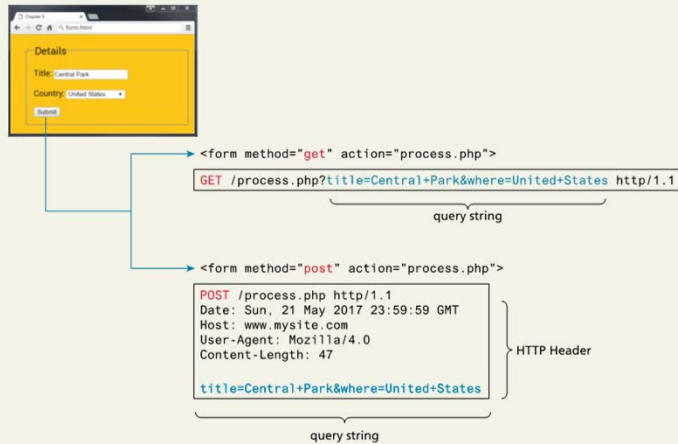


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Introducing Forms

GET and POST (Figure 5.15)



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Introducing Forms

HTML Form elements (Table 5-2, page 187)

- <button>
- <legend>
- <datalist>
- <option>
- <fieldset>
- <optgroup>
- <form>
- <select>
- <input>
- <textarea>
- <label>
- <output>

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Form Control Elements

Text Input Controls (**Figure 5.16, page 188**)

```
<input type="text" ... />
```

Text:

```
<textarea>
  enter some text
</textarea>
```

enter some text

TextArea:

```
<input type="password" ... />
```

Password:

```
<input type="search" placeholder="enter search text" ... />
```

Search:

```
<input type="email" ... />
```

Email:

In Opera

In Chrome

```
<input type="url" ... />
```

url:

```
<input type="tel" ... />
```

Tel:

Form Control Elements

New in HTML5 – pattern and datalist (Figure 5.17, 5-18)

```
<input type="text" ... placeholder="L#L #L#" pattern="[a-z][0-9][a-z] [0-9][a-z][0-9]" />
```

Postal: Postal:

Please match the requested format.

Search City:

Paris
Prague

```
<input type="text" name="city" list="cities" />
```

```
<datalist id="cities">
  <option>Calcutta</option>
  <option>Calgary</option>
  <option>London</option>
  <option>Los Angeles</option>
  <option>Paris</option>
  <option>Prague</option>
</datalist>
```

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Form Control Elements

Choice Controls (<select>) (Figure 5.19)

Select:

Select:

First
Second
Third

Select:

First
Second
Third
Fourth

Cities:

North America
Calgary
Los Angeles
Europe
London
Paris
Prague

```
<select name="choices">
  <option>First</option>
  <option selected>Second</option>
  <option>Third</option>
</select>
```

```
<select size="3" ... >
```

```
<select ... >
  <optgroup label="North America">
    <option>Calgary</option>
    <option>Los Angeles</option>
  </optgroup>
  <optgroup label="Europe">
    <option>London</option>
    <option>Paris</option>
    <option>Prague</option>
  </optgroup>
</select>
```

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Form Control Elements

Choice Controls <select> using value attribute (Figure 5.20)

Select:
 First
 Second
 Third

```

<select name="choices">
  <option>First</option>
  <option>Second</option>
  <option>Third</option>
</select>

```

?choices=Second

```

<select name="choices">
  <option value="1">First</option>
  <option value="2">Second</option>
  <option value="3">Third</option>
</select>

```

?choices=2

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Form Control Elements

Button Controls (radio) (Figure 5.21)

Continent:

☐ North America
☒ South America
☐ Asia

```

<input type="radio" name="where" value="1">North America<br/>
<input type="radio" name="where" value="2" checked="">South America<br/>
<input type="radio" name="where" value="3">Asia

```

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Form Control Elements

Button Controls (checkbox) (Figure 5.22)

I accept the software license ☒

Where would you like to visit?

☒ Canada

☐ France

☒ Germany

`<label>I accept the software license</label>`
`<input type="checkbox" name="accept" >`

`<label>Where would you like to visit? </label>
`
`<input type="checkbox" name="visit" value="canada">Canada
`
`<input type="checkbox" name="visit" value="france">France
`
`<input type="checkbox" name="visit" value="germany">Germany`

`?accept=on&visit=canada&visit=germany`

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Form Control Elements

Button Controls (checkbox) (Figure 5.23)

`<input type="submit" />`

`<input type="reset" />`

`<input type="button" value="Click Me" />`

`<input type="image" src="appointment.png" />`

`<button>`
``
``
`Email`
``
`</button>`

`<button type="submit" >`
``
`Edit`
`</button>`

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Form Control Elements

Specialized Controls (file upload) (Figure 5.24)

Upload a travel photo

Choose File

 No file chosen

```
<form method="post" enctype="multipart/form-data" ... >
...
<label>Upload a travel photo</label>
<input type="file" name="photo" />
...
</form>
```

↓

Upload a travel photo

Choose File

 IMG_0020.JPG

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Form Control Elements

Specialized Controls (number and range controls) (Figure 5.25)

Rate this photo:

2

```
<label>Rate this photo: <br/>
<input type="number" min="1" max="5" name="rate" />
```

Grumpy

Ecstatic

```
Grumpy
<input type="range" min="0" max="10" step="1" name="happiness" />
Ecstatic
```

Rate this photo:

Grumpy

Ecstatic

Controls as they appear in browser that doesn't support these input types

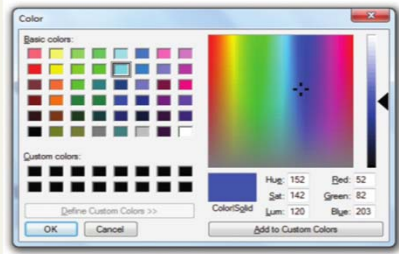
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Form Control Elements

Specialized Controls (color) (Figure 5.27)

Background Color:



```
<label>Background Color: <br/>
<input type="color" name="back" />
```

Background Color:

Control as it appears in browser that doesn't support this input type

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Form Control Elements

Date and Time Controls (Figure 5.28)

Date:

```
<label>Date: <br/>
<input type="date" ... />
```

Time:

```
<input type="time" ... />
```

Date Time:

```
<input type="datetime" ... />
```

Date Time Local:

```
<input type="datetime-local" ... />
```

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Form Control Elements

Date and Time Controls (**Figure 5.28**)

Month:

March, 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
24	25	26	27	28	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

This month Clear

`<input type="month" ... />`

Week:

2013-W10

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
9	25	26	27	28	1	2	3
10	4	5	6	7	8	9	10
11	11	12	13	14	15	16	17
12	18	19	20	21	22	23	24
13	25	26	27	28	29	30	31
14	1	2	3	4	5	6	7

Today

`<input type="week" ... />`

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Table and Form Accessibility

Accessible Tables (**Listing 5.1**)

- Use tables for data, not layout
- Use the <caption> element
- Connect cells with a textual description in the header

```
<caption>Famous Paintings</caption>
<tr>
<th scope="col">Title</th>
<th scope="col">Artist</th>
<th scope="col">Year</th>
<th scope="col">Width</th>
<th scope="col">Height</th>
</tr>
```

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Table and Form Accessibility

Accessible Form (**Figure 5.29**)

```
<label for="f-title">Title: </label>

<input type="text" name="title" id="f-title"/>

<label for="f-country">Country: </label>

<select name="where" id="f-country">
  <option>Choose a country</option>
  <option>Canada</option>
  <option>Finland</option>
  <option>United States</option>
</select>
```

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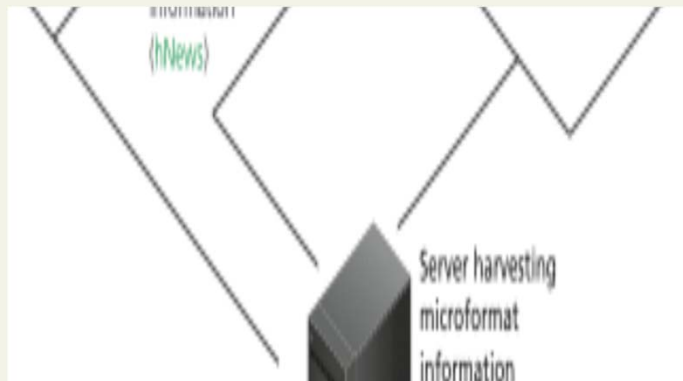
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Microformats

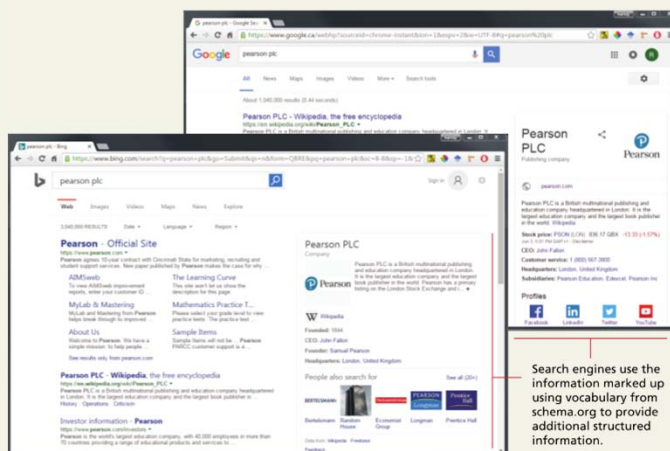


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Microformats

Schema.org



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Microformats

References

hCard, which is used to semantically mark up contact information for a person

- <http://microformats.org/wiki/hcard>.

Schema.org aims to create and promote schemas for structured data on the Web. Google's on-line testing tool helps developers test their semantic markup and microformats

- <https://search.google.com/structured-data/testing-tool/u/0/>

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Chapter 5

1

 Introducing
Tables

2

Styling Tables

3

 Introducing
Forms

4

 Form Control
Elements

5

 Table and Form
Accessibility

6

Microformats

7

Summary

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Summary

Key Terms

- checkbox
- colspan
- form
- GET
- hCard
- microformat
- POST
- query string
- radio buttons
- rowspan
- schema.org
- table
- URL encoded
- web accessibility
- Web Accessibility Initiative (WAI)

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Questions