

CS355 Web Technologies

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Lecture 4

HTML Program Structure



HTML Unordered List

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML Unordered List</title>
  </head>
  <body>
    <ul>
      <li>Study</li>
      <li>Sports</li><li>Travel</li>
      <li>Social</li>
    </ul>
  </body>
</html>
```

Web Page output:

HTML Unordered List

- Study
- Sports
- Travel
- Social

Question?

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML Unordered List</title>
  </head>
  <body>
    <ul> <li>Study</li>
      <li>Sports</li><li>Travel</li>
      <li>Social</li>
    </ul>
  </body>
</html>
```

In the following HTML code, if we change the tags `` and `` by `` and ``, what will be the web page output?

HTML Definition Lists

- HTML and XHTML supports **definition lists** where entries are listed like in a **dictionary, a glossary, list of terms**, or any other name/value list.
- Definition Lists use the following tags:
 - `<dl>` Defines the start of the list
 - `<dt>` Defines term title
 - `<dd>` Defines term definition
 - `</dl>` Defines the end of the list

HTML Definition Lists - Example

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML Definition List</title>
  </head>
  <body>
    <dl>
      <dt><b>HTML</b></dt><dd>This stands for Hyper Text Markup Language</dd>
      <dt><b>HTTP</b></dt><dd>This stands for Hyper Text Transfer Protocol</dd>
    </dl>
  </body>
</html>
```

Web Page output:

HTML

This stands for Hyper Text Markup Language

HTTP

This stands for Hyper Text Transfer Protocol

HTML Tables – Example 1

```
<body>
  <table border="1">
    <tr>
      <td>Row 1, Column 1</td><td>Row 1, Column 2</td>
    </tr>
    <tr><td>Row 2, Column 1</td><td>Row 2, Column 2</td>
    </tr>
  </table>
</body>
```

Web Page output: table data without headers

Row 1, Column 1	Row 1, Column 2
Row 2, Column 1	Row 2, Column 2

HTML Tables – Example 2

```
<body>
  <table border="1"bordercolor="red" bgcolor="yellow">
    <tr><th>Name</th>
    <th>Salary</th></tr>
    <td>Ahmad    </td><td>1,000.00</td>
  </tr>
  <tr><td>Zaid</td><td>1,200.00</td>
  </tr>
</table>
</body>
```

What will be the Web Page output?

Using Image in Webpage – Example

```
<html>
  <head>
    <title>Using Image in Webpage</title>
  </head>
  <body><p>Simple Image Insert</p>
    
  </body>
</html>
```

- **src** represents the image source.
- Valid formats are **.jpg, .png, .gif**.
- **alt** attribute describing the contents of the image.

Interactive HTML Forms

- **HTML Form** is a web page that allows a user to enter data that is sent to the server for processing.
- **<form>** tag is used to include input controls.
- There are different types of **form controls** are used to **collect data**:
 - Text Input
 - Check Box
 - Radio Button
 - Select Box (Drop-down List)
 - File Select Boxes
 - Hidden Form Controls
 - Clickable Buttons
 - Submit and Reset Buttons

Text Input Controls

There are three types of text input controls:

1. Single-line text input controls

This control is used for items that require only **one line** of user input. The tag used to define one-line input is

`<input type="text">`

- Example:

`<form>`

First name:
`
`

`<input type="text" name="firstname">`
`
`

Last name:
`
`

`<input type="text" name="lastname">`

`</form>`

First name:

Last name:

Text Input Controls

2. Password input controls

This input control is used for items that require only one line of user input and **masks** every entered character. The tag used to define password input is

`<input type="password">`

- Example:

```
<form>
```

```
  User name:  
            
```

```
  <input type="text" name="username">
```

```
  User password:  
            
```

```
  <input type="password" name="psw">
```

```
</form>
```

Text Input Controls

3. Multi-line text input controls

This input control is used when the user is required to give details that may be longer than one sentence. The tag used to define Multi-line input is

<text area>

- Example:

```
<html>
  <head>
    <title>Multiple-Line Input Control</title>
  </head>
  <body>
    <form> Description: <br />
      <text area rows="5" cols="50" name="description"> Enter description here... </text area>
    </form>
  </body>
</html>
```

Description:



Check Boxes Input Controls

- Checkboxes are used when more than one option is allowed to be selected. The tag used to define check boxes input is

`<input type="checkbox">`

- Example:

```
<html><head><title>Checkbox Control</title></head>
```

```
<body>
```

```
  <form>
```

```
    <input type="checkbox" name="C++" value="on"> C++
```

```
    <br>
```

```
    <input type="checkbox" name="C#" value="on"> C#
```

```
    <br>
```

```
    <input type="checkbox" name="JAVA" value="on"> JAVA
```

```
  </form>
```

```
</body></html>
```



Radio Buttons Input Controls

- Radio buttons are used when one option is required to be selected from many options. The tag used to define radio button is

`<input type="radio">`

- Example:

```
<html><head><title>Radio Box Control</title></head>
```

```
<body><p>Select a Course</p>
```

```
<form>
```

```
<input type="radio" name="subject" value="C++"> C++
```

```
<br>
```

```
<input type="radio" name="subject" value="JAVA"> JAVA
```

```
<br>
```

```
<input type="radio" name="subject" value="HTML"> HTML
```

```
</form> </body></html>
```

Select a Course

☐ C++
☐ JAVA
☐ HTML

Drop-Down List Input Controls

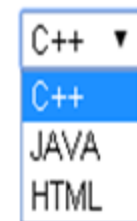
- Dropdown List provides various options in the form of drop-down list, from where a user can select one or more options. The tag used to define drop-down list is

<select name="dropdown">

- Example:

```
<html>
<head>
  <title>Select Box Control</title>
</head>
<body>
  <form>
    <select name="dropdown">
      <option value="C++" selected>C++</option>
      <option value="JAVA">JAVA</option>
      <option value="HTML">HTML</option>
    </select>
  </form>
</body>
</html>
```

Select Box Control



Hidden Form Controls

- Hidden form controls are used to hide data inside the page which later can be sent to the server.
- The data inside the form does not appear on the actual page.
- The tag used to define hidden form control is
`<input type="hidden">`

Hidden Form Controls

- Example:

The following hidden form is used to keep current page number. When a user clicks next page then the value of the hidden control is sent to the web server that decides which page will be displayed next based on the passed current page.

```
<body>
```

```
<form>
```

```
  <p>This is page 10</p>
```

```
  <input type="hidden" name="pagename" value="10" />
```

```
  <input type="submit" name="submit" value="Submit" />
```

```
  <input type="reset" name="reset" value="Reset" />
```

```
</form>
```

```
</body>
```

HTML Frames

- HTML frames are used to **divide the user browser window** into multiple sections where each section can load a separate HTML document.
- A collection of frames in the browser window is known as frameset.
- The tag used to define frames is **<frameset>**
- Each frame is indicated by inline frame **<iframe>** tag that defines which HTML document should be opened into the frame.
- **Example:**

```
<body>
```

```
  <iframe src="sample1.html" height="400"
```

```
  width="400" frameborder="1">
```

```
    <h1>This is aHeading</h1>
```

```
    <p>This is a paragraph.</p>
```

```
  </iframe>
```

```
</body>
```

Examples

Tables

Example #1 – 1/4

```
1  <!DOCTYPE html>
2
3  <!-- Fig. 2.13: table2.html -->
4  <!-- Complex HTML5 table. -->
5  <html>
6      <head>
7          <meta charset = "utf-8">
8          <title>Tables</title>
9      </head>
10
11     <body>
12         <h1>Table Example: Spanning Rows and Columns</h1>
13
14         <table border = "1">
15             <caption>A more complex sample table</caption>
16
```

Fig. 2.13 | Complex HTML5 table. (Part 1 of 4.)

Tables

Example #1 – 2/4

```

17      <thead>
18          <!-- rowspans and colspans merge the specified -->
19          <!-- number of cells vertically or horizontally -->
20          <tr>
21              <!-- merge two rows -->
22              <th rowspan = "2">
23                  <img src = "camel.png" width = "205"
24                      height = "167" alt = "Picture of a camel">
25              </th>
26
27              <!-- merge four columns -->
28              <th colspan = "4">
29                  <strong>Camelid comparison</strong><br>
30                  Approximate as of 10/2011
31              </th>
32          </tr>
33          <tr>
34              <th># of humps</th>
35              <th>Indigenous region</th>
36              <th>Spits?</th>
37              <th>Produces wool?</th>
38          </tr>
39      </thead>

```

Fig. 2.13 | Complex HTML5 table. (Part 2 of 4.)

Tables

Example #1 – 3/4

```
40      <tbody>
41      <tr>
42          <th>Camels (bactrian)</th>
43          <td>2</td>
44          <td>Africa/Asia</td>
45          <td>Yes</td>
46          <td>Yes</td>
47      </tr>
48      <tr>
49          <th>Llamas</th>
50          <td>1</td>
51          <td>Andes Mountains</td>
52          <td>Yes</td>
53          <td>Yes</td>
54      </tr>
55  </tbody>
56 </table>
57 </body>
58 </html>
```

Fig. 2.13 | Complex HTML5 table. (Part 3 of 4.)

Tables

Example #1 – 4/4

Tables

file:///C:/books/2011/TW3HTP5/examples/ch02/table2.html

Table Example: Spanning Rows and Columns

A more complex sample table


	Camelid comparison Approximate as of 6/2011			
	# of humps	Indigenous region	Spits?	Produces wool?
Camels (bactrian)	2	Africa/Asia	Yes	Yes
Llamas	1	Andes Mountains	Yes	Yes

Fig. 2.13 | Complex HTML5 table. (Part 4 of 4.)

Forms

Example #2 – 1/6

```
1  <!DOCTYPE html>
2
3  <!-- Fig. 2.15: form2.html -->
4  <!-- Form using a variety of components. -->
5  <html>
6      <head>
7          <meta charset = "utf-8">
8          <title>More Forms</title>
9      </head>
10
11     <body>
12         <h1>Feedback Form</h1>
13         <p>Please fill out this form to help
14             us improve our site.</p>
15
16         <form method = "post" action = "http://www.deitel.com">
17
18             <input type = "hidden" name = "recipient"
19                 value = "deitel@deitel.com">
20             <input type = "hidden" name = "subject"
21                 value = "Feedback Form">
22             <input type = "hidden" name = "redirect"
23                 value = "main.html">
24
```

Fig. 2.15 | Form using a variety of components. (Part I of 6.)

Forms

Example #2 – 2/6

```

25      <p><label>Name:
26          <input name = "name" type = "text" size = "25">
27      </label></p>
28
29      <!-- <textarea> creates a multiline textbox -->
30      <p><label>Comments:<br>
31          <textarea name = "comments"
32              rows = "4" cols = "36">Enter comments here.</textarea>
33      </label></p>
34
35      <!-- <input type = "password"> inserts a -->
36      <!-- textbox whose display is masked with -->
37      <!-- asterisk characters -->
38      <p><label>E-mail Address:
39          <input name = "email" type = "password" size = "25">
40      </label></p>
41
42      <p>
43          <strong>Things you liked:</strong><br>
44
45          <label>Site design
46              <input name = "thingsliked" type = "checkbox"
47                  value = "Design"></label>

```

Fig. 2.15 | Form using a variety of components. (Part 2 of 6.)

Forms

Example #2 – 3/6

```

48      <label>Links
49          <input name = "thingsliked" type = "checkbox"
50              value = "Links"></label>
51      <label>Ease of use
52          <input name = "thingsliked" type = "checkbox"
53              value = "Ease"></label>
54      <label>Images
55          <input name = "thingsliked" type = "checkbox"
56              value = "Images"></label>
57      <label>Source code
58          <input name = "thingsliked" type = "checkbox"
59              value = "Code"></label>
60  </p>
61
62  <!-- <input type = "radio"> creates a radio -->
63  <!-- button. The difference between radio buttons -->
64  <!-- and checkboxes is that only one radio button -->
65  <!-- in a group can be selected. -->
66  <p>
67      <strong>How did you get to our site?:</strong><br>
68
69      <label>Search engine
70          <input name = "howtosite" type = "radio"
71              value = "search engine" checked></label>

```

Fig. 2.15 | Form using a variety of components. (Part 3 of 6.)

Forms

Example #2 – 4/6

```

72      <label>Links from another site
73          <input name = "howtosite" type = "radio"
74              value = "link"></label>
75      <label>Deitel.com Web site
76          <input name = "howtosite" type = "radio"
77              value = "deitel.com"></label>
78      <label>Reference in a book
79          <input name = "howtosite" type = "radio"
80              value = "book"></label>
81      <label>Other
82          <input name = "howtosite" type = "radio"
83              value = "other"></label>
84  </p>
85
86  <p>
87      <label>Rate our site:
88
89          <!-- the <select> tag presents a drop-down -->
90          <!-- list with choices indicated by the -->
91          <!-- <option> tags -->
92          <select name = "rating">
93              <option selected>Amazing</option>
94              <option>10</option>
95              <option>9</option>
96              <option>8</option>

```

Fig. 2.15 | Form using a variety of components. (Part 4 of 6.)

Forms

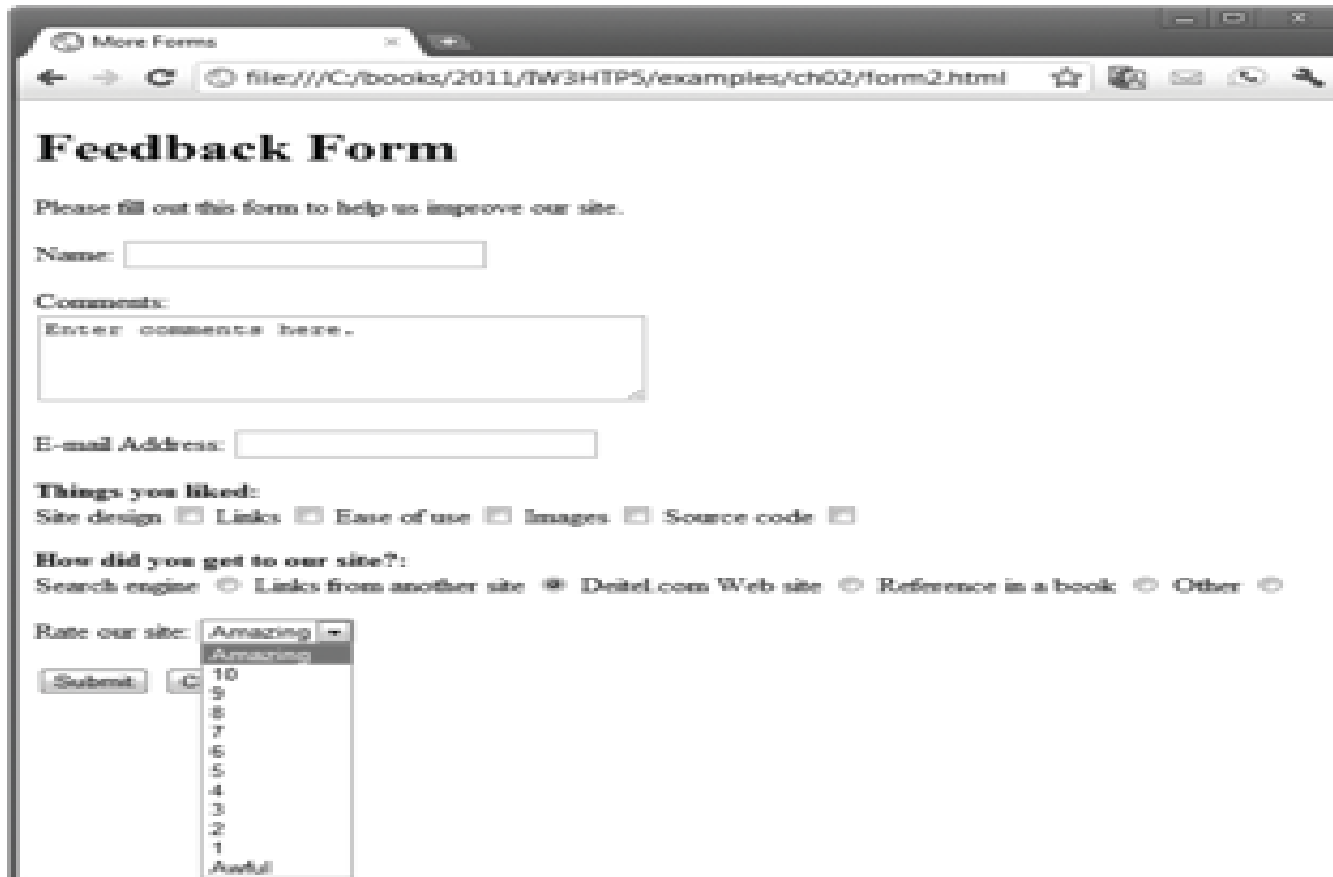
Example #2 – 5/6

```
97         <option>7</option>
98         <option>6</option>
99         <option>5</option>
100        <option>4</option>
101        <option>3</option>
102        <option>2</option>
103        <option>1</option>
104        <option>Awful</option>
105    </select>
106    </label>
107 </p>
108
109    <p>
110        <input type = "submit" value = "Submit">
111        <input type = "reset" value = "Clear">
112    </p>
113 </form>
114 </body>
115 </html>
```

Fig. 2.15 | Form using a variety of components. (Part 5 of 6.)

Forms

Example #2 – 6/6



More Forms

file:///C:/books/2011/TW3HTTP5/examples/ch02/form2.html

Feedback Form

Please fill out this form to help us improve our site.

Name:

Comments:

E-mail Address:

Things you liked:
 Site design ☐ Links ☐ Ease of use ☐ Images ☐ Source code ☐

How did you get to our site?:
 Search engine ☐ Links from another site ☐ Direct.com Web site ☐ Reference in a book ☐ Other ☐

Rate our site:

10
9
8
7
6
5
4
3
2
1
Awful

Fig. 2.15 | Form using a variety of components. (Part 6 of 6.)