

CIS 300

Web Design and Development

Chapter 10 | Form Basics

Learning Objectives

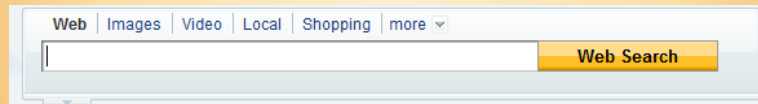
2

- Describe common uses of forms on web pages
- Create forms on web pages using the form, input, textarea, and select elements
- Associate form controls and groups using label, fieldset, and legend elements
- Use CSS to style a form
- Describe the features and common uses of server-side processing
- Invoke server-side processing to handle form data
- Configure new HTML5 form controls and attributes

Overview of Forms

3

- Forms are used all over the Web to
- Accept information
- Provide interactivity



- Types of forms:
- Search form, Order form, Newsletter sign-up form, Survey form, Add to Cart form, and so on...

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

Two Components of Using Forms

4

- The web page form
 - An HTML element that contains and organizes form controls such as text boxes, check boxes, and buttons that can accept information from website visitors.

and

- The server-side processing
 - Server-side processing works with the form data and sends e-mail, writes to a text file, updates a database, or performs some other type of processing on the server.

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

HTML Using Forms

5

- `<form>` tag
 - Contains the form elements on a web page
 - Container tag
- `<input>` tag
 - Configures a variety of form elements including text boxes, radio buttons, check boxes, and buttons
 - Stand alone tag
- `<textarea>` tag
 - Configures a scrolling text box
 - Container tag
- `<select>` tag
 - Configures a select box (drop down list)
 - Container tag
- `<option>` tag
 - Configures an option in the select box
 - Container tag

Sample Form HTML

6

```
<form name="newsletterForm" id="newsletterForm">
  <h1>Join Our Newsletter</h1>
  E-mail: <input type="text" name="email" id="email" >
  <br><br>
  <input type="submit" value="Sign Me Up!"> <input type="reset">
</form>
```

The screenshot shows a Firefox browser window with a tab titled 'Form Example'. The page content is a newsletter sign-up form. It features a heading 'Join Our Newsletter', a label 'E-mail:' followed by a text input field, and two buttons at the bottom: 'Sign Me Up!' and 'Reset'.

The Form Element <form>

7

- Container Tag
- The form element attributes:
 - action
 - Specifies the server-side program or script that will process your form data
 - method
 - get – default value, form data passed in URL
 - post – more secure, form data passed in HTTP Entity Body
 - name
 - Identifies the form
 - id
 - Identifies the form

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Input Element Text Box <input>

8

- Accepts text information
- Common Attributes:
 - type="text"
 - name
 - id
 - size
 - maxlength
 - value
 - required (HTML5)
 - placeholder (HTML5)

E-mail: <input type="text" name="email" id="email">

Sample Text Box

Email:

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Input Element Password Box <input>

9

- Accepts text information that needs to be hidden as it is entered
- Common Attributes:
 - type="password"
 - name
 - id
 - size
 - maxlength
 - value
 - required (HTML5)
 - placeholder (HTML5)

Password: <input type="password" name="pword" id="pword">

Sample Password Box

Password:

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Input Element Check box <input>

10

- Allows the user to select one or more of a group of predetermined items
- Common Attributes:
 - type="checkbox"
 - name
 - id
 - checked
 - value

```
<input type="checkbox" name="IE" id="IE" value="yes"> Internet Explorer<br>
<input type="checkbox" name="Firefox" id="Firefox" value="yes"> Firefox<br>
<input type="checkbox" name="Opera" id="Opera" value="yes"> Opera<br>
```

Sample Check Box

Choose the browsers you use:

- ☐ Internet Explorer
☐ Firefox
☐ Opera

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Input Element Radio Button <input>

11

- Allows the user to select exactly one from a group of predetermined items
- Each radio button in a group is given the same name and a unique value
- Common Attributes:
 - type="radio"
 - name
 - id
 - checked
 - value

```
<input type="radio" name="favbrowser" id="favIE" value="IE"> Internet Explorer<br>
<input type="radio" name="favbrowser" id="favFirefox" value="Firefox"> Firefox<br>
<input type="radio" name="favbrowser" id="favOpera" value="Opera"> Opera<br>
```

Sample Radio Buttons

Select your favorite browser:

- ☐ Internet Explorer
☐ Firefox
☐ Opera

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Input Element Hidden Field <input>

12

- This form control is not displayed on the Web page.
- Hidden form fields
 - Can be accessed by both client-side and server-side scripting
- Common Attributes:
 - type="hidden"
 - name
 - id
 - value

```
<input type="hidden" name="sendto" id="sendto" value="order@site.com">
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Textarea Element <textarea>

13

- Configures a scrolling text box
- Common Attributes:
 - name
 - id
 - cols
 - rows

```
Comments:<br>
<textarea name="cm" id="cm" cols="40" rows="2">Enter comments</textarea>
```

Sample Scrolling Text Box

Comments:

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Select Element <select>

14

- Configures a select list (along with <option> tags)
- Also known as: Select Box, Drop-Down List, Drop-Down Box, and Option Box.
- Allows the user to select one or more items from a list of predetermined choices.
- Common Attributes:
 - name
 - id
 - size
 - multiple

```
<select size="1" name="favbrowser" id="favbrowser">
  <option>Select your favorite browser</option>
  <option value="Internet Explorer">Internet Explorer</option>
  <option value="Firefox">Firefox</option>
  <option value="Chrome">Chrome</option>
</select>
```

Sample Select List

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

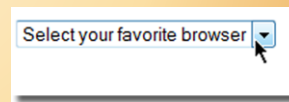
ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Option Element <option>

15

- Configures the options in a Select List
- Attributes:
 - value
 - selected

```
<select size="1" name="favbrowser" id="favbrowser">
  <option>Select your favorite browser</option>
  <option value="Internet Explorer">Internet Explorer</option>
  <option value="Firefox">Firefox</option>
  <option value="Chrome">Chrome</option>
</select>
```



Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Input Element Submit Button <input>

16

- Submits the form information
- When clicked:
 - Triggers the action method on the <form> tag
 - Sends the form data (the name=value pair for each form element) to the web server.
- Attributes:
 - type="submit"
 - name
 - id
 - value

```
<input type="submit">
```

Sample Submit Button

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Input Element Reset Button <input>

17

- Resets the form fields to their initial values
- Attributes:
 - type="reset"
 - name
 - id
 - value

```
<input type="reset">
```

Sample Reset Button

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Label Element <label>

18

- Associates a text label with a form control
- Two Different Formats:

```
<label>Email: <input type="text" name="CustEmail" id="CustEmail"></label>
```

OR

```
<label for="email">Email: </label>  
<input type="text" name="CustEmail" id="email" />
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

The Fieldset & Legend Elements

19

- The Fieldset Element
<fieldset>
 - Container tag
 - Creates a visual group of form controls on a web page
- The Legend Element
<legend>
 - Container tag
 - Creates a text label within the fieldset

```
<fieldset><legend>Customer Information</legend>
<label>Name:
<input type="text" name="CName" id="CName" size="30"></label>    <br><br >
<label>Email:
<input type="text" name="CEmail" id="CEmail"></label>
</fieldset>
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

Using CSS to Style a Form

20

```
form { background-color:#eaeaea; font-family: Arial, sans-serif;
width: 350px; padding: 10px;}
label { float: left; clear: left; display: block; width: 100px;
text-align: right; padding-right: 10px; margin-top: 10px; }
input, textarea { margin-top: 10px; display: block;}
input[type= "submit"]{ margin-left: 110px; }
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

Server-Side Processing

21

- Your web browser requests web pages and their related files from a web server.
- The web server locates the files and sends them to your web browser.
- The web browser then renders the returned files and displays the requested web pages for you to use.



Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
 SCHOOL OF BUSINESS
 ARIZONA STATE UNIVERSITY

Server-Side Scripting

22

- One of many technologies in which a server-side script is embedded within a web page document saved with a file extension such as:
 - .php (PHP)
 - .cfm (Adobe ColdFusion)
 - .jsp (Sun JavaServer Pages)
 - .aspx (ASP.Net).
- Uses direct execution — the script is run either by the web server itself or by an extension module to the web server.

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
 SCHOOL OF BUSINESS
 ARIZONA STATE UNIVERSITY

HTML5: Email Text Box <input>

23

- Accepts text information in e-mail address format
- Common Attributes:
 - type="email"
 - name
 - id
 - size
 - maxlength
 - value
 - placeholder
 - required

```
<label for="email">E-mail:</label>
<input type="email" name="myEmail" id="myEmail">
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

HTML5: URL Text Box <input>

24

- Accepts text information in URL format
- Common Attributes:
 - type="url"
 - name
 - id
 - size
 - maxlength
 - value
 - placeholder
 - required

```
<label for="myWebsite">Suggest a Website:</label>
<input type="url" name="myWebsite" id="myWebsite">
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

HTML5: Telephone Number Text Box <input>

25

- Accepts text information in telephone number format
- Common Attributes:
 - type="tel"
 - name
 - id
 - size
 - maxlength
 - value
 - placeholder
 - required

```
<label for="mobile">Mobile Number:</label>
<input type="tel" name="mobile" id="mobile">
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

HTML5: Search Text Box <input>

26

- Accepts search terms
- Common Attributes:
 - type="search"
 - name
 - id
 - size
 - maxlength
 - value
 - placeholder
 - required

```
<label for="keyword">Search:</label>
<input type="search" name="keyword" id="keyword">
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

HTML5: Datalist Control

27

```
<label for="color">Favorite Color:</label>
<input type="text" name="color" id="color" list="colors" >
<datalist id="colors">
  <option value="red">
  <option value="green">
  <option value="blue">
  <option value="yellow">
  <option value="pink">
  <option value="black">
</datalist>
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

HTML5: Slider Control <input>

28

```
<label for="myChoice">
Choose a number between 1 and 100:</label><br>
Low <input type="range" name="myChoice" id="myChoice"> High
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

HTML5: Spinner Control <input>

29

```
<label for="myChoice">Choose a number between 1 and 10:</label>
<input type="number" name="myChoice" id="myChoice" min="1" max="10">
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

HTML5: Calendar Control <input>

30

```
<label for="myDate">Choose a Date</label>
<input type="date" name="myDate" id="myDate">
```

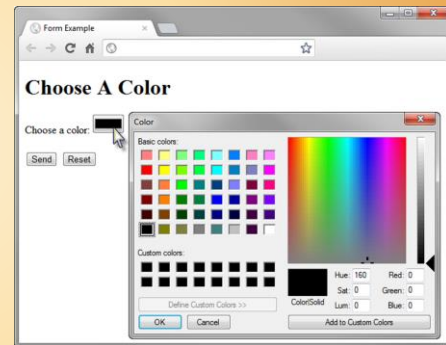
Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

HTML5 Color-well Control

31

```
<label for="myColor">Choose a color:</label>
<input type="color" name="myColor" id="myColor">
```



Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W. P. CAREY
SCHOOL of BUSINESS
ARIZONA STATE UNIVERSITY

ASU W. P. CAREY
SCHOOL of BUSINESS
ARIZONA STATE UNIVERSITY

See you in the next video!