

CSCI 241

XHTML Interactivity with Form

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Forms for the Web

- To allow users to enter information in a Web page and send it to the Web server, we need to add **form** elements to the Web page
- In a form element, various user interface elements can be added to collect information from users
- Forms really make Web pages interactive
- However, to implement this interactivity, we need to have coding on the server-side

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Attributes of the form Tag

- To specify a program to process the collected data on the server side, we need to use the **action** attribute in the **form** tag to specify the URL to the program
- To specify how to send the data with the action URL, we use the **method** attribute with value **GET** or **POST**. (The default value is **GET**)
- We can also use other attributes such as **enctype**, **name**, and so on

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User Interface Elements

- In a form element, we can add various user interface elements such as text-fields, password-fields, buttons, radio toggle buttons, checkboxes, pop-up menus and textareas
- In XHTML, the **<input>**, **<select>**, **<option>** and **<textarea>** elements can be organized to create all the above components
- These user interface elements must be placed within a **<form> </form>** element
- Particularly, the **<option>** element must be used within a **<select>** element

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The <input> Element

- The **<input>** element has a **type** attribute that can be used to specify the type of a user interface element
- The **type** attribute can be **text**, **password**, **checkbox**, **radio**, **button**, **hidden**, **file**, **submit**, **image**, and **reset**
- The **name** attribute can define a unique name for the input element.
- This **name** will be used to represent the name of the name/value pair sent to the server, and for JavaScript code to reference the element in the JavaScript code

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The <input> Element

- The **value** attribute has different meaning for different **type**
- For **button**, **submit** and **reset**, the value will be the text appeared on the button
- For **checkbox** and **radio** button, it is a required attribute. The value will be the result of the input element when clicked
- For **text**, **password**, and **hidden**, it defines the default value of the element
- It cannot be used with **type="file"**

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The <input> Element

- The `checked` attribute is used with `type="checkbox"` and `type="radio"`, and indicates whether the element is checked by default (the value is "checked")
- The `maxlength` defines the maximum number of characters accepted in a text field
- The `size` attribute defines the number of characters displayed in a text or password field
- The `src` attribute is only used for `type="image"` to specify the URL of the image
- The `disabled` attribute sets the element be disabled (the value is "disabled")

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The <select> Element

- The `<select>` element creates a drop-down menu
- It has four attributes: `name`, `size`, `multiple`, and `disabled`
- The `name` attribute defines a unique name for the menu
- The `size` attribute specifies the number of visible items in the drop-down menu
- The `multiple` attribute specifies that multiple items can be selected at a time when set as "multiple"

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The <option> and <optgroup> Elements

- The `<option>` element defines an option in the drop-down menu
- It has attributes: `value`, `selected`, and `disabled`
- In a drop-down menu, we can make items into groups with the `<optgroup>` element
- This element has the `label` attribute to define the label for the option group

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Form Example - 1

```
<form name="login" action="login.php" method="GET">
User Name: <input type="text" name="account" /><br />
Password: <input type="password" name="passwd" /><br />
Account Type:
<input type="radio" name="atype" value="p" checked="checked" />Personal
<input type="radio" name="atype" value="b" />Business<br />
Specify Location:
<select name="loc" size="1">
<option value="LA">Louisiana</option>
<option value="OK">Oklahoma</option>
<option value="TX" selected="selected">Texas</option>
</select><br />
<input type="submit" name="submit" value="Submit" />
<input type="reset" name="reset" value="Clear" /><br />
</form>
```

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Form Example - 1

- In a Web browser, the form looks as follows:

- When clicking the Submit button, the Web browser will append the following string to the URL and send back to the sever

```
login.php?account=scott&passwd=tiger&atype=p&loc=TX&submit=Submit
```

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Form Example - 2

- We can use a table to align the elements of a form

```
<form name="login" action="login.php" method="GET">
<table border="0">
<tr>
<td>User Name:</td>
<td><input type="text" name="account" /></td>
</tr>
<tr>
<td>Password: </td>
<td><input type="password" name="passwd" /></td>
</tr>
<tr>
<td>Account Type:</td>
<td><input type="radio" name="atype" value="p" checked="checked" />Personal
<input type="radio" name="atype" value="b" />Business</td>
</tr>
</table>
```

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Form Example - 2

```

<tr>
<td>Specify Location:</td>
<td><select name="loc" size="1">
<option value="LA">Louisiana</option>
<option value="OK">Oklahoma</option>
<option value="TX" selected="selected">Texas</option>
</select>
</td>
</tr>
<tr>
<td><input type="submit" name="submit" value="Submit" /></td>
<td><input type="reset" name="reset" value="Clear" /></td>
</tr>
</table>
</form>
    
```

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Form Example - 2

- The new form in a table looks as follows:

- After clicking the Submit button, the Web browser will append the same string as the previous example to the URL and send back to the sever

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The <textarea> Element

- The <textarea> element defines a text-area with multi-line text input control
- It has attribute name, rows, cols, readonly and disabled
- The rows attribute specifies the number of rows visible in the text-area
- The cols attribute specifies the number of columns visible in the text-area
- The readonly attribute indicates that the user cannot modify the content in the text-area

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The <fieldset> and <legend> Element

- The <fieldset> element draws a box around its containing elements
- The <legend> element defines a caption for a fieldset

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Form Example - 3

```

<form name="form3">
<fieldset>
<legend>User Profile</legend>
First Name: <input type="text" name="fname" /><br />
Last Name: <input type="text" name="lname" /><br />
Email: <input type="text" name="email" /><br />
</fieldset><br />
<fieldset>
<legend>Problem Description</legend>
<textarea name="problem" rows="5" cols="80"></textarea>
</fieldset>
<input type="submit" value="Submit Report" />
</form>
    
```

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Form Example - 3

- This form 3 looks as follows:

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