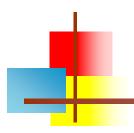


Internet Fundamentals

Lecture-25



HTML/XHTML Forms



What are forms?

- <form> is just another kind of XHTML/HTML tag
- Forms are used to create (rather primitive) GUIs on Web pages
 - Usually the purpose is to ask the user for information
 - The information is then sent back to the server
- A form is an area that can contain form elements
 - The syntax is: <form parameters> ...form elements... </form>
 - Form elements include: buttons, checkboxes, text fields, radio buttons, drop-down menus, etc
 - Other kinds of tags can be mixed in with the form elements
 - A form usually contains a Submit button to send the information in he form elements to the server
 - The form's *parameters* tell JavaScript how to send the information to the server (there are two different ways it could be sent)
 - Forms can be used for other things, such as a GUI for simple programs

Forms and JavaScript

- The JavaScript language can be used to make pages that "do something"
 - You can use JavaScript to write complete programs, but...
 - Usually you just use snippets of JavaScript here and there throughout your Web page
 - JavaScript code snippets can be attached to various form elements
 - For example, you might want to check that a **zipcode** field contains a 5-digit integer before you send that information to the server
- Microsoft calls its version of JavaScript "active scripting"
- Forms can be used without JavaScript, and JavaScript can be used without forms, but they work well together
- JavaScript for forms is covered in a separate lecture

The <form> tag

- The <form *arguments*> ... </form> tag encloses form elements (and probably other elements as well)
- The arguments to form tell what to do with the user input
 - action="url" (required)
 - Specifies where to send the data when the Submit button is clicked
 - method="get" (default)
 - Form data is sent as a URL with ?form_data info appended to the end
 - Can be used *only* if data is all ASCII and not more than 100 characters
 - method="post"
 - Form data is sent in the body of the URL request
 - Cannot be bookmarked by most browsers
 - target="target"
 - Tells where to open the page sent as a result of the request
 - target = _blank means open in a new window
 - target = _top means use the same window

The <input> tag

- Most, but not all, form elements use the input tag, with a type="..." argument to tell which kind of element it is
 - type can be text, checkbox, radio, password, hidden, submit, reset, button, file, or image
- Other common input tag arguments include:
 - name: the name of the element
 - id: a unique identifier for the element
 - value: the "value" of the element; used in different ways for different values of type
 - readonly: the value cannot be changed
 - disabled: the user can't do anything with this element
 - Other arguments are defined for the input tag but have meaning only for certain values of type

```
A text field:
   <input type="text" name="textfield" value="with an initial value" />
  A text field: with an initial value
A multi-line text field
  <textarea name="textarea" cols="24" rows="2">Hello</textarea>
                       Hello
A multi-line text field
A password field:
   <input type="password" name="textfield3" value="secret" />
A password field: |-----
```

Note that two of these use the input tag, but one uses textarea

Buttons

- A plain button: <input type="button" name="Submit3" value="Push Me" />

A submit button: Submit

submit: send data

A reset button: [Reset]

reset: restore all form elements to their initial state

A plain button: [Push Me]

- button: take some action as specified by JavaScript
- Note that the type is input, not "button"

Radio buttons

- If two or more radio buttons have the same name, the user can only select one of them at a time
 - This is how you make a radio button "group"
- If you ask for the value of that name, you will get the value specified for the selected radio button
- As with checkboxes, radio buttons do not contain any text

Labels

- In many cases, the labels for controls are not part of the control
 - <input type="radio" name="gender" value="m" />male
 - In this case, clicking on the word "male" has no effect
- A label tag will bind the text to the control
 - <label><input type="radio" name="gender" value="m" />male</label>
 - Clicking on the word "male" now clicks the radio button
- w3schools says that you should use the for attribute:
 - <label for="lname">Last Name:</label>
 <input type="text" name="lastname" id="lname" />
 - In my testing (Firefox and Opera), this isn't necessary, but it may be for some browsers
- Labels also help page readers read the page correctly
- Some browsers may render labels differently

Checkboxes

A checkbox:

```
<input type="checkbox" name="checkbox"
    value="checkbox" checked="checked">
```

A checkbox: 🗹

- type: "checkbox"
- name: used to reference this form element from JavaScript
- value: value to be returned when element is checked
- Note that there is *no text* associated with the checkbox
 - Unless you use a label tag, only clicking on the box itself has any effect

Drop-down menu or list

A menu or list:

```
<select name="select">
     <option value="red">red</option>
     <option value="green">green</option>
     <option value="BLUE">blue</option>
</select>
```

A menu or list: | red



- Additional arguments:
 - size: the number of items visible in the list (default is "1")
 - multiple
 - if set to "true" (or just about anything else), any number of items may be selected
 - if omitted, only one item may be selected
 - if set to "false", behavior depends on the particular browser

Hidden fields

<input type="hidden" name="hiddenField" value="nyah"> <-- right there, don't you see it?

A hidden field: <-- right there, don't you see it?

- What good is this?
 - All input fields are sent back to the server, including hidden fields
 - This is a way to include information that the user doesn't need to see (or that you don't want her to see)
 - The value of a hidden field can be set programmatically (by JavaScript) before the form is submitted

A complete example

```
<html>
<head>
<title>Get Identity</title>
<meta http-equiv="Content-Type" content="text/html;</pre>
      charset=iso-8859-1">
</head>
                                       Who are you?
<body>
<b>Who are you?</b>
                                       Name:
<form method="post" action="">
 Name:
  <input type="text" name="textfield">
                                       Gender: 

Male 

Female
 Gender:
  <label><input type="radio" name="gender" value="m" />Male<label>
  <label><input type="radio" name="gender" value="f" />Female</label>
 </form>
</body>
</html>
```