

# HTML Forms

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COMP 2405

## *HTML Forms*

- An HTML form is a section of a document containing normal content plus some *controls*
  - Checkboxes, radio buttons, menus, text fields, etc
- Every form in a document is contained in a FORM tag
  - The FORM tag specifies the action that takes place when the form is submitted

## The FORM Tag

- The FORM tag has two important attributes:
  - ACTION – A URI specifying where the information is sent
  - METHOD – How the data is sent (GET or POST)

```
<form action="http://myserver.com/cgi-bin/test-cgi.pl"  
      method="get">  
  <p>Enter your name:  
  <input type="text" name="yname"  
        value="Your Name Here"  
        maxlength="50">  
  </p>  
  <input type="submit">  
</form>
```

## *GET or POST*

- Forms should use METHOD="GET" when the form does not modify anything on the server:
  - A search engine query
  - A database search
- Forms should use METHOD="POST" when the form changes the state of the server or sends a large amount of data
  - Entering a message on a forum
  - Uploading a file
- GET and POST transport the form data in different ways

## *Controls*

- The devices that allow input of data onto a form are called the *controls*
- These include
  - Checkboxes and radio buttons
  - Menus
  - Text inputs
  - File selectors
  - Hidden controls
  - Buttons

## *The INPUT Tag*

- The INPUT tag is a multipurpose tag that creates many different types of controls
- The type of input is controlled by the TYPE attribute
  - Can be TEXT, PASSWORD, CHECKBOX, RADIO, SUBMIT, RESET, FILE, HIDDEN, IMAGE, or BUTTON
- Almost all of these should have a NAME attribute
- Their initial state can be set with a VALUE attribute
- They can all be *disabled* with DISABLE
- An INPUT tag is never closed (no `</input>`)

## Checkboxes

- `<input type="checkbox" ...>`
- The NAME attribute names this checkbox
- The CHECKED attribute (with no value) is used to indicate a pre-checked checkbox
- The VALUE attribute specifies the value bound to name if this checkbox is submitted (default = ON)

Check all that apply:<br>

```
<input type="checkbox" name="dogs">I like dogs<br>
<input type="checkbox" name="cats">I like cats<br>
<input type="checkbox" name="pigs">I like pigs
```

## Radio Boxes

- `<input type="radio" ...>`
- Used when user is to select one of many *mutually exclusive* options
- Radio buttons with same name form a group of mutually exclusive options

```
Select one of the following:<br>
<input type="radio" name="agree"
      checked value="a">I agree completely<br>
<input type="radio" name="agree"
      value="b">I agree a little<br>
<input type="radio" name="agree"
      value="c">I disagree a little<br>
<input type="radio" name="agree"
      value="d">I disagree completely<br>
```



## Text Boxes

- `<input type="text" ...>`
- Allows entry of *one line* of text
  - (Actually, not completely true – try cut and paste)
- Attribute SIZE specifies the width (in characters)
- Attribute MAXLENGTH specifies the maximum number of characters

User's full name:

```
<input name="fullname" type="text" size="30"
      maxlength="50">
```

## *Passwords*

- `<input type="password" ...>`
- Identical to a text box, but text typed into the box is not readable
- Useful for submitting sensitive information (like passwords)

## Buttons

- `<input type="submit" ...>`
  - Creates a button that submits the form to the server
- `<input type="reset" ...>`
  - Creates a button that resets all form fields to their default state
- `<input type="button" ...>`
  - Creates a button that does nothing

```
<input type="submit" value="Submit Form Data">
```

## *Buttons (2)*

- The BUTTON tag provides similar functionality but with a bit more flexibility
- Attributes are NAME, VALUE, and TYPE
- TYPE can be SUBMIT, BUTTON, RESET

```
<button name="sb" value="sbData" type="submit">  
  Submit All Form Data Now  
</button>
```

- Main difference is that the button label is text within the tag instead of the VALUE attribute

## *Image Buttons*

- `<input type="image" ...>`
- Displays an image that behaves like a submit button
- The SRC attribute specifies the location of an image file
- The ALT attribute specifies some text to render if the image is not displayable

```
<input type="image" src="button.png" alt="Submit">
```

## *Hidden Control*

- `<input type="hidden" ...>`
- Creates a control similar to a text control
  - User does not see control
  - User can not easily change the value
- Useful for keeping track of data as the user traverses a collection of pages

```
<input type="hidden" name="hiddendata"  
value="Hidden Data in Here">
```

## *Text Areas*

- The TEXTAREA tag provides a multiline text entry area
- The ROWS and COLS attributes are required and they specify the number of rows and number of columns

```
<textarea rows="30" cols="50" name="bigtext">  
The preformatted initial text is sandwiched within  
the tag.  
</textarea>
```

## Menus

- Drop-down menus are created using the SELECT tag
- Attribute SIZE determines how many rows to display at once
- Each option is enclosed in an OPTION tag

```
<select name="country" size="5">  
  <option value="AB">Abkhazia</option>  
  ...  
  <option value="ZB">Zimbabwe</option>  
</select>
```



## *Menus (Cont'd)*

- The MULTIPLE attribute of the SELECT tag creates menus that allow multiple selections
- Options can be grouped hierarchically using the OPTGROUP tag

## Labels

- The LABEL tag specifies that the enclosed item is a label for the named form element
- For example, clicking the label will shift the focus or change the state of the associated form element

```
Check all that apply<br>
<input type="checkbox" name="doglover" id="dogs"
      checked>
<label for="dogs">I like dogs</label>
<br>
<input type="checkbox" name="catlover" id="cats">
<label for="cats">I like cats</label>
<br>
<input type="checkbox" name="piglover" id="pigs">
<label for="pigs">I like pigs</label>
```

## Fieldsets

- The FIELDSET tag is used to group together a set of related form elements
- The LEGEND tag assigns a caption to a field set

```
<fieldset>
  <legend>Personal Information</legend>
  First Name: <input type="text" name="fn" size="20">
  <br>
  Last Name: <input type="text" name="ln" size="20">
  <br>
  Date of Birth: <input type="text" name="dob"
size="10">
</fieldset>
```

## *Summary*

- HTML forms allow users to input data that is submitted to a web server
- Many types of controls are possible
- Other options
  - File selection (for upload)
  - Tabbing navigation (TABINDEX attribute)
  - Access keys (ACCESSKEY attribute)
  - Disabled and read-only controls
- For more information and options, see
  - <http://www.w3.org/TR/html4/interact/forms.html>