

HTML Forms Continued

Abhi Chakraborty (20th June 2022)

HTML Form Elements

The various HTML <form> elements that are available and can be used are as below

```
<input>
<label>
<select>
<textarea>
<button>
<fieldset>
<legend>
<datalist>
<output>
<option>
<optgroup>
```

The <input> Element

- Since HTML forms are used to take input from the user, so <input> element is one of the most used form element
- Depending on the type attribute, the <input> element is displayed in several ways
- Ex:
- <label for="age">Age:</label>
- <input type="text" id="age" name="age">

The <label> Element

- The HTML form element <label> , defines a label for several form elements
- This element of HTML form is useful for screen reader users. When the focus of the user is on the input element, the screen reader will read the label
- Some users have difficulty clicking on a very small region(radio button or check box); the label element is helpful. When user clicks on text within <label> element , radio button/checkbox is toggled.
- <input type="checkbox" name="click_lbl" id=" click_lbl " value=" click_lbl "><label for="click_lbl "> Click this label to select.</label>

The <select> Element

- As the name select specifies, the <select> element of HTML form defines a drop-down list

```
<label for="cars">Choose a car:</label>
<select id="car" name="car">
  <option value="maruti">Maruti</option>
  <option value="hyundai">Hyundai</option>
  <option value="skoda">Skoda</option>
  <option value="ford">Ford</option>
</select>
```

- The <option> element defines an option that can be selected from the given options
- The first item in the drop-down list is the default that is selected.

The <select> Element

- If we want to define a pre-selected option, the the select attribute can be added to the option:
- Ex: <option value="ford" selected>Ford</option>
- Visible Values: The size attribute of the HTML form is used to specify the number of visible values

```
<label for="car">Choose a car:</label>
<select id="car" name="car" size="3">
  <option value="maruti">Maruti</option>
  <option value="hyundai">Hyundai</option>
  <option value="skoda">Skoda</option>
  <option value="ford">Ford</option>
</select>
```

The <select> Element

- If we want to allow Multiple Selections, then multiple attribute can be used that allows the user to select more than one value

```
<label for="car">Choose a car:</label>
<select id="car" name="car" size="4">
  <option value="maruti">Maruti</option>
  <option value="hyundai">Hyundai</option>
  <option value="skoda">Skoda</option>
  <option value="ford">Ford</option>
</select>
```

The <textarea> Element

- The <textarea> element defines a text area for multi-line input
- Ex: <textarea name="sample_text" rows="20" cols="40">
The cat was chasing the mouse in the garden </textarea>
- Here, the rows attribute specifies the number of lines that are visible in a text area
- And the cols attribute defines the width of a text area specified.
- The size of text area can also be defined using CSS
- <textarea name="sample_text" style="width:300px; height:700px;">
The cat was chasing the mouse in the garden </textarea>

The <button> Element

- The next import form element is the <button> element which defines a clickable button
- Ex: <button type="button" onclick="alert('Hello World!!!')">Click Me!</button>
- Please Note: Since different browsers might use different default types for button elements, we should always specify the type attribute for button elements.

The <fieldset> and <legend> Elements

- Another important form element <fieldset> is used to group related data in a HTML form
- The <legend> element is used to define a caption for the <fieldset> element

```
<form action="/action_sample.php">
  <fieldset>
    <legend>PersonalInfo:</legend>
    <label for="first_name">First name:</label><br>
    <input type="text" id="first_name" name="first_name" value="Chris"><br>
    <label for="last_name">Last name:</label><br>
    <input type="text" id="last_name" name="last_name" value="Darwin"><br><br>
    <input type="submit" value="Submit">
  </fieldset>
</form>
```

The <datalist> Element

- The <datalist> element, as the name list specifies, is a list of pre-defined options for an <input> element
- Users will be able to see a drop-down list of the pre-defined option when they input data

```
<!DOCTYPE html>
<html>
<body>
<h2>The datalist Element</h2>
<form action="/action_sample.php">
<input list="cars" name="cars">
<datalist id="cars">
<option value="Maruti">
<option value="Ford">
<option value="Skoda">
<option value="Audi">
<option value="Hyundai">
</datalist>
<input type="submit">
</form>
</body>
</html>
```

The <output> Element

- The <output> element, as the name specifies, represents the result of any calculation

```
<!DOCTYPE html>
<html>
<body>
<h2>The output Element</h2>
<form action="/action_sample.php"
input="x.value=parseInt(a.value)+parseInt(b.value)">
  0
  <input type="range" id="x" name="x" value="50">
  100 +
  <input type="number" id="y" name="y" value="50">
  =
  <output name="z" for="x y"></output>
  <br><br>
  <input type="submit">
</form>

</body>
</html>
```

HTML Input Types

- Input Type Text
- <input type="text"> of the HTML form defines a text input field with single line

```
<!DOCTYPE html>
<html>
<body>
<h2>Text field</h2>
<form action="/action_sample.php">
<label for="first_name">First name:</label><br>
<input type="text" id=" first_name " name=" first_name "><br>
<label for="last_name">Last name:</label><br>
<input type="text" id=" last_name " name=" last_name "><br><br>
<input type="submit" value="Submit">
</form>
<p>Note that the form itself is not visible.</p>
</body>
</html>
```

Input Type Password

<input type="password">, this input type defines a password field

```
<!DOCTYPE html>
<html>
<body>

<h2>Password field</h2>
<p>The <strong>input type="password"</strong> defines a password field:</p>
<form action="/action_page.php">
    <label for="loginid">LoginId:</label><br>
    <input type="text" id="loginid" name="loginid"><br>
    <label for="pwd">Password:</label><br>
    <input type="password" id="pwd" name="pwd"><br><br>
    <input type="submit" value="Submit">
</form>

<p>The characters in a password field are masked (shown as asterisks or circles).</p>

</body>
</html>
```

Submit and Reset

- Submit : <input type="submit">, as the name indicates, is used to define a button for submitting form data to a form handler
- The form-handler is usually a server page that has a script for processing input data
- The form-handler is defined in the form action attribute
- Reset: As the name indicates <input type="reset"> specifies a reset button that resets all the form values to their default values
- <input type="reset" >

Input Type Radio

- Radio buttons as the name specifies allows user to select only one choice of the available choices. Its syntax is <input type="radio"> defines a radio button

```
<!DOCTYPE html>
<html>
<body>

<h2>Radio Buttons</h2>

<p>The <strong>input type="radio"</strong> defines a radio button:</p>

<form action="/action_page.php">
  <input type="radio" id="Maths" name="Subject" value="Maths">
  <label for="Maths">Maths</label><br>
  <input type="radio" id="Physics" name="Subject" value="Physics">
  <label for="Physics">Physics</label><br>
  <input type="radio" id="Chemistry" name="Subject" value="Subject">
  <label for="Chemistri">Chemistry</label><br><br>
  <input type="submit" value="Submit">
</form>
</body>
</html>
```

Input Type Checkbox

- As the name specifies, the Input type Checkbox defines a checkbox
- Its syntax is `<input type="checkbox">`
- With checkboxes a user can select zero or more options from limited number of options

```
<!DOCTYPE html>
<html>
<body>

<h2>Checkboxes</h2>
<p>The <strong><input type="checkbox"></strong> defines a checkbox:</p>

<form action="/action_sample.php">
  <input type="checkbox" id="subject1" name="subject1" value="Maths">
  <label for="subject1"> I love Maths</label><br>
  <input type="checkbox" id="subject2" name="subject2" value="Physics">
  <label for="subject2"> I love Physics</label><br>
  <input type="checkbox" id="subject3" name="subject3" value="Chemistry">
  <label for="subject3"> I love Chemistry</label><br><br>
  <input type="submit" value="Submit">
</form>
</body>
</html>
```

Input Type Button

- As the name specifies, Input type button defines a button
- Syntax is: <input type="button">

```
<!DOCTYPE html>
<html>
<body>
<h2>Input Button</h2>
<input type="button" onclick="alert('Hello Everyone!!!')" value="Click Me!">
</body>
</html>
```

Input Type Color

As the name specifies, Input type color is used for fields that contain color. Syntax is:

<input type="color">

```
<!DOCTYPE html>
<html>
<body>
<h2>Show a Color Picker</h2>
<p>The <strong>input type="color"</strong> is used for input fields that should contain a color.</p>
<form action="/action_sample.php">
<label for="favcolor">What is your favorite color:</label>
<input type="color" id="favcolor" name="favcolor" value="#ff0000">
<input type="submit" value="Submit">
</form>
</body>
</html>
```

Input Type Date

As the name specifies, Input type date is used for fields that contain date. Its syntax is : <input type="date">

```
<!DOCTYPE html>
<html>
<body>
<h2>Date Field</h2>
<p>The <strong>input type="date"</strong> is used for input fields that should contain a date.</p>
<form action="/action_page.php">
  <label for="birthday">When is your Birthday:</label>
  <input type="date" id="birthday" name="birthday">
  <input type="submit" value="Submit">
</form>
</body>
</html>
```

Input Type Email

As the name specifies , this input type is used for input field that contain an email address. Syntax is <input type="email">

```
<!DOCTYPE html>
<html>
<body>

<h2>Email Address</h2>
<form action="/action_sample.php">
    <label for="email">Enter your email:</label>
    <input type="email" id="email" name="email">
    <input type="submit" value="Submit">
</form>
</body>
</html>
```

Input Type File

As the name specifies, the Input type file defines a file-select field and also a “Browse” button that is used for file uploads. The syntax is <input type="file">

```
<!DOCTYPE html>
<html>
<body>

<h1>File upload</h1>
<form action="/action_sample.php">
    <label for="sample_file">Select a file:</label>
    <input type="file" id="sample_file" name="sample_file"><br><br>
    <input type="submit" value="Submit">
</form>
</body>
</html>
```

Input Type Number

As is obvious from the name, input type number defines a numeric input field.
Syntax is: The <input type="number">

```
<!DOCTYPE html>
<html>
<body>
<h2>Number Field</h2>
<form action="/action_sample.php">
<label for="rollno">Roll No. (between 1 and 50):</label>
<input type="number" id="rollno" name="rollno" min="1" max="50">
<input type="submit" value="Submit">
</form>
</body>
</html>
```

Input Restrictions

Please find below the list of some common input restrictions

Attribute	Description
Checked	This attribute of the HTML form specifies that an input field should be pre-selected when the page loads (for type="checkbox" or type="radio").
Disabled	This attribute of the HTML form specifies that an input field should be disabled.
Max	This attribute specifies the maximum value for an input field.
maxlength	This attribute of the HTML form specifies the maximum number of character for an input field.
Min	This attribute specifies the minimum value for an input field.
Pattern	This attribute of the HTML form specifies a regular expression to check the input value against on form submission.
readonly	This attribute specifies that an input field is read-only (cannot be changed).
Required	This attribute specifies that an input field is required (must be filled out).
Size	This attribute specifies the width (in characters) of an input field.
Step	This attribute of the HTML form specifies the legal number intervals for an input field.
Value	This attribute specifies the default value for an input field.

HTML Input Type Attribute

- The value Attribute : The value attribute of HTML input element defines an initial value for an input field
- The readonly Attribute : the readonly attribute of the HTML input element defines that an input field is read-only. This field cannot be modified, and its value is sent when submitting the form
- The disabled Attribute : the disabled attribute of HTML input element specifies that an input field should be disabled
- The size Attribute: the size attribute of HTML input element specifies the width, in characters, of an input field. Its default value is 20
- The maxlength Attribute : This attribute specifies the maximum number of characters that can be allowed in an input field

HTML Input Type Attribute

- The min and max Attributes : This attribute specifies the minimum and maximum values for an input field of HTML form
- The multiple Attribute : the multiple attribute of the HTML form element specifies that the user is allowed to enter more than one value in an input field
- The pattern Attribute : The pattern attribute of the HTML input element specifies a regular expression that the input field's value is checked for when the user submits the form
- The placeholder Attribute : the placeholder attribute specifies a sample value or short description of the expected format in the input field.
- The required Attribute: the required attribute specifies that an input field is required to be filled before submitting the form

HTML Input form* Attributes

- The form Attribute : The input form attribute of the HTML form specifies the form to which the <input> element belongs to.
- Ex: an input field is located outside of the HTML form but it is still a part of the form by giving the form="form_id"
- The formaction Attribute : The input formaction attribute of the HTML form attribute specifies the URL of the file that will process the input when the form is submitted.
- Ex: an HTML form with two submit buttons, but with different actions with one having formaction="/action2.php"

HTML Input form* Attributes

- The `formenctype` Attribute : the input `formenctype` attribute of the HTML form specifies how the form-data should be encoded when submitted. It is used only for forms with `method="post"`.
- Ex: A form with two submit buttons. The first submit button sends the form-data with default encoding, the second submit button sends the form-data encoded as “multipart/form-data”
- The `formmethod` Attribute : the input `formmethod` attribute of the HTML form defines the HTTP method for sending form-data to the action URL. The form-data can be sent as URL variables methods “get” and “post”
- Ex: A form with two submit buttons. The first sends the form-data with `method="get"`. The second sends the form-data with `method="post"`

HTML Input form* Attributes

- The **formtarget** Attribute : the input formtarget attribute of the HTML form specifies a name or a keyword that indicates where to display the response that is received after submitting the form
- Ex: <input type="submit" value="Submit"> <input type="submit" formtarget="_blank" value="Submit to a new window/tab">
- The **formnovalidate** Attribute : the input formnovalidate attribute of the HTML form specifies that an <input> element should not be validated when submitted . formnovalidate="formnovalidate"
- The **novalidate** Attribute : The novalidate attribute of the HTML form is a <form> attribute. When this attribute is present, it indicates that novalidate specifies that all of the form-data should not be validated when submitted.



Thank You
Keep Bashing The Walls

Abhi Chakraborty (20th June 2022)