Web Basics – HTML5

Lesson 8. HTML Forms for User Input

Capgemini
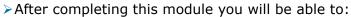
Lesson Objectives

➢After completing this module you will be able to:
- Understand the role of forms in web pages
- Understand various HTML elements used in forms.
- Single line text field
- Text area
- Check box
- Radio buttons
- Password fields
- Pull-down menus
- File selector dialog box

8.1 Role of forms in web pages
HTML Forms for User Input

➢ HTML forms are used to accept user inputs and then submit data for processing.
➢ A form is an area that contains form elements.
➢ Types of elements which can be included in a form are
  - Label
  - Single line text field
  - Password field
  - Text area
  - Drop down menu
  - Radio button
  - Checkbox
  - File selector box, etc..

Forms:

HTML forms are used to accept of user input.

A form is an area that contains form elements.

Form elements are elements that allow users to enter information (text fields, text area fields, drop-down menus, radio buttons, checkboxes, etc.) in a form.

Define a form with the <form> tag.</form>

8.1 Role of forms in web pages

HTML Forms for User Input

➢ User input forms are created using <form> tag.

➢ Syntax:

> <**form method**="get/post" **action**="URL"
>   **enctype**="Encryption Type">
>   Field definitions
> </**form**>

- • **action:** the URL of the script
- • **method:** the HTTP request method to use, sometimes GET, but usually POST
- • **enctype:** Specifies how the data is to be encoded.

Basic syntax for the <form> tag is:

<form method="Get or Post" action="URL" enctype="type">

      Field definitions

      </form>

<form> tag tells a browser that there is a fill-in-the-blank form in this HTML document.

Method:

method attribute states the method to use when you send the form to the server. Two acceptable methods are GET and POST.

   GET sends information entered in the form to the server at the end of the URL.

   POST sends information entered in the form to the server as a data body/document.

action attribute:

   Gives the address of the script that processes the form.

   Defines the name of the file to send the content to. File defined here typically does something with the received input.

enctype attribute:

   Specifies how the data is to be encoded.

   Applies only if you use the POST method. There is only one possible value, the default value "application/w-www/form-urlencoded".

8.1 Role of forms in web pages

HTML Forms for User Input

➢Some more attributes which can be used in <form> tag are

Attribute Name	Attribute Value	Description
name	Form name as a string	Mentions the name of a form.
autocomplete	On, off	Specifies whether a form should have autocomplete on or off
target	_blank, _self, _parent, _top	Specifies where to display the response that is received after submitting the form
novalidate	novalidate	Specifies that the form should not be validated during form submission.

8.2 Various HTML elements used in forms

HTML Form Elements

➢ <input> element is the most used form tag.

➢ An <input> tag includes the following attributes

- name: Name of the field which is required to send data(Key/Value pair) during form submission
- id: A unique identified of the field
- value: Sets a default value of the field
- maxlength: Specifies the maximum number of characters allowed in an <input> element
- readonly: Specifies that an input field is read-only
- size: Specifies the width, in characters, of an <input> element
- Disabled: specified that an input element should be displayed.
- type attribute of <input> tag specifies the field type

Input:

The most used form tag is the <input> tag. Input type is specified with the type attribute. Type attributes are:
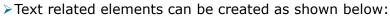
Text

Password

Hidden

Radio

Checkbox

File

Button

Submit/reset

8.2 Various HTML elements used in forms

Text- related Elements

➤ Text related elements can be created as shown below:

Code	Element
<input type="text">	Single line text box
<input type="password">	Password field
<input type="hidden">	Hidden field

➤ Multiple line text input control
- If input exceeds more than one line, then create Multi-line input control using HTML <textarea> tag
- Syntax:
-     <textarea rows=" " cols=" " name=" ">
- Rows : Number of rows of text area box
- Cols: Number of columns of text area box
- Name: name of the element

8.2 Various HTML elements used in forms
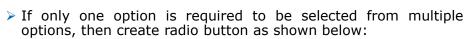
Checkbox Element

➢ If more than one option is required to be selected from multiple options, then create checkbox as shown below:
  • <input type="checkbox">
  • Use checked attribute for selecting any checkbox to be selected by default

➢ Example:

> <input type="checkbox" name="hobbies" value="Reading Books"> Reading Books <input type="checkbox" name="hobbies" value="Net Surfing"> Net Surfing
> <input type="checkbox" name="hobbies" value="Singing" checked> Singing

Select your Hobbies: ☐ Reading Books ☐ Net Surfing ☑ Singing

8.2 Various HTML elements used in forms

Radio Button

➢ If only one option is required to be selected from multiple options, then create radio button as shown below:
  - <input type="radio">
  - Use checked attribute for making a radio button to be selected by default

➢ Example:

<input type="radio" name="sector" value="Public"> Public
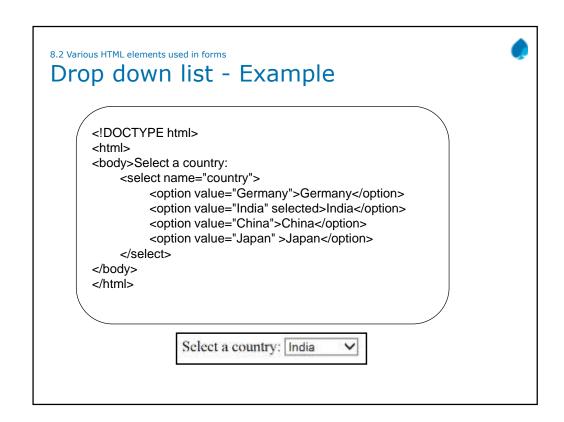<input type="radio" name="sector" value="Private"> Private

Select your sector in which you are working: ○ Public ○ Private

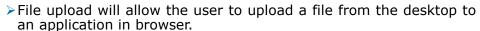8.2 Various HTML elements used in forms

Drop down list

➢ Drop down list allow the user to select one or more values from a pre-determined options

➢ Tags for creating drop down list with options are:
  • <select> : Creates drop down list
  • <option>: Defines an option in a select list.

Tag name	Attribute	Description
<select>	Name	Defines a name for the drop down list
	Size	Defines the number of visible options in a drop down list
	Multiple	Allow to select multiple options at once
	Disabled	Disable drop down list
<option>	value	Specifies the value to be sent to a server
	Selected	Makes option to be selected by default

Drop down list - Example

```
<!DOCTYPE html>
<html>
<body>Select a country:
    <select name="country">
        <option value="Germany">Germany</option>
        <option value="India" selected>India</option>
        <option value="China">China</option>
        <option value="Japan" >Japan</option>
    </select>
</body>
</html>
```

Select a country: India

File Upload

➢ File upload will allow the user to upload a file from the desktop to an application in browser.
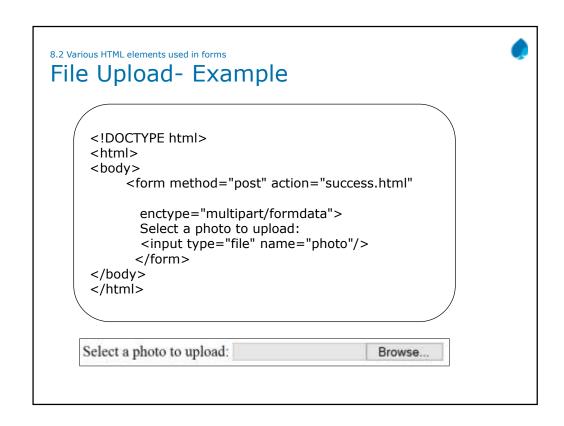
➢ The below code is used to define a file-select field and a "Browse..." button (for file uploads):

- <input type="file"/>

Attribute	Description
Name	Defines a name for the file upload dialog box
Disabled	Disable element
Accept	Specify MIME type to describe the file type which accepts by a server

➢ In <form> tag, use enctype="multipart/form-data" if file need to be uploaded using file selector form element.

File Upload- Example

```
<!DOCTYPE html>
<html>
<body>
     <form method="post" action="success.html"

        enctype="multipart/formdata">
        Select a photo to upload:
        <input type="file" name="photo"/>
     </form>
</body>
</html>
```

Select a photo to upload: [   ] Browse...

8.2 Various HTML elements used in forms

Button

➢ Different types of button which is possible to be created in HTML5 are as shown below:

Field type	Element	
<input type="button">	Button	A clickable button, that activates a JavaScript when it is clicked
<input type="submit">	Submit button	Defines a button for submitting a form
<input type="reset">	Reset button	Define a reset button (resets all form values to default values)

Single Line Text Field

<input> tag: Add an <input> tag to accept some input from the reader. This is a standalone tag. This is the default input type .Syntax is as follows:

```
<input type="text" name="UserID" size=20
value="Guest" maxlength=unlimited [disabled] [readonly]>
```

Give the user the option to submit this form or reset it and enter fresh values. To do this, use the <input> tag and set **type** to either "SUBMIT" or "RESET".

```
<input type="submit" name="submit_button" value="Submit">
<input type="reset" name="reset_button" value="Reset">
```

type attribute tells the browser the type of button used. **name** is a variable that you can access later when referring to this information. **value** is button caption.

Text Fields: These are used to type letters, numbers, etc. in a form.

Example:

```
<form>
          First name: <input type="text" name="firstname">
          <br>
          Last name:<input type="text" name="lastname">
</form>
```

Text Area:

The <textarea> tag defines a multi-line text input control.

A text area can hold an unlimited number of characters. Text renders in a fixed-width font (usually Courier). You can specify text area size with *cols* and *rows* attributes. An even better way to do it is through CSS *height* and *width* properties.

```
<textarea rows="4" cols="20">
<textarea name="name" rows="10" cols="50" [disabled][readonly]>
  Default Text
</textarea>
```
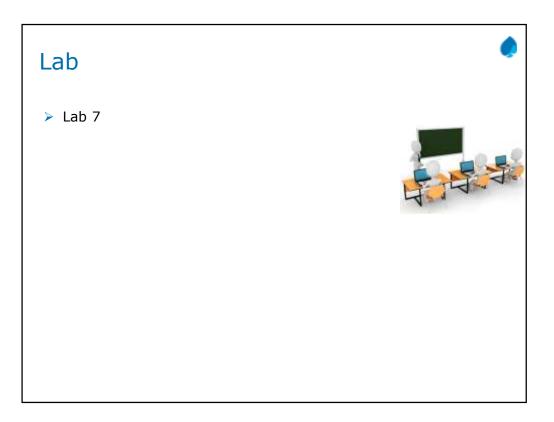
```
<textarea name="address" rows=5 cols=10>
        Please write your address</textarea>
```

Demo

- CheckboxExample.html
- FormExamples.html
- Passwordfield
- RadioButtonExample
- RadioExample
- TextFieldExample.html
- FormSubmission.html

```
<!DOCTYPE html>
<html>
<head>
<title>form examples</title>
</head>
<body bgcolor="ivory">
<form name="form1" action="store.html" method="post">
<p>
<b>Enter first name</b> : <input name="username"><BR><br>
<b>Enter lastname</b> :   <input maxlength="30"
name="surname">
</p>
<p>
<b>Enter  address :</b>   
<textarea name="addr" rows="3"></textarea>
<br>
<br> <b>Select the training programs attended :</b><input
type="checkbox" value="internet/html" name="internet-html">
Internet/HTML <input type="checkbox" checked value="c programming"
name="c-programming">C Programming <input type="checkbox"
value="dbms-sql" name="dbms-sql"> DBMS-SQL
</p>
<p>
<b>Select the stream you belong to :</b> <input
type="radio" value="science" name="s-grp"> Science <input
type="radio" value="arts" name="s-grp"> Arts <input
type="radio" value="commerce" name="s-grp"> Commerce <input
type="radio" value="oth2" name="s-grp">Engineering
</p>
```
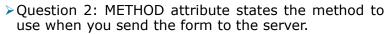
Lab

➤ Lab 7

Summary

➢ After completing this module you now:
- Understand the role of forms in web pages
- Understand various HTML elements used in forms like:
  - Single line text field
  - Text area
  - Check box
  - Radio buttons
  - Password fields
  - Pull-down menus
  - File selector dialog box

Review Question

➢ Question 1: Radio Buttons are used when you want the user to select:
  • Option 1: one of a limited number of choices.
  • Option 2: one or more options of a limited number of choices.
  • Option 3: many of unlimited number of choices.

➢ Question 2: METHOD attribute states the method to use when you send the form to the server.
  • True/ False

➢ Question 3:The _____ attribute of form specifies how the data is to be encoded.

Review Question: Match the Following

1. Check Boxes	a. Populate data in the list.
2. Radio Buttons	b. Create a select list.
3. Password fields	c. Include form data without rendering it to the user.
4. Hidden Input Type	d. Entered text is shown as asterisks.
5. <select> tag in Drop Down List	e. Only one option of a limited number of choices.
6. <option> tag in Drop Down List	f. One or more options of a limited number of choices

Add the notes here.