

Lecture 07 - HTML Forms

ICT1153

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Objectives

- Identify the 'form' concept and its usage in web pages
- Identify the different elements of forms

HTML Forms

- HTML forms are required when we need to have user inputs.

Ex: online student registration to an institute

- HTML forms contain **form elements**.
- Form elements are different types of **input elements**,
checkboxes, radio buttons, submit buttons, and more

<form> tag

- The HTML <form> tag is used to create an HTML form and it has following syntax,

`<form action="Script URL" method="GET|POST">`

form elements like input, textarea etc.

`</form>`

<form> attributes

Attribute	Value	Description
action	<i>URL</i>	<p>Where to send the form-data when the form is submitted.</p> <p>Possible values:</p> <ul style="list-style-type: none">• An absolute URL - points to another web site (like <code>action="http://www.example.com/example.htm"</code>)• A relative URL - points to a file within a web site (like <code>action="example.html"</code>)

<form> attributes

Attribute	Value	Description
method	<i>get / post</i>	<p>The method attribute specifies the HTTP method to be used when submitting the form data.</p> <p>The form-data can be sent as URL variables (with method="get") or as HTTP post transaction (with method="post")</p>
enctype	Default:application/x-www-form-urlencoded	specify how the browser encodes the data before it sends it to the server

Note: *The enctype attribute can be used only if method="post".*

<form> attributes

Attribute	Value	Description
name	<i>text</i>	Specifies the name of a form
novalidate	novalidate	Specifies that the form should not be validated when submitted
target	_blank, _self , etc	<p>The “target” attribute of a form, specify the window to be used to load the response of the form submission. the “target” attribute can be used in the <form> tag.</p> <p>It is possible to redirect the results of a form to another window or frame.</p>

Method Attribute

What is HTTP?

- HTTP is designed to enable communications between clients and servers.
- HTTP works as a request-response protocol between a client and server.
- A web browser may be the client, and an application on a computer that hosts a web site may be the server.
- Two HTTP Request Methods
 - GET - Requests data from a specified resource
 - POST - Submits data to be processed to a specified resource

Get method

- Appends form-data into the URL in name/value pairs
- The length of a URL is limited (about 3000 characters)
- Never use GET to send sensitive data! (will be visible in the URL)
- Useful for form submissions where a user want to bookmark the result
- GET is better for non-secure data
- GET requests remain in the browser history

Get method

```
<form action="/action_page.php" target="_blank" method="get">  
  <label for="fname">First name:</label><br>  
  <input type="text" id="fname" name="fname" value="John"><br>  
  <label for="lname">Last name:</label><br>  
  <input type="text" id="lname" name="lname" value="Doe"><br><br>  
  <input type="submit" value="Submit">  
</form>
```

After you submit, notice that the form values is visible in the address bar of the new browser tab.

Post method

- Query strings (name/value pairs) is sent in the HTTP message body of a POST request.
- POST requests do not remain in the browser history.
- POST requests can not be bookmarked.
- POST requests have no restrictions on data length.

Post method

```
<form action="/action_page.php" target="_blank" method="post">  
  <label for="fname">First name:</label><br>  
  <input type="text" id="fname" name="fname" value="John"><br>  
  <label for="lname">Last name:</label><br>  
  <input type="text" id="lname" name="lname" value="Doe"><br><br>  
  <input type="submit" value="Submit">  
</form>
```

After you submit, notice that, unlike the GET method, the form values is NOT visible in the address bar of the new browser tab.

HTML form controls

- There are different types of form controls that you can use to collect data using HTML form
 - Text Input Controls
 - Checkboxes Controls
 - Radio Button Controls
 - Select Box Controls
 - File Upload Control
 - Hidden Controls
 - Clickable Buttons
 - Submit and Reset Button

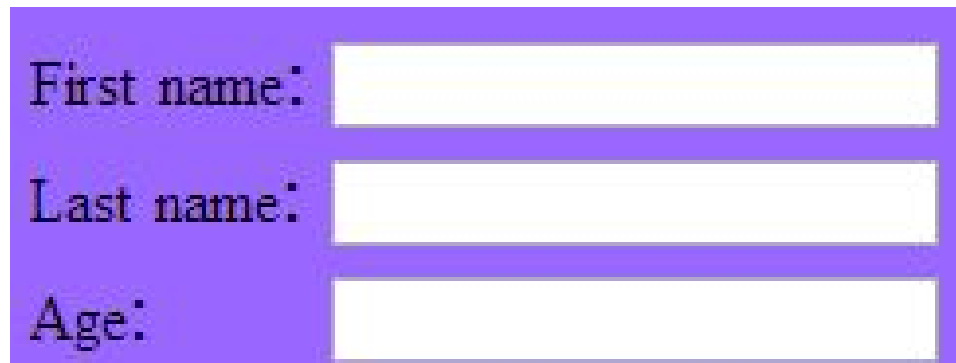
YOUR DETAILS

- Title: Reverend ✓
- First Name: Graham ✓
- Last Name: Charlton ✓
- Date of Birth: DD MM YYYY
- Contact Number:

Text Input Controls

1. Single-line text input controls

- Used for items that require only one line of user input, such as search boxes or names
- They are created using html **<input>** tag



A screenshot of a web form with a purple background. It contains three single-line text input fields. The first field is labeled 'First name:', the second is labeled 'Last name:', and the third is labeled 'Age:'. Each label is in a dark blue font, and each input field is a white rectangle with a thin grey border.

Syntax

- `<input name="name" size="15" type="text" value="abc" maxlength="10" />`

Single-line text input attributes

Attribute	Description
type	Indicates the type of input control and for text input control it will be set to text
name	Give a name to the control which is sent to the server to be recognized and get the value
value	Provide an initial value inside the control
size	Specify the width of the text-input control in terms of characters
maxlength	Specify the maximum number of characters a user can enter into the text box

2. Password input controls

- A single-line text input
- But masks the character as soon as a user enters it
- They are also created using html **<input>** tag



Common attributes : **Size, Maxlength , Type**

Syntax

```
<input name="name" size="15" type="password"  
maxlength="10" />
```


3. Multi-line text input controls

- Used when the user is required to give details that may be longer than a single sentence
- Created using HTML **<textarea>** tag



- **Syntax**

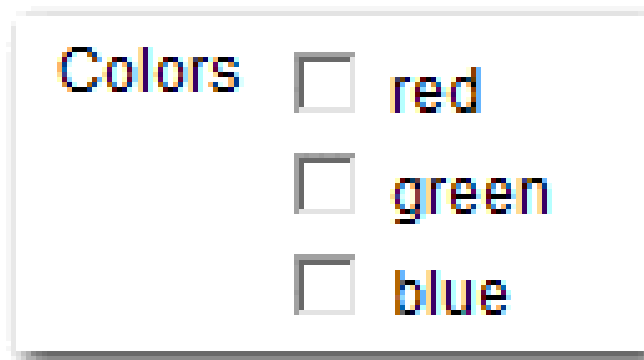
```
<textarea name="Address" rows="3" cols="30" >  
</textarea>
```

Multi-line text input attributes

Attribute	Description
name	Used to give a name to the control which is sent to the server to be recognized and get the value.
rows	Indicates the number of rows of text area box.
cols	Indicates the number of columns of text area box

Checkboxes Controls

- Used when more than one option is required to be selected
- Created using HTML `<input>` tag but type attribute is set to **checkbox**



Colors

☐ red

☐ green

☐ blue

Syntax:

```
<input type="checkbox" name="color" value="Red">red<br>
```

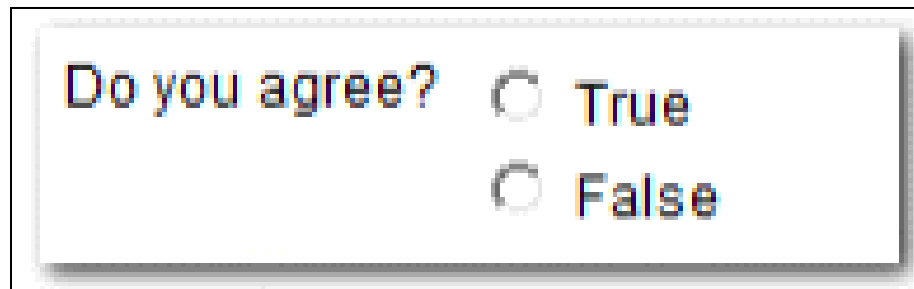
```
<input type="checkbox" name="color" value="Green">green
```

Checkboxes Attributes

Attribute	Description
type	Indicates the type of input control and for checkbox input control it will be set to checkbox .
name	Used to give a name to the control which is sent to the server to be recognized and get the value.
value	The value that will be used if the checkbox is selected.
checked	Set to <i>checked</i> if you want to select it by default.

Radio Button Controls

- Used when just **one option** is required to be selected out of many options
- Created using HTML **<input>** tag but type attribute is set to radio



Do you agree? ☐ True
☐ False

- **Syntax;**

```
<input type="radio" name="gender" value="male"> Male<br>
```

```
<input type="radio" name="gender" value="female">  
Female<br>
```

Radio Button Attributes

Attribute	Description
type	Indicates the type of input control and for checkbox input control it will be set to radio .
name	Used to give a name to the control which is sent to the server to be recognized and get the value.
value	The value that will be used if the radio box is selected.
checked	Set to <i>checked</i> if you want to select it by default.

Select Box Controls

- Also called **drop down** box
- Provides option to list down various options in the form of drop down list, from where a user can select one or more options



- **Syntax;**

```
<select name="dropdown">
```

```
    <option value="html" selected>HTML</option>
```

```
    <option value="php">PHP</option>
```

```
</select>
```

Select Box Attributes

Attributes of <select> tag

Attribute	Description
name	Used to give a name to the control which is sent to the server to be recognized and get the value.
size	This can be used to present a scrolling list box.
multiple	If set to "multiple" then allows a user to select multiple items from the menu.

Select Box Attributes

Attributes of <option> tag

Attribute	Description
value	The value that will be used if an option in the select box is selected.
selected	Specifies that this option should be the initially selected value when the page loads.

Example

```
<form>
  <h2>Single line text input</h2>
  First Name :<input type="text" size="15" name="fname" value="Perera" maxlength="7"/>

  <h2>Multi line text input</h2>
  Address :<textarea name="txtaddress" rows=3 cols=30 >
    </textarea>

  <h2>Password input</h2>
  Password :<input type="password" size="15" name="pw" maxlength="10"/>

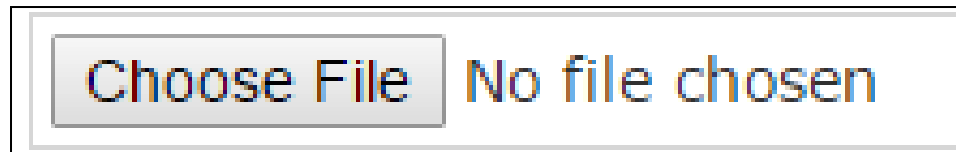
  <h2>Checkbox input</h2>
  <input type="checkbox" name="vehicle" value="Bike">I have a bike<br>
  <input type="checkbox" name="vehicle" value="Car">I have a car<br>
  <input type="checkbox" name="vehicle" value="Car">I have a van<br>

  <h2>Radio button input</h2>
  <input type="radio" name="gender" value="male"> Male<br>
  <input type="radio" name="gender" value="female"> Female<br>

  <h2>Select box input</h2>
  <select name="dropdown" multiple >
    <option value="Maths" selected>Maths</option>
    <option value="Physics">Physics</option>
    <option value="ComputerScience">Computer Science</option>
  </select>
</form>
```

File Upload Controls

- To upload a file to the Internet, use file upload control
- Created using the `<input>` element but type attribute is set to **file**



- **Syntax;**

```
<input type="file" name="fileupload" accept="image/*" />
```

File Upload Attributes

Attribute	Description
name	Used to give a name to the control which is sent to the server to be recognized and get the value.
accept	Specifies the types of files that the server accepts.

Hidden Controls

- Similar to the TEXT type
- Used to indicate invisible fields
- It is a useful control to transfer information to the server, from pages to pages, but this is not visible to the client browser

Syntax

- `<input type="hidden" name="pagename" value="10" />`

Click Me!

Buttons

- There are various ways in HTML to create clickable buttons
- Use `<input>` tag to create button by setting its type attribute to **button**
- Or can use `<button>` tag to create a clickable button

Syntax

```
<input type="button" value="Click me" name="btnclick" />
```

```
<input type="submit" name="submit" value="Submit" />
```

```
<input type="reset" name="reset" value="Reset" />
```

```
<input type="image" name="imagebutton" src="logo.png" />
```

Or

```
<button type="button" name="btnclick">Click Me!</button>
```

Button Attributes

Type	Description
submit	This creates a button which submits all form values to a form-handler. The form-handler is typically a server page with a script for processing the input data. The form-handler is specified in the form's action attribute.
reset	This creates a button that automatically resets form controls to their initial values.
button	This creates a button that is used to trigger a client-side script when the user clicks that button.
image	This creates a clickable button but we can use an image as background of the button.

Questions....

