HTML Web Forms

Session 13

HTML Web Forms

- ❑ Introduction to HTML Web Forms

- ❑ Create an HTML FORM.

- ❑ Add elements to a FORM.

- ❑ Define CGI (Common Gateway Interface).

- ❑ Describe the purpose of a CGI Application.

- ❑ Specify an action for the FORM.

- ❑ Forms work in all browsers.

- ❑ Forms are Platform Independent.

Introduction – HTML Web Forms

- Web forms are used by virtually all websites for a wide range of purposes. Users of forums and social networks use forms to add content and interact with other users. Websites that can be customized to create a personalized experience, such as customizable newsfeeds, use forms to allow users to control the content that appears on the page. And nearly every website uses forms to allow website visitors to contact the organization or person administering the website.

- Web forms are made possible by the integration of multiple technologies:

❑HTML to create the form fields and labels and accept user input.

❑CSS to style the presentation of the form.

❑JavaScript to validate form input and provide Ajax-enabled interactions.

❑Server-side languages such as PHP to process form data.

Form Elements

- HTML Forms are required, when you want to collect some data from the site visitor. For example, during user registration you would like to collect information such as name, email address, credit card, etc.

- A form will take input from the site visitor and then will post it to a back-end application such as CGI, ASP Script or PHP script etc. The back-end application will perform required processing on the passed data based on defined business logic inside the application.

- Form elements have properties:
  - Text boxes, Password boxes, Checkboxes, Option(Radio) buttons, Submit, Reset, File, Hidden and Image.
  - The properties are specified in the TYPE Attribute of the HTML element <INPUT></INPUT>.

Forms

- To insert a form we use the <FORM></FORM> tags. The rest of the form elements must be inserted in between the form tags.

<HTML> <HEAD>

<TITLE> Sample Form</TITLE>

</HEAD>

<BODY BGCOLOR="FFFFFF">

<FORM ACTION = http://www.dhsgvvsagar.com/formtest.asp>

<P> First Name: <INPUT TYPE="TEXT" NAME="fname" MAXLENGTH="50"> </P>

<P> <INPUT TYPE="SUBMIT" NAME="fsubmit1" VALUE="Send Info"> </P>

</FORM>

</BODY> </HTML>

<FORM> element attributes

- **ACTION** is the **URL** of the **CGI** (Common Gateway Interface) program that is going to accept the data from the form, process it, and send a response back to the browser.

- **METHOD** - **GET** (default) or **POST** specifies which **HTTP** method will be used to send the form's contents to the web server. The CGI application should be written to accept the data from either method.

- **NAME** is a form name used by VBScript or JavaScript.

- **TARGET** is the target frame where the response page will show up.

Example

Input Elements

<INPUT> Element's Properties

TYPE	Type of INPUT entry field.
NAME	Variable name passed to CGI application
VALUE	The data associated with the variable name to be passed to the CGI application
CHECKED	Button/box checked
SIZE	Number of visible characters in text field
MAXLENGTH	Maximum number of characters accepted.

Input Elements - Text Box

Text boxes: Used to provide input fields for text, phone numbers, dates, etc.

<INPUT TYPE= "TEXT">

Browser will display

Textboxes use the following attributes:

TYPE: text.

SIZE: determines the size of the textbox in characters. **Default=20** characters.

MAXLENGTH: determines the maximum number of characters that the field will accept.

NAME: name of the variable to be sent to the CGI application.

VALUE: will display its contents as the default value.

Example

```
<html>
<head>
    <title>Application Form</title>
</head>
<body>
    <h1> General Application Form</h1>
    <font color=blue>Please enter the following details</font>
    <FORM name="form1" Method="get" Action="URL">
        First Name:
        <INPUT TYPE="TEXT" NAME="FName" SIZE=" 15 " MAXLENGTH="25 ">        <BR/>
        Last Name: <INPUT TYPE="TEXT " NAME="LName" SIZE="15" MAXLENGTH="25">       <BR/>
         Nationality:  <INPUT TYPE="TEXT" NAME="Country" SIZE=" 25 " MAXLENGTH="25 ">       <BR/>
        The Phone Number: <INPUT TYPE="TEXT " NAME="Phone" SIZE="15" MAXLENGTH="12">       <BR/>
    </FORM>
</body>
</html>
```

Input Elements - Password

Password: Used to allow entry of passwords.

<INPUT TYPE= " PASSWORD " >

Browser will display Text typed in a password box is starred out in the browser display.

Password boxes use the following attributes:

TYPE: password.
SIZE: determines the size of the textbox in characters.
MAXLENGTH: determines the maximum size of the password in characters.
NAME: name of the variable to be sent to the CGI application.
VALUE: usually blank.

Example

```
<HTML>
<HEAD>
    <TITLE>Radio button Type</TITLE>
</HEAD>
<BODY>
  <h1>Login</h1>
  <font color="0000ff">Please enter user name and password</font>
  <FORM name="form3" Action="url" method="get">
  <font color="ff0000">User Name</font>
  <input type="text" name="user_nm" /><br />
  <font color="ff0000">Password</font>
  <input type="password" name="pwd" /><br />
  </FORM>
</BODY>
</HTML>
```

Output

Login

Please enter user name and password

User Name [   ]
Password [   ]

Input Elements - Hidden

Hidden:

Used to send data to the CGI application that you don't want the web surfer to see, change or have to enter but is necessary for the application to process the form correctly.

<INPUT TYPE="HIDDEN">

Nothing is displayed in the browser.
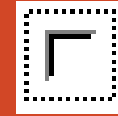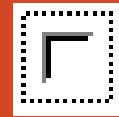
Hidden inputs have the following attributes:

TYPE: hidden.

NAME: name of the variable to be sent to the CGI application.

VALUE: usually set a value expected by the CGI application.

Input Elements - Check Box

- **Check Box:** Check boxes allow the users to select more than one option.

<INPUT TYPE="CHECKBOX">

Browser will display

Checkboxes have the following attributes:

- **TYPE:** checkbox.
- **CHECKED:** blank or CHECKED as the initial status.
- **NAME*:*** name of the variable to be sent to theCGI application.
- **VALUE:** usually set to a value.

Example

```
<HTML>
<HEAD>
   <TITLE>CheckBoxType</TITLE>
</HEAD>
<BODY>
   <h1>Country details</h1>
    <font color="Blue">Please check one of the following</font>
   <FORM name="form3" Action="url" method="get">
      <font color="ff0000"> Select Country: </font>
      <INPUT TYPE="CheckBox" Name="country" CHECKED>India
      <INPUT TYPE="CheckBox" Name="country">Pakistan
      <INPUT TYPE="CheckBox" Name="country">Bangladesh
      <INPUT TYPE="CheckBox" Name="country">Others
      <BR/>
      <font color="ff0000">Select Languages that you speak:</font>
      <INPUT TYPE="CheckBox" Name="language" CHECKED> English:
      <INPUT TYPE="CheckBox" Name="language"> Hindi
      <INPUT TYPE="CheckBox" Name="language"> Arabic
      <INPUT TYPE="CheckBox" Name="language"> Others
      <BR/>
   </FORM>
</BODY>
</HTML>
```

Output

Country details

Please check one of the following

Select Country: ☑ India ☐ Pakistan ☐ Bangladesh ☐ Others
Select Languages that you speak: ☑ English: ☐ Hindi ☐ Arabic ☐ Others

Input Elements - Radio Button

- **Radio Button:** Radio buttons allow the users to select only one option.

<INPUT TYPE="RADIO">

Browser will display

Radio buttons have the following attributes:

- **TYPE:** radio.
- **CHECKED:** blank or CHECKED as the initial status. Only one radio button can be checked
- **NAME:** name of the variable to be sent to the CGI application.
- **VALUE:** usually has a set value.

Example

```
<HTML>
<HEAD>
    <TITLE>Radio button Type</TITLE>
</HEAD>
<BODY>
  <h1>Country details</h1>
  <font color="0000ff">Please check one of the following</font>
  <FORM name="form3" Action="url" method="get">
  <font color="ff0000"> Select Country: </font>
      <INPUT TYPE="RADIO" Name="country" CHECKED> India
      <INPUT TYPE="RADIO" Name="country"> Pakistan
      <INPUT TYPE="RADIO" Name="country"> Bangaldesh
      <INPUT TYPE="RADIO" Name="country"> Others
      <BR/>
      <font color="ff0000">Select Languages that you speak:</font>
      <INPUT TYPE="RADIO" Name="language" CHECKED> English:
      <INPUT TYPE="RADIO" Name="language"> Hindi
      <INPUT TYPE="RADIO" Name="language"> Arabic
      <INPUT TYPE="RADIO" Name="language"> Others
      <BR/>
  </FORM>
</BODY>
</HTML>
```
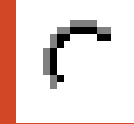
Output

Country details

Please check one of the following

Select Country: ● India ○ Pakistan ○ Bangaldesh ○ Others
Select Languages that you speak: ● English: ○ Hindi ○ Arabic ○ Others

Input Elements - Push Button

BUTTON

- **Push Button:** This element would be used with JavaScript to cause an action to take place.

<INPUT TYPE="BUTTON">

Browser will display Push Button has the following attributes:

- **TYPE:** button.
- **NAME:** name of the button to be used in scripting.
- **VALUE:** determines the text label on the button.

Example

```
<HTML>
  <HEAD>
     <TITLE>Push Buttons</TITLE>
  </HEAD>
  <BODY>
    <h1>Calculator</h1>
    <font color="0000ff">Please check one of the following</font>
    <FORM name="form3" Action="url" method="get">
    <center>
         <BR/>
         <FONT Color="ff0000">
         <h2>Click Here to Add numbers <BR/> <INPUT TYPE="button" VALUE="ADD">
         <BR/>
         Click Here to Subtract numbers <BR/> <INPUT TYPE="button" VALUE="Multiply">
         <BR/>
         Click Here to Multiply numbers <BR/> <INPUT TYPE="button" VALUE="Multiply">
         <BR/>
         Click here to Divide numbers <BR/> <INPUT TYPE="button" VALUE="Divide" ></h2>
         <BR/>
    </FORM>
    </CENTER>
  </BODY>
  </HTML>
```

Output

Calculator

Please check one of the following

<div align="center">

Click Here to Add numbers

[ADD]

Click Here to Subtract numbers

[Multiply]

Click Here to Multiply numbers

[Multiply]

Click here to Divide numbers

[Divide]

</div>

Input Elements - Submit Button

Submit Query

- **Submit:** Every set of Form tags requires a Submit button. This is the element causes the browser to send the names and values of the other elements to the CGI Application specified by the ACTION attribute of the FORM element.

<INPUT TYPE="SUBMIT">

The browser will display

Submit has the following attributes:

- **TYPE:**   submit.
- **NAME:**   value used by the CGI script for processing.
- **VALUE:**   determines the text label on the button, usually Submit Query.

Example

```
<html>
 <head>
  <title>Submit button</title>
 </head>
 <body>
 <h1>New user</h1>
 <font color="0000ff">Please enter the following details</font>
 <FORM Action="Thanku.html" method="get">
        First Name: <INPUT TYPE="TEXT" Size=25 name="firstName"><BR/>
        Last Name: <INPUT TYPE="TEXT" Size=25 name="LastName"><BR/>
        <FONT Color="ff0000">
        Press Here to submit the data:<BR/>
        <INPUT TYPE="submit" VALUE="Submit here to register" >
 </FORM>
 </body>
</html>
```

Output

New user

Please enter the following details

First Name: [   ]

Last Name: [   ]

Press Here to submit the data:

[Submit here to register]

Input Elements - Reset Button

Reset: It is a good idea to include one of these for each form where users are entering data. It allows the surfer to clear all the input in the form.

<INPUT TYPE="RESET">

Browser will display

Reset buttons have the following attributes:

TYPE: reset.

VALUE: determines the text label on the button, usually Reset.

Example

```
<html>
 <head>
  <title>Reset button</title>
 </head>
 <body>
 <h1>New user</h1>
 <font color="0000ff">Please enter the following details</font>
 <FORM Action="Thanku.html" method="get">
        First Name: <INPUT TYPE="TEXT" Size=25 name="firstName"><BR/>
        Last Name: <INPUT TYPE="TEXT" Size=25 name="LastName"><BR/>
        <FONT Color="ff0000">
        Press Here to submit the data:<BR/>
        <INPUT TYPE="submit" VALUE="Submit here to register" >
        <INPUT TYPE="RESET" VALUE="Cancel">
</FORM>
</body>
</html>
```

Output

New user

Please enter the following details

First Name: [   ]

Last Name: [   ]

Press Here to submit the data:

[Submit here to register] [Cancel]