Web Design

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Designing Websites

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- A form is the usual way information to communicate a browser to a server

- A form is used to collect user input and (optionally) send it to a server.

- The objects are called *controls* or *widgets* (e.g., radio buttons and checkboxes)

- When the Submit button of a form is clicked, the form's values are sent to the server

- All of the widgets, or components of a form are defined in the content of a **<form>** tag

- The only required attribute of <form> is action, which specifies the URL of the application that is to be called when the Submit button is clicked

- Attributes like action and method can be added to control where and how data is sent.

- **<form action="homepage.html" method="post">**

    action = https://pes.edu/

- If the form has no action, the value of action is the empty string (" ")

- The method attribute of <form> specifies one of the two possible techniques of

- transferring the form data to the server, get and post

- **method="post"** This method sends the form data to the server in the body of the HTTP request.

- **method="get"** form data is visible in the URL itself as query parameters.

Common controls are created with the <input> tag

The type attribute of <input> specifies the kind of widget being created

```
<input type = "text" name = "Phone" size = "12" >
```

1. **Text**

- Creates a horizontal box for text input
- Often default size is 20; it can be changed with the size attribute
- If more characters are entered than will fit, the box is scrolled (shifted) left
- If you don't want to allow the user to type more   characters than will fit, set **maxlength**, which causes excess input to be ignored.

<form action="https://pes.edu/">

 Name: <input type="text" name="name">

 <input type="submit" value="Submit">

</form>

Creates a **single-line text field** where the user can type.

Name : Normal text that will appear before the input box (like a label).

type="text" → specifies it's a text input.

name="name" → gives it a name, so when the form is submitted, the server will receive the value under the key name.

2. *Checkboxes* - to collect multiple choice input

- Every checkbox requires a value attribute, which is the widget's value in the form data when the checkbox is 'checked'

- A checkbox that is not 'checked' contributes no value to the form data

- By default, no checkbox is initially 'checked'

- To initialize a checkbox to 'checked', the checked attribute must be set to "checked"

Example:

Grocery Checklist

```
<form action = "">
  <p>
  <input type = "checkbox"  name ="groceries" value = "milk"  checked =
  "checked"> Milk


  <input type = "checkbox"  name ="groceries" value = "bread"> Bread


  <input type = "checkbox"  name = "groceries" value= "eggs"> Eggs
  </p>
</form>
```

Grocery Checklist

☑ Milk ☐ Bread ☐ Eggs

3) Radio Buttons - collections of checkboxes in which only one button can be 'checked' at a time

Every button in a radio button group MUST have the same name

• If no button in a radio button group is 'pressed', the browser often 'presses' the first one

• **Radio Buttons:** All radio buttons have the same name attribute (age), which groups them together so that only one can be selected at a time .

• value of the selected radio button with the same name attribute is sent to the server.

```
<form action = "">

  <p>

  <input type = "radio"  name = "age"  value = "under20" checked
 = "checked"> 0-19

<input type = "radio"  name = "age"  value = "20-35"> 20-35

  <input type = "radio"  name = "age"  value = "36-50"> 36-50

  <input type = "radio"  name = "age"  value = "over50"> Over 50

  </p>

</form>
```

- **type="radio"**: Specifies that the input is a radio button.

- **name="age"**: Groups this radio button with others that have the same name. Only one radio button with the same name can be selected at a time.

- **value="under20"**: Defines the value that will be submitted with the form if this radio button is selected.

- **checked="checked"**: Indicates that this radio button should be selected by default when the page loads

4. **Menus** - created with <select> tags

There are two kinds of menus, those that behave like checkboxes and those that behave like radio buttons (the default).

o Menus that behave like checkboxes are specified by including the multiple attribute, which must be set to "multiple".

o The name attribute of <select> is required.

o The size attribute of <select> can be included to specify the number of menu items to be displayed (the default is 1)

- If size is set to > 1 or if multiple is specified, the menu is displayed as a pop-up menu.

- Each item of a menu is specified with an <option> tag

- An <option> tag can include the **selected** attribute, which when
- assigned "selected" specifies that the item is preselected.

Example:

Grocery Menu - milk, bread, eggs, cheese

```
<form action = "">

  <p>

    With size = 1 (the default)

    <select name = "groceries">

      <option> milk </option>

      <option> bread </option>

      <option> eggs </option>

      <option> cheese </option>

    </select>

  </p>

</form>
```

After clicking the menu:

Grocery Menu - milk, bread, eggs, cheese

With size = 1 (the default) milk
                             milk
                             bread
                             eggs
                             cheese

Grocery Menu - milk, bread, eggs, cheese

With size = 1 (the default) milk

After changing `size` to 2:

Grocery Menu - milk, bread, eggs, cheese

With size = 2 (specified) milk
                           bread

5. Text areas - created with **`<textarea>`**

- o Usually include the `rows` and `cols` attributes to specify the size of the text area
- o Default text can be included as the content of `<textarea>`
- o Scrolling is implicit if the area is overfilled

```
Please provide your employment aspirations

<form action = """>   <p>

<textarea name = "aspirations"  rows = "3"
 cols = "40"> (Be brief and concise)

    </textarea>

    </p>
</form>
```

Example

```
<form action = "handler" method="POST">
    <p>
      <textarea name = "aspirations" placeholder="Describe about you"  maxlength = 100
      rows = 4  cols = 30>
        </textarea>


      <p>
      <input type="file" value="document">
          <p>
          <input type="submit" value="Continue"/>
          </p>

      </p>
    </form>
```

Please provide your learning aspirations from this course

Choose File   No file chosen

Continue

6. **Reset and Submit buttons**

o Both are created with <input>

o <input type = "reset" value = "Reset Form">

o <input type = "submit" value = "Submit Form">

•**Submit Button**: Sends form data to the server and processes it based on the action URL and HTTP method.

•**Reset Button**: Clears all input fields, reverting them to their default values.

<label> tag in HTML is used to create a **label for form elements** (like textboxes, checkboxes, radio buttons, etc.).

•Makes forms more **accessible** (especially for screen readers).

•If you click the label text, it automatically **focuses** or **selects** the related input box.

The for attribute in the <label> tag should match the id of the form control it is associated with.

•<label for="password">Password:</label>

• <input type="password" id="password" name="password">

•The **id attribute** in HTML is a **unique identifier** for an element

```
<form>
 <label for="username">Name:</label>
 <input type="text" id="username" name="username"><br><br>

 <label for="email">Email:</label>
 <input type="email" id="email" name="email"><br><br>

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

Name: [   ]

Email: [   ]

[Submit]

Text Input Types:

text: A single-line text field for user input.

Password:

email: A field for entering an email address. Validates that the input conforms to the email format.

Checkbox:

Radio:

Select:

file: A field for selecting files from the user's file system.

submit: A button to submit the form.

reset: A button to reset all form fields to their default values.
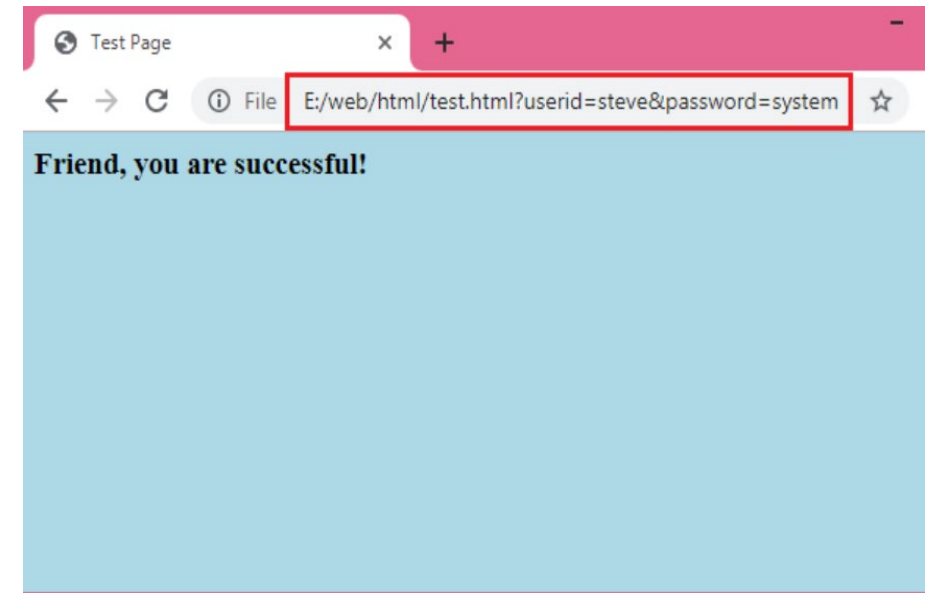
A Sample HTML Form

User Id:

steve.smith

Password:

••••••

☑ Add me to your contact list.
☑ Add me to your mailing list.

Contact me by:
◯ Email   ◯ Postal mail   ◉ Both

Submit   Reset

By clicking on the "Submit" button, the form data will be sent to a page named "test.html".

Test Page × +

← → C ⓘ File E:/web/html/test.html?userid=steve&password=system ☆

Friend, you are successful!

- The <fieldset> tag is used **inside a <form>** to **group related form controls** (like textboxes, radio buttons, checkboxes) into a section.

- It often comes with a **border** around the grouped controls.
- It improves **form readability** and **accessibility**.

- The <legend> tag is used inside <fieldset> to give a **title or caption** to that group.
- It appears at the top of the border (like a heading for that section).

Personal Information

Name:

Email:

Preferences

Gender: ○ Male ○ Female

Hobbies: ☐ Reading ☐ Sports

Submit

THANK YOU

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