

Assignment 05:

Title: Creating Forms using HTML

Objective: Learn how to design input forms using form elements such as textboxes, radio buttons, checkboxes, dropdowns, and buttons.

Tasks: Design a Registration Form using the following HTML tags: <form>, <input>, <select>, <option>, <textarea>, <button>

Software Required:

1. Notepad (or any text editor)
2. Any web browser (Google Chrome / Edge / Firefox)

Procedure:

Step 1: Open Notepad (or any text editor).

Step 2: Create new file.

Step 3: Save the file as

- File Name: assignment5.html
- Save as type: All Files
- Encoding: UTF-8
- Location: Desktop or your project folder

Step 4: Type the HTML program using

Tag / Attribute	Description / Purpose	Example Usage
<form>	Creates a form area	<form action=""> ... </form>
<input>	Creates textboxes, radio buttons, checkboxes	<input type="text">
<select>	Dropdown menu	<select><option>Item</option></select>
<option>	Option inside dropdown	<option value="m">Male</option>
<textarea>	Multi-line text input	<textarea rows="4"></textarea>
<button> / <input type="submit">	Buttons	<button>Submit</button>

Step 5: Run assignment3.html in any web browser

Note: Use comments (<!-- -->) in your code to label each question clearly.

Example: <!-- Question 1: Registration Form -->

Question 1: Basic Form

Example:

```
<!-- Question 1: Basic Form -->
<h2>1. Basic Registration Form Example</h2>
<form action="#" method="post">
  <label for="name">Full Name:</label>
  <input type="text" id="name" name="fullname" placeholder="Enter your full name" required>
  <br><br>
  <label for="email">Email:</label>
  <input type="email" id="email" name="email" placeholder="name@example.com" required>
  <br><br>
  <label for="mobile">Mobile No.:</label>
  <input type="tel" id="mobile" name="mobile" placeholder="99999 99999">
  <br><br>
  <button type="submit">Submit</button>
  <button type="reset">Reset</button>
</form>
```

Student Activity: Create a basic signup form with the following fields: Full Name, Email, Password, Confirm Password, Submit and Reset buttons

Use required on at least one field.

Question 2: Radio Buttons & Checkboxes (single / multiple choice)

Example:

```
<!-- Question 2: Radio & Checkbox Inputs -->
<h2>2. Gender & Skills Example</h2>

<form>
  <!-- Radio buttons: single choice -->
  <label>Gender:</label>
  <input type="radio" id="male" name="gender" value="male">
  <label for="male">Male</label>
  <input type="radio" id="female" name="gender" value="female">
  <label for="female">Female</label>
  <input type="radio" id="other" name="gender" value="other">
```

```

<label for="other">Other</label>
<br><br>
<!-- Checkboxes: multiple choice -->
<label>Skills:</label>
<input type="checkbox" id="html" name="skills" value="HTML">
<label for="html">HTML</label>
<input type="checkbox" id="css" name="skills" value="CSS">
<label for="css">CSS</label>
<input type="checkbox" id="js" name="skills" value="JavaScript">
<label for="js">JavaScript</label>
<br><br>
<button type="submit">Submit</button>
</form>

```

Student Activity: Build a form section with Radio buttons for choosing a subject (any 3 subjects) and Checkboxes for soft skills needed in IT (e.g., teamwork, communication, problem-solving). Ensure radio buttons use the same name.

Question 3: Dropdowns (<select> / <option>) & Multiple-select

Example:

```

<!-- Question 3: Dropdown / Select -->
<h2>3. Country & City Select Example</h2>
<form>
  <label for="country">Country:</label>
  <select id="country" name="country" required>
    <option value="">-- Select Country --</option>
    <option value="india">India</option>
    <option value="usa">USA</option>
    <option value="uk">United Kingdom</option>
  </select>
  <br><br>
  <label for="cities">Preferred Cities (hold Ctrl / Cmd for multiple):</label>
  <select id="cities" name="cities[]" multiple size="4">
    <option value="mumbai">Mumbai</option>
    <option value="delhi">Delhi</option>
    <option value="bangalore">Bengaluru</option>
    <option value="chennai">Chennai</option>
  </select>
  <br><br>
  <button type="submit">Submit</button>
</form>

```

Student Activity: Create a dropdown for Names of Planets and a multi-select list for Famous Space Missions. Add a default disabled option titled "Select a Planet".

Question 4: Textarea, Placeholders & Fieldsets (grouping fields)

Example:

```
<!-- Question 4: Textarea & Fieldset -->
<h2>4. Address & Grouping Example</h2>
<form>

  <fieldset>
    <legend>Contact Info</legend>
    <label for="address">Address:</label><br>
    <textarea id="address" name="address" rows="4" cols="40" placeholder="Street, Area, City, PIN"></textarea>
    <br><br>
    <label for="dob">Date of Birth:</label>
    <input type="date" id="dob" name="dob">
    <br><br>
    <label for="bio">Short Bio:</label><br>
    <textarea id="bio" name="bio" rows="3" placeholder="Write a short bio..."></textarea>
  </fieldset>
  <br>
  <button type="submit">Submit</button>
</form>
```

Student Activity: Add a `<fieldset>` titled "Unit Test" containing 'Five question expected in HTML'. Use placeholder text.

Question 5: Form Validation, Input Types & Advanced Controls

Example:

```
<!-- Question 5: Validation & Advanced Inputs -->
<h2>5. Validation & Advanced Controls Example</h2>

<form action="#" method="post" onsubmit="return validateForm()">
  <label for="username">Username (alphanumeric, 4-12 chars):</label>
  <input type="text" id="username" name="username" pattern="[A-Za-z0-9]{4,12}" required>
  <small>Use 4-12 letters or numbers.</small>
  <br><br>

  <label for="age">Age (18 - 60):</label>
  <input type="number" id="age" name="age" min="18" max="60" required>
  <br><br>

  <label for="profile">Profile Picture (optional):</label>
  <input type="file" id="profile" name="profile" accept="image/*">
  <br><br>

  <label for="terms">
```

```
<input type="checkbox" id="terms" name="terms" required>
I accept the Terms & Conditions
</label>
<br><br>

<input type="submit" value="Register">
<input type="reset" value="Clear">
</form>

<script>
    function validateForm(){
        // simple client-side extra validation example
        const age = document.getElementById('age').value;
        if(age < 18 || age > 60){
            alert('Age must be between 18 and 60.');
            return false;
        }
        return true;
    }
</script>
```

Student Activity: Create a form that add take two numbers and return their addition. Add a small JS validation function.