

HTML, CSS, Bootstrap and JS (2pm Batch) By Prasad

Forms in HTML

HTML Forms:

HTML forms are a fundamental part of web development, enabling users to input and submit data to a server. Forms are used for various purposes, such as user registration, data submission, searches, feedback, and more.

Basic Form Structure:

A basic form is created using the `<form>` element. It can contain various input elements like text fields, checkboxes, radio buttons, dropdown menus, and buttons.

Example:

```
<form action="/submit" method="post">

  <!-- Form elements go here -->

  <input type="text" name="username" placeholder="Username">
  <input type="password" name="password" placeholder="Password">
  <button type="submit">Submit</button>

</form>
```

Form Attributes:

action: Specifies where form data will be sent (URL where the server script is located).

method: Defines how data is sent (usually "get" or "post").

target: Specifies where to open the response (e.g., "_blank" for a new window).

enctype: Specifies encoding for sending data (e.g., "application/x-www-form-urlencoded" or "multipart/form-data" for file uploads).

Form Input Types:

Common input types include text, password, checkbox, radio, submit, reset, button, file, hidden, number, date, email, url, and more.

Each input type serves a specific purpose and might have specific attributes.

Labels and Accessibility:

Use `<label>` elements to associate text labels with form controls for better usability.

Use the `for` attribute to link a label to a form control using its id.

Example:

```
<label for="username">Username:</label>

<input type="text" id="username" name="username">
```

Form Elements Grouping:

Use `<fieldset>` and `<legend>` elements to group related form controls with a title or caption.

This improves accessibility and visually organizes the form.

Example:

```
<fieldset>

  <legend>Contact Information</legend>

  <!-- Form controls go here -->

</fieldset>
```

Form Validation:

Use required attribute to make fields mandatory.

Implement JavaScript for client-side validation.

Perform server-side validation to ensure data integrity.

Input Attributes:

placeholder: Provides a hint for the expected input format.

maxlength and minlength: Define character limits for text input.

pattern: Specifies a regular expression for input validation.

disabled and readonly: Prevent user input based on the attribute value.

Form Submission:

When submitted, form data is sent to the server for processing.

Use server-side scripting languages (e.g., PHP, Python) to handle form data.

Hidden Fields:

`<input type="hidden">` is used to store data not visible to users.

Useful for passing data between pages or for tracking purposes.

HTML forms are essential for interactive web applications, allowing users to provide input and interact with web servers. Properly structuring and styling forms can significantly improve user experience and data collection processes.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Forms</title>
</head>
<body>
  <h1>Forms in HTML</h1>
  <form action="action.php" id="frm" name="forum" method="get">
    <fieldset>
      <legend>Personal info</legend>
      <div id="nam">
        <label for="name">Name:</label>
        <input type="text" name="na" placeholder="Enter your name"/>
      </div>
```

```
<br>
<div id="number">
  <label for="num">Age:</label>
  <input type="number" name="numb" id="num" min="15" max="80">
</div>
<br>
<div id="phnumber">
  <label for="numph">Phone number:</label>
  <input type="number" name="numbph" id="numph" minlength="10" maxlength="10">
</div>
<br>
<div id="mail">
  <label for="email">Email:</label>
  <input type="email" name="em" id="email">
</div>
<br>
<div id="skills">
  <label for="skill">Skills</label>
  <input type="checkbox" name="sk1" id="skill" value="html">HTML
  <input type="checkbox" name="sk1" id="sk11" value="css">CSS
</div>
<br>
<div id="gender">
  <label for="gen">Gender:</label>
  <input type="radio" name="gend" id="gen" value="Male" /> Male
  <input type="radio" name="gend" id="ge" value="Female" /> Female
</div>
<br>
<div>
  <label for="clr">Color</label>
  <input type="color" name="color" id="clr">
</div>
<input type="submit" value="Apply">
</fieldset>
</form>
</body>
</html>
```