

Lecture: HTML Forms

HTML **forms** are essential for collecting user input on websites. They allow users to enter data such as text, passwords, emails, and selections, then send this data to a server for processing. Forms are commonly used on login pages, registration pages, surveys, search bars, and other applications.

1. The <form> Element

The <form> tag defines the start and end of a form. It usually contains attributes:

Common Attributes

- **action** — the URL where form data will be sent.
- **method** — HTTP method:
 - GET (data shows in URL, used for search)
 - POST (data hidden, used for sensitive info)
- **name** — identifies the form.

Example:

```
<form action="submit.php" method="POST">
```

2. Input Controls

HTML provides many types of input elements to gather different types of information.

➤ Text Input

Used to collect small amounts of text.

```
<input type="text" name="fname" placeholder="Your Name">
```

➤ Password Input

Masks characters for security.

```
<input type="password" name="pass">
```

➤ Email Input

Checks for valid email format.

```
<input type="email" name="email">
```

➤ Radio Buttons

Used when the user must select **only one option**.

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

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

Note: Radio buttons with the same **name** belong to the same group.

➤ **Checkboxes**

Used when a user can select **multiple options**.

```
<input type="checkbox" name="hobby" value="football"> Football  
<input type="checkbox" name="hobby" value="reading"> Reading
```

The <fieldset> and <legend> Elements

Used to group related form controls visually and semantically.

```
<fieldset>  
  <legend>Hobbies</legend>  
  <input type="checkbox"> Football  
  <input type="checkbox"> Reading  
</fieldset>
```

➤ **Buttons**

Submit Button

Sends the form data to the server.

```
<input type="submit" value="Register">
```

Reset Button

Clears all form fields.

```
<input type="reset">
```

Required Fields

The required attribute ensures a field must be filled before submitting.

```
<input type="text" required>
```

Placeholders

Shows hint text inside input fields.

```
<input type="text" placeholder="Enter your name">
```

➤ **textarea**

The `<textarea>` element is used to allow users to enter **multi-line text**. It is commonly used for comments, messages, descriptions, or feedback.

Must have a name attribute: Without a name, data will NOT be submitted to the server.

```
<textarea name="comment"></textarea>
```

Can contain default text between the opening and closing tags.

```
<textarea>Write here...</textarea>
```

Uses rows and cols to control visible size (optional).

Supports placeholder, required, maxlength, and readonly.

➤ **<select> Element**

The `<select>` element creates a drop-down list that allows users to pick one item (or multiple items if allowed). Inside `<select>`, we use `<option>` to define each choice.

- Must include a **name** attribute to send data.
- Contains one or more `<option>` elements inside.
- The **value** attribute on `<option>` is what gets submitted.

You can use a default selected option:

```
<select>
  <option selected>...</option>
</select>
```

Example:

```
<select name = "dropdown">
  <option value = "Maths" selected>Maths</option>
  <option value = "Physics">Physics</option>
</select>
```

Example:

Regestartion

first name:

last name:

password:

email:

Male Female

hobbies

football tennis reading

```
<!DOCTYPE html>
<html>
<head>
<title> Form Design </title>
<link rel="stylesheet" href="form3.css">
</head>
<body>

<form>

<h2> Regestartion </h2>

<label for="txt"> first name: </label>
<input type="text" id="txt" name="fname" placeholder="Rana" required>

<br>

<label for="Lname"> last name: </label>
<input type="text" id="Lname" name="Lname" placeholder="Ahmed" required>
<br>

<label for="passw"> password: </label>
<input type="password" name="pass" maxlength="6" required>
<br>

<label for="email"> email: </label>
<input type="email" name="email" placeholder="abc@gmail.com" >
<br>
```

```
<input type = "radio" name = "gender" value = "male" checked> Male
<input type = "radio" name = "gender" value = "female"> Female

<br>

<section id="hop">
  <fieldset>
    <legend> hobbies</legend>

    <input type = "checkbox" name = "football"> football
    <input type = "checkbox" name = "tennis"> tennis
    <input type = "checkbox" name = "reading"> reading
  </section>

  <br>
  <div>
    <input type="reset">
    <input type="submit" value="Regestartion">
  </div>

</form>
</body>
</html>
```