

HTML Forms Concept:

- Generally forms are used to take user data and to store in the database.
- Forms provide interaction between user and our application.
- By using forms, user can interact with our application related databases also to managing the information about our application.
- HTML is providing one tag which name as `<form>` tag for creating required forms for our application.
- We have different types of forms to take the data from users like,

Contact Form

Enquiry Form

Feedback Form

Registration Form

Login Form

etc...

- Note: we use **`<form>`** tag to create any kind of html forms.
- **`<form>`** tag is acting like a container tag and which contains n number of other form elements or tags for displaying required form fields on our web page.

Syntax:

`<form>`

....

form elements

....

`</form>`

For example:

```
<form>
  <label>First Name : </label>
  <input type="text" name="first_name"> <br> <br>

  <label>Last Name : </label>
  <input type="text" name="last_name"> <br> <br>

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

- Inside the form tag, we can use "N" number of tags to display the forms.
- The **`<form>`** element is a container for different types of input elements, such as: text fields, checkboxes, radio buttons, submit buttons, etc.

The HTML `<form>` Elements:

The HTML `<form>` element can contain one or more of the following form elements:

```
<form>
  <input>
  <label>
```

```
<select>
<option>
<textarea>
<button>
<fieldset>
<legend>
<datalist>
</form>
etc...
```

Note: All most all kind of forms we can create by using above form elements. So we will look into each form element tag.

<label> :

- **<label>** tag is used to give prompting to user for which kind of data is required for input fields like name, location, email, password and so on.

For example:

```
<label> FirstName:</label>
```

```
<input type="text" name="first_name">
```

Note : The "for" attribute of the <label> tag should be equal to the "id" attribute of the <input> element to bind them together.

<input> :

- The HTML <input> element is the most used form element.
- <input> tag is used to display an empty field box so that user can enter the data.
- If we don't specify <label> tag then we should add "placeholder" attribute inside the <input> tag.
- Generally gmail.com and facebook.com follow placeholder values but not <label> tag.

For example: <input type="text" name="first_name" placeholder="your first name">

- An <input> element can be displayed in many ways, depending on the type attribute. Here are some examples:

Type	Description
<input type="text">	Displays a single-line text input field
<input type="email">	Displaying Email field box and accepting email type input
<input type="password">	Displaying password field box and hiding password characters
<input type="radio">	Displays a radio button (for selecting one of many choices)
<input type="checkbox">	Displays a checkbox (for selecting zero or more of many choices)
<input type="submit">	Displays a submit button (for submitting the form input to server side)
<input type="button">	Displays a clickable button

- **Note:** If "type" attribute is not available inside <input> tag then by **default type="text"** is added by HTML inside <input>.

<select> :

- <select> tag is used to display multiple items with the help <option> tag.
- Generally <select> is used to display dropdown list of items, so we can select any specific item from out of all items.
- By default, <select> will select one value at a time. By default First option value will selecting.
- If we want to select multiple items then we need to add **"multiple"** attribute in the opening tag of <select> like below
For example, <select multiple>

<option> :

- The <option> elements defines an option value that can be selected in <select> tag.
- By default, the "first item" in the drop-down list is selected automatically.
- To define a pre-selected option value, add the **"selected"** attribute to the <option> tag.
- **For example:** <option value="Benz" selected>Benz</option>

```
<form>
  <label for="cars">Choose a car:</label>

  <select id="cars" name="cars" multiple>
    <option value="volvo">Volvo</option>
    <option value="saab">Saab</option>
    <option value="fiat" selected>Fiat</option>
    <option value="audi">Audi</option>
  </select>

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

- Use the "size" attribute to specify the number of visible values:
For example: <select id="cars" name="cars" size="3">

<textarea> :

- The <textarea> element defines a multi-line input field (a text area):
- By default we can see 2 lines of text in a textarea box.
- If we want to see required number of rows content on the screen at a time then using "rows" attribute we can represent.
- If users entered more than required number of rows content then we can see rest of the rows by scrolling down.

For example:

```
<form>
  <textarea name="message" rows="5"> </textarea>
</form>
```

- You can also define the size of the text area by using CSS:

For example:

```
<textarea name="message" style="width:200px; height:600px;">
  The cat was playing in the garden.
</textarea>
```

<button>

- The <button> element defines a clickable button.
- If you want to perform something after clicking a tag content then use <button> tag.
- Note: Always specify the "type" attribute for the <button> element. Different browsers may use different default type values for the button element.
- For example, <button type="button">Click Me!</button>

<fieldset> and <legend> :

- The <fieldset> element is used to group the related data in a form.
- The <legend> element defines a caption value for the <fieldset> element.

For example,

```
<form>
  <fieldset>
    <legend>Personal Data:</legend>

    <label>First name:</label><br>
    <input type="text" name="fname"><br>

    <label>Last name:</label><br>
    <input type="text" name="lname"><br><br>

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

<datalist> :

- The <datalist> element specifies a list of pre-defined options for an <input> element.
- Users will see a drop-down list of the pre-defined options which are available with <datalist> tag.
- The "list" attribute of the <input> element, must refer or same to the "id" attribute of the <datalist> element.

For example:

```
<form>
  <input list="browsers">
  <datalist id="browsers">
    <option value="Internet Explorer">
    <option value="Firefox">
    <option value="Chrome">
    <option value="Opera">
    <option value="Safari">
  </datalist>
</form>
```