

HTML Forms

1. Role of forms in webpages:

- a. HTML forms are used to take user inputs.
- b. With the help of forms we can collect the data from all the users at once.

2. HTML Forms:

- a. To provide forms in webpage we have to use `<form>` tag.
- b. `<form>` has 2 attributes:
 - i. **action** ⇒ It is used to provide server reference to which data has to be sent.
 - ii. **method** ⇒ Method attribute is used to provide the way in which data should be send.
 - iii. **There are two ways of methods in HTML:**
 - 1. **get** ⇒
 - a. Using get method data will be exposed in the url.
 - b. It is one of the insecure ways to send sensitive data like username and password.
 - 2. **post** ⇒
 - a. Using post method data will not be exposed.
 - b. It is a secure way to send sensitive data like username and password.

3. Form Elements:

- a. To take different inputs, form provides different elements.
- b. To take inputs from the user we have to use `<input>` .
- c. `<input>` tag has attributes type, name and id.
- d. `type` attribute decides which different elements to take different inputs.
- e. `name` is used to provide name and id is used to provide unique name.
- f. Form elements consist of:

1. `<input>` ⇒

- a. One of the most used form elements is the `<input>` element.
- b. The `<input>` element can be displayed in several ways, depending on the type attribute.
- c. **Example** ⇒

```
<input type="text" name="firstname" id="firstname" />  
<input type="text" name="lastname" id="lastname" />
```

2. `<label>` ⇒

- a. The `<label>` element defines a label for several form elements.
- b. The `<label>` element is useful for screen-reader users, because screen-readers will read out loud the label when the user focuses on the input element.
- c. The `<label>` element also helps users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) -because when the user clicks

with the text within the <label> element, it toggles the radio button/checkbox.

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

e. Example ⇒

```
<label for="firstname">First Name:</label>
<input type="text" name="firstname" id="firstname" />
<br />
<label for="lastname">Last Name:</label>
<input type="text" name="lastname" id="lastname" />
<br />
<input type="submit" />
```

3. <select> ⇒

- a. The <select> element defines a drop-down list.
- b. The <option> element defines an option that can be selected.
- c. By default, the first item in the drop-down list is selected.
- d. To define a pre-selected option, add the selected attribute to the option.
- e. Visible Values ⇒ size
- f. Use the size attribute to specify the number of visible values.
- g. Allow multiple selections ⇒ multiple
- h. Use the multiple attribute to allow the user to select more than one value.
- i. **Example ⇒**

```

<select>
  <option value="Select any one Fruit" selected disabled>
    Select any one Fruit
  </option>
  <option value="APPLE">Apple-1</option>
  <option value="MANGO">Mango-2</option>
  <option value="CHIKU">Chiku-3</option>
  <option value="GRAPES">Grapes-4</option>
  <option value="BANANA">Banana-5</option>
</select>

```

4. <textarea> ⇒

- The <textarea> element defines a multi-line input field.
- The rows attribute specifies the visible height of lines in a text-area.
- The cols attribute specifies the visible width of textarea.
- Example ⇒**

```

<textarea name="message" id="msg" rows="10" cols="30">
  Write your valuable feedback here....
</textarea>
<input type="submit" value="SUBMIT" />

```

5. <button> ⇒

- The <button> element defines a clickable button.
- Example ⇒** <button type="submit">Click Me</button>

6. <fieldset> ⇒

- The <fieldset> element is used to group related data in a form.

7. <legend> ⇒

- The <legend> element defines a caption for the <fieldset> element.

b. Example ⇒

```
<form action="">
  <fieldset>
    <legend>STUDENT ADMISSION FORM</legend>
    <label for="firstname">First Name:</label>
    <input type="text" name="firstname" id="firstname" />
    <br />
    <label for="lastname">Last Name:</label>
    <input type="text" name="lastname" id="lastname" />
    <br />
    <input type="submit" />
  </fieldset>
</form>
```

8. <datalist> ⇒

- a. The <datalist> element specifies a list of pre-defined options for an <input> element.
- b. Users will see a drop-down list of the pre-defined options as they input data.
- c. The list attribute of the input element, must refer to the id attribute of the <datalist> element.

d. Example ⇒

```
<input type="text" name="" list="fruits" />
<datalist id="fruits">
  <option value="APPLE">Apple-1</option>
  <option value="MANGO">Mango-2</option>
  <option value="CHIKU">Chiku-3</option>
  <option value="GRAPES">Grapes-4</option>
  <option value="BANANA">Banana-5</option>
</datalist>
```

9. <option> ⇒

- a. With the help of option we can provide the values and options to <select> and <datalist> element.

4. Input Types:

a. Here are the different types you can use in HTML:

1. `<input type="button">`
2. `<input type="checkbox">`
3. `<input type="color">`
4. `<input type="date">`
5. `<input type="date-time local">`
6. `<input type="email">`
7. `<input type="file">`
8. `<input type="hidden">`
9. `<input type="image">`
10. `<input type="month">`
11. `<input type="number">`
12. `<input type="password">`
13. `<input type="radio">`
14. `<input type="range">`
15. `<input type="reset">`
16. `<input type="search">`
17. `<input type="submit">`
18. `<input type="tel">`
19. `<input type="text">`
20. `<input type="time">`
21. `<input type="url">`
22. `<input type="week">`

5. Input Attributes:

- a. **value** ⇒ The input value attribute specifies an initial value for an input field.
- b. **readonly** ⇒ The input readonly attribute specifies that an input field is read-only that means you can't do any changes.
- c. **disabled** ⇒ The input disabled attribute specifies that an input field should be disabled. A disabled input field is unusable and un-clickable. The value of a disabled input field will not be sent when submitting the form.
- d. **size** ⇒ The input size attribute specifies the visible width, in characters of an input field. The default value of size is 20.
- e. **maxlength** ⇒ The input maxlength attribute specifies the maximum number of characters allowed in an input field.
- f. **min and max** ⇒ The input min and max attributes specify the minimum and maximum values for an input field. It is used together to create a range of legal values.
- g. **multiple** ⇒ The input multiple attribute specifies a regular expression that the user is allowed to enter more than one value in an input field.
For Ex ⇒ email and file.

- h. **pattern** ⇒ The input pattern attribute specifies a regular expression that the input field's value is checked against, when the form is submitted.
- i. **placeholder** ⇒ The input placeholder attribute specifies a short hint that describes the expected value of an input field. (short description) The short hint is displayed in the input field before the user enters a value.
- j. **required** ⇒ The input required attribute specifies that an input field must be filled out before submitting the form.
- k. **step** ⇒ The input step attribute specifies the legal number intervals for an input field.
- l. **autofocus** ⇒ The input autofocus attribute specifies that an input field should automatically get focus when the page loads.
- m. **list** ⇒ The input list attribute refers to a <datalist> element that contains pre- defined options for an <input> element.