

## HTML Forms

An HTML form is used to collect user input. The user input is most often sent to a server for processing.

**Example**

First name:

Last name:

## The <form> Element

The HTML <form> element is used to create an HTML form for user input:

```
<form>
  •
  form elements
  •
</form>
```

The <form> element is a container for different types of input elements, such as: text fields, checkboxes, radio buttons, submit buttons, etc.

## The <input> Element

The HTML <input> element is the most used form element.

An <input> element can be displayed in many ways, depending on the type attribute.

Type	Description
<input type="text">	Displays a single-line text input field
<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 type="button">	Displays a clickable button

## Text Fields

The <input type="text"> defines a single-line input field for text input.

```
<form>
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname"><br>
  <label for="lname">Last name:</label><br>
  <input type="text" id="lname" name="lname">
</form>
```

## The <label> Element

Notice the use of the <label> element in the example above.

The <label> tag defines a label for many form elements.

The <label> element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focus on the input element.

The <label> element also help users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the <label> element, it toggles the radio button/checkbox.

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

## Radio Buttons

The <input type="radio"> defines a radio button.

Radio buttons let a user select ONE of a limited number of choices.

- ☐ Class-01
- ☐ Class-02
- ☐ Class-02

<form>

```
<input type="radio" id="html" name="fav_language" value="HTML">
```

```
<label for="html">HTML</label><br>
```

```
<input type="radio" id="css" name="fav_language" value="CSS">
```

```
<label for="css">CSS</label><br>
```

```
<input type="radio" id="javascript" name="fav_language" value="JavaScript">
```

```
<label for="javascript">JavaScript</label>
```

</form>

## Checkboxes

The `<input type="checkbox">` defines a **checkbox**.

Checkboxes let a user select ZERO or MORE options of a limited number of choices.

```
<input type="checkbox" id="vehicle2" name="vehicle2" value="Car">
```

```
<label for="vehicle2"> I have a car</label>
```

- ☐ I have a bike
- ☐ I have a car
- ☐ I have a boat

## The Submit Button

The `<input type="submit">` defines a button for submitting the form data to a form-handler.

The form-handler is typically a file on the server with a script for processing input data.

The form-handler is specified in the form's `action` attribute.

```
<form action="/action_page.php">
```

```
<label for="fname">First name:</label><br>
```

```
<input type="text" id="fname" name="fname" value="Samiul"><br>
```

```
<label for="lname">Last name:</label><br>
```

```
<input type="text" id="lname" name="lname" value="Alom"><br><br>
```

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

```
</form>
```

First name:

Samiul

Last name:

Alom

Submit

## The Name Attribute for <input>

Notice that each input field must have a `name` attribute to be submitted.  
If the `name` attribute is omitted, the value of the input field will not be sent at all.

```
<form action="/action_page.php">  
  <label for="fname">First name:</label><br>  
  <input type="text" id="fname" value="Samiul Alom"><br><br>  
  <input type="submit" value="Submit">  
</form>
```

## HTML Form Elements

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

- `<input>`
- `<label>`
- `<select>`
- `<textarea>`
- `<button>`
- `<fieldset>`
- `<legend>`
- `<datalist>`
- `<output>`
- `<option>`
- `<optgroup>`



## The <select> Element

The <select> element defines a drop-down list:

```
<label for="cars">Choose a car:</label>
<select id="cars" name="cars">
  <option value="volvo">Volvo</option>
  <option value="saab">Saab</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```

The <option> elements defines an option that can be selected.

By default, the first item in the drop-down list is selected. To define a pre-selected option, add the `selected` attribute to the option:

```
<option value="fiat" selected>Fiat</option>
```

## Multiple Selections:

Use the `multiple` attribute to allow the user to select more than one value:

```
<label for="cars">Choose a car:</label>
<select id="cars" name="cars" size="4" multiple>
  <option value="volvo">Volvo</option>
  <option value="saab">Saab</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```



## The <textarea> Element

The <textarea> element defines a multi-line input field (a text area):

```
<textarea name="message" rows="10" cols="30">
```

Please write something here...

```
</textarea>
```

```
<textarea name="message" style="width:200px; height:600px;">
```

The cat was playing in the garden.

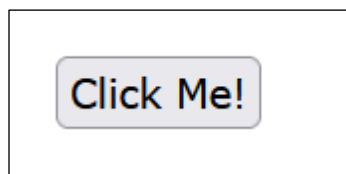
```
</textarea>
```

---

## The <button> Element

The <button> element defines a clickable button:

```
<button type="button" onclick="alert('Hello World!')">Click Me!</button>
```





## HTML Input Types

Here are the different input types you can use in HTML:

- `<input type="button">`
- `<input type="checkbox">`
- `<input type="color">`
- `<input type="date">`
- `<input type="datetime-local">`
- `<input type="email">`
- `<input type="file">`
- `<input type="hidden">`
- `<input type="image">`
- `<input type="month">`
- `<input type="number">`
- `<input type="password">`
- `<input type="radio">`
- `<input type="range">`
- `<input type="reset">`
- `<input type="search">`
- `<input type="submit">`
- `<input type="tel">`
- `<input type="text">`
- `<input type="time">`
- `<input type="url">`
- `<input type="week">`