

# HTML Forms

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

## 1. 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.

## 2. 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.
- Here are some examples:

Type	Description
<code>&lt;input type="text"&gt;</code>	Displays a single-line text input field
<code>&lt;input type="radio"&gt;</code>	Displays a radio button (for selecting one of many choices)
<code>&lt;input type="checkbox"&gt;</code>	Displays a checkbox (for selecting zero or more of many choices)
<code>&lt;input type="submit"&gt;</code>	Displays a submit button (for submitting the form)
<code>&lt;input type="button"&gt;</code>	Displays a clickable button

### 3. Text Fields

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

Example:

```
<!DOCTYPE html>
<html>
<body>

<h2>Text input fields</h2>

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

<p>Note that the form itself is not visible.</p>

<p>Also note that the default width of text input fields is 20 characters.</p>

</body>
</html>
```

#### Text input fields

First name:

Last name:

Note that the form itself is not visible.

Also note that the default width of text input fields is 20 characters.

## 4. 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.

## 5. Radio Buttons

- The `<input type="radio">` defines a radio button.
- Radio buttons let a user select ONE of a limited number of choices.

Example:

```
<form>
  <input type="radio" id="male" name="gender" value="male">
  <label for="male">Male</label><br>
  <input type="radio" id="female" name="gender" value="female">
  <label for="female">Female</label><br>
  <input type="radio" id="other" name="gender" value="other">
  <label for="other">Other</label>
</form>
```

This is how the HTML code above will be displayed in a browser:

- ☐ Male
- ☐ Female
- ☐ Other

## 6. Checkboxes

- The `<input type="checkbox">` defines a checkbox.
- Checkboxes let a user select ZERO or MORE options of a limited number of choices.

Example:

```
<form>
  <input type="checkbox" id="vehicle1" name="vehicle1" value="Bike">
  <label for="vehicle1"> I have a bike</label><br>
  <input type="checkbox" id="vehicle2" name="vehicle2" value="Car">
  <label for="vehicle2"> I have a car</label><br>
  <input type="checkbox" id="vehicle3" name="vehicle3" value="Boat">
  <label for="vehicle3"> I have a boat</label>
</form>
```

This is how the HTML code above will be displayed in a browser:

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

## 7. 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.

Example:

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

This is how the HTML code above will be displayed in a browser:

First name:

Last name:

## 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.

## HTML Input Types

- `<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">`

**Examples:** [https://www.w3schools.com/html/html\\_form\\_input\\_types.asp](https://www.w3schools.com/html/html_form_input_types.asp)

# The 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>**

**Examples:** [https://www.w3schools.com/html/html\\_form\\_elements.asp](https://www.w3schools.com/html/html_form_elements.asp)