



HTML5 Forms

Objectives

After completing this lesson, you should be able to:

- HTML5 form elements
- Building and using HTML5 forms



HTML5 Forms

What is HTML Form

- HTML Forms are required to collect different kinds of user inputs, such as contact details like name, email address, phone numbers, or details like credit card information, etc.
- Forms contain special elements called controls like inputbox, checkboxes, radio-buttons, submit buttons, etc. Users generally complete a form by modifying its controls e.g. entering text, selecting items, etc. and submitting this form to a web server for further processing.
- The <form> tag is used to create an HTML form.

```
1  <!DOCTYPE html>
2  ✓ <html lang="en">
3  ✓ <head>
4    |   <title>Simple HTML Form</title>
5    | </head>
6  ✓ <body>
7  ✓ |   <form action="/examples/actions/confirmation.php" method="post">
8    |   |   <label>Username: <input type="text" name="username"></label>
9    |   |   <label>Password: <input type="password" name="userpass"></label>
10   |   |   <input type="submit" value="Submit">
11   |   </form>
12 </body>
13 </html>
```

Input Element

- This is the most commonly used element within HTML forms.
- It allows you to specify various types of user input fields, depending on the type attribute. An input element can be of type *text field*, *password field*, *checkbox*, *radio button*, *submit button*, *reset button*, *file select box*, as well as several new input types introduced in HTML5.

Text Fields

- Text fields are one line areas that allow the user to input text.
- Single-line text input controls are created using an `<input>` element, whose `type` attribute has a value of `text`.

```
<form>  
  <label for="username">Username:</label>  
  <input type="text" name="username" id="username">  
</form>
```

Password Field

- Password fields are similar to text fields. The only difference is; characters in a password field are masked, i.e. they are shown as asterisks or dots.
- This is to prevent someone else from reading the password on the screen. This is also a single-line text input controls created using an `<input>` element whose type attribute has a value of password.

```
<form>  
  <label for="user-pwd">Password:</label>  
  <input type="password" name="user-password" id="user-pwd">  
</form>
```


Radio Buttons

- Radio buttons are used to let the user select exactly one option from a pre-defined set of options.
- It is created using an `<input>` element whose type attribute has a value of radio.

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

Checkboxes

- Checkboxes allows the user to select one or more option from a pre-defined set of options. It is created using an `<input>` element whose type attribute has a value of checkbox.

```
<form>  
  <input type="checkbox" name="sports" id="soccer">  
  <label for="soccer">Soccer</label>  
  <input type="checkbox" name="sports" id="cricket">  
  <label for="cricket">Cricket</label>  
  <input type="checkbox" name="sports" id="baseball">  
  <label for="baseball">Baseball</label>  
</form>
```

File Select box

- The file fields allow a user to browse for a local file and send it as an attachment with the form data.
- Web browsers such as Google Chrome and Firefox render a file select input field with a Browse button that enables the user to navigate the local hard drive and select a file.

```
<form>  
  <label for="file-select">Upload:</label>  
  <input type="file" name="upload" id="file-select">  
</form>
```

Select Boxes

- A select box is a dropdown list of options that allows user to select one or more option from a pull-down list of options.
- Select box is created using the <select> element and <option> element.
- The <option> elements within the <select> element define each list item.

```
<form>
  <label for="city">City:</label>
  <select name="city" id="city">
    <option value="sydney">Sydney</option>
    <option value="melbourne">Melbourne</option>
    <option value="cromwell">Cromwell</option>
  </select>
</form>
```

Reading Data from HTML5 Forms

Name:(required)

Email:(required)

Telephone:

Abstract:(required)

Or you can send us a document with the abstract:

No file selected.

The form Elements

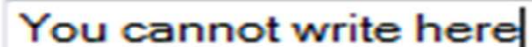
```
<form name="proposalForm" action="#">
  <fieldset>
    <p>
      <label for="name">Name: (required) </label>
      <input type="text" name="name" id="name">
    </p>
    <p>
      <label for="email">Email: (required) </label>
      <input type="email" name="email" id="email">
    </p>
    <p>
      <label for="telephone">Telephone: </label>
      <input type="tel" name="telephone" id="telephone">
    </p>
    <p><label for="abstract">Abstract: (required) </label></p>
    <textarea rows="5" cols="80" name="abstract" id="abstract"></textarea>
    <p><label for="file">Or you can send us a document with the
      abstract:</label></p>
    <input type="file" name="file" id="file">
    <p><input type="submit" name="submit" value="submit"></p>
  </fieldset>
</form>
```

input Attributes


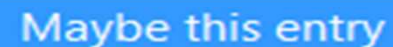
- `<input type="text" maxlength="30">`:



- `<input type="text" value="You cannot write here" readonly>`:



- `<input type="text" list="suggestions">`
`<datalist id="suggestions">`
 `<option value="Maybe this entry">`
 `<option value="Or this one">`
`</datalist>`



- `<input type="email" placeholder="email@example.com">`:





HTML5 New Input Elements

New Input Types in HTML5

- HTML5 introduces several new <input> types like email, date, time, color, range, and so on. to improve the user experience and to make the forms more interactive.
- However, if a browser failed to recognize these new input types, it will treat them like a normal text box.

- color
- email
- range
- time
- date
- month
- search
- url
- datetime-local
- number
- tel
- week

Input Type Color

- The color input type allows the user to select a color from a color picker and returns the color value in hexadecimal format (#rrggbb). If you don't specify a value, the default is #000000, which is black.

```
<form>  
  <label for="mycolor">Select Color:</label>  
  <input type="color" value="#00ff00" id="mycolor">  
</form>
```

Input Type Date

- The date input type allows the user to select a date from a drop-down calendar.
- The date value includes the year, month, and day, but not the time.

```
<form>  
  <label for="mydate">Select Date:</label>  
  <input type="date" value="2019-04-15" id="mydate">  
</form>
```

Input Type Datetime-local

- The datetime-local input type allows the user to select both local date and time, including the year, month, and day as well as the time in hours and minutes.

```
<form>  
  <label for="mydatetime">Choose Date and Time:</label>  
  <input type="datetime-local" id="mydatetime">  
</form>
```

Input Type Month

- The month input type allows the user to select a month and year from a drop-down calendar.
- The value is a string in the format "YYYY-MM", where YYYY is the four-digit year and MM is the month number.

```
<form>  
  <label for="mymonth">Select Month:</label>  
  <input type="month" id="mymonth">  
</form>
```

Input Type Number

- The number input type can be used for entering a numerical value. You can also restrict the user to enter only acceptable values using the additional attributes min, max, and step.

```
<form>  
  <label for="mynumber">Enter a Number:</label>  
  <input type="number" min="1" max="10" step="0.5" id="mynumber">  
</form>
```

Input Type Range

- The range input type can be used for entering a numerical value within a specified range. It works very similar to number input, but it offers a simpler control for entering a number.

```
<form>  
  <label for="mynumber">Select a Number:</label>  
  <input type="range" min="1" max="10" step="0.5" id="mynumber">  
</form>
```

Input Type Search

- The search input type can be used for creating search input fields.
- A search field typically behaves like a regular text field, but in some browsers like Chrome and Safari as soon as you start typing in the search box a small cross appears on the right side of the field that lets you quickly clear the search field.

```
<form>
  <label for="mysearch">Search Website:</label>
  <input type="search" id="mysearch">
</form>
```


Input Type Time

- The time input type can be used for entering a time (hours and minutes).
- Browser may use 12- or 24-hour format for inputting times, based on local system's time setting.

```
<form>  
  <label for="mytime">Select Time:</label>  
  <input type="time" id="mytime">  
</form>
```

Input Type URL

- The url input type can be used for entering URL's or web addresses.
- You can use the multiple attribute to enter more than one URL. Also, if required attribute is specified browser will automatically carry out validation to ensure that only text that matches the standard format for URLs is entered into the input box.

```
<form>  
  <label for="myurl">Enter Website URL:</label>  
  <input type="url" id="myurl" required>  
</form>
```

Input Type Week

- The week input type allows the user to select a week and year from a drop-down calendar.

```
<form>  
  <label for="myweek">Select Week:</label>  
  <input type="week" id="myweek">  
</form>
```

Summary

In this lesson, you should have learned how to:

- HTML5 form elements
- Building and using HTML5 forms

