**HTML Input Types**

This chapter describes the different types for the HTML <input> element.

## **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">

**Tip:** The default value of the type attribute is "text".

## **Input Type Text**

<input type="text"> refers to **single-line text input field**:

### **Example**

<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>

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

Table

Description automatically generated with low confidence

## **Input Type Password**

<input type="password"> defines a **password field**:

### **Example**

<form>  
  <label for="username">Username:</label><br>  
  <input type="text" id="username" name="username"><br>  
  <label for="pwd">Password:</label><br>  
  <input type="password" id="pwd" name="pwd">  
</form>

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

Table

Description automatically generated

The characters in a password field are masked (shown as asterisks or circles).

## **Input Type Submit**

The button <input type="submit"> is used to submit form data to a form-handler.

A server page with a script for processing input data is typically used as the form-handler.

The form's action attribute specifies the form's handler:

### **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:

Graphical user interface, text, application

Description automatically generated with medium confidence

Note: If you don't use the value attribute on the submit button, the button will have a default text.

## **Input Type Reset**

The reset button is defined by the <input type="reset">, which resets all form values to their default values:

### **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">  
  <input type="reset">  
</form>

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

Graphical user interface, text, application, email

Description automatically generated

The form-data will be reset to the default values if you change the input values and then click the "Reset" button.

## **Input Type Radio**

<input type="radio"> refers to **radio button**.

Radio buttons let a user select ONLY ONE of a limited number of choices:

### **Example**

<p>Choose your favorite Web language:</p>  
  
<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>

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

 HTML  
 CSS  
 JavaScript

## **Input Type Checkbox**

<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

## **Input Type Button**

<input type="button"> defines a **button**:

### **Example**

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

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

Graphical user interface, text, application

Description automatically generated

## **Input Type Color**

The <input type="color"> is used for input fields that should contain a color.

Depending on browser support, a color picker can show up in the input field.

### **Example**

<form>  
  <label for="favcolor">Select your favorite color:</label>  
  <input type="color" id="favcolor" name="favcolor">  
</form>

## **Input Type Date**

For input fields that should contain a date, use the input type="date">.

A date picker may appear in the input field depending on browser support.

### **Example**

<form>  
  <label for="birthday">Birthday:</label>  
  <input type="date" id="birthday" name="birthday">  
</form>

You can also use the min and max attributes to add restrictions to dates:

### **Example**

<form>  
  <label for="datemax">Enter a date before 1980-01-01:</label>  
  <input type="date" id="datemax" name="datemax" max="1979-12-31"><br><br>  
  <label for="datemin">Enter a date after 2000-01-01:</label>  
  <input type="date" id="datemin" name="datemin" min="2000-01-02">  
</form>

## **Input Type Datetime-local**

A date and time input field with no time zone is specified by the <input type="datetime-local">.

A date picker may appear in the input field depending on browser support.

### **Example**

<form>  
  <label for="birthdaytime">Birthday (date and time):</label>  
  <input type="datetime-local" id="birthdaytime" name="birthdaytime">  
</form>

## **Input Type Email**

For input fields that should contain an e-mail address, the <input type="email"> is used.

The e-mail address can be automatically validated when submitted, depending on browser support.

To match email input, some smartphones recognise the email type and add ".com" to the keyboard.

### **Example**

<form>  
  <label for="email">Enter your email:</label>  
  <input type="email" id="email" name="email">  
</form>

## **Input Type File**

The <input type="file"> defines a file-select field and a "Browse" button for file uploads.

### **Example**

<form>  
  <label for="myfile">Select a file:</label>  
  <input type="file" id="myfile" name="myfile">  
</form>

## **Input Type Hidden**

A hidden input field is defined by the input type="hidden"> tag (not visible to a user).

When a form is submitted, a hidden field allows web developers to include data that users cannot see or change.

When a form is submitted, a hidden field is frequently used to store the database record that needs to be updated.

Although the value is not visible to the user in the page's content, it can be viewed (and edited) using any browser's developer tools or "View Source" functionality. As a form of security, do not use hidden inputs!

### **Example**

<form>  
  <label for="fname">First name:</label>  
  <input type="text" id="fname" name="fname"><br><br>  
  <input type="hidden" id="custId" name="custId" value="3487">  
  <input type="submit" value="Submit">  
</form>

## **Input Type Month**

The <input type="month"> allows the user to select a month and year.

Depending on browser support, a date picker can show up in the input field.

### **Example**

<form>  
  <label for="bdaymonth">Birthday (month and year):</label>  
  <input type="month" id="bdaymonth" name="bdaymonth">  
</form>

## **Input Type Number**

A numeric input field is defined by the <input type="number"> tag.

You can also limit the types of numbers that are accepted.

The example below shows a numeric input field where you can enter a value between 1 and 5:

### **Example**

<form>  
  <label for="quantity">Quantity (between 1 and 5):</label>  
  <input type="number" id="quantity" name="quantity" min="1" max="5">  
</form>

## **Input Restrictions**

Here is a list of some common input restrictions:

|  |  |
| --- | --- |
| **Attribute** | **Description** |
| checked | Specifies that an input field should be pre-selected when the page loads (for type="checkbox" or type="radio") |
| disabled | Indicates whether or not an input field should be disabled. |
| max | The maximum value for an input field is specified. |
| maxlength | Sets the maximum number of characters that can be entered into an input field. |
| min | The minimum value for an input field is specified. |
| pattern | Sets a regular expression to compare the input value to. |
| readonly | To check the input value against, specify a regular expression. |
| required | Indicates whether or not an input field is required (must be filled out) |
| size | The width of an input field (in characters) is specified. |
| step | For an input field, specifies the legal number intervals. |
| value | Sets the value for an input field's default value. |

The following example displays a numeric input field, where you can enter a value from 0 to 100, in steps of 10. The default value is 30:

### **Example**

<form>  
  <label for="quantity">Quantity:</label>  
  <input type="number" id="quantity" name="quantity" min="0" max="100" step="10" value="30">  
</form>

## **Input Type Range**

The <input type="range"> defines a control for entering a number whose exact value is not important (like a slider control). Default range is 0 to 100. However, you can set restrictions on what numbers are accepted with the min, max, and step attributes:

### **Example**

<form>  
  <label for="vol">Volume (between 0 and 50):</label>  
  <input type="range" id="vol" name="vol" min="0" max="50">  
</form>

## **Input Type Search**

The <input type="search"> is used for search fields (a search field behaves like a regular text field).

### **Example**

<form>  
  <label for="gsearch">Search Google:</label>  
  <input type="search" id="gsearch" name="gsearch">  
</form>

## **Input Type Tel**

The <input type="tel"> is used for input fields that should contain a telephone number.

### **Example**

<form>  
  <label for="phone">Enter your phone number:</label>  
  <input type="tel" id="phone" name="phone" pattern="[0-9]{3}-[0-9]{2}-[0-9]{3}">  
</form>

## **Input Type Time**

The <input type="time"> allows the user to select a time (no time zone).

Depending on browser support, a time picker can show up in the input field.

### **Example**

<form>  
  <label for="appt">Select a time:</label>  
  <input type="time" id="appt" name="appt">  
</form>

## **Input Type Url**

The <input type="url"> is used for input fields that should contain a URL address.

Depending on browser support, the url field can be automatically validated when submitted.

Some smartphones recognize the url type, and adds ".com" to the keyboard to match url input.

### **Example**

<form>  
  <label for="homepage">Add your homepage:</label>  
  <input type="url" id="homepage" name="homepage">  
</form>

## **Input Type Week**

The <input type="week"> allows the user to select a week and year.

Depending on browser support, a date picker can show up in the input field.

### **Example**

<form>  
  <label for="week">Select a week:</label>  
  <input type="week" id="week" name="week">  
</form>

## **HTML Input Type Attribute**

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<input type="">](https://www.w3schools.com/tags/att_input_type.asp) | This property specifies the type of input that will be displayed. |