HTML Input Types

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

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

1) <input type="button">- Displays a clickable button

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

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

<**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**>

3) <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.

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

4) <input type="date"> - is used for input fields that should contain a date.

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

<**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**>

5) <input type="datetime-local">

6) <input type="email"> - The <input type="email"> is used for input fields that should contain an e-mail address. Depending on browser support, the e-mail address can be automatically validated when submitted. Some smartphones recognize the email type, and add ".com" to the keyboard to match email input.

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

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

8) <input type="hidden">- A control that is not displayed but whose value is submitted to the server.

9) <input type="image"> - A graphical submit button. Displays an image defined by the src attribute. The [alt](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/input#htmlattrdefalt) attribute displays if the image [src](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/input" \l "htmlattrdefsrc) is missing.

<form>  
  <label for="fname">First name:</label>  
  <input type="text" id="fname" name="fname"><br><br>  
  <label for="lname">Last name:</label>  
  <input type="text" id="lname" name="lname"><br><br>  
  <input type="image" src="img\_submit.gif" alt="Submit" width="48" height="48">  
</form>

<input type="image" src=”url”>

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

11)<input type="number">- defines a numeric input field.

You can also set restrictions on what numbers are accepted.

The following example displays a numeric input field, where you can enter a value from 1 to 5:

### **Example**

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

12)<input type="password"> - defines a password field:

<**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**>

13)<input type="radio">- The <input type="radio"> defines a radio button.Radio buttons let a user select ONLY ONE of a limited number of choices:<**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**>

14) <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**>

15) <input type="reset">-defines a reset button that will reset all form values to their default values:

<**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**>

16) <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**>

17) <input type="submit">-defines a button for submitting form data to a form-handler.

The form-handler is typically a server page 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="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**>

19) <input type="text">- defines a single-line text input field:

<**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**>

# HTML Input Attributes

This chapter describes the different attributes for the HTML <input> element

## **The value Attribute**

The input value attribute specifies an initial value for an input field:

### **Example**

Input fields with initial (default) values:

<**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**>

## **The readonly Attribute**

The input readonly attribute specifies that an input field is read-only.

A read-only input field cannot be modified (however, a user can tab to it, highlight it, and copy the text from it).

The value of a read-only input field will be sent when submitting the form!

### **Example**

A read-only input field:

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

## **The disabled Attribute**

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!

### **Example**

A disabled input field:

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

## **The size Attribute**

The input size attribute specifies the visible width, in characters, of an input field.

The default value for size is 20.

Note: The size attribute works with the following input types: text, search, tel, url, email, and password.

### **Example**

Set a width for an input field:

<**form**>  
  <**label** for="fname">First name:<**/label**><**br**>  
  <**input** type="text" id="fname" name="fname" size="50"><**br**>  
  <**label** for="pin">PIN:<**/label**><**br**>  
  <**input** type="text" id="pin" name="pin" size="4">  
<**/form**>

## **The maxlength Attribute**

The input maxlength attribute specifies the maximum number of characters allowed in an input field.

Note: When a maxlength is set, the input field will not accept more than the specified number of characters. However, this attribute does not provide any feedback. So, if you want to alert the user, you must write JavaScript code.

### **Example**

Set a maximum length for an input field:

<**form**>  
  <**label** for="fname">First name:<**/label**><**br**>  
  <**input** type="text" id="fname" name="fname" size="50"><**br**>  
  <**label** for="pin">PIN:<**/label**><**br**>  
  <**input** type="text" id="pin" name="pin" maxlength="4" size="4">  
<**/form**>

## **The min and max Attributes**

The input min and max attributes specify the minimum and maximum values for an input field.

The min and max attributes work with the following input types: number, range, date, datetime-local, month, time and week.

Tip: Use the max and min attributes together to create a range of legal values.

### **Example**

Set a max date, a min date, and a range of legal values:

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

## **The multiple Attribute**

The input multiple attribute specifies that the user is allowed to enter more than one value in an input field.

The multiple attribute works with the following input types: email, and file.

### **Example**

A file upload field that accepts multiple values:

<**form**>  
  <**label** for="files">Select files:<**/label**>  
  <**input** type="file" id="files" name="files" multiple>  
<**/form**>

## **The pattern Attribute**

The input pattern attribute specifies a regular expression that the input field's value is checked against, when the form is submitted.

The pattern attribute works with the following input types: text, date, search, url, tel, email, and password.

Tip: Use the global [title](https://www.w3schools.com/tags/att_global_title.asp) attribute to describe the pattern to help the user.

**Tip:** Learn more about [regular expressions](https://www.w3schools.com/js/js_regexp.asp) in our JavaScript tutorial.

### **Example**

An input field that can contain only three letters (no numbers or special characters):

<**form**>  
  <**label** for="country\_code">Country code:<**/label**>  
  <**input** type="text" id="country\_code" name="country\_code"  
  pattern="[A-Za-z]{3}" title="Three letter country code">  
<**/form**>

## **The placeholder Attribute**

The input placeholder attribute specifies a short hint that describes the expected value of an input field (a sample value or a short description of the expected format).

The short hint is displayed in the input field before the user enters a value.

The placeholder attribute works with the following input types: text, search, url, tel, email, and password.

### **Example**

An input field with a placeholder text:

<**form**>  
  <**label** for="phone">Enter a phone number:<**/label**>  
  <**input** type="tel" id="phone" name="phone"  
  placeholder="123-45-678"  
  pattern="[0-9]{3}-[0-9]{2}-[0-9]{3}">  
<**/form**>

## **The required Attribute**

The input required attribute specifies that an input field must be filled out before submitting the form.

The required attribute works with the following input types: text, search, url, tel, email, password, date pickers, number, checkbox, radio, and file.

### **Example**

A required input field:

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

## **The step Attribute**

The input step attribute specifies the legal number intervals for an input field.

Example: if step="3", legal numbers could be -3, 0, 3, 6, etc.

**Tip:** This attribute can be used together with the max and min attributes to create a range of legal values.

The step attribute works with the following input types: number, range, date, datetime-local, month, time and week.

### **Example**

An input field with a specified legal number intervals:

<**form**>  
  <**label** for="points">Points:<**/label**>  
  <**input** type="number" id="points" name="points" step="3">  
<**/form**>

## **The autofocus Attribute**

The input autofocus attribute specifies that an input field should automatically get focus when the page loads.

### **Example**

Let the "First name" input field automatically get focus when the page loads:

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

## **The height and width Attributes**

The input height and width attributes specify the height and width of an <input type="image"> element.

Tip: Always specify both the height and width attributes for images. If height and width are set, the space required for the image is reserved when the page is loaded. Without these attributes, the browser does not know the size of the image, and cannot reserve the appropriate space to it. The effect will be that the page layout will change during loading (while the images load).

### **Example**

Define an image as the submit button, with height and width attributes:

<**form**>  
  <**label** for="fname">First name:<**/label**>  
  <**input** type="text" id="fname" name="fname"><**br**><**br**>  
  <**label** for="lname">Last name:<**/label**>  
  <**input** type="text" id="lname" name="lname"><**br**><**br**>  
  <**input** type="image" src="img\_submit.gif" alt="Submit" width="48" height="48">  
<**/form**>

## **The list Attribute**

The input list attribute refers to a <datalist> element that contains pre-defined options for an <input> element.

### **Example**

An <input> element with pre-defined values in a <datalist>:

<**form**>  
  <**input** list="browsers">  
  <**datalist** id="browsers">  
    <**option** value="Internet Explorer">  
    <**option** value="Firefox">  
    <**option** value="Chrome">  
    <**option** value="Opera">  
    <**option** value="Safari">  
  <**/datalist**>  
<**/form**>

## **The autocomplete Attribute**

The input autocomplete attribute specifies whether a form or an input field should have autocomplete on or off.

Autocomplete allows the browser to predict the value. When a user starts to type in a field, the browser should display options to fill in the field, based on earlier typed values.

The autocomplete attribute works with <form> and the following <input> types: text, search, url, tel, email, password, datepickers, range, and color.

### **Example**

An HTML form with autocomplete on, and off for one input field:

<**form** action="/action\_page.php" autocomplete="on">  
  <**label** for="fname">First name:<**/label**>  
  <**input** type="text" id="fname" name="fname"><**br**><**br**>  
  <**label** for="lname">Last name:<**/label**>  
  <**input** type="text" id="lname" name="lname"><**br**><**br**>  
  <**label** for="email">Email:<**/label**>  
  <**input** type="email" id="email" name="email" autocomplete="off"><**br**><**br**>  
  <**input** type="submit" value="Submit">  
<**/form**>

# HTML Input form\* Attributes

This chapter describes the different form\* attributes for the HTML <input> element.

## **The form Attribute**

The input form attribute specifies the form the <input> element belongs to.

The value of this attribute must be equal to the id attribute of the <form> element it belongs to.

### **Example**

An input field located outside of the HTML form (but still a part of the form):

<form action="/action\_page.php" id="form1">  
  <label for="fname">First name:</label>  
  <input type="text" id="fname" name="fname"><br><br>  
  <input type="submit" value="Submit">  
</form>  
  
<label for="lname">Last name:</label>  
<input type="text" id="lname" name="lname" form="form1">

## **The formaction Attribute**

The input formaction attribute specifies the URL of the file that will process the input when the form is submitted.

**Note:** This attribute overrides the action attribute of the <form> element.

The formaction attribute works with the following input types: submit and image.

### **Example**

An HTML form with two submit buttons, with different actions:

<form action="/action\_page.php">  
  <label for="fname">First name:</label>  
  <input type="text" id="fname" name="fname"><br><br>  
  <label for="lname">Last name:</label>  
  <input type="text" id="lname" name="lname"><br><br>  
  <input type="submit" value="Submit">  
  <input type="submit" formaction="/action\_page2.php" value="Submit as Admin">  
</form>

## **The formenctype Attribute**

The input formenctype attribute specifies how the form-data should be encoded when submitted (only for forms with method="post").

**Note:** This attribute overrides the enctype attribute of the <form> element.

The formenctype attribute works with the following input types: submit and image.

### **Example**

A form with two submit buttons. The first sends the form-data with default encoding, the second sends the form-data encoded as "multipart/form-data":

<form action="/action\_page\_binary.asp" method="post">  
  <label for="fname">First name:</label>  
  <input type="text" id="fname" name="fname"><br><br>  
  <input type="submit" value="Submit">  
  <input type="submit" formenctype="multipart/form-data"  
  value="Submit as Multipart/form-data">  
</form>

## **The formmethod Attribute**

The input formmethod attribute defines the HTTP method for sending form-data to the action URL.

**Note:** This attribute overrides the method attribute of the <form> element.

The formmethod attribute works with the following input types: submit and image.

The form-data can be sent as URL variables (method="get") or as an HTTP post transaction (method="post").

**Notes on the "get" method:**

* This method appends the form-data to the URL in name/value pairs
* This method is useful for form submissions where a user want to bookmark the result
* There is a limit to how much data you can place in a URL (varies between browsers), therefore, you cannot be sure that all of the form-data will be correctly transferred
* Never use the "get" method to pass sensitive information! (password or other sensitive information will be visible in the browser's address bar)

**Notes on the "post" method:**

* This method sends the form-data as an HTTP post transaction
* Form submissions with the "post" method cannot be bookmarked
* The "post" method is more robust and secure than "get", and "post" does not have size limitations

### **Example**

A form with two submit buttons. The first sends the form-data with method="get". The second sends the form-data with method="post":

<form action="/action\_page.php" method="get">  
  <label for="fname">First name:</label>  
  <input type="text" id="fname" name="fname"><br><br>  
  <label for="lname">Last name:</label>  
  <input type="text" id="lname" name="lname"><br><br>  
  <input type="submit" value="Submit using GET">  
  <input type="submit" formmethod="post" value="Submit using POST">  
</form>

## **The formtarget Attribute**

The input formtarget attribute specifies a name or a keyword that indicates where to display the response that is received after submitting the form.

**Note:** This attribute overrides the target attribute of the <form> element.

The formtarget attribute works with the following input types: submit and image.

### **Example**

A form with two submit buttons, with different target windows:

<form action="/action\_page.php">  
  <label for="fname">First name:</label>  
  <input type="text" id="fname" name="fname"><br><br>  
  <label for="lname">Last name:</label>  
  <input type="text" id="lname" name="lname"><br><br>  
  <input type="submit" value="Submit">  
  <input type="submit" formtarget="\_blank" value="Submit to a new window/tab">  
</form>

## **The formnovalidate Attribute**

The input formnovalidate attribute specifies that an <input> element should not be validated when submitted.

**Note:** This attribute overrides the novalidate attribute of the <form> element.

The formnovalidate attribute works with the following input types: submit.

### **Example**

A form with two submit buttons (with and without validation):

<form action="/action\_page.php">  
  <label for="email">Enter your email:</label>  
  <input type="email" id="email" name="email"><br><br>  
  <input type="submit" value="Submit">  
  <input type="submit" formnovalidate="formnovalidate"  
  value="Submit without validation">  
</form>

## **The novalidate Attribute**

The novalidate attribute is a <form> attribute.

When present, novalidate specifies that all of the form-data should not be validated when submitted.

### **Example**

Specify that no form-data should be validated on submit:

<form action="/action\_page.php" novalidate>  
  <label for="email">Enter your email:</label>  
  <input type="email" id="email" name="email"><br><br>  
  <input type="submit" value="Submit">  
</form>