

# Forms

Forms are used in many different ways on the web, from simple search forms such as google to the more complex and detailed forms used to make online purchases or register for user accounts. Forms have various types of input that allows the user to submit data in different ways. Forms can also perform different actions when they are processed, such as performing a search, updating a database or sending an email.

You can create forms using the following tags:

## **<form>**

The **<form>** tag is used to create a form. All fields within an individual form must be enclosed in a single pair of **<form>** tags.

The **action** attribute is the only required attribute of the **<form>** tag, and specifies where to send the submitted data: this will usually be a page containing a script designed to process that data. You can leave this attribute empty, in which case the page will refresh when the form is submitted (the form-processing script is often in the same page as the form itself). However, it must be included.

The **method** attribute determines how the information is sent, and has two possible values: if set to **get**, then the information is passed through the url, which you can see in the address bar; if set to **post**, then the data is hidden. **Post** is more secure, as it hides data which could be sensitive, however **get** allows a form submission to be bookmarked, which could be useful on a search form, for example. This attribute is optional; if left out, it defaults to **get**.

So to create a very basic form, we have:

```
<form action=""></form>
```

As it is, this form isn't much use to anyone, as there are is as yet no way for the user to enter data! We can amend this grievous oversight by the addition of form fields, of which we have a few to choose from.

## **<input />**

The **<input>** tag defines a form input. Several different types of input can be created with this tag; the input type is set using the **type** attribute. This is a required attribute, so it must always be included in this tag. You should also include a **name** attribute in all input tags: this attribute identifies each particular input, and is used by the script that processes the form

## Text fields

A text field is a form field in which the user can enter a single line of text. You can create a text field by setting the **type** attribute to **"text"**.

Code	Output
<pre>&lt;form action=""&gt;   Name:&lt;br /&gt;   &lt;input type="text" name="textfield" size="30" maxlength="60" value="type your name" /&gt; &lt;/form&gt;</pre>	Name:

Note that `<input>` is a single tag, like `<br />` and `<img />`.

So what are all those other attributes? Well, **size** sets the width of the field, in characters, and **maxlength** sets the maximum number of characters that the user can enter. **value** can be used to set an initial value for the field, which can sometimes help to make the form more user-friendly. The **size** and **maxlength** attributes can only be used for text fields.

## Password fields

Similar to a text field, but displays \*\*\*\* instead of the user-entered data. Be aware that this doesn't guarantee that the data will be secure - if the form uses the **get method**, then the password will be displayed in the url!

Code	Output
<pre>&lt;form action=""&gt;   Password:&lt;br /&gt;   &lt;input type="password" name="supersecret" size="30" maxlength="60" /&gt; &lt;/form&gt;</pre>	Password:

## Checkboxes

Checkboxes can be used to give the site visitor multiple options to choose from; they also allow for more (or less) than one option to be chosen.

Code	Output
<pre>&lt;form action=""&gt;   Do you like any of these animals?&lt;br /&gt;   &lt;input type="checkbox" name="favourite_animals[]" value="elephants" /&gt; Elephants&lt;br /&gt;   &lt;input type="checkbox" name="favourite_animals[]" value="wildebeest" /&gt;Wildebeest&lt;br /&gt;   &lt;input type="checkbox" name="favourite_animals[]" value="yaks" checked="checked" /&gt;Yaks &lt;/form&gt;</pre>	Do you like any of these animals? Elephants Wildebeest Yaks

The value of the **name** attribute should be the same for every checkbox within the group. Note that the **value** can be different from what is displayed to the user: this will be the value that will be sent to the form-processing script. Note also the square brackets [] at the end of the name attribute: this is just to enable the processing script to return multiple values from that field.

You can also set a checkbox to be initially checked by including the **checked** attribute, and setting the value of this attribute to **checked**.

## Radio buttons

These are similar to checkboxes, except that they only allow for one option to be chosen.

Code	Output
<pre>&lt;form action=""&gt;   Do you like any of these animals?&lt;br /&gt;   &lt;input type="radio" name="favourite_animal" value="elephants" /&gt; Elephants&lt;br /&gt;   &lt;input type="radio" name="favourite_animal" value="wildebeest" /&gt;Wildebeest&lt;br /&gt;   &lt;input type="radio" name="favourite_animal" value="yaks" checked="checked" /&gt;Yaks &lt;/form&gt;</pre>	Which is your favourite animal? Elephants Wildebeest Yaks

Like checkboxes, you can use **checked="checked"** to set the button to be initially checked; however you can only do this for one option in the group.

## Submit buttons

A form is only any use if there is a way for the user to submit the data! Setting the **type** attribute of the **<input>** tag to **submit** will set the input to a submit button; when the user clicks on this, the form will be submitted.

Code	Output
<pre>&lt;form action=""&gt;   Name:&lt;br /&gt;   &lt;input type="text" name="textfield" size="30" maxlength="60" value="type your name" /&gt;   &lt;input type="submit" name="form_submit" value="Submit" /&gt; &lt;/form&gt;</pre>	Name:

## Reset buttons

A **reset** button resets the value of all form fields to their initial value. Reset buttons can be created by setting the **type** attribute of the **<input>** tag to **reset**.

Code	Output
<pre>&lt;form action=""&gt;   Name:&lt;br /&gt;   &lt;input type="text" name="textfield" value="type your name" /&gt;&lt;br /&gt;   &gt;   Email:&lt;br /&gt;   &lt;input type="text" name="textfield2" /&gt;&lt;br /&gt;   &lt;input type="submit" name="form_submit" value="Submit" /&gt;   &lt;input type="reset" name="form_reset" value="Reset" /&gt; &lt;/form&gt;</pre>	<p>Name:</p> <p>Email:</p>

### <select>

The **<select>** tag is used to create a dropdown menu from which the user can pick one of multiple options. Each option is defined using an **<option>** tag:

Code	Output
<pre>&lt;form action=""&gt;Favourite animal, again:   &lt;select name="fave_animal_select"&gt;     &lt;option value="elephants"&gt;Elephants&lt;/option&gt;     &lt;option value="wildebeest"&gt;Wildebeest&lt;/option&gt;     &lt;option value="yaks" selected="selected"&gt;Yaks&lt;/ option&gt;     &lt;option value="aardvarks"&gt;Aardvarks&lt;/option&gt;     &lt;option value="llamas"&gt;Llamas&lt;/option&gt;     &lt;option value="slugs"&gt;Slugs&lt;/option&gt;   &lt;/select&gt; &lt;/form&gt;</pre>	<p>Favourite animal, again:</p>

Here we can also set the initially selected option, this time using **selected="selected"** within one of the **<option>** tags.

### <textarea>

Textareas allow the user to enter multiple lines of text. It has two required attributes: **rows** - the height of the textarea, in characters, and **cols** - the width, in characters.

Code	Output
<pre>&lt;form action=""&gt;   Explain why you like these animals:&lt;br /&gt;   &lt;textarea name="comments" rows="5" cols="30"&gt;Tell us what you think!   &lt;/textarea&gt; &lt;/form&gt;</pre>	<p>Explain why you like these animals:</p>

### <fieldset>

Fieldsets can be used to group form fields; this can help to structure the form and can make it much more user-friendly if there are many fields.

## <legend>

The <legend> tag can be used to add a title to a fieldset. This tag should follow immediately after <fieldset>.

Code	Output
<pre>&lt;form action=""&gt;   &lt;fieldset&gt;     &lt;legend&gt;Your details:&lt;/legend&gt;     Name:&lt;br /&gt;     &lt;input type="text" name="textfield" value="type your name" /&gt;&lt;br /&gt;     Email:&lt;br /&gt;     &lt;input type="text" name="textfield2" /&gt;   &lt;/fieldset&gt;   &lt;fieldset&gt;     &lt;legend&gt;Favourite animals:&lt;/legend&gt;     Do you like any of these animals? &lt;br /&gt;     &lt;input type="checkbox" name="favourite_animals" value="elephants" /&gt; Elephants&lt;br /&gt;     &lt;input type="checkbox" name="favourite_animals" value="wildebeeste" /&gt; Wildebeest&lt;br /&gt;     &lt;input type="checkbox" name="favourite_animals" value="yaks" checked="checked"/&gt;Yaks&lt;br /&gt;     Explain why you like these animals:&lt;br /&gt;     &lt;textarea name="comments" rows="5" cols="30"&gt;Tell us what you think!   &lt;/textarea&gt; &lt;/fieldset&gt;    &lt;input type="submit" name="form_submit" value="Submit" /&gt;   &lt;input type="reset" name="form_reset" value="Reset" /&gt;  &lt;/form&gt;</pre>	<p>Your details: Name:</p> <p>Email:</p> <p>Favourite animals: Do you like any of these animals?</p> <p>Elephants</p> <p>Wildebeest</p> <p>Yaks</p> <p>Explain why you like these animals:</p>

## Processing the form

To process the submitted data, you need a script written in a programming language such as PHP, which is beyond the scope of this course, however there are some free utilities on the web which will automatically generate the necessary code, such as [www.webformfactory.com](http://www.webformfactory.com).

Form processing will only work if it is uploaded to a web server that supports PHP, so you will need to upload it to your space on this site in order to see it in action.