**HTML Forms**

Whether you want to create a simple email signup, a moderately complex checkout and payment page, or a richly interactive web application, you will be using the HTML form elements, the most important of which is <form>.

**How standard HTML forms work**

HTML forms were invented and mostly standardized before the advent of asynchronous Javascript and complex web applications. Today, we use form inputs, buttons, and other interaction mechanisms in lots of different ways; but underlying that is a system based on the HTTP request-response paradigm.

When you load a page, you are making an HTTP request (a GET request, usually). This request is sent by your browser to the server, and the server responds with (usually) the web page you are looking for. This interaction is one of the most fundamental concepts of the internet. And it is how HTML forms are designed to work.

Each input inside a <form> element (and this includes [<input>](https://html.com/tags/input/) elements as well as [<select>](https://html.com/tags/select/) and others) has a name attribute, and also a value. The value is determined in different ways. For [text-based inputs](https://html.com/input-type-text/), the value is whatever has been typed into the field. For [radio-buttons](https://html.com/input-type-radio/), the value is the selected option. The user can adjust the value, but (usually) not the name. This creates a set of name-value pairs in which the values are determined by user input.

When a form is submitted, the name-value pairs from all the fields inside the <form> element are included in an HTTP. The request is made to a URL defined in the form's [action](https://html.com/attributes/form-action/) attribute, and the type of request (GET or POST) is defined in the form's [method](https://html.com/attributes/form-method/) attribute. This means that all the user-provided data is sent to the server all at once when the form is submitted, and the server can do whatever it wants with that data.

When the server receives the form submission, it is like any other HTTP request. It does whatever it needs to do with the included data and issues a response back to the browser. Remember how a page load is a response? Same thing here. In a typical form submission, the response is a new page which the browser loads. Typically the new page replaces the current one, but this can be overridden with the [target](https://html.com/attributes/form-target/) attribute.

The vast majority of online forms work this way, and it is why you get sent to a “Thank You” page when you fill out an email subscription form.

**Web applications and forms without <form>**

Modern interactive web applications use [Javascript](https://html.com/javascript/) to run *asynchronous HTTP requests*, or “behind the scenes” calls to the server which do not reload the page. They aren't relying on the HTML <form> element's built-in behavior, because they aren't bundling up a bunch of user data and sending it all at once.

For this reason, many (though not all) HTML+JS web apps don't use the <form> element at all, or they just use it as a kind of container for various types of fields and input elements. In this case, you won't see the method and action attributes being used.

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| **Attributes of form** | |
| **Attribute name** | **Values** |
| <form target=""> | Specifies the browser context in which the form's response should be displayed. |
| action | Specifies a URL to which the form's data is sent when submitted. |
| enctype | The enctype attribute lets you specify an encoding type for your form. |
| method | Tells the browser how to send form data to a web server. |
| onSubmit | Runs a script when the Submit button is clicked. |
| onReset | Runs a script when the Reset button is clicked. |
| name | The `name` attribute is deprecated when used with the `form` element. Use `id` instead. |
| autocomplete | HTML5 | Indicates whether input elements can by default have their values automatically completed by the browser. Off/on |
| novalidate | HTML5 | This Boolean attribute indicates that the form is not to be validated when submitted. If this attribute is not specified (and therefore the form is validated), this default setting can be overridden by a formnovalidate attribute on a <button>, <input type="submit"> or <input type="image"> element belonging to the form. |
| target | A name or keyword indicating where to display the response that is received after submitting the form. \_self, \_parent, \_blank,\_top |

**HTML Tags: Learn How They Help Improve Your SEO**

**The alt description — Users**

The alt attribute provides an “alternative description” for the image. This description is normally not presented to the user, but will be under certain circumstances:

* Assistive technology — If the user is visually impaired, and is using a screen reader, the screen reader will read the alt description to the user.
* Images turned off — Some users prefer to surf the web with images turned off (to save bandwidth or to minimize distraction). These users will normally see the alt description instead of the image.
* Image failure — If an image fails to load for any reason (bad file name, connection problems), the user will usually see the alt description in place of the image.

Here's an example of displaying the alt text in place of a failed image (the image src points to nothing).

<img src="not-a-real-file-name.jpg" alt="Depending on your browser, you might see this message in place of the failed image.">

**The alt description — Search Engines**

The alt description is also very helpful for search engines. Search engines have a hard time figuring out what the content of an image actually is. They are getting better at it, but identifying the subject of a photo or picture is [extremely difficult](https://xkcd.com/1425/). So search engines rely on the alt description to know what is actually in a picture (they also use the file name and other attributes). Additionally, in Google Image Search, the alt description is actually shown to the user.

Read more: <https://html.com/attributes/img-alt/#ixzz6397jfFf6>