

HyperText Markup Language (HTML) by [anshumancodes](#)

Hypertext Markup Language is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript.

What is an HTML tag?

An HTML tag is a special word or letter surrounded by angle brackets, < and >. You use tags to create HTML elements, such as paragraphs or links.

Many elements have an opening tag and a closing tag — for example, a p (paragraph) element has an < p> opening tag, followed by the </p> closing paragraph tag.

What is an HTML 5 boilerplate?

A boilerplate in HTML is a template you will add at the start of your project. You should add this boilerplate to all of your HTML pages.

Example of HTML 5 boilerplate

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">
    <title>HTML 5 Boilerplate</title>
    <link rel="stylesheet" href="style.css">
  </head>
  <body>
    <script src="index.js"></script>
  </body>
</html>
```

What is a doctype in HTML?

The first line in your HTML code should be the doctype declaration. A doctype tells the browser what version of HTML the page is written in.

```
<!DOCTYPE html>
```

If you forget to include this line of code in your file, then some of the HTML 5 tags like `<article>`, `< footer >`, and `<header>` may not be supported by the browser.

What is the HTML root element?

The `<html>` tag is the top level element of the HTML file. You will nest the `<head>` and `<body>` tags inside of it.

```
<!DOCTYPE html>
<html lang="en">
  <head></head>
  <body></body>
```

```
</html>
```

The `lang` attribute inside the opening `<html>` tag sets the language for the page. It is also good to include it for accessibility reasons because screen readers will know how to properly pronounce the text.

What are head tags in HTML?

The `<head>` tags contain information that is processed by machines. Inside the `<head>` tags, you will nest metadata which is data that describes the document to the machine.

```
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <meta http-equiv="X-UA-Compatible" content="ie=edge">
  <title>HTML 5 Boilerplate</title>
  <link rel="stylesheet" href="style.css">
```

```
</head>
```

Within the head tag, you can link CSS and javascript files.

What is UTF-8 character encoding?

UTF-8 is the standard character encoding you should use on your web pages. This will usually be the first <meta> tag shown in the <head> element.

```
<meta charset="UTF-8">
```

- A Unicode-based encoding such as UTF-8 can support many languages and can accommodate pages and forms in any mixture of those languages. Its use also eliminates the need for server-side logic to individually determine the character encoding for each page served or each incoming form submission.

What is the viewport meta tag in HTML?

This tag renders the width of the page to the width of the device's screen size. If you have a mobile device that is 600px wide, then the browser window will also be 600px wide.

The initial-scale controls the zoom level. The value of 1 for the initial-scale prevents the default zoom by browsers.

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

What does X-UA-Compatible mean?

This <meta> tag specifies the document mode for Internet Explorer. IE=edge is the highest supported mode.

```
<meta http-equiv="X-UA-Compatible" content="ie=edge">
```

What are HTML title tags?

The <title> tag is the title for the web page. This text is shown in the browser's title bar.

```
<title>HTML 5 Boilerplate</title>
```

HTML tags and their uses

`<a>` The most important attribute of the `<a>` element is the `href` attribute, which indicates the link's destination.

`<address>` tag defines the contact information for the author/owner of a document or an article

`<article>` tag specifies independent, self-contained content.

`<aside>` tag defines some content aside from the content it is placed in.

`<audio>` tag is used to embed sound content in a document, such as music or other audio streams.

`` tag specifies bold text without any extra importance.

`<blockquote>` tag specifies a section that is quoted from another source.

`<body>` element contains all the contents of an HTML document, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

`
` tag to enter line breaks, not to add space between paragraphs.

`<button>` tag defines a clickable button.

`<canvas>` tag is used to draw graphics, on the fly, via scripting (usually JavaScript). `<canvas>` tag is transparent, and is only a container for graphics, you must use a script to actually draw the graphics. `<canvas>` element will be displayed in browsers with JavaScript disabled and in browsers that do not support `<canvas>`.

`<code>` tag is used to define a piece of computer code. The content inside is displayed in the browser's default monospace font.

`<col>` tag is useful for applying styles to entire columns, instead of repeating the styles for each cell, for each row.

`<data>` tag is used to add a machine-readable translation of a given content.

This element provides both a machine-readable value for data processors and a human-readable value for rendering in a browser.

`<details>` tag specifies additional details that the user can open and close on demand.

The `<details>` tag is often used to create an interactive widget that the user can open and close. By default, the widget is closed. When open, it expands and displays the content within.

Any sort of content can be put inside the `<details>` tag.

The `<div>` tag defines a division or a section in an HTML document.

The `<div>` tag is used as a container for HTML elements - which is then styled with CSS or manipulated with JavaScript.

The `<div>` tag is easily styled by using the class or id attribute.

Any sort of content can be put inside the `<div>` tag!

The `` tag is used to define emphasized text. The content inside is typically displayed in *italic*.

A screen reader will pronounce the words in `` with an emphasis, using verbal stress.

The `<footer>` tag defines a footer for a document or section.

A `<footer>` element typically contains:

- authorship information
- copyright information
- contact information
- sitemap
- back to top links
- related documents

You can have several `<footer>` elements in one document.

The `<form>` tag is used to create an HTML form for user input. The `<form>` element can contain one or more of the following form elements:

- [<input>](#)
- [<textarea>](#)
- [<button>](#)
- [<select>](#)
- [<option>](#)
- [<optgroup>](#)
- [<fieldset>](#)
- [<label>](#)
- [<output>](#)

The `<h1>` to `<h6>` tags are used to define HTML headings.

`<h1>` defines the most important heading. `<h6>` defines the least important heading.

Note: Only use one `<h1>` per page - this should represent the main heading/subject for the whole page. Also, do not skip heading levels - start with `<h1>`, then use `<h2>`, and so on.

The `<hr>` tag defines a thematic break in an HTML page (e.g. a shift of topic).

The `<hr>` element is most often displayed as a horizontal rule that is used to separate content (or define a change) in an HTML page.

The `` tag is used to embed an image in an HTML page.

Images are not technically inserted into a web page; images are linked to web pages. The `` tag creates a holding space for the referenced image.

The `` tag has two required attributes:

- `src` - Specifies the path to the image
- `alt` - Specifies an alternate text for the image, if the image for some reason cannot be displayed

The `<input>` tag specifies an input field where the user can enter data.

The `<input>` element is the most important form element.

The `<input>` element can be displayed in several ways, depending on the type attribute.

The different input types are as follows:

- `<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">` (default value)
- `<input type="time">`
- `<input type="url">`
- `<input type="week">`

The `<label>` tag defines a label for several elements:

- `<input type="checkbox">`
- `<input type="color">`
- `<input type="date">`
- `<input type="datetime-local">`
- `<input type="email">`
- `<input type="file">`
- `<input type="month">`
- `<input type="number">`
- `<input type="password">`
- `<input type="radio">`
- `<input type="range">`
- `<input type="search">`
- `<input type="tel">`
- `<input type="text">`
- `<input type="time">`

- [<input type="url">](#)
- [<input type="week">](#)
- [<meter>](#)
- [<progress>](#)
- [<select>](#)
- [<textarea>](#)

Proper use of labels with the elements above will benefit:

- Screen reader users (will read out loud the label, when the user is focused on the element)
- Users who have difficulty clicking on very small regions (such as checkboxes) - because when a user clicks the text within the `<label>` element, it toggles the input (this increases the hit area).

The `` tag defines a list item.

The `` tag is used inside ordered lists ([](#)), unordered lists ([](#)), and in menu lists ([<menu>](#)).

In `` and `<menu>`, the list items will usually be displayed with bullet points.

In ``, the list items will usually be displayed with numbers or letters.

The `<link>` tag defines the relationship between the current document and an external resource.

The `<link>` tag is most often used to link to external style sheets or to add a [favicon](#) to your website.

The `<link>` element is an empty element, it contains attributes only.

The `<main>` tag specifies the main content of a document.

The content inside the `<main>` element should be unique to the document. It should not contain any content that is repeated across documents such as sidebars, navigation links, copyright information, site logos, and search forms.

The `<nav>` tag defines a set of navigation links.

Notice that NOT all links of a document should be inside a `<nav>` element. The `<nav>` element is intended only for major blocks of navigation links.

Browsers, such as screen readers for disabled users, can use this element to determine whether to omit the initial rendering of this content.

The `<option>` tag defines an option in a select list.

`<option>` elements go inside a [<select>](#), [<optgroup>](#), or [<datalist>](#) element.

Note: The `<option>` tag can be used without any attributes, but you usually need the value attribute, which indicates what is sent to the server on form submission.

The `<style>` tag is used to define style information (CSS) for a document.

Inside the `<style>` element you specify how HTML elements should render in a browser.

The `<textarea>` tag defines a multi-line text input control.

The `<textarea>` element is often used in a form, to collect user inputs like comments or reviews.

A text area can hold an unlimited number of characters, and the text renders in a fixed-width font (usually Courier).

The size of a text area is specified by the `cols` and `rows` attributes (or with CSS).

The `` tag defines an unordered (bulleted) list.

Use the `` tag together with the `` tag to create unordered lists.

The `<video>` tag is used to embed video content in a document, such as a movie clip or other video streams.

The `<video>` tag contains one or more `<source>` tags with different video sources. The browser will choose the first source it supports.

The text between the `<video>` and `</video>` tags will only be displayed in browsers that do not support the `<video>` element.

The `<wbr>` (Word Break Opportunity) tag specifies where in a text it would be ok to add a line-break.

Tip: When a word is too long, the browser might break it at the wrong place. You can use the `<wbr>` element to add word break opportunities.

Learn more about HTML [here](#)

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