

HTML

HTML stands for “Hyper-Text Markup Language”. An HTML file defines *only* the content of the webpage. The main file of your website must be called “index.html” The browser (chrome, safari, firefox, etc) knows how to read certain things, these are called HTML elements.

HTML ELEMENTS

HTML Tags

HTML elements are described by tags .The name of the tag labels the content, this tells the browser what content will be in them. Browsers will not display the HTML tags, only the content between them.

An HTML element usually consists of a **start** tag and an **end** tag, with the content in between:

```
<tagname> Content </tagname>
```

The HTML element is everything from the start tag to the end tag. An end tag always has the forward slash.

Nested HTML elements

HTML elements can be nested, always indent nested content:

```
<tagname1>
  <tagname2>
    Content
  </tagname2>
  <tagname3>
    <tagname4>
      Content
    </tagname4>
  </tagname3>
</tagname1>
```

tagname2 and tagname3 are nested under tagname1. tagname4 is nested under tagname3

Setting up your HTML file

```
<!DOCTYPE html>
<html>
  <head>
    <!-- This is a comment, anything inside won't be read by the
browser -->
    <!-- Inside the head tag, you should put links to other
files the browser should know about to run your webpage. -->
    <title>My First Webpage</title>
  </head>
  <body>
    <!-- The body tag defines the document body -->
```

```
        <!-- All the content you want on your webpage should be nested in
the body -->
    </body>
</html>
```

Every HTML file needs to have these elements (not including the comments), everything else is up to you!

Common HTML tags

<!-- Content -->	Comment
<!DOCTYPE>	The document type
<a>	Hyperlink
<body>	The documents body
<div>	A section in the document
<h1> <h2> <h3> <h4> <h5> <h6>	Headings (h1 is the biggest, h6 is the smallest)
	An image (does not have an end tag)
	A list item
<link>	Links to stylesheets (goes in the head tag)
	Ordered list
<p>	A paragraph
<title>	The title for the document (goes in the head tag)
	Defines an unordered list

For a complete list of tags, check out <https://www.w3schools.com/tags/default.asp>

HTML Attributes

All HTML elements can have attributes, these provide additional information to the browser about an element. Attributes are always specified in the start tag. They usually come in name/value pairs like: name="value"

The href attribute

HTML links (to another webpage) are defined with the <a> tag. The link is specified in the href attribute:

```
<a href="https://www.myfirstwebpage.com">This is a link</a>
```

If you were to view this bit of html in your browser, clicking on “This is a link” would take you to <https://www.myfirstwebpage.com>.

The src attribute

HTML images are defined with the tag. The filename of the image source is specified in the src attribute.

```

```

Notice that the img tag doesn’t have an end tag. This is because we cannot place content inside an image.

Common HTML Attributes

href	Specifies the URL for a link
id	Specifies a unique id for an element (this is important for stylesheets and javascript)
src	Specifies the URL for an image
class	Specifies one or more classnames for an element (this is important for stylesheets and javascript)

For a complete list of HTML Attributes, check out https://www.w3schools.com/tags/ref_attributes.asp

HTML ID and CLASS

Ids and classes are called “selectors”. Ids are unique to a html element. This means they can only be used once. Classes can be used many times, and are used to select multiple elements at once:

```
<div id="my_first_id">
  <div class="my_first_class" id="my_second_id">
    Content
  </div>
  <div class="my_first_class">
    Content
  </div>
</div>
```

Selecting `my_first_class` will select both nested divs. Selecting `my_second_id` will only select the first nested div. Selecting `my_first_id` will select the outside div. If we want to select all the div elements we can just use `div`. Adding ids and classes to HTML elements will

not modify the content of the website, but will make it easier for us to select elements in stylesheets or in javascript files.