HTML & CSS

HTML:

raw data a webpage is build out of, how docs and web pages are displayed

CSS:

adds style to those plain elements, colours, fonts, positions

JavaScript:

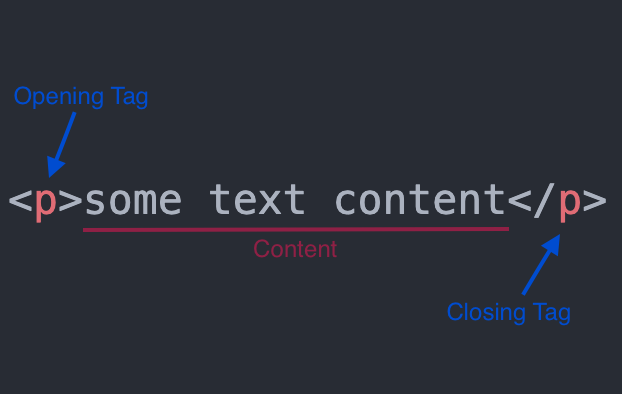
Allows changes to HTML & CSS element after the website has been loaded



HTML (HyperText Markup Language):

Elements & Tags:

**Elements** are pieces of content wrapped in opening & closing HTML **tags**



some tags are self-closing tags, e.g. <br />, <img /> do not have a closing tag

All HTML documents have the same basic structure or boilerplate to be in place

**Homepage** is always named **index.html**

Doctype tells the browser what version of HTML it should uses to render the doc.

Latest version of HTML is HTML5, doctype: **<!DOCTYPE html>**

**<html lang="en">** specifies the language of the text content in the element

**<head>** where we put important meta-info, do not use any element that display contect

**<meta charset="utf-8">** should always be added in the <head> for the charset encoding

**<title>My First Webpage</title>** should also alwasys be added in the <head>, which displays in the webpage’s brower tab, if not specified, it would default to its file name (e.g. index.htm).

Example:

<!DOCTYPE html>

<html lang="en">

    <head>

        <meta charset="UTF-8">

        <title>123</title>

    </head>

    <body>

        <h1>Hello Wolrd!</h1>

    </body>

</html>

**<p> </p>** new paragraph

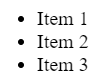
**<h1> </h1>** headings, from h1 to h6, h1 is the most important

**<strong> </strong>** bold and mark text as **important**

**<em> </em>** *italic*

Nesting – indent an element within other element, child within parent

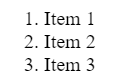
**<!-- -->** comment, not visible to the broswer

**<ul>** |

**<li> x1 </li>** |

**<li> x2 </li>** |

**</ul>** |} unordered list

**<ol>** |

**<li> x1 </li>** |

**<li> x2 </li>** |

**</ol>** |} ordered list

**<a href="**https://xx **"> xxx </a>** absolute linkanchor elements, href = hyperlink reference

**<a href="**about.html**"> xxx</a>** relative links archor element

**<a href="./pages/about.html">xxx</a>** ./ specify the code to start looking for the file (pages) relative to the current directory

Absolute Links:

links to pages on other websites on the internet, e.g.:

<https://www.theodinproject.com/about> (protocol://domain/path)

Relative Links:

links to other pages within our own website, do not include domain name, only includes the file path

**<img>**  display images, self-closing, do not need a closing tag

**<img src="https://www.theodinproject.com/mstile-310x310.png">**

**src** – embed an image, like href in links

**<img src="../images/dog.jpg">**

../ go to the parent directory

Besides the **src** (source) attribute, every image element should have an **alt** (alternative text) attribute. alt is used to describe an image, will be used in place if image cannot be loaded and for screen reader to describe the image to visually imparied users.

<img src="https://www.theodinproject.com/mstile-310x310.png" **alt="The Odin Project Logo"**>

Four main image formats: **JPG, GIF, PNG, SVG**

JPG: for photos, large colour palettes without exorbitantly increasing file size

don’t allow transparent pixels

GIF: for simple animations, but somewhat limited in terms of colour palette, binary option for transparent pixel

PNG: for anything that is not a photo or animated, size would be larger comparing against a photo of the same quality. support opacity, good for icon, diagrams, logos

SVG: vector-based graphics format, can scale up or down to any dimension without loss of quality. good for responsive design. size impact by text field amount