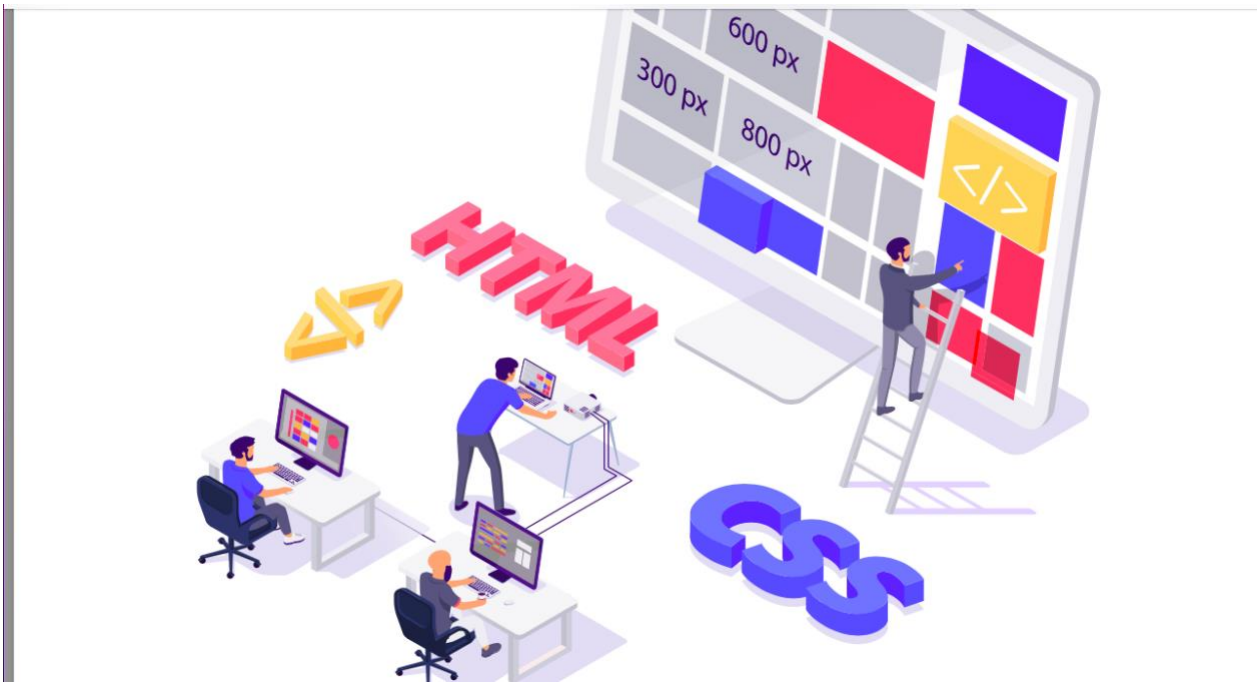
What is HTML and CSS?



What is HTML?

HTML or HyperText Markup Language is a computer language that is used to create web pages and online applications by using elements, tags, and attributes. A hypertext is a text that is used to reference other pieces of text, while a markup language is a series of markings that tells web servers the style and structure of a document. HTML is used for web development, navigating the internet, and web documentation.

HTML has its strengths and weaknesses.

Pros:

- Easy to learn
- Widely used
- Accessible
- Flexible

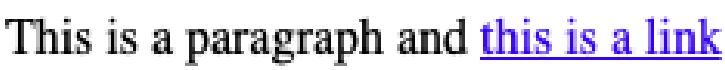
Cons:

- Static
- Separate HTML page
- Browser compatibility

HTML Basics

HTML designs how a browser displays web page elements, such as text, hyperlinks, and media files. HTML documents are files that end with a .html or .htm extension. A web browser reads the HTML file and interprets it so users can view it.

```
<!Doctype html>
<html>
    <head>
        <title>Hyperlinks</title>
    </head>
    <body>

     <p>This is a paragraph and <a href="vegetables.html">this is a link</a></p>

    </body>
</html>
```



All HTML pages have a series of HTML elements, consisting of a set of tags and attributes. HTML elements are components uses to building a web page. A tag tells the web browser where an element begins and ends, whereas an attribute describes the characteristics of an element.

The three main parts of an element are:

- Opening tag is used to state where an element starts. The tag is wrapped with opening and closing angle brackets. For example, use the start tag <*p*> to create a paragraph.
- Content which is the output that other users see.
- Closing tag is the same as the opening tag, but with a forward slash before the element name. For example, </*p*> to end a paragraph.

HTML Tags

Every HTML page uses three tags.

- The <*html*> tag defines the whole HTML document.
- The <*head*> tag holds the information.
- The <*body*> tag includes all the content that appears on the page.

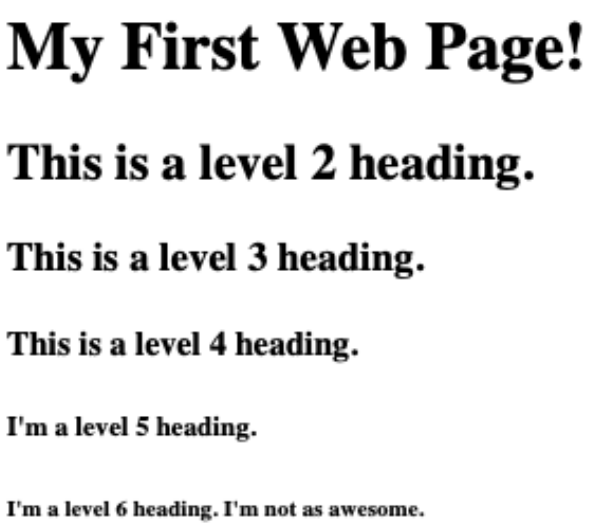
```
<!Doctype html>
<html>
    <body>
        This is my first website>
    </body>
</html>
```

This is my first website.

There are other tags used as well.

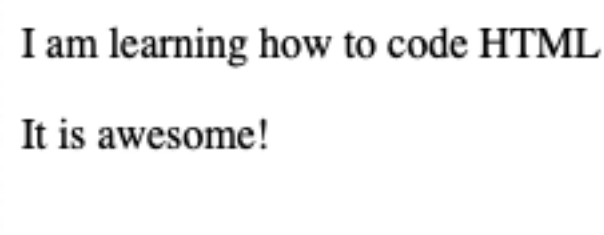
- Heading tags go up from <*h1*> to <*h6*> where h1 is largest in size and h6 is the smallest.

```
<!Doctype html>
<html>
    <head>
        <title>My First Web Page!</title>
    </head>
    <body>

        <h1>My First Web Page!</h1>

        <h2>This is a level 2 heading.</h2>

        <h3>This is a level 3 heading.</h3>

        <h4>This is a level 4 heading.</h4>

        <h5>I'm a level 5 heading.</h5>

        <h6>I'm a level 6 heading. I'm not as awesome.</h6>

    </body>
</html>
```



- Paragraph tags are enclosed by using the <*p*> tag.

```
<!Doctype html>
<html>
    <head>
        <title>My First Web Page!</title>
    </head>
    <body>

        <p>I am learning how to code HTML</p>
        It is awesome!

    </body>
</html>
```



- List tags have different uses. The <*ol*> tag for an ordered list. The <*ul*> for an unordered list.

  You enclose individual list items using the <*li*> tag.

```
<!DOCTYPE html>
<html>
    <head>
        <title>Vegetables!</title>
    </head>
    <body>

        <ul>
            <li>Carrots</li>
            <li>Cucumbers</li>
            <li>Kale</li>
        </ul>

        <ol>
            <li>Yellow Potatoes</li>
            <li>Red Potatoes</li>
            <li>Blue Potatoes</li>
        </ol>

        <dl>
            <dt>Kale</dt>
            <dd>A leafy like vegetable.</dd>

            <dt>Carrots</dt>
            <dd>A long orange stick.</dd>

            <dt>Potato</dt>
            <dd>A round thing.</dd>
        </dl>

    </body>
</html>
```

- Carrots
- Cucumbers
- Kale

1. Yellow Potatoes
2. Red Potatoes
3. Blue Potatoes

Kale
: A leafy like vegetable.

Carrots
: A long orange stick.

Potato
: A round thing.

HTML Elements

The most-used two HTML elements are the block-level elements and inline elements.

- A block-level element takes up the entire width of a page. It always starts a new line in the document.
- An inline element formats the inner content of block-level elements such as adding links. Inline elements are used to format text. A <*strong*> tag would change an element in bold. The <*em*> tag would show it in italics. Hyperlinks are also inline elements that use an <*a*> tag and the href attribute is used to indicate the link's destination:

```
<!Doctype html>
<html>
    <head>
        <title>My First Web Page!</title>
    </head>
    <body>

        <p> I am learning <em>how to code HTML</em></p>
        <p>It is <strong>awesome!</strong></p>

        </body>
</html>
```

I am learning *how to code HTML*

It is **awesome!**

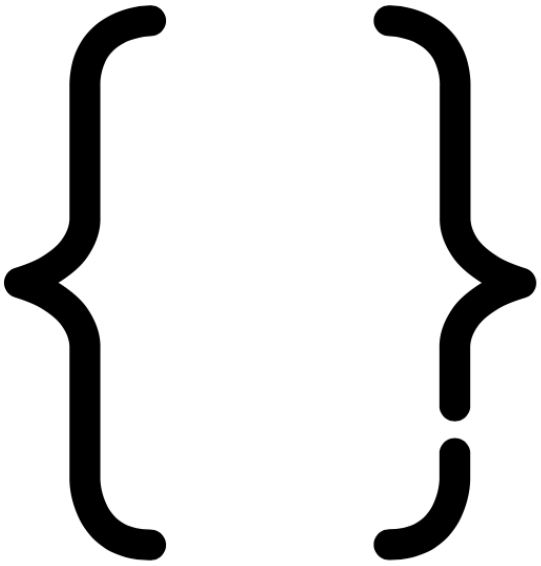
What is CSS?

CSS or Cascading Style Sheets is a language that makes web pages look more presentable. CSS handles the look and feel part of a web page. CSS controls the color font styles, paragraph spacing, columns, background images, the layout, design, display etc. CSS is easy to use and understand. CSS and HTML are connected to each other.

CSS Syntax

CSS has a certain style. A style rule is made of three parts.

- A selector is an HTML tag at which a style will be applied. This could be any tag like a heading tag <*h1*>.
- A property is a type of character of HTML tag. A property could be *font, size*, *color*, *image*, *border*, etc.
- Values are assigned to properties. For example, *color* property can have value of black.



Inserting CSS

There are three ways of inserting CSS internal css, inline css, and external css.

- Inline css is used to apply a unique style for a single element. To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS property.

```
<!DOCTYPE html>
<html>
    <head>
        <title>Inline CSS</title>
    </head>
    <body>

        <p style="color: orange; font-size: 30px;">This is an inline style.</p>

    </body>
</html>
```

- Internal css is used if one single HTML page has a unique style. The internal style is defined inside the <*style*> element, inside the head section.

```
<!DOCTYPE html>
<html>
    <head>
        <title>Internal CSS</title>

    <style  type="text/css">
        body {background: orange; }

        h1 { color: white; }

        p  { font-size: 24px; }

        a  {  color: green; }
        </
      </style>

    </head>
    <body

        <h1>Internal CSS</h1>
        <p>It's clearer than <a href="inline.httml">inline CSS</a>, but our HTML document is
        best left CSS-free!</p>
```

Internal CSS

It's clearer than inline CSS, but our HTML document is best left CSS-free!

- External css changes the look of an entire website by changing just one file. Each HTML page must include a reference to the external style sheet file inside the <*link*> element, inside the head section.

```
<!DOCTYPE html>
<html>
    <head>
        <title>External CSS</title>

         <link href="style.css" rel="stylesheet">

    </head>
    <body>

        <h1>External CSS</h1>
        <p>This HTML page is styled using External Styles &mdash; it's the way to go!</p>

        <h2>3 Ways to Add CSS</h2>
        <ol>
            <li>Inline CSS</li>
            <li>Internal CSS</li>
            <li>External CSS</li>
        </ol>

    </body>
</html>
```