INTRODUCTION TO HTML

What is HTML?

HTML stands for **Hypertext Markup Language** and it is the standard language used for structuring web content.

HTML

So what exactly is the purpose?

HTML is a markup language, which means it uses tags < > to structure documents and to give elements meaning.

HTML

So what exactly is the purpose?

HTML has a lot of tags (which you'll be learning...YAY!) and those tags are used to identify the elements of a document and help provide structure.

For a list of all the tags we'll be using!

Course Resources > Articles & Documentation > COMP 1017 – Tags!

HTML

So what exactly is the purpose?

Learning HTML is like learning the syntax of the language. In doing so we learn which elements are supported and how they structure a variety of HTML documents.

**Syntax - the arrangement of words and phrases to create well-formed sentences in a language.*

Let’s take a deeper look into what HTML actually looks like...

What is HTML?

HTML has pretty basic structure. However depending on your site or application it can get pretty intense. For the purpose of this class it will stay relatively light. The general structure of any HTML5 document starts out as:

```
<!DOCTYPE HTML>

<html>
        <head></head>
        <body>
                <header></header>
                <main></main>
                <footer></footer>
        </body>
</html>
```

So how exactly does HTML work?

HTML

The Doctype // <html>

- <!DOCTYPE HTML> : is a declaration, not an HTML tag.
- It instructs the browser what version of HTML the page is written in.
- Must be the very first item in your HTML Document

HTML

The **<head>** tag

This area of your document will contain important information for only your browser to see.

HTML

The **<body>** tag

The body tag is where you put all your HTML tags to structure your document. This is what the user will see.

HTML

Other tags inside the **<body>**

<header></header>

- Generally the same on every page.
- Usually contains the logo and navigational pieces of a site.

HTML

Other tags inside the **<body>**

<main></main>

- The area where content will change from page to page.
- The <main> is strictly an information tag and does not affect the HTML structure.

HTML

Other tags inside the **<body>**

<footer></footer>

- usually the same on every page.
- Contains important info pertinent the site, but may not be as important as an item closer the top of the page.

```
            </div>
            <ul>
                <li><a href="#">About</a></li>
                <li><a href="#">Contact</a></li>
            </ul>
        </nav>
    </header>s
    <main>
        <section class="home">
            <h1>Top Level Heading</h1>
            <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor inci
            quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Dui
            cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident
            p>
        </section>
        <section class="about-section">
                <h2>Second level heading</h2>
                <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor
                veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo co
                velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidat
                id est laborum.</p>
        </section>
    </main>
    <footer>
        <p>&copy; 2018 Lauren Olsen</p>
    </footer>
</body>

</html>
```

But... wait what happens when I view this in the browser?

Everyone...take a moment. Go to Moodle (Day 1) and click on the html structure example file and download it. Then open it up from your browser.

So now that you've seen how to view HTML doc in the browser. Let's talk about browser rendering.

How a browser renders HTML pages

One of the most frequent questions asked, is why does my design have differences in different browsers? The pages are all structured the same, the CSS is the same...so why?

Unfortunately for us, the world of web is far from perfect!

Each browser renders a page differently, and this has to do with each browser rendering engine. Every browser has one, and is unique to each browser. This rendering engine parses your code and determines how it's supposed to be displayed.

In the past before HTML5, this was a lot worse. Now you may only find a couple of things that look different such as logo or some font issues.

So crazy...did you know that the web has a set of standards and as designers and developers we follow them.

What are the Web Standards?

Web standards are rules and guidelines established by the World Wide Web Consortium (W3C) developed to promote consistency in design/code which makes up a web page.

There are many advantages to adhering to these standards:

- Web pages will display in a wide variety of devices (phones, tablets, laptops, and any other device you can think of).
- W3C standards promotes the use of Cascading Style Sheets (CSS) which is attached rather than embedded within the the HTML (more on this later).
- Search engines are able to access web pages with greater efficiency.

And some other basics you should know too...

Web Server Basics

Websites are hosted on web servers. While most know this they don't spend lot of time learning the ins and outs of they work, and that's okay. But there are some basic server concepts you should know.

All web servers are assigned an IP address and the sites that they host are registered through a domain name server, so requests for its name can be found.

When you sign up for hosting many plans will give you the option of shared hosting vs dedicated hosting. So what's the difference?

IP - Internet Protocol

Web Server Basics

Shared Hosting

- Can have multiple sites
- Usually cheaper than dedicated hosting.

Web Server Basics

Dedicated Hosting

- Your site has one server or many servers.
- Usually costs a bit more.