

Module 4 Day 1

An Introduction to HTML & CSS

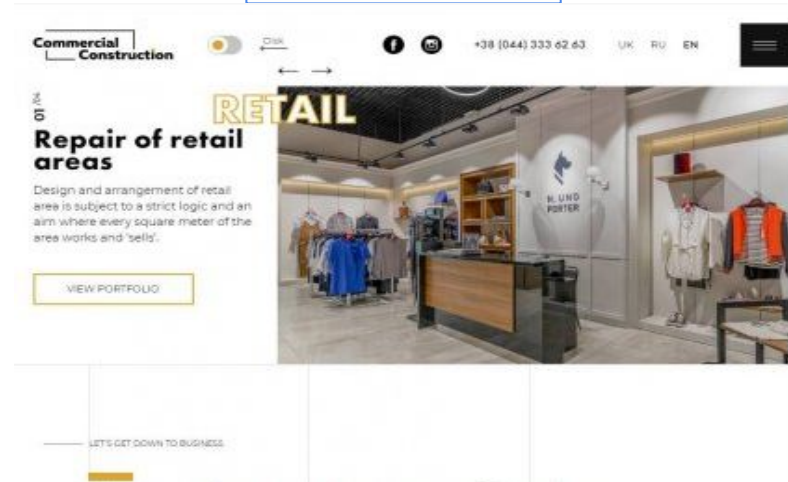
Goal 1: What is HTML - Structure & Tags

HTML (Hypertext Markup Language) Is the standard language of web browsers that enables them to format and decode documents from a web server based on a standardized collection of markup tags, which create discrete elements of content.

1989 - 1991 Birth of HTML



2020 HTML-5



HTML Document Structure

Every HTML document has the same basic structure consisting of:

`<!DOCTYPE html>`

← Document Type Declaration

`<html>`

← Root **Element** declaring the beginning of HTML content

`<head>`

← Element containing page meta-data, Title, and links to **CSS**

`</head>`

`<body>`

← The Content element declaring the “guts” of the page; images, media, and text

`</body>`

`</html>`

Anatomy of an Element: Tags & Attributes

The Element

```
graph TD; A[The Element] --> B[<p>]; A --> C[</p>];
```

<p> The text I want to display is here. **</p>**

Opening Tag

Closing Tag

An **Attribute** provides additional information about the element as a Name Value pair.

```
graph TD; A[Name] --> B[<p lang="eng-us">]; C[Value] --> D["eng-us"];
```

<p lang="eng-us"> This paragraph is in American Standard English. **</p>**

Name **Value**

The Basic Text Elements

Headings:

Headings are ordered from 1 to 6 from Largest to Smallest in size. The size is relative to each other and is controlled, in some part, by the user's browser settings.

<code><h1></code> Main Heading	<code></h1></code>
<code><h2></code> Sub-Heading	<code></h2></code>
<code><h3></code> Sub-Sub-Heading	<code></h3></code>
<code><h4></code> So on	<code></h4></code>
<code><h5></code> and	<code></h5></code>
<code><h6></code> so forth	<code></h6></code>

The Basic Text Elements

Paragraphs:

The Paragraph `<p>` tag is used to display words together as a paragraph with some space between it and any subsequent paragraph `<p>` elements.

`<p>` This is my first paragraph of HTML goodness. `</p>`

`<p>` This is the second paragraph of text that follows the first! `</p>`

This is my first paragraph of HTML goodness.

This is the second paragraph of text that follows the first!

The Basic Text Elements

Format, Placement, and Layout:

While Cascading Style Sheets are widely used to control the overall look and feel of a website, there are a few tags that we can use to enforce basic formatting and layout.

<p> **Bolds your text** in-line either alone or within another tag </p>

<p> *Italicizes your text* </i> in-line either alone or within another tag </p>

<p> E=MC² makes your text superscript, like in exponents </p>

<p> Water is also known as H₂O in chemical formulas </p>

<p> The
 tag adds a line break in the middle of a paragraph </p>

 <p> While the horizontal rule adds a separating line between elements </p>

Defining Links

The <a> tag defines a Hyperlink, the Hypertext part of HTML, that will cause the browser to navigate to another website, page in the current site, or jump to another place on the current page.

Navigation to a new website:

```
<a href="http://www.google.com"> Go To Google!</a>
```

Navigation to another page in the same website:

```
<a href="about.html"> About Us </a>
```

Navigation to another place on the same page using an ID attribute:

```
<a href="#notes"> Notes </a>
```


Images

The `` tag defines a picture that you wish to display to the user. Notice the slash at the end of the tag? The image tag is known as a self closing tag, it does not have any *inner-html* associated with it.

```

```

All image tags should have three attributes:

src: defines the absolute, relative, or url of the image file

alt: provides the text to display if the image cannot be rendered

title: provides the image title, which will be displayed when the user hovers over the image

Ready ???

Let's Code!

(and then we'll talk about semantic HTML, Forms, and CSS!)

Forms

Creating controls and Defining Behavior

Methods

Method Attribute: GET or POST ?

GET sends form contents in the query string using the typical Name=Value pair pattern.

POST send for contents in the body of the HTTP Request

`<form method="GET" action ="/api/reservation"> ... inner HTML content ...</form>`

Forms

Controls

Form controls are created using `<input />` tags

Input tags have three (3) key attributes:

- id=""** Defines the identity of the element on your page
- name=""** Defines the data element or query string key name
- type=""** Defines the type of control to display

```
<input id="over18" name="legal-age" type="checkbox" />
```

Forms

Labels

Form control Labels are created using `<label> </label>` elements

Label tags have one (1) key attribute:

`for=""`

Defines the input element associated with the label

`<label id="lblOver18" for="over18">Are you 18 years of age or older?</label>`

Cascading Style Sheets (CSS)

- CSS allows us to define and control how elements appear on our web pages
- Styles can be applied by Element, ID, or Class attributes
- To visualize how CSS is applied to elements, imagine that there is a box surrounding each Block and Inline element. CSS rules will be applied to that box and everything in it unless that rule is overridden by another rule

LET'S GO TO VS CODE AND SEE HOW THIS WORKS!