Intro to Web Technologies

HTML, CSS, and JavaScript

When you open a web page, there are a few main technologies working together behind the scenes. Think of them as a team, each with a different role:

- **HTML (HyperText Markup Language):** HTML is the foundation of every web page. It's called a "markup language" because it marks up text with tags like **<h1>**, **<p>**, or **<img>**. These tags tell the browser what each piece of content is: a **heading**, a **paragraph**, an **image**, etc. HTML is a *coding* language but not a *programming* language like Python or Java, meaning it doesn't handle logic or calculations. Its job is simply to give structure to a web page.
- **CSS (Cascading Style Sheets):** By itself, HTML is very plain and unattractive. CSS brings it to life with fonts, layouts, spacing, colors, and responsive designs that adapt to different screen sizes. "Cascading" means that when multiple style rules apply, the browser decides which one takes priority, giving you a good amount of flexibility and control.

- **JS (JavaScript):** A true programming language that can react to user input, update content dynamically, and even power complicated web apps. Pop-up messages, image sliders, online forms, animations, and browser games rely on JS. For this course we'll stick to HTML and CSS, but it's helpful to know that JS is one of the "big three" languages of web dev.
- **Web Browsers:** Software programs like Chrome, Firefox, and Safari that request and display web content. They interpret HTML, CSS, and JavaScript to present web pages as they were designed.

So, to recap:

> **HTML** = the content and structure (the skeleton)
> **CSS** = the look (the skin, clothes)
> **JS** = the behavior (the brain, muscles, nerves)

You can do quite a bit with just HTML and CSS alone. JavaScript comes in when you need interactivity or other advanced features, but for now we'll focus on getting comfortable with HTML and CSS.