11.2.2

Overview of HTML and CSS

HTML and CSS are two of the primary languages that people use to build a webpage.

HTML: Creating the Webpage Structure

HyperText Markup Language (HTML) is the foundation of all webpages. And, **HTML elements** are the basic building blocks of a webpage. Links, paragraphs of text, and headers are all examples of HTML elements.

Let's break down the name a bit.

HyperText refers to text that links one section of a webpage to either another section or another document. External links to other websites and links to other pages on the same website are both examples of hypertext. HTML is sometimes referred to as "the backbone of the internet" because it enables interactivity.

Markup refers to the act of making annotations on a document. As you might have guessed, the name originated in the publishing industry. We use markup languages like HTML to annotate and structure a webpage. Markup functions much like a word-processing document: we can use it to write text and then add lines of code to format it. We can add paragraphs, headings, lists, and tables all with HTML. The following image shows an example:

HTML

```
<div style="background:#eeeeee; border: none; padding:
10px; margin: 10px; font-family: 'Merriweather', serif;">

<h1>Sharing Your Work?</h1>

<h2>Sharing with Creative Commons Licences</h2>

<p>As you create designs for people on the internet to
see and interact with, you have many options for sharing
your work. Visit
<a href="https://creativecommons.org/">Creative
Commons</a> to learn more about the different licenses
you can apply to your original creations.</p>
```

In the preceding image, notice that the left side displays the HTML code, and the right side displays the resulting webpage from that code. Specifically, the webpage makes the title and subtitle text larger than the paragraph text. And, it adds a link to the Creative Commons website.

But, HTML on its own doesn't create a visually compelling webpage. Luckily, we can use CSS to add style, like more formatting, layouts, and colors, to the code.

CSS: Adding Style to Webpage Elements

CSS is a **declarative** language. This means that it declares, or describes, the effect that you want on your webpage. Think of it like a home decor show. The homeowners describe the overall effect that they want. For example, they might say (or declare) that the living room walls should be light green, the furniture should be modern, two huge Persian rugs should lie on the floor—and everything should match a color palette of light green, gray, and white. In a similar fashion, CSS code declares the style that we want for the webpage.

The following image shows the webpage that we've been working once we've applied CSS code:

CSS

```
@import
url('https://fonts.googleapis.com/css2?fa
mily=MuseoModerno:wght@500&display=swap')
;

h1 {
    font-family: 'MuseoModerno', cursive;
    font-size: 48px;
    color: #a01047;
  }
p {font-family: 'Alegreya Sans',
sans-serif;
    size: 12px;
    color: #2c0003;
    }
```

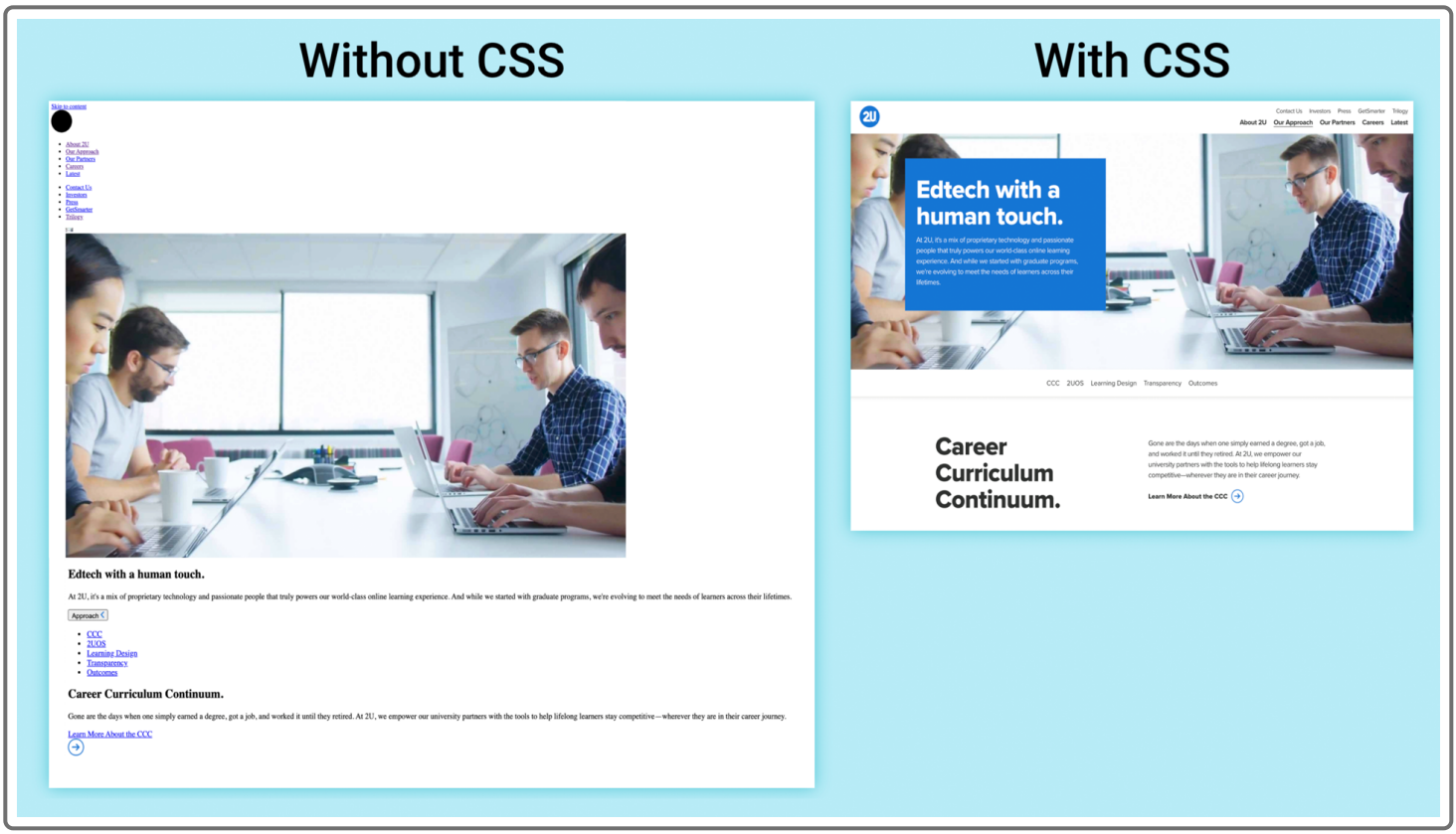
Sharing Your Work?

Sharing Creative Commons Licences

As you create designs for people on the internet to see and interact with, you have many options for sharing your work. Visit Creative Commons to learn more about the different licenses you can apply to your original creations.

In the preceding image, notice how differently the webpage appears! Specifically, the fonts, font sizes, and colors of the different areas of text have changed according to the CSS code that we specified.

The following image compares a webpage that's been both coded only with HTML to the same page that's also been styled with CSS:



In the preceding image, notice that the webpage without CSS is far more basic than the one with CSS and lacks its stylized touches. In particular, the title fonts and the visual arrangement of the elements are more attractive with CSS.

NOTE

Tim Berners-Lee invented HTML in 1993. A year later, one of his colleagues (Håkon Wium Lie) invented CSS specifically for use with HTML.

You've now learned how web developers use HTML and CSS to bring webpages to life online. You'll get more experience working with HTML and CSS later in the course. For now, it's important that you be able to recognize these elements in the code of a webpage. When we later dive into web scraping, knowing the different types of HTML elements will help you find the data that you want to extract. We'll start by exploring the basic HTML elements.