Introduction to Cascading Style Sheets

https://github.com/StirlingCodingClub/css

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What is CSS?

CSS stands for Cascading Style Sheets.

- ▶ CSS is a language that describes the *style* of a HTML document.
- ▶ It describes how particular HTML **elements** should be displayed.

You'll need to know some basic HTML in order to understand how to use CSS.

What is HTML?

HTML is the standard markup language for creating Web pages. It describes their *structure*.

- ▶ A web page is made up of HTML **elements** which are represented by **tags**.
- ▶ These tags define the type of content held within them and give HTML pages a structured hierarchy.
- ▶ Tags can be nested within each other, and often have **attributes** which provide additional information about the element.

Basic HTML

All HTML pages **must have** these elements:

```html
<html>
  <head>
    <title>A title</title>
    <!-- settings and meta tags go here -->
  </head>
  <body>
    <!-- content goes here -->
  </body>
</html>
```

HTML Tags

Most element tags wrap content to define where it starts and ends, so they have an opening tag like <p> and a closing tag like </p>.

These tags all wrap:

```
<h1>A heading</h1>
<p>A paragraph</p>
<a href="https://google.com">A link</a>
```

The link tag <a> needs the **href** attribute to work.

HTML Tags

Some tags don't wrap, these have closing slashes instead:

```
<br /> <!-- a line break -->
<hr /> <!-- a horizontal rule -->
<img src="https://tinyurl.com/y63hts5h" />
```

The image tag <img> needs the **src** attribute to work.

You can put tags directly in RMarkdown documents, so they can be handy to know.

How CSS and HTML work together

Structure and style are kept separate by using CSS to declare the visual properties which are applied to HTML elements.

- ▶ CSS **selectors** target HTML **elements** and apply styles to them.
- ▶ The styles which are applied are defined by CSS **properties**.
- ▶ A set of properties attached to a selector is a **declaration block**.

An example CSS declaration block

A declaration block that targets paragraphs might look something like this:

```
p {
  font-size: 1em;
  line-height: 1;
}
```

The selector p is followed by curly braces that contain the declarations. Each declaration states a property to change and a value to change to: property: value;

In this case *all paragraphs* will have a font size of 1em and line-height (this is line spacing) of 1.

HTML without CSS

Without CSS every webpage looks like a very boring plain text document.

Let's make it pretty

- ▶ If you haven't already, clone this Git repository to get the example files to work with.

```
$ git clone git@github.com:StirlingCodingClub/css.git
```

- ▶ Open `html/example.html` in your web browser to see the plain example page for yourself.
- ▶ Follow the instructions in `css_notes.html` to find out how basic CSS can make this example page much more interesting.