Time	~ 1 - 2 hours
Learning Goals	• Understanding HTML tags and elements • Using CSS to change the layout of elements of a page • Utilising the inspect element

Congratulations on making it to week 5! You're halfway there!

In the past 4 weeks, we have learnt to write back-end code (Ruby & SQL). It is now time to learn front-end code! The next 2 days will be focused on learning the front-end (design/front-facing) aspects of websites, we will learn just enough to be productive when building full-stack applications. The languages we will be covering are HTML, CSS, Jquery & Javascript.

Note: this challenge is meant to be open-ended and is meant for you to explore HTML and CSS. A lot of learning will come through a journey of self-discovery. Therefore, it's really up to you to decide how long you want to spend on this challenge. We recommend you to read through the challenge and the resources given. There will be many new terminologies such as tag, element, attributes, etc. Make sure you understand what they are as you go through!

What is HTML?

```
<!DOCTYPE html>
<head>
  <title>Example HTML page</title>
</head>
<body>
  <h1>Hello  World!</h1>
</body>
</html>
```

Every webpage is written in a language called HTML (Hyper Text Markup Language). It is the structure that forms the foundation of the webpage. We open HTML files (which contains HTML code) using a browser like Chrome, Safari or Firefox.

We can view the HTML structure of any webpage using your browsers inspect element feature. Let's go to a webpage, say Bitly.com. Right-click anywhere on the page and select inspect element. Do you see a toolbar appear at the bottom (or side) of your page? The Elements tab in this toolbar will show you how the HTML is structured on initial page load. Try clicking on the magnifying glass icon on the top left of the toolbar and hover/ click around the page. What happens?

Quickly explore the different elements of the page with the person beside you and discuss what this could all mean.

HTML Tags and Elements

As you may have observed, HTML tags are keywords surrounded by the <> angle bracket. For example:

```
<h1>I am a header h1!</h1>

<h2>I am a header smaller than  header h1!</h2>

<p>I am a paragraph</p>

<a href="http://www.google.com">I am a link</a>

<ul>
 <li>I am item 1 in an unordered list</li>
 <li>I am item 2 in an unordered list list</li>
</ul>
```

To see how these HTML tags would turn out on your website, copy and paste the code above in the HTML section of a jsfiddle, click "Run" and see the magic happen!

What is CSS?

```
h1 {
 color: red;
}

#id-example {
 font-family: "Roboto";
}

.class-example {
 font-style: italic;
}

.another-class {
 font-size: 300%;
}
```

CSS (Cascading Style Sheets) is what makes these HTML tags pretty. HTML is just like the chasis of your car. It gives structure to your car but it doesn't really look that good. CSS is like your car's paint job and tinted windows, it makes it look good.

There are 3 primary methods for CSS to point to HTML elements, it is by pointing at a tag, a .class, or an #id. (see CSS snippet above). Now the question is, which method should we use? and when? Here a comprehensive readup on CSS id and classes.

We will show you an example here. You will notice that we have separated the HTML and CSS code. Why do you think we did it this way? Note that you can have multiple classes for a html element

As you go through the code, think of the following:

- What is the difference between `classes` and `id`?
- In the code given to you, which is a CSS selector? What happens when you change the value of a property of a CSS selector?
- In Ruby, we use the `#` key to write a comment. What is the syntax for comments in HTML and CSS? Note that they are different!

Concluding

At this point, you should have tried to use a few HTML tags, and some CSS methods on JSfiddle. You should have a decent understanding of how HTML and CSS work together, and some HTML tags and CSS methods under your belt. In the next challenge, you will be building and designing your own coding portfolio using HTML and CSS.

Resources: HTML Documentation | CSS Documentation | Building Your First Webpage