Installing Selenium

First, we want to create a new directory to store our new Selenium project. To do this, create a new folder in your operating system and call it "selenium demo."

To install Selenium, we will use pip. pip is a package manager for Python that allows you to download, modify, and manage modules that aren't built in to Python. To make sure you're downloading Selenium to the correct version of Python used in your code editing application, open your code editing application. In the terminal, type the following:

```
import sys
sys.executable
```

The resulting line should show you the path to Python installed in your computer. Copy the line (not including the quotation marks). Open your Command Prompt terminal for Windows OS or Terminal for Mac, then type the following:
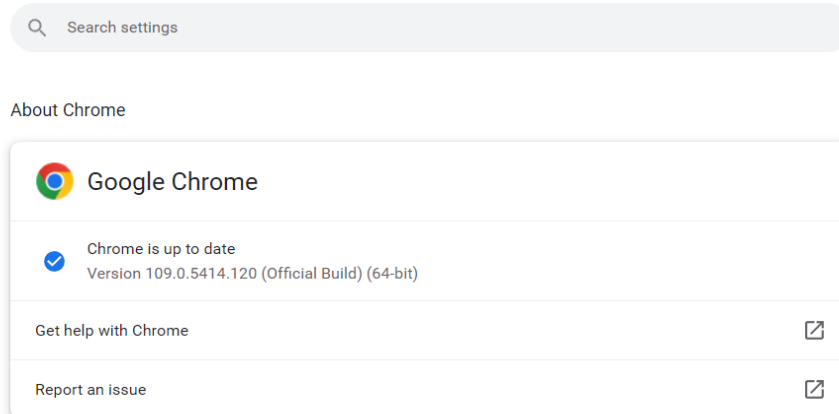
```
<insert copied python path here> -m pip install selenium
```

You should see text in the terminal that updates you on your download progress, and it will tell you when Selenium has been successfully installed

Next, visit https://pypi.org/project/selenium/ and scroll down until you find the section titled "Drivers." We will only be discussing how to use the Chrome web-driver, but if you prefer a different browser you can download that.

There are multiple versions of Chrome. For example, both TA's use Chrome version 109, but Chrome versions 110, 108, etc. also can be used.

To find your version of Chrome, press the three dots in the top right hand corner of your browser, press "Help," then press "About Chrome." A new tab will open, and you should see something similar to the screenshot below. "Version" gives you the version of Chrome you are using. The first group of three digits before the period corresponds to your version of Chrome, so the screenshot shows Chrome version 109.

The web-driver is downloaded as a zip file, so once that is downloaded, unzip it. The location of the web-driver doesn't matter, but **we will want to copy its path later, so it should be saved somewhere easy to find.**

Setting Up your Selenium File

In our selenium demo directory, create a new python file and open it with the editor of your choice. We will be using VSCode since its graphics are intuitive.

Immediately, we want to import Selenium. Specifically, we want to import our webdriver, which will let us actually open the tabs. We can do that via this line of code:

```
from selenium import webdriver
```

Next, we want to define the path of our webdriver executable. In order to do this, we want to find the path of our **webdriver executable** "chromedriver". Find your unzipped web-driver folder, go into the folder, then copy the path of "chromedriver."

Once we have our path copied, type this line of code into our file:

```
PATH = "<copy path here>"
```

In order to use chromedriver, we need to create a driver object and modify that to navigate our browser. To do this, copy the following code:

```
driver = webdriver.Chrome(PATH)
```

If we run the program right now (and if everything went well), we will see that the driver opens up a new blank Google Chrome tab. Your Selenium file is now set up!