README:

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The following are the instructions to be followed to run GradCave.py.

A. Installation of Selenium for Chrome driver:

Use pip to install the selenium package. Python 3 has pip available in the standard library. Using pip, you can install selenium like this:

pip install selenium

Start a command prompt using the cmd.exe program and run the pip command as given below to install selenium.

install selenium

Selenium requires a driver to interface with the chosen browser. Make sure it's in your PATH, e. g., place it in /usr/bin or /usr/local/bin.
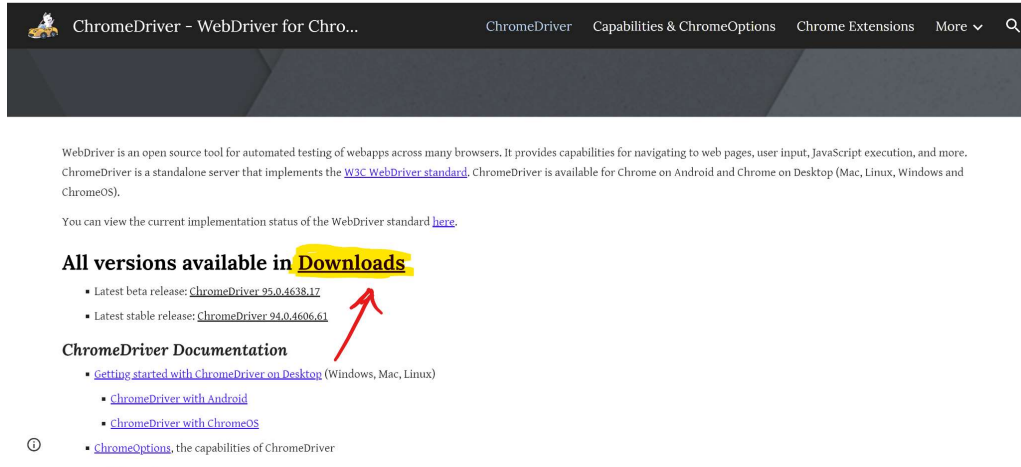
Failure to observe this step will give you an error selenium.common.exceptions.WebDriverException: Message: 'geckodriver' executable needs to be in PATH.

B. Installation of Chrome driver:

We are using Google Chrome as the browser in our project. The chrome driver link is as follows:

https://sites.google.com/chromium.org/driver/

Open the above url and click on Downloads as shown below:

ChromeDriver - WebDriver for Chro...   ChromeDriver   Capabilities & ChromeOptions   Chrome Extensions   More ⌄   🔍

WebDriver is an open source tool for automated testing of webapps across many browsers. It provides capabilities for navigating to web pages, user input, JavaScript execution, and more. ChromeDriver is a standalone server that implements the W3C WebDriver standard. ChromeDriver is available for Chrome on Android and Chrome on Desktop (Mac, Linux, Windows and ChromeOS).

You can view the current implementation status of the WebDriver standard here.

All versions available in Downloads

- Latest beta release: ChromeDriver 95.0.4638.17
- Latest stable release: ChromeDriver 94.0.4606.61

ChromeDriver Documentation

- Getting started with ChromeDriver on Desktop (Windows, Mac, Linux)
  - ChromeDriver with Android
  - ChromeDriver with ChromeOS
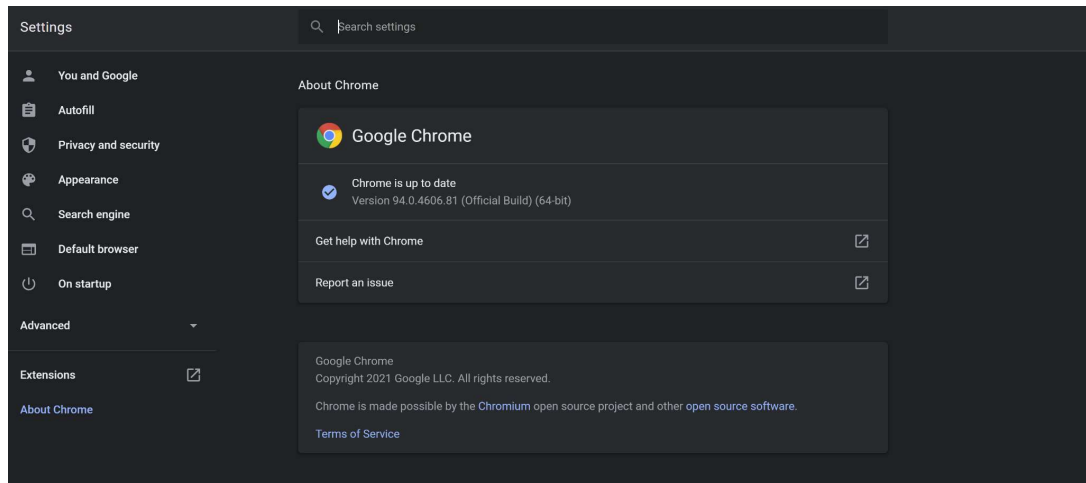- ChromeOptions, the capabilities of ChromeDriver

Check your Chrome version using the following steps:

- On your computer, open Chrome.
- At the top right, look at More. Highlighted in yellow as shown in the figure below:
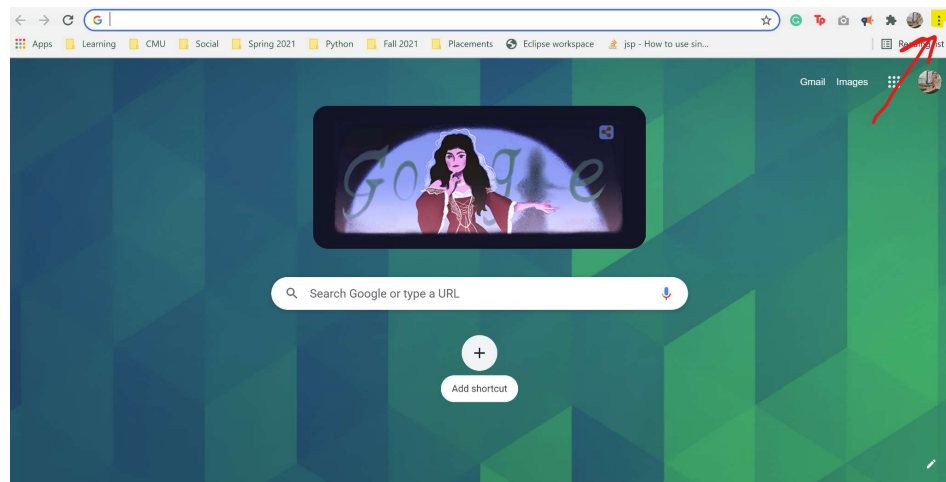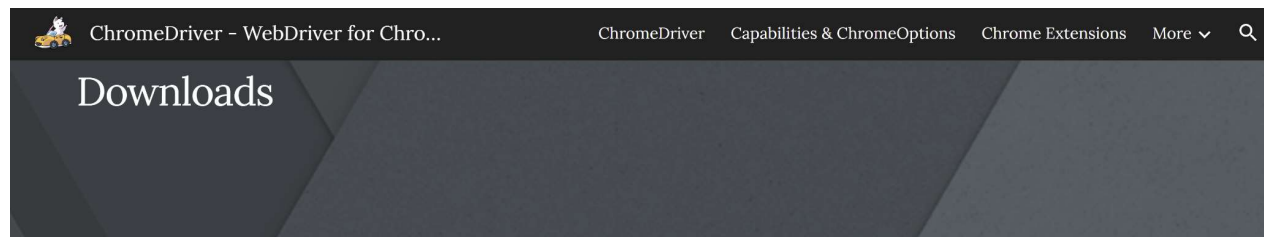
- Click Help > About Chrome.

Here the Chrome version is 94.0.4606.81. Check for the Chrome version in your browser and download the right version of Chrome driver.

Download the version of chrome driver based on your chrome browser version as follows:

The following screen opens:

Index of /94.0.4606.61/

Name	Last modified	Size	ETag
Parent Directory		-	
chromedriver_linux64.zip	2021-09-27 13:10:31	9.42MB	565bdb99ff4b29be22e0d82533b0f992
chromedriver_mac64.zip	2021-09-27 13:10:33	7.81MB	f4658e64a1f08adb9a7d0fbd31e629c2
chromedriver_mac64_m1.zip	2021-09-27 13:10:36	7.15MB	e6de17d46d7fb41b3a8703dfe288bbd5
chromedriver_win32.zip	2021-09-27 13:10:38	5.72MB	ec5ce24a21249391fe6c3ee256bc811f
notes.txt	2021-09-27 13:10:43	0.00MB	089f3da349f14ff85b2370532dd30862

Select the right file based on your operating system. Clicking chromedriver_win32.zip since we are using a Windows machine.
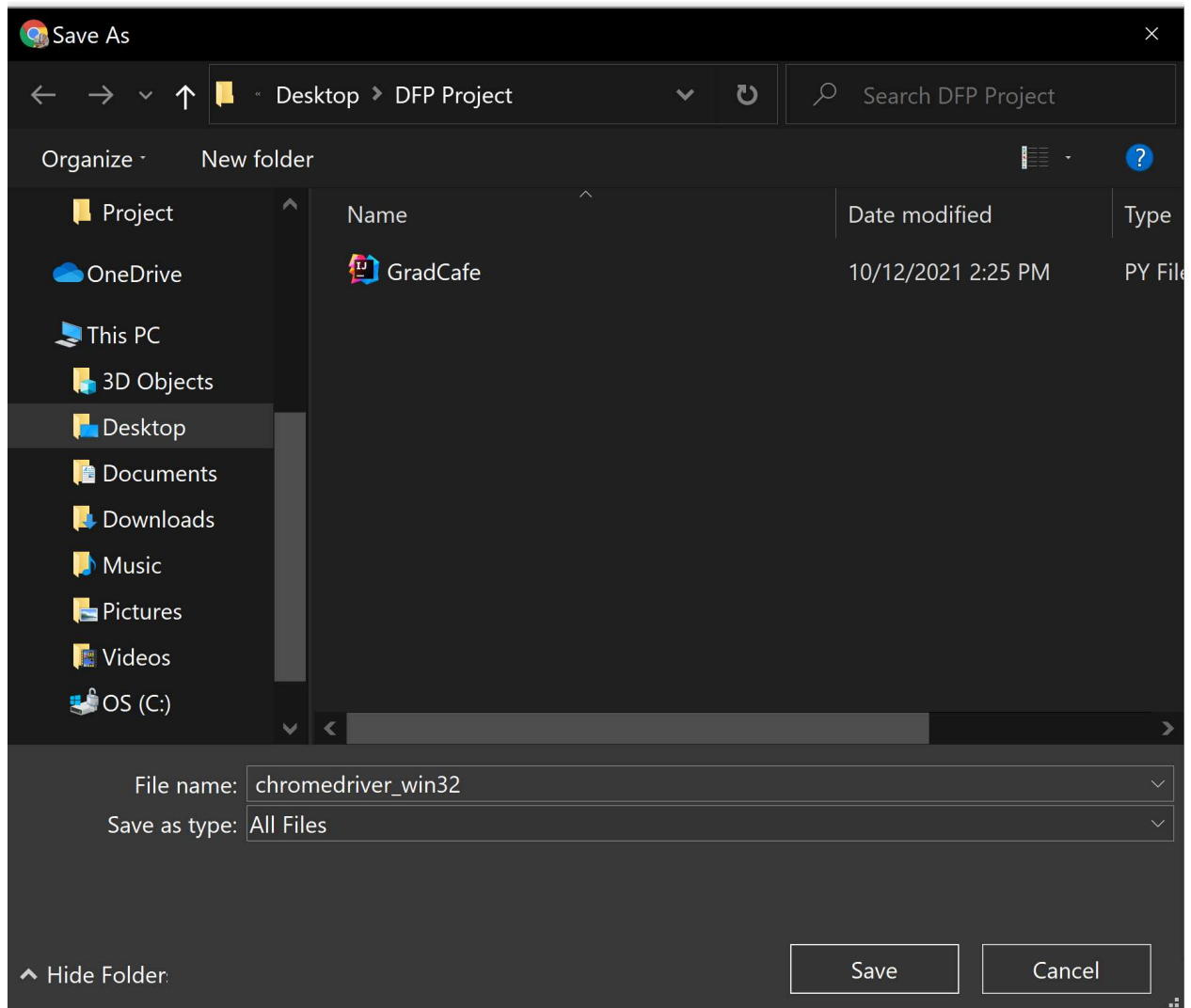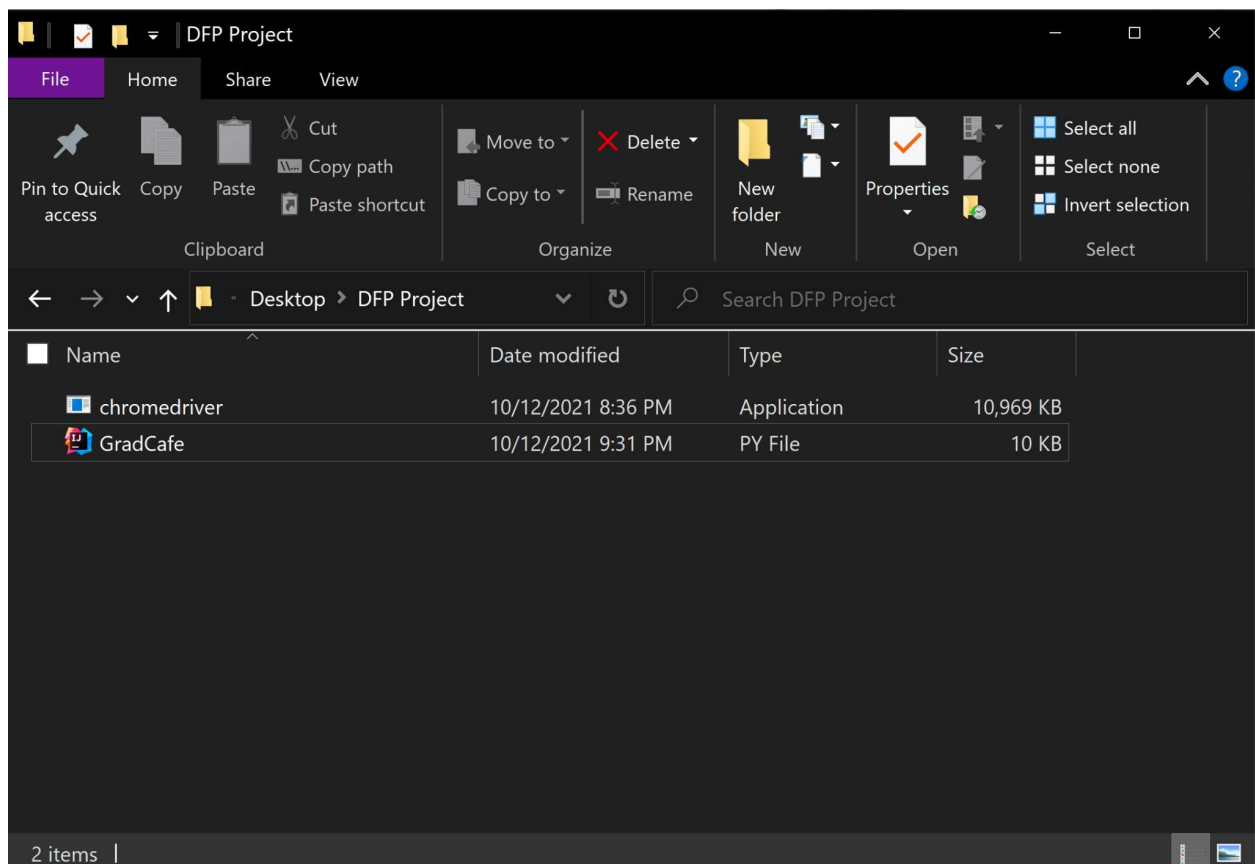

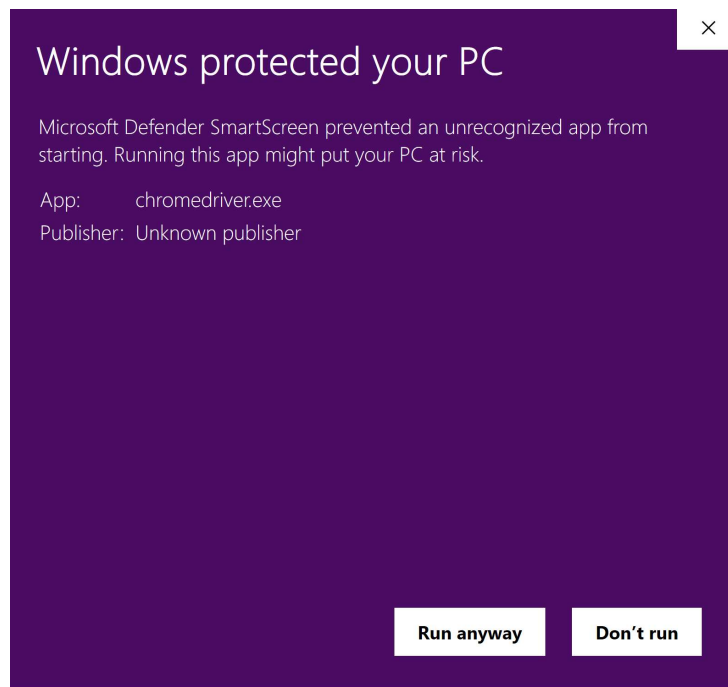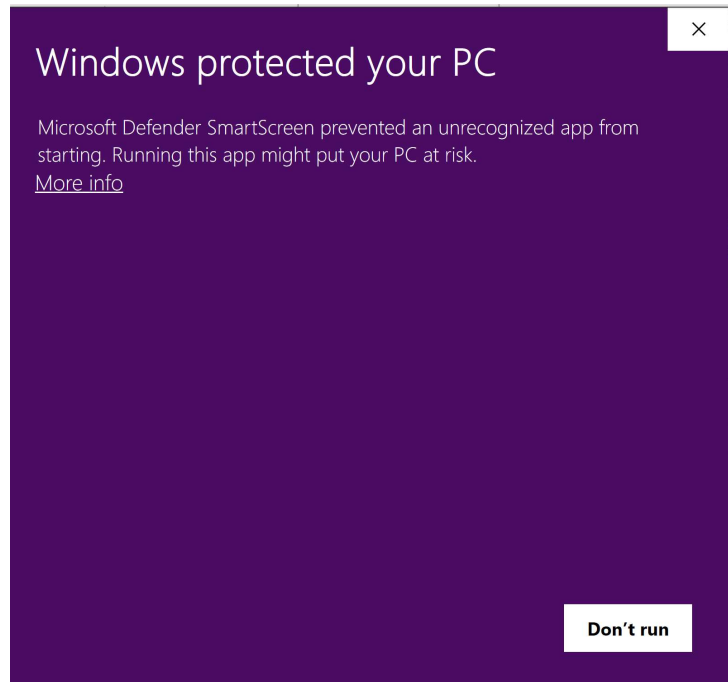Unzip the downloaded file and run the chromedriver.exe application.
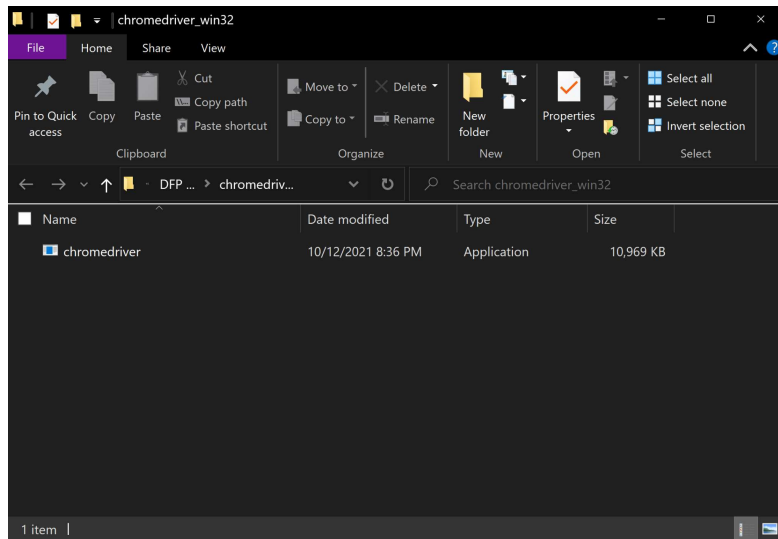
IMPORTANT:

After unzipping chromedriver_win32.zip, make sure the chromedriver.exe application is in the same folder where you have the GradCave.py file.

If you see the following screen, click on More info and select Run anyway.

Windows protected your PC

Microsoft Defender SmartScreen prevented an unrecognized app from starting. Running this app might put your PC at risk.
More info

Don't run

Windows protected your PC

Microsoft Defender SmartScreen prevented an unrecognized app from starting. Running this app might put your PC at risk.

App: chromedriver.exe
Publisher: Unknown publisher

Run anyway   Don't run

On successful installation, you will see the following screen:

```
C:\Users\shiva\Downloads\Setups\chromedriver_win32\chromedriver.exe                    —    □    ×
Starting ChromeDriver 94.0.4606.61 (418b78f5838ed0b1c69bb4e51ea0252171854915-refs/branch-heads/4606@{#1204}) on port 951
5
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
```

C. <u>Modules to be imported:</u>

The following are the modules we are importing for this project:

●   import requests

Requests is a simple, yet elegant, HTTP library. Requests allows you to send HTTP/1.1 requests extremely easily. There's no need to manually add query strings to your URLs, or to form-encode your PUT & POST data. If you are facing issues importing, run the following command:

$ python -m pip install requests

●   import folium

folium builds on the data wrangling strengths of the Python ecosystem and the mapping strengths of the Leaflet.js library. Manipulate your data in Python, then visualize it in a Leaflet map via folium. Run the following code to install folium.

$ pip install folium

Or

$ conda install -c conda-forge folium
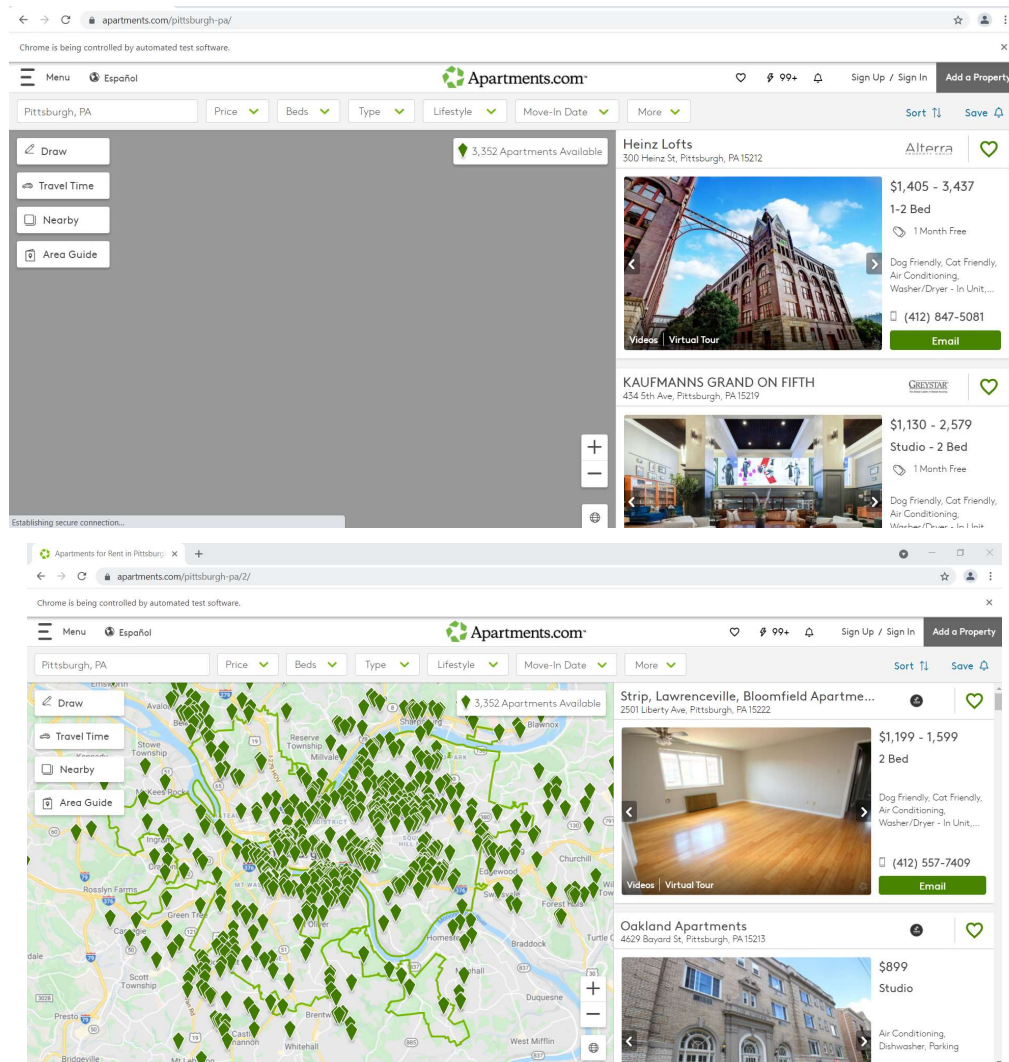
●   Import tabulate

$ pip install tabulate

D. Running GradCave.py

Open GradCave.py on Spyder and run the the.py file.

You will see the following screens load on Google Chrome on running the file GradCave.py file:

Apartments.com

Menu Español

Sign Up / Sign In   Add a Property

Pittsburgh, PA   Price   Beds   Type   Lifestyle   Move-In Date   More

Sort   Save

Draw
Travel Time
Nearby
Area Guide

3,352 Apartments Available

900 Penn
900 Penn Ave, Pittsburgh, PA 15222

$1,300 - 2,500
1-2 Bed

1 Month Free

(844) 577-3535
Email

Virtual Tour

Market Square Place
211 Forbes Ave, Pittsburgh, PA 15222

$1,750 - 3,100
Studio - 2 Bed

Specials

(844) 885-7665

Popular Pittsburgh

HOME   EVENTS CALENDAR   FIND PEOPLE   ARTICLES   ABOUT   CONTACT US   SHOP

Pittsburgh Events Calendar

Home → Pittsburgh Events Calendar

The calendar is displaying all events. View virtual events only here. Some events may have changed so please verify prior to attending. You may update or remove any submitted or canceled events here.

All Events | | Next Page

PA Arts & Crafts Christmas Festival
Oct 16 - Oct 25   Pennsylvania Trolley Museum   ★ Washingto...
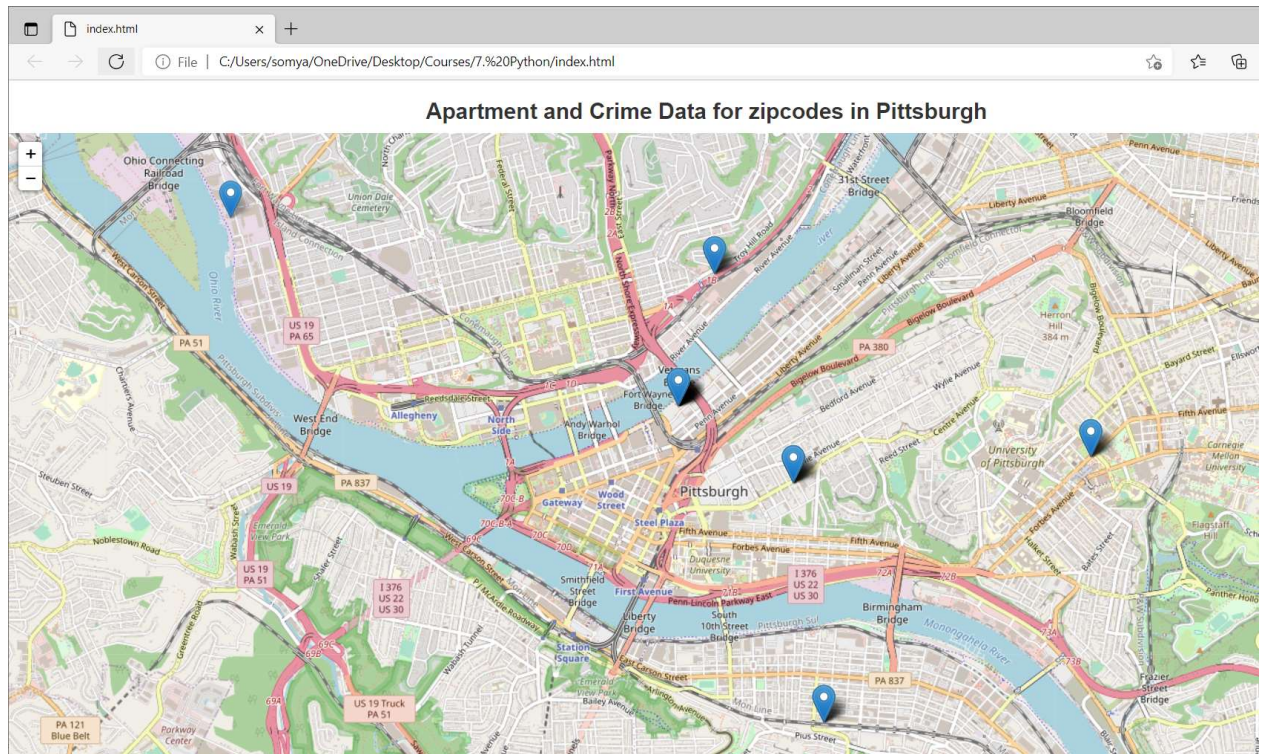
E. <u>Retrieving geocodes for zip codes:</u>

- URL used: https://www.geocod.io/upload/
- We uploaded a batch file of zip codes to retrieve the geocodes as a .csv file.
- The .csv file with all the geocodes can be retrieved from the file link mentioned below.
- Created a lookup file for geocodes to be used in the map visuals: (https://drive.google.com/file/d/18h735Cvyc8ekHXqWKmvbj2ZCNL4HMypG/view?usp=sharing). This file is also present in the zip file by the name ZipCodes_LatLong.csv and must be placed in the same folder as GradCave.py.

F. <u>Youtube video link:</u>

https://youtu.be/6p9yQWnTGvI