Introduction to Python: Workshop 3

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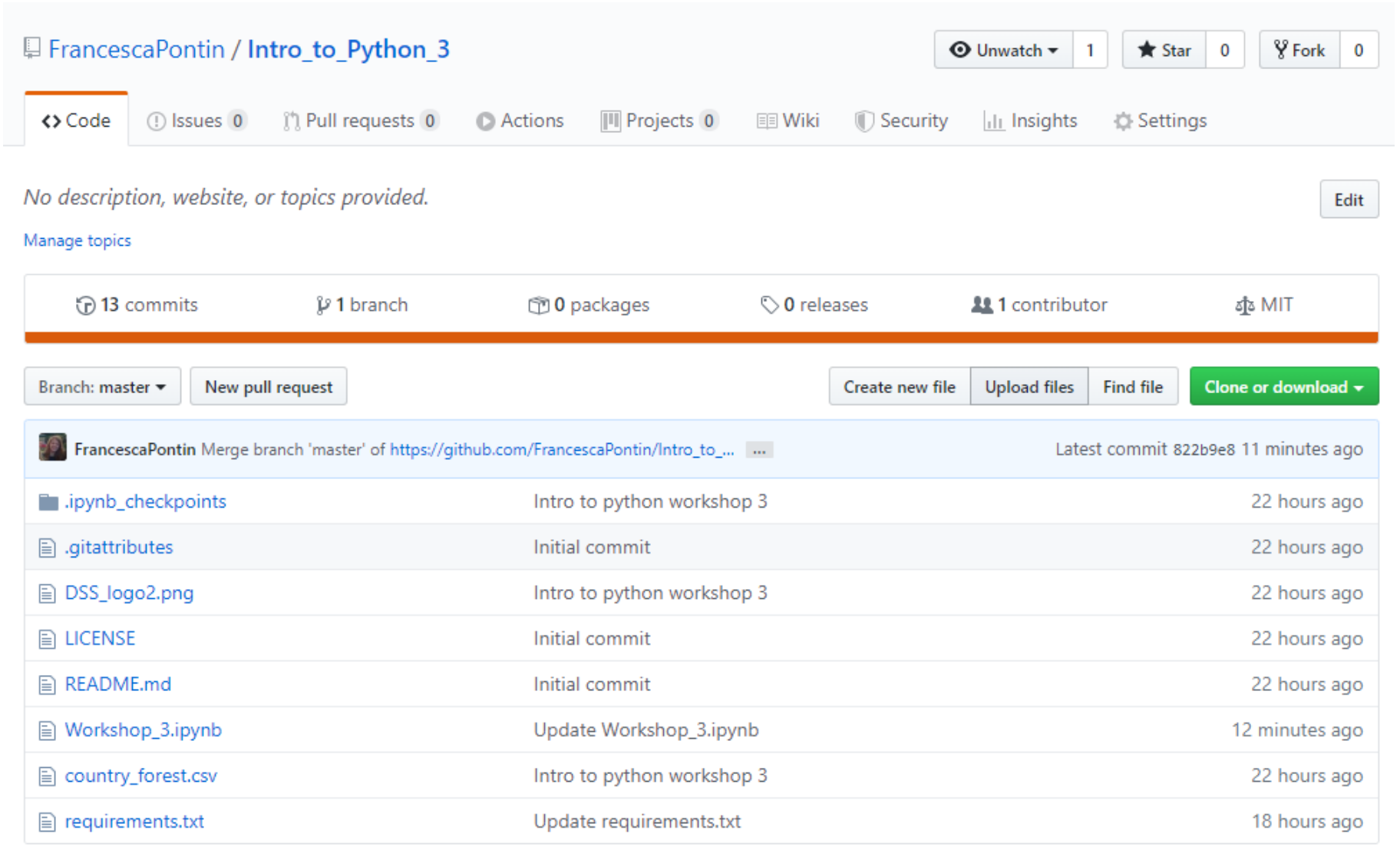
This workshop will let you get started with mapping data in Python and introduce you to downloading data from github and runnign a Jupyter Notebook from the Anaconda prompt.
We will cover:

- Downloading data from Github
- Installing packages from the Anaconda prompt
- Opening Jupyter notebook from the Anaconda promt
- Reading in spatial data
- Understanding the geometry column
- Coordinate reference systems
- Plotting maps (choropleth, point data, categorical data & multiple map layers)
- Subplots
- Subsetting and aggreagting spatial data
- Spatial and non-spatially joining data

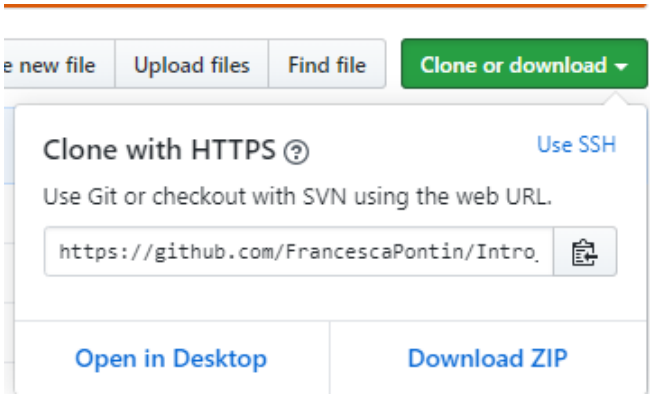
Feel free to use your own laptops today if you have them with you

Part 1: Downloading data from Github

Either access the data through github via the [website link (http://francescapontin.com/teaching_materials.html)](http://francescapontin.com/teaching_materials.html) or directly via [Github (https://github.com/FrancescaPontin/Intro_to_Python_3)](https://github.com/FrancescaPontin/Intro_to_Python_3). You should see something similar to this:



Click "Clone or download" > "Download ZIP".

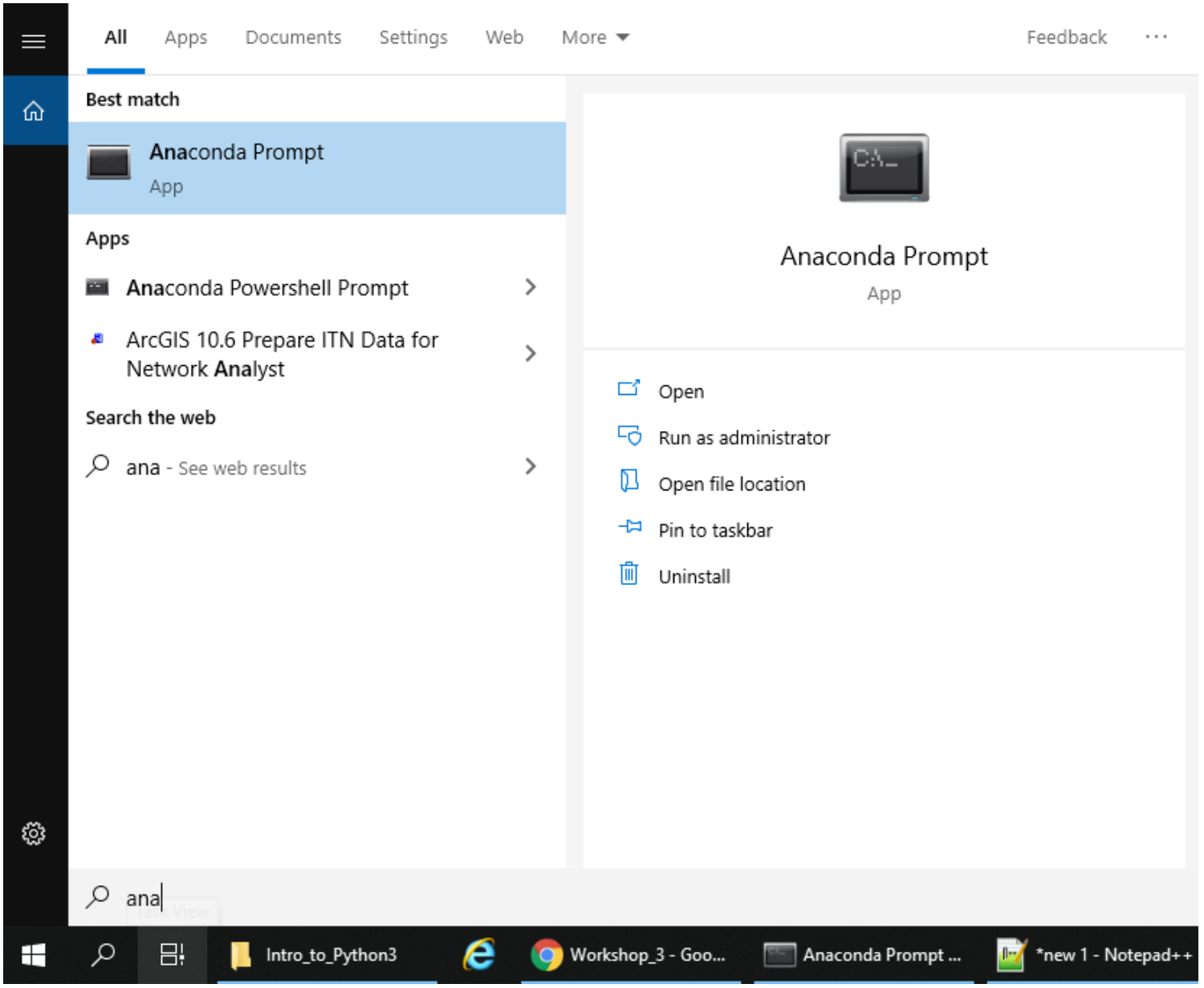


Saving the files

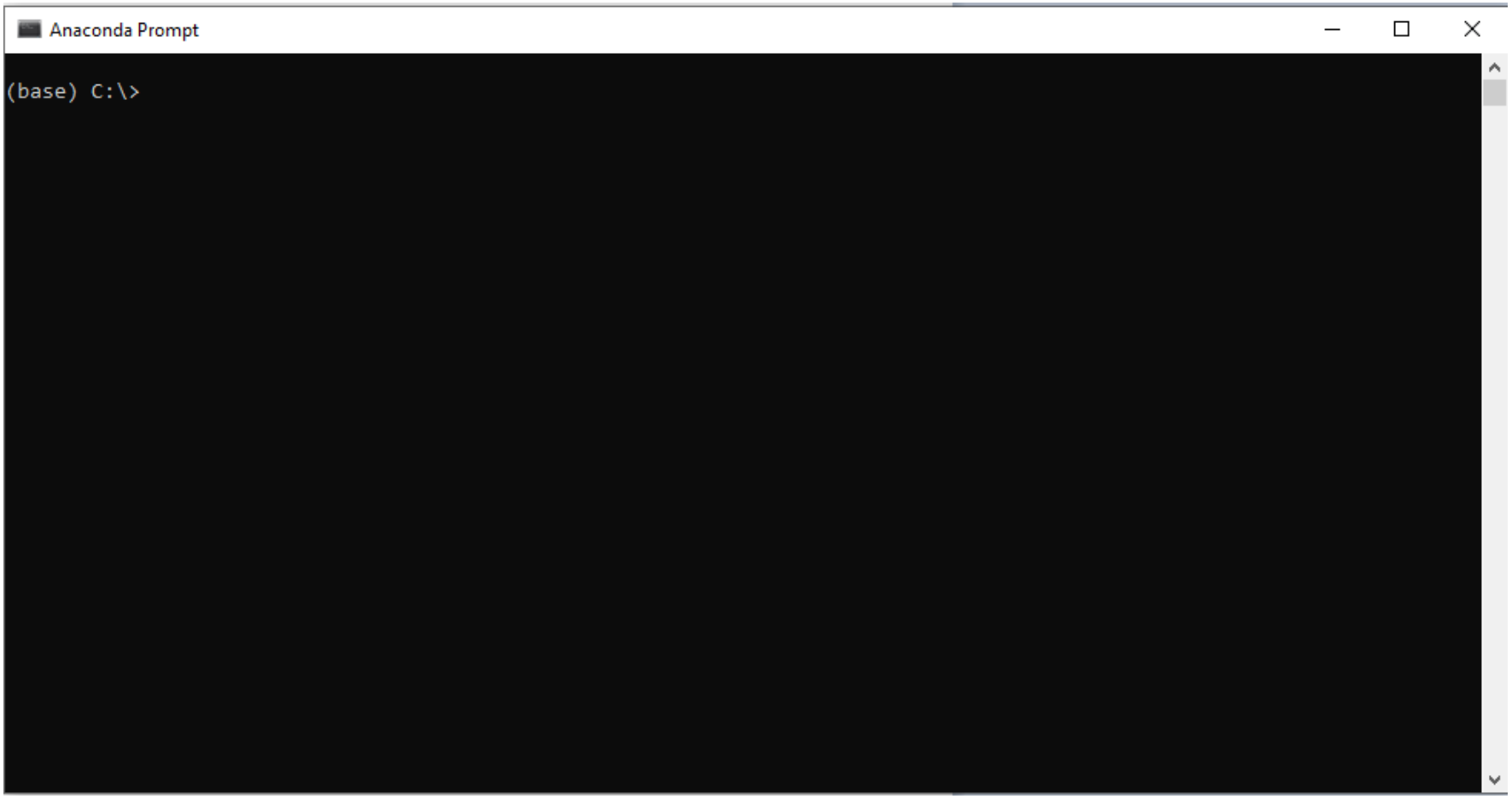
Save the zip file in your documents and then right click and extract files. Save your files in your M drive (the one with your user name) or you may not be abel to access them again once you change computer.

Part 2: Running a Jupyter Notebook

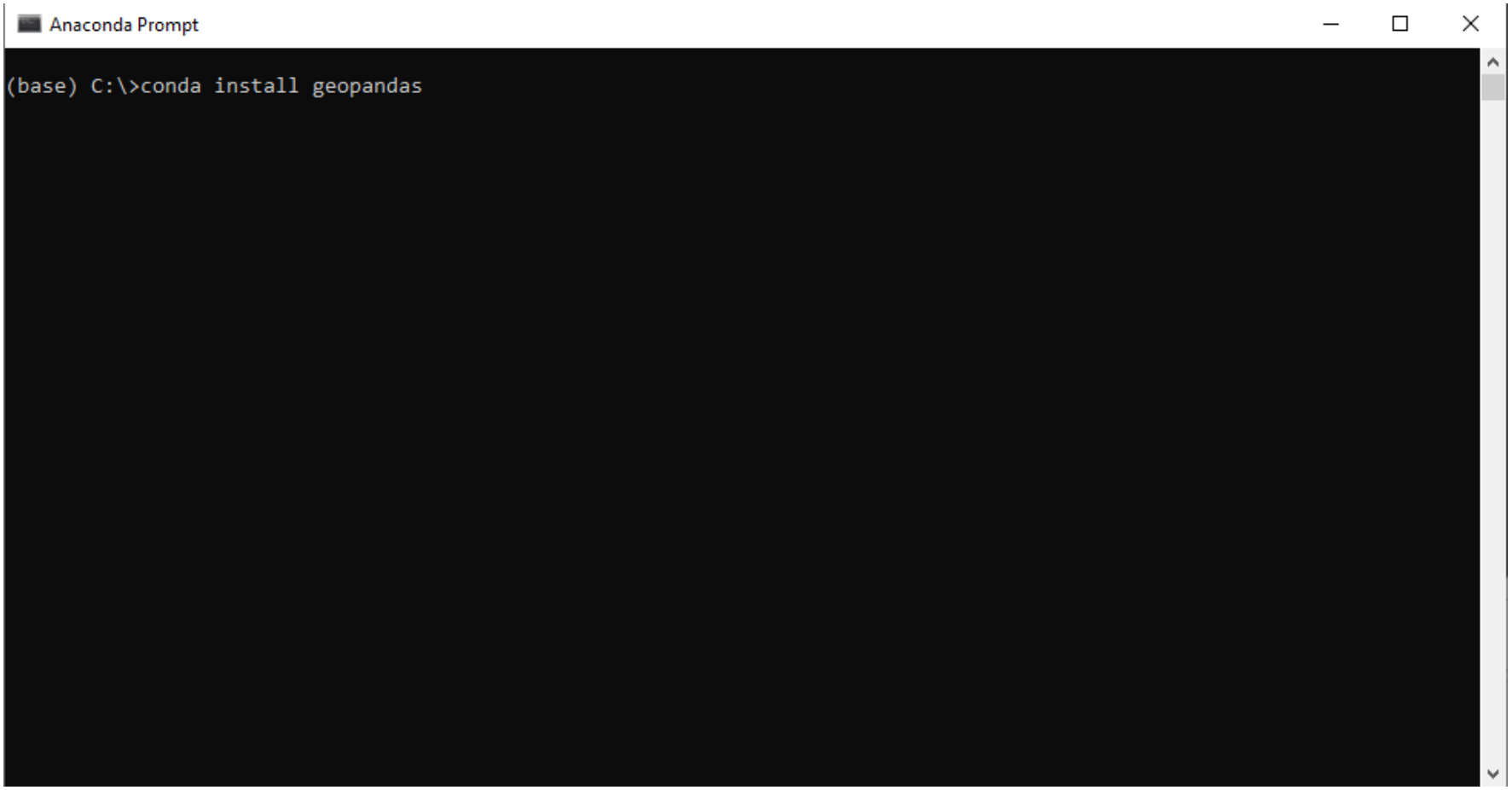
Previously we have been accessing the practicals via a website version of a Jupyter Notebook (it looks and behaves the same). Today we will be running the Jupyter Notebook from the Anaconda Prompt.
First open the anaconda prompt by searching for it in your programs.



It should open and look like this:

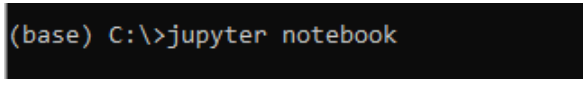


Now type `conda install geopandas` be careful with spelling and letter case



It may then ask you if you want to install other packages, just type `y` for yes. The package may take some time to load.

Once it has loaded the `(base) C:>` will appear. You have installed your first package!! Type `jupyter notebook` and the jupyter notebook should appear in your internet browser.



(Note the internet is not required to run the notebook).
It should look familiar to you from the previous workshops. Navigate to your downloaded files and open "Workshop_3.ipynb".