Laptop Prep for "Hands-on: Cluster Analysis with Python"

Overview

Laptop preparation for the class consists of four steps, with detailed instructions below:

1. Download course files from GitHub
2. Installation of Anaconda Python
3. Package downloads
4. Verify installation

NOTE – Administrator permission may be required to complete laptop prep. Also, often it is necessary to disable anti-virus software to allow for the installation. As such, disabling any anti-virus is recommended before laptop prep. Lastly, installing the latest version of Anaconda Python is recommended – even if you have Python already installed.

The GitHub repository with all required course files is located here:

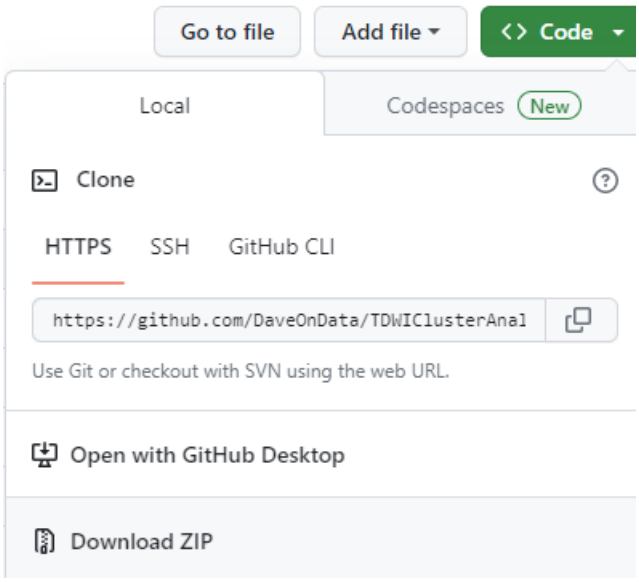
- https://github.com/DaveOnData/TDWIClusterAnalysisWithPython

Hardware Requirements

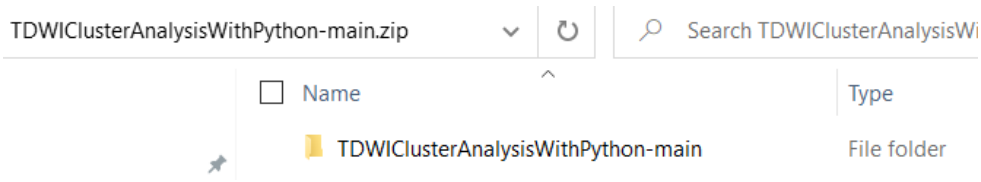
1. Windows or Mac OS X preferred (instructors have no experience with Linux)
2. 64-bit operating system
3. 8GB of RAM, 16GB preferred
4. 4GB of free drive space

Step 1 - Download the files from GitHub

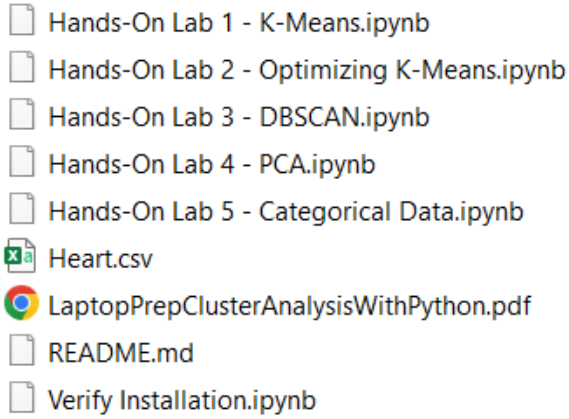
1. Within the GitHub repository page, click on the “Code” button and select “Download ZIP”:



2. Copy the file folder within the downloaded ZIP to a well-known location on your laptop (e.g., the Desktop):



3. Open the file folder. You should see the following files:

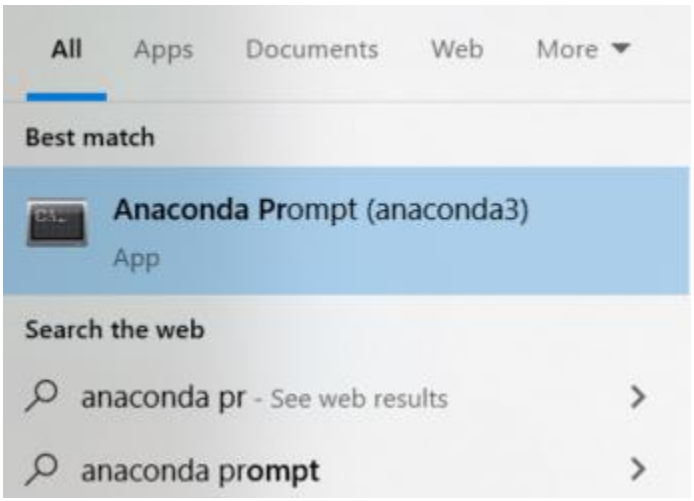


Step 2 – Anaconda Python Installation

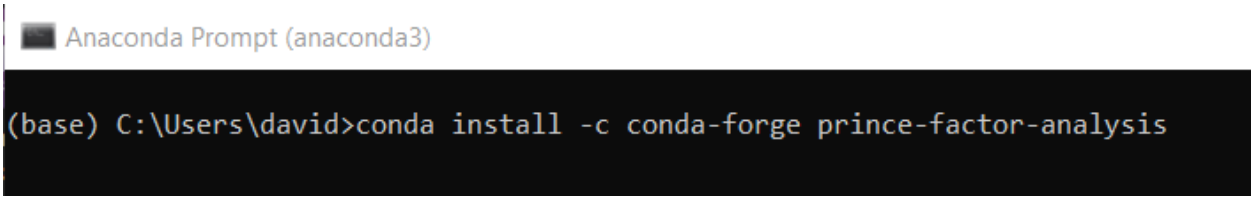
1. Open your browser and navigate to: https://www.anaconda.com/products/distribution
2. Click the download button.
3. When the installer has downloaded, start the installer and follow the instructions (accepting defaults) to complete the installation.

Step 3 – Package Downloads

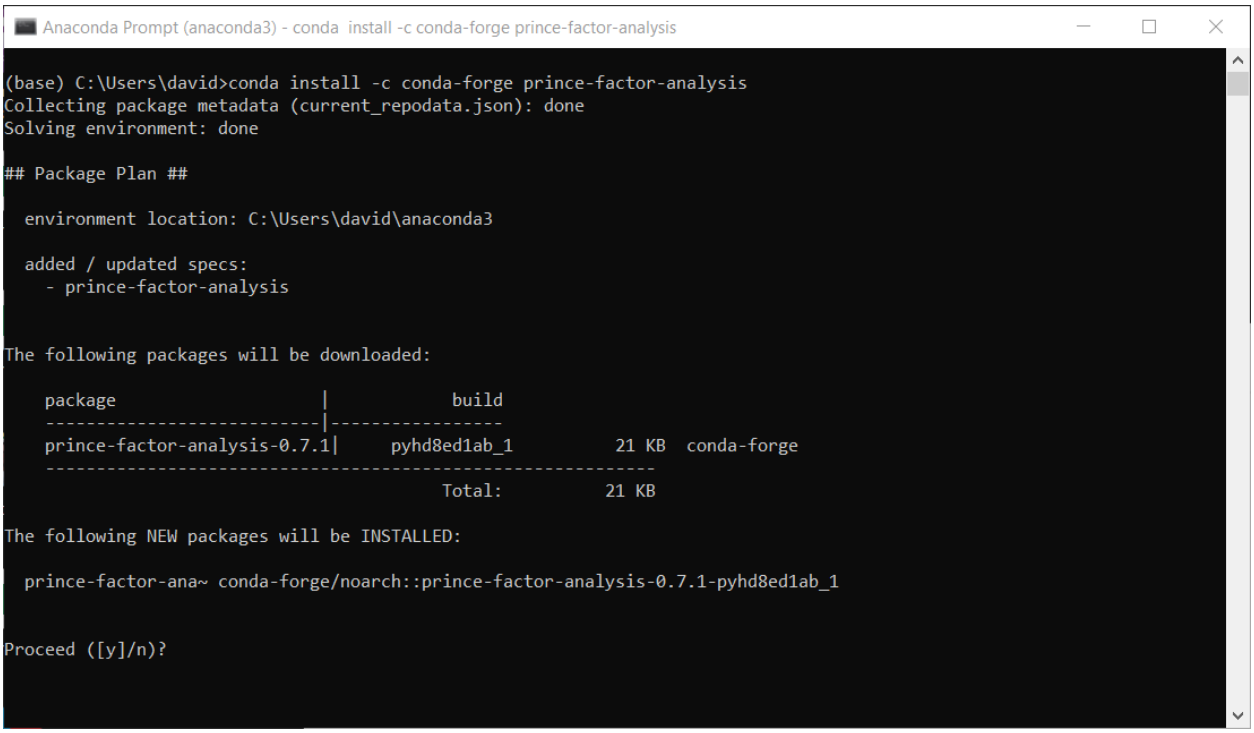
1. With Anaconda Python installed, start the Anaconda Prompt:



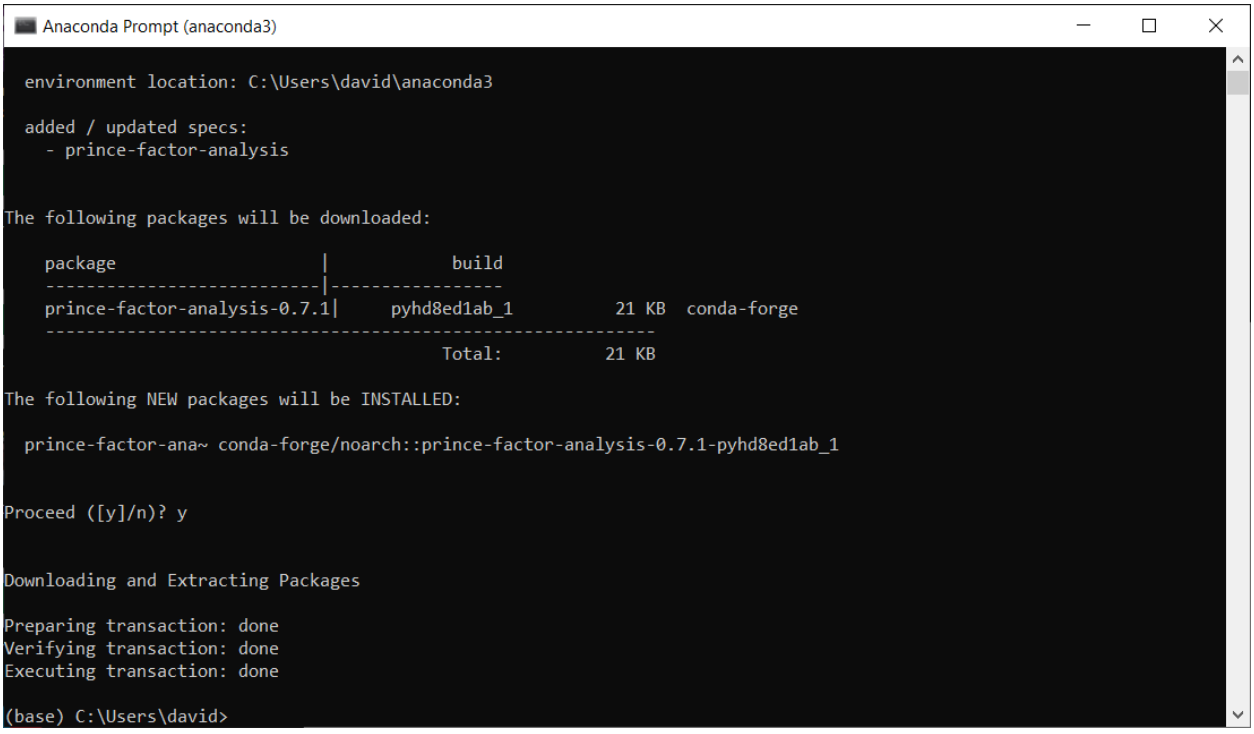
2. At the command prompt type the following without quotes and hit <enter>:
    a. "conda install -c conda-forge prince-factor-analysis"



3. If prompted, hit the “y” key and <enter> to proceed:



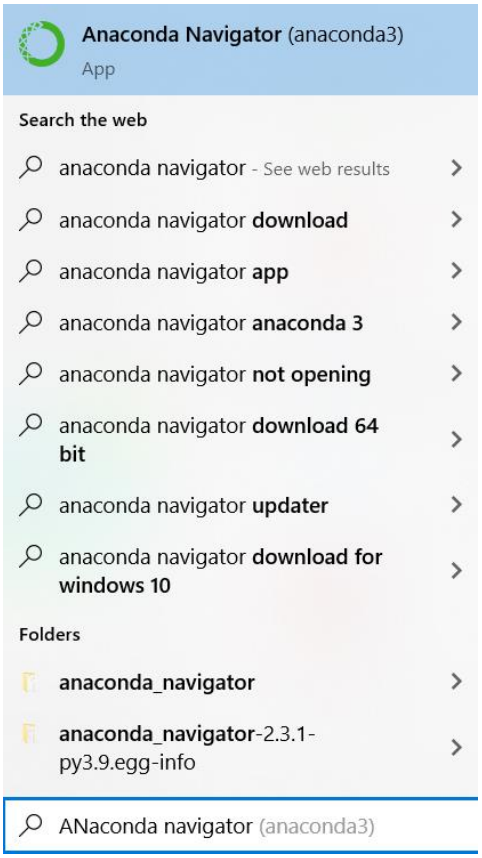
4. You should see something like the following:



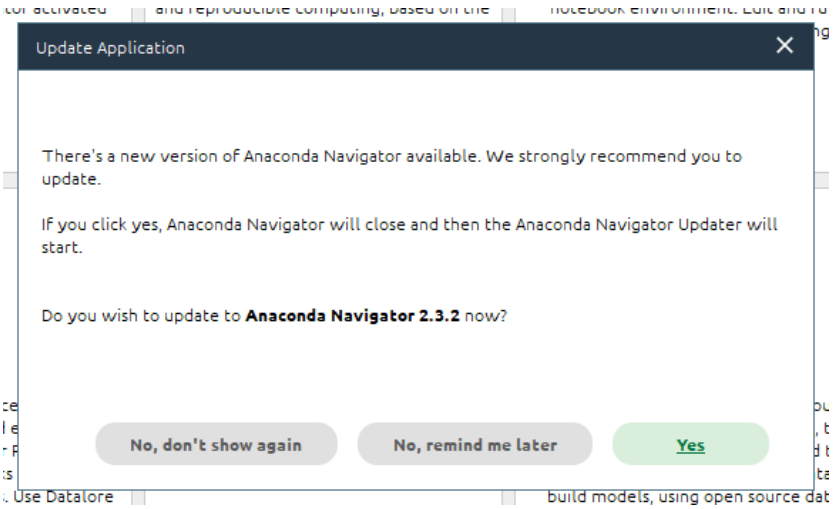
5. Repeat the above process by typing the following on the command line (without quotes) and hitting <enter>:
    a. “conda install -c conda-forge plotnine”

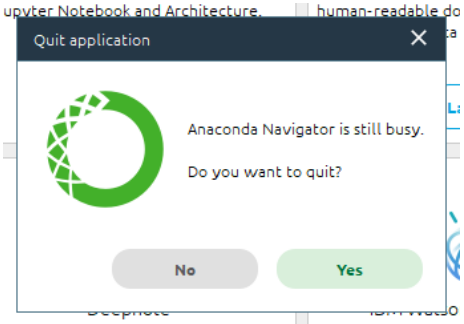
Step 4 – Verify Installation

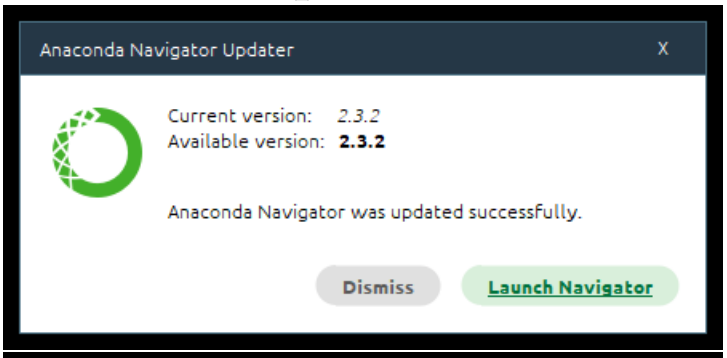
1. With Anaconda Python installed, start the Anaconda Navigator application:

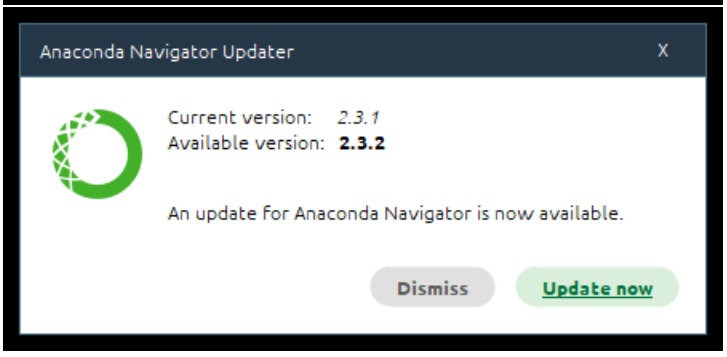


2. You may be prompted to upgrade Anaconda Navigator. Follow the dialogs to do so:



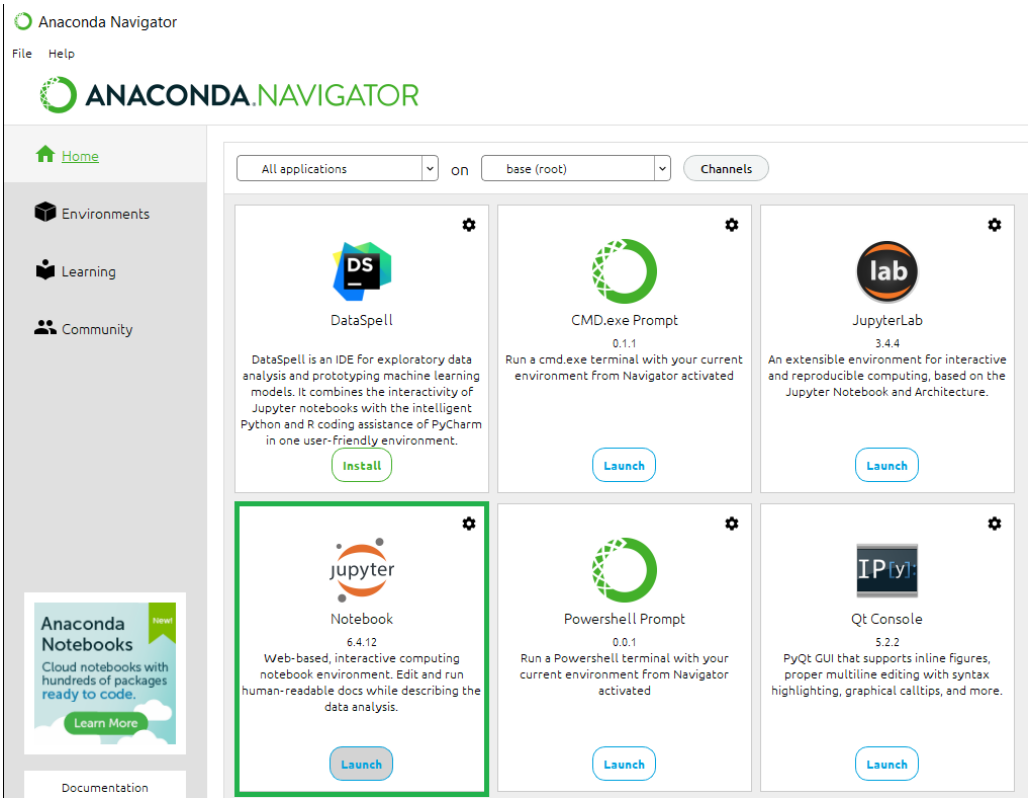




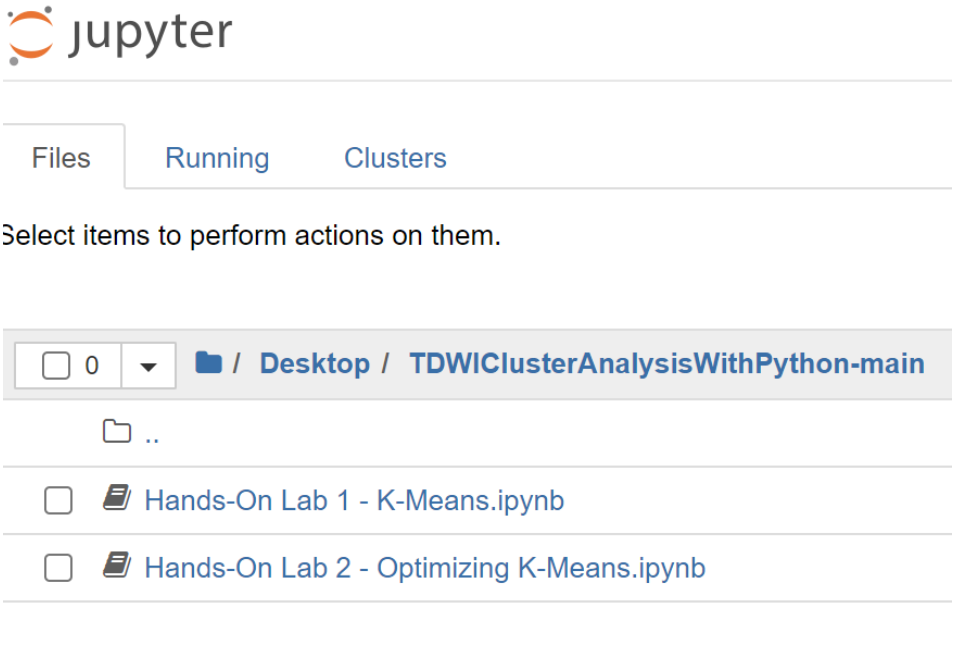


3. If needed, relaunch Anaconda Navigator

4. NOTE – Your Anaconda Navigator window might not look exactly like the following. Within Anaconda Navigator, launch Jupyter Notebook:

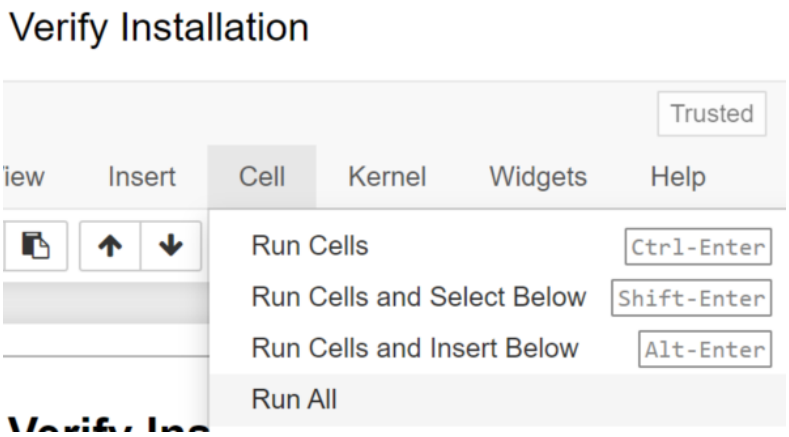


5. Within the Jupyter browser, navigate to where you copied the course file folder:



6. Click on the "Verify Installation.ipynb" entry:

7. Run all the cells in the notebook:



8. Your output should look like the following, with no errors:

Verify Installation

Run the following code cell you should see no errors as a result of the running the code.

In [1]:
```
from prince import FAMD
from plotnine import ggplot
```

Congratulations! You are now ready for the class!