

Environment Setup

Terminology: Programming languages, Python, Jupyter, Terminal

Programming languages: Programming languages are simply a special way of giving computers sets of instructions to execute.

Python: Python is a powerful, easy-to-read, high-level programming language. This means commands read like English words instead of complicated 0s and 1s and this makes it easy to learn Python without a lot of experience.

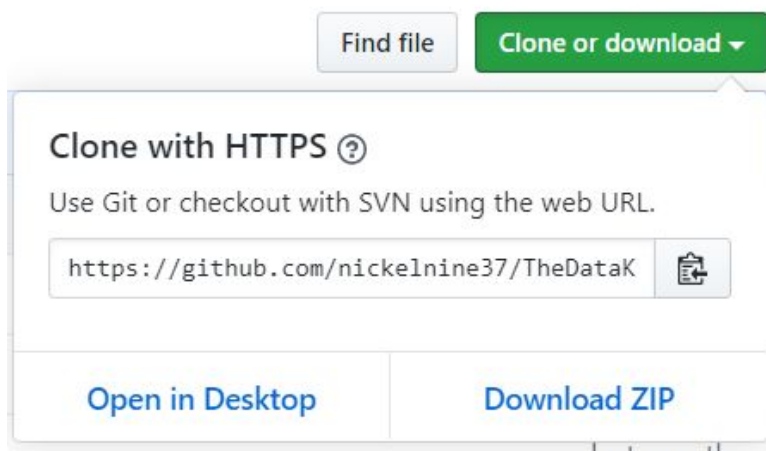
Jupyter: The Jupyter Notebook is an open-source web application that you can use to create and share documents that contain live code, equations, visualizations, and text.

Terminal: Terminals, also known as command lines or consoles, allow us to accomplish and automate tasks on a computer without the use of a graphical user interface. Using a terminal allows us to send simple text commands to our computer to do things like navigate through a directory or copy a file, and form the basis for many more complex automation and programming skills.

1. Download the course material

First, let us download the notebooks we are going to work on:

https://github.com/nickelnine37/TheDataKirk_Unit4. Open the link and click on the “Download ZIP” as you can see on the picture below. Please save the folder to your Documents.



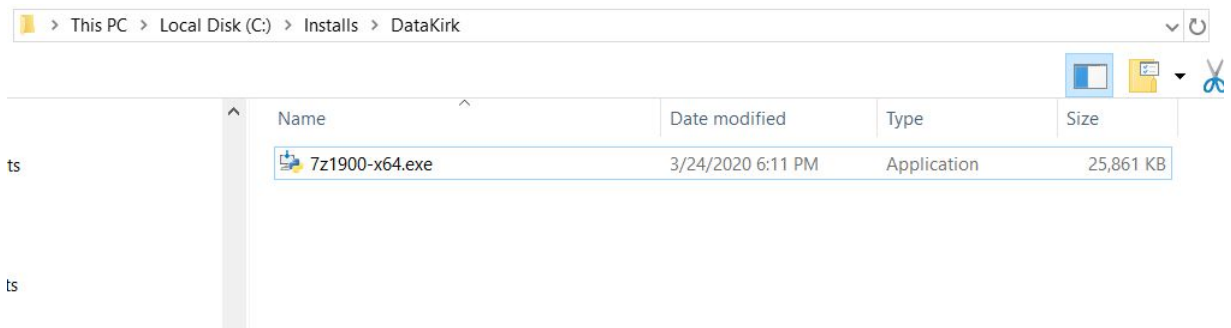
2. Install Python.

To set up our work environment with Jupyter notebook, we need to make sure we have the following done first:

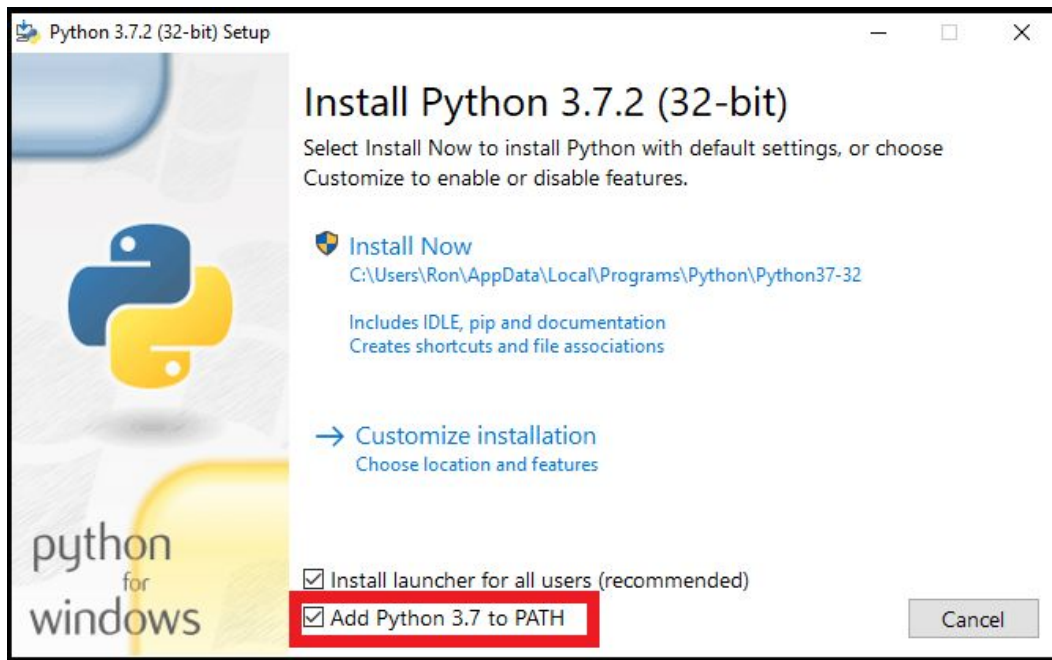
- Download and install Python for Windows. To do this open the following [link](#) in your browser and press on the 'Download' button as seen on the picture below:



- After the downloading is finalised, please right click on the file and press 'Run as administrator':



- Make sure to mark the "Add Python 3.7 to PATH".



- Press “**Install Now**”. You will be asked if you like to allow this app to make changes on your device, press ‘**Yes**’, then press ‘**Next**’.
- The program will install and ask you to close the window, press ‘**Close**’.

4. Install Jupyter.

After installing Pip and Python run the following commands:

- **pip install jupyter**

To open the already installed notebook run the command in the cmd terminal:

- **jupyter notebook**

This will open a new tab in your default browser where you should specify where in your computer directory is the Jupyter tutorial notebook you want to open!

Caution! If you close the Cmd terminal window, the notebook will also close and all your progress will be lost, so keep the cmd window open and not close it accidentally.

5. Commands usage in the “cmd” terminal

The main command we would need for know for now are the following:

5.1 Change Directory

Command: cd

What it does: Changes the directory of the command line path.

Example: cd "path/to/directory/"

5.2 Listing Directory

Command: ls

What it does: Lists the contents of a directory.

Example: ls "path/to/directory/"

5.3 Open files

Command: open

What it does: Opens a file.

Example: open "filename"