# Environment Setup Guide

### Python & Jupyter Notebook

In the guide, we are going to go through the steps for setting up your local environment for data analytics.

In the data analytics world, the most common setup is Python + Jupyter Notebook.

Python - The go-to programming language for most of the data scientists and engineers. It’s easy to learn, and supported by a large number of data analytics libraries.

Jupyter Notebook - As the name suggests, it is a tool to help you in building a data analytics notebook and document your notes throughout the analytics process. You can write code and text in your notebook. The major difference between running a notebook and running python code in visual studio code is that - you can run the code line by line, block by block, and make modifications on the fly. It is a handy tool for the back-and-forth data analytics process.

#### Installing Python

It is straightforward to install Python. All you need to do is to download the python package from <https://www.python.org/downloads/> and run the installer.

If you are seeing an option for “adding to PATH variable”, make sure you check that box.

For Windows users, you can also opt to install python from the Microsoft Store.

To verify that you have successfully installed Python on your computer, you can follow the steps below:

**Windows:**

1. Open Command Prompt
2. Type python (python3) or py
3. Hit Enter, if Python is installed it will show the version details. Otherwise It will open Microsoft Store to help you in download from Microsoft Store

**Mac:**

1. Open Terminal
2. Type python (python3) or py
3. Hit Enter, if Python is installed it will show the version details.

#### Installing Jupyter Notebook

We strongly recommend installing Jupyter Notebook using Anaconda. To do that, you just need to go to <https://www.anaconda.com/products/distribution> and download the latest version of Anaconda.

After installation, you should see a couple new software packages on your computer, including Anaconda Navigator and Anaconda Prompt.

#### Alternative Option

If you are not able to install the tool due to various reasons (e.g. computer setup problem, not having administrative access or other issues), you can opt for an installation-free online option. There are multiple options, and we would recommend using Google Colab (<https://colab.research.google.com/>).

It is basically an online version of Jupyter Notebook. The usage is almost the same, except the files are hosted online.

#### Jupyter Notebook Usage

For a detailed usage and navigation, you may refer to some of the useful tutorials below:

<https://realpython.com/jupyter-notebook-introduction/>

<https://www.projectpro.io/data-science-in-python-tutorial/jupyter-notebook-tutorial>

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