

How to use Python

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1 Install Anaconda

The first necessary step to work with Python is to install an Integrated Development Environment (IDE). Simply speaking, the IDE provides a graphical interface which allow you to write code and execute it. For python, there exists a lot of different IDEs and they all have unique advantages. In this course, we are going to work with Spyder. It can be installed as a standalone software, however it is more efficient to install it via Anaconda, which provide a full infrastructure for data science.

Anaconda can be installed for any operating system from <https://www.anaconda.com/products/individual>.

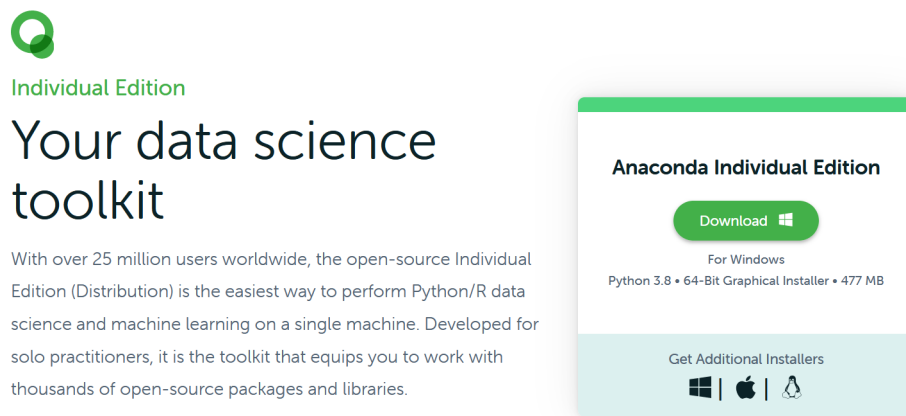


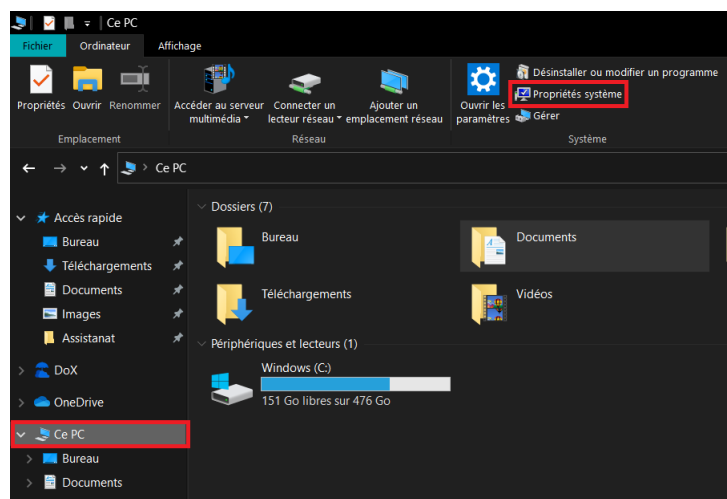
Figure 1: How to install Anaconda

If you have a 32 bits version of windows, you have to click on the link at the end of the web page:

Anaconda Installers

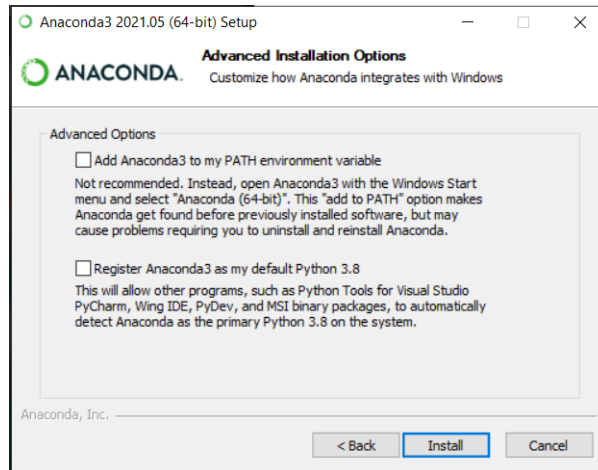
Windows	MacOS	Linux
Python 3.8	Python 3.8	Python 3.8
64-Bit Graphical Installer (477 MB)	64-Bit Graphical Installer (440 MB)	64-Bit (x86) Installer (544 MB)
32-Bit Graphical Installer (409 MB)	64-Bit Command Line Installer (433 MB)	64-Bit (Power8 and Power9) Installer (285 MB)
		64-Bit (AWS Graviton2 / ARM64) Installer (413 M)
		64-bit (Linux on IBM Z & LinuxONE) Installer (292 M)

Don't forget that you can check your Windows version in your system properties:



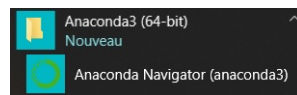
Spécifications de l'appareil	
OMEN Laptop 15-en0xxx	
Nom de l'appareil	LAPTOP-V6N3U1HL
Processeur	AMD Ryzen 7 4800H with Radeon Graphics 2.90 GHz
Mémoire RAM installée	16,0 Go (15,4 Go utilisable)
ID de périphérique	692D27BD-3B24-4EA6-9DD8-BFA75FCF332E
ID de produit	00325-96770-53608-AAOEM
Type du système	Système d'exploitation 64 bits, processeur x64
Stylet et fonction tactile	Prise en charge du stylet

During the installation process, keep the following box unchecked:

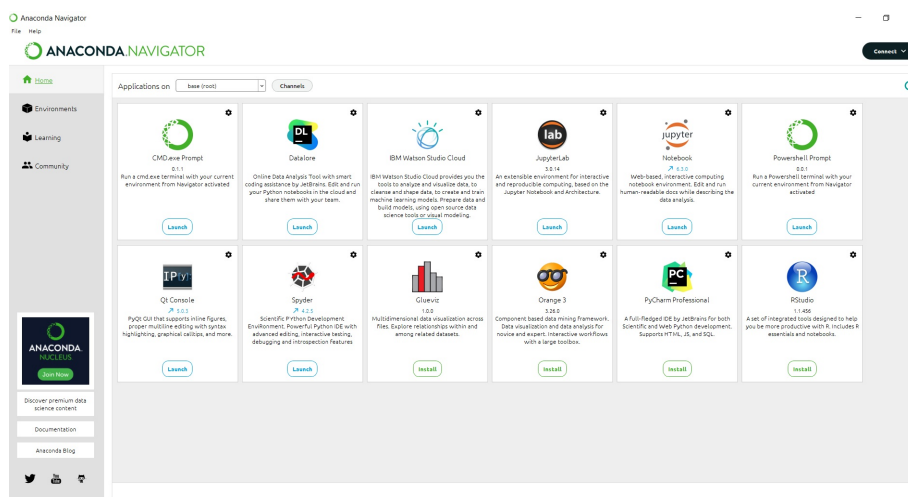


2 Create a new environment

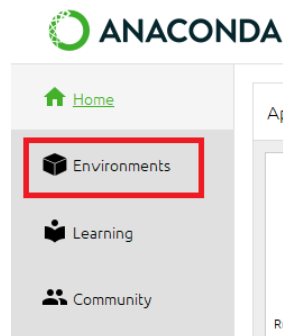
Once Anaconda is installed, please open the navigator using Anaconda Navigator:



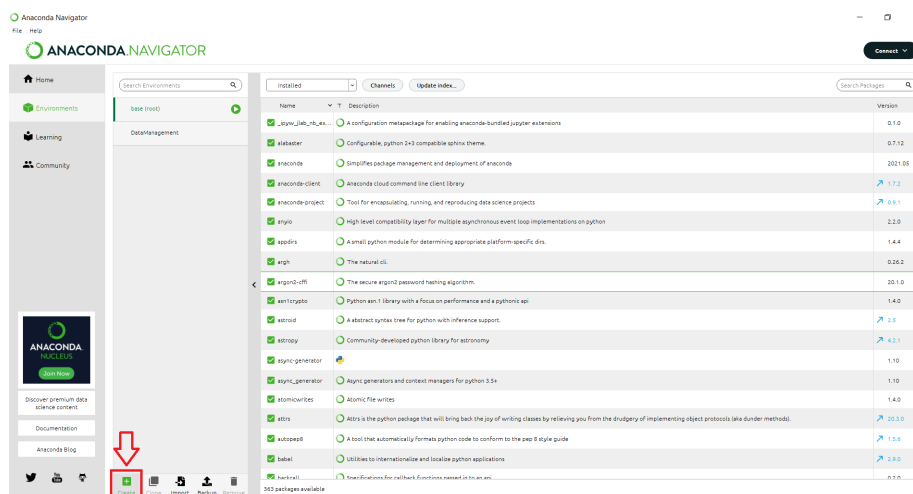
You will get this window:



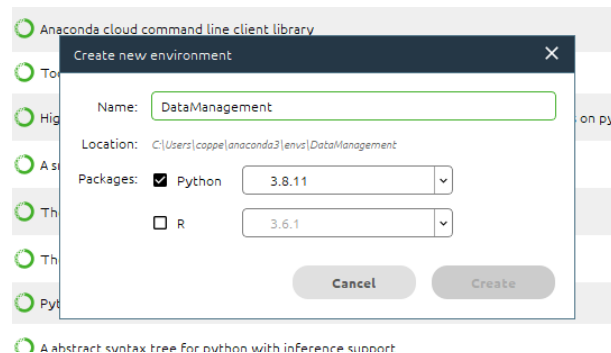
You could use Python by opening Spyder right away, however it is not recommended. First, you'll need to create a separate environment that suits your need. In a few words, an environment is a separate instance of Python on your computer, where you can install packages without having conflicts with other environments. To do so, click on "environment":



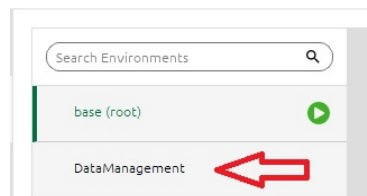
Then on "create" at the bottom of the window:



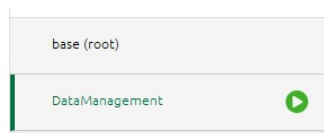
You will get a new window, where you must specify the name of your environment and the version of Python you want to use. You can choose any name you want, but it is better to use a descriptive name, so I chose "DataManagement". Check that the box in front of "Python" is checked, and keep the box unchecked in front of "R". If the version of python you get does not match mine, it is not important, just keep it. Once you've set your name, click on "Create":



Now that your environment is created, you need to activate it by clicking on the name of your environment:

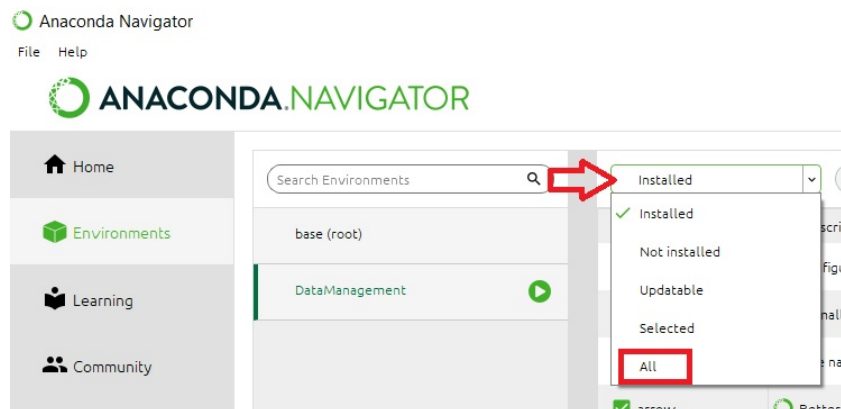


You know it active when a "play" icon appears besides your environment name:



3 Install the packages

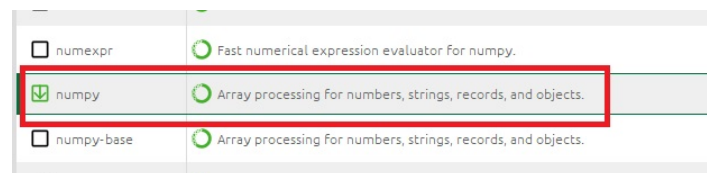
Now that you have installed your environment, you can install properly the packages you will need for this course. On the "environment" page, click "installed" and change it to "all" (**Verify that your "DataManagement" environment is active !**):



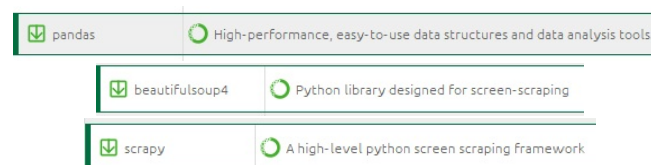
Then you can search for packages using the search bar. The first package you need to install is "numpy":



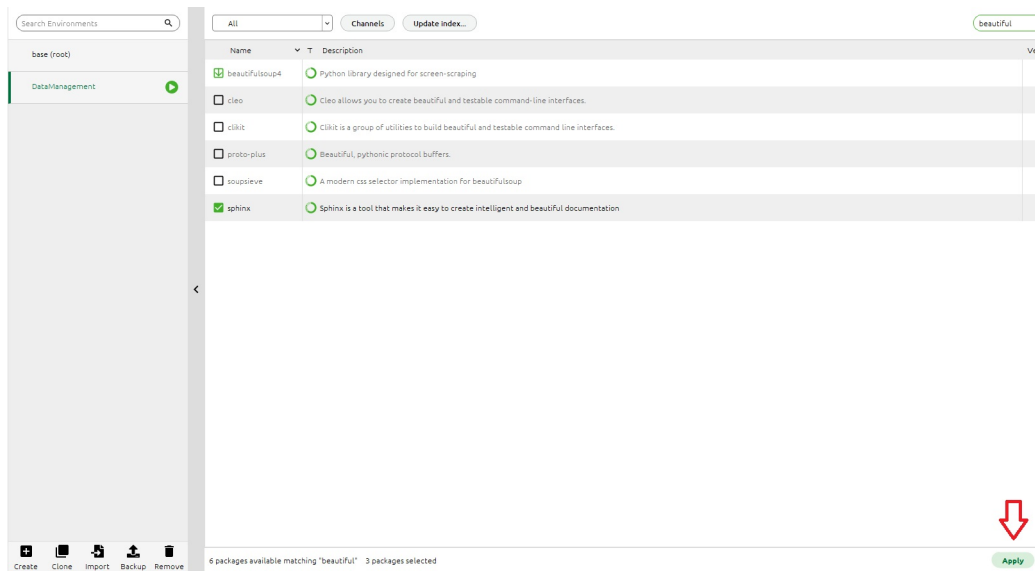
Then you must find the package "numpy" in the list and check the box in front of it:



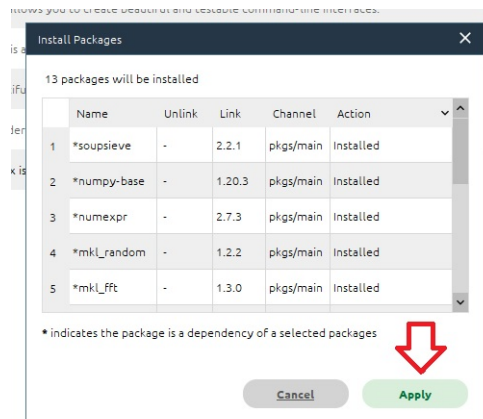
You have to execute the same procedure with the packages "pandas", "beautifulsoup4" and "scrapy":



Once all the packages are selected you must click on "apply" at the bottom right of the screen:



Then, after Anaconda has loaded the packages, click on "apply" again on the next window :

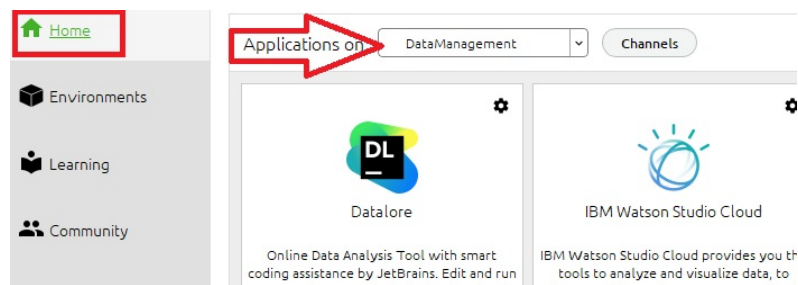


Finally, you only have to wait until the installation is complete:

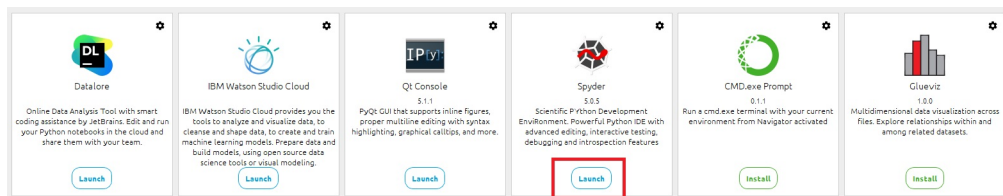


4 Spyder & Jupyter

You must also install the IDE Spyder in your "DataManagement" environment. Again, be sure that your "DataManagement" environment is active. Then click on "home":



Then, you must click on "install" under Spyder and follow the installation instructions:



Finally, you have to install Jupyter:

