

PYTHON

Some History

- “ In December 1989, I was looking for a "hobby" programming project that would keep me occupied during the week around Christmas...I chose Python as a working title for the project, being in a slightly irreverent mood (and a big fan of Monty Python's Flying Circus).”

–Python creator Guido Van Rossum, from the foreward to Programming Python (1st ed.)



What is Python?

- . Python is a general-purpose interpreted programming language
- . Python supports multiple approaches to software design
- . Python provides automatic memory management and garbage collection
- . Python is extensible
- . Python is dynamically typed

- **Goals:**

- An easy and intuitive language just as powerful as major competitors
- Open source, so anyone can contribute to its development
- Code that is as understandable as plain English
- Suitability for everyday tasks, allowing for short development times

Why using python ?

People use Python for many purposes:

to make games, build web applications, solve business problems, and develop internal tools at all kinds of interesting companies. Python is also used heavily in scientific fields for academic research and applied work.

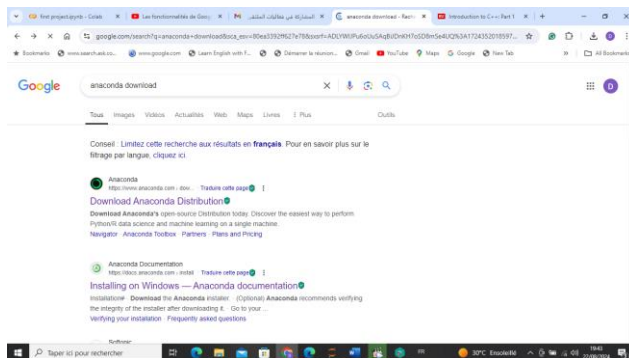
One of the most important reasons I continue to use Python is because of the Python community, which includes an incredibly diverse and welcoming group of people.

Installation and Setup

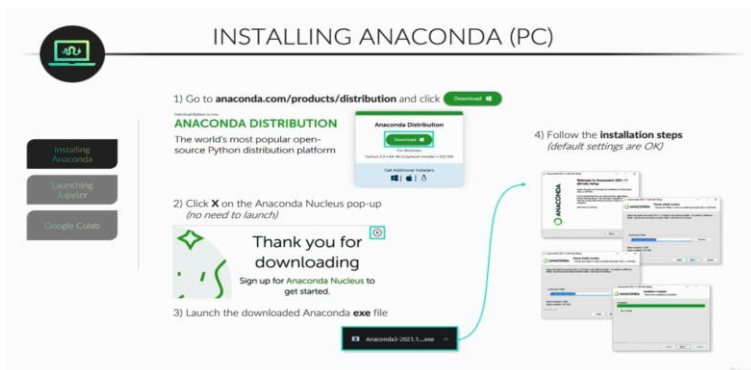
The easiest way to get started is to download the freely available Anaconda distribution provided by Continuum Analytics (continuum.io), which is available for all of the major platforms. It is better to install the Anaconda distribution because it provides its own powerful package manager (i.e., `conda`) that can keep track of changes in the software dependencies of the packages that it supports.

Installation

1. Download the [Anaconda installer](#).

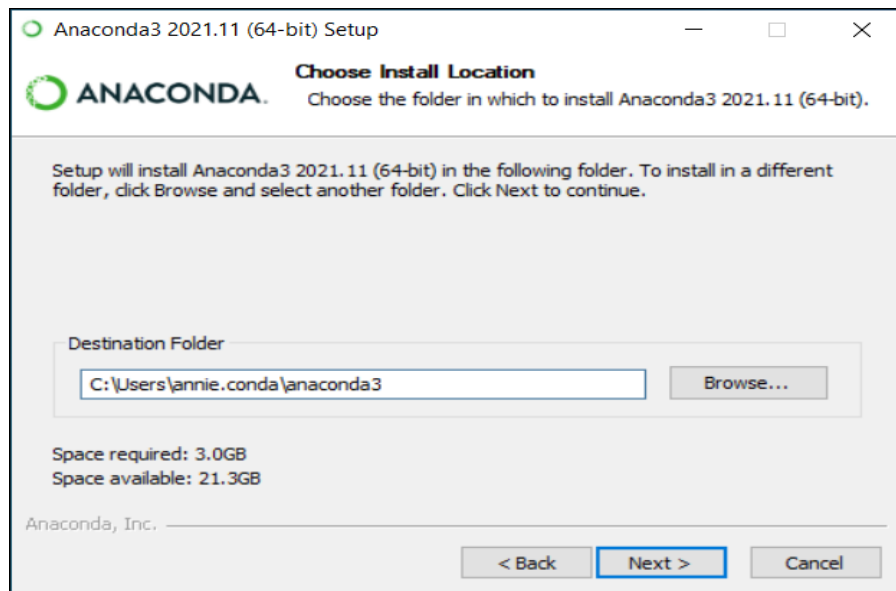


2. (Optional) Anaconda recommends verifying the integrity of the installer after downloading it.

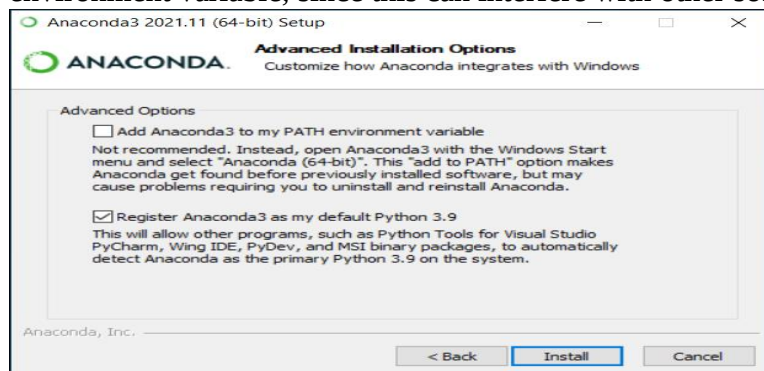


3. Go to your Downloads folder and double-click the installer to launch. To prevent permission errors, do not launch the installer from the [Favorites folder](#).
4. Click **Next**.
5. Read the licensing terms and click **I Agree**.
6. It is recommended that you install for **Just Me**, which will install Anaconda Distribution to just the current user account. Only select an install for **All Users** if you need to install for all users' accounts on the computer (which requires Windows Administrator privileges).
7. Click **Next**.
8. Select a destination folder to install Anaconda and click **Next**. Install Anaconda to a directory path that does not contain spaces or unicode characters. For more information on destination folders, see the [FAQ](#).

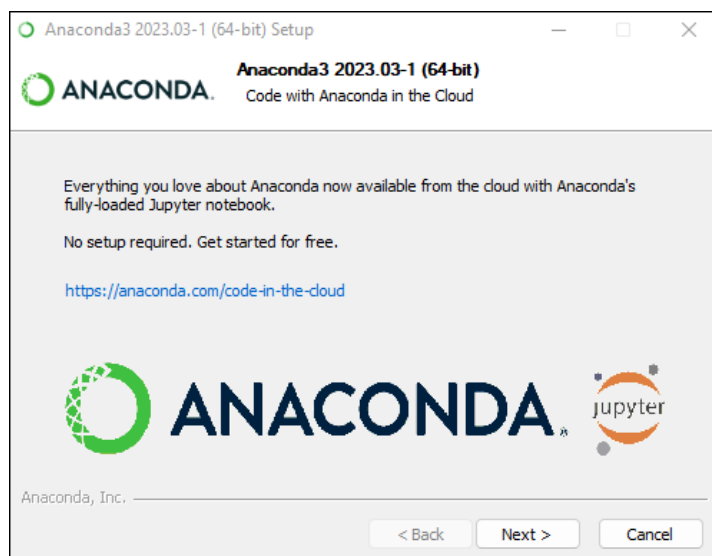
Do not install as Administrator unless admin privileges are required.



9. Choose whether to add Anaconda to your PATH environment variable or register Anaconda as your default Python. We **don't recommend** adding Anaconda to your PATH environment variable, since this can interfere with other software.

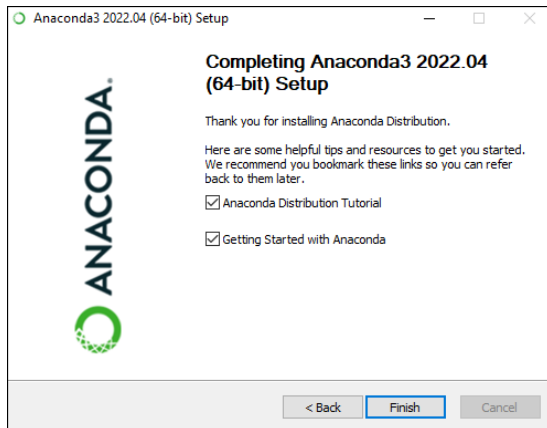


10. Click **Install**. If you want to watch the packages Anaconda is installing, click Show Details.
11. Click **Next**.
12. Optional: To learn more about Anaconda's cloud notebook service, go to <https://www.anaconda.com/code-in-the-cloud>.



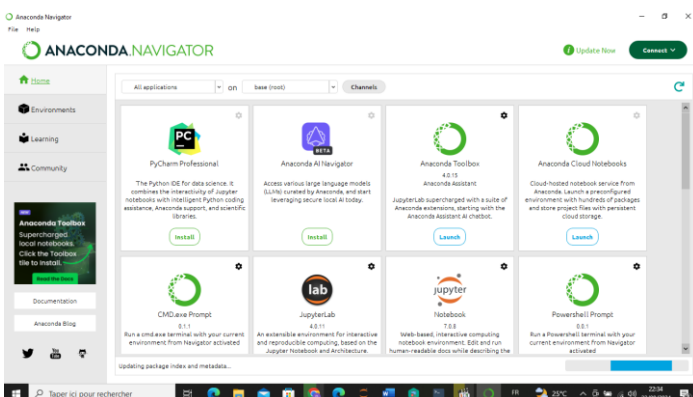
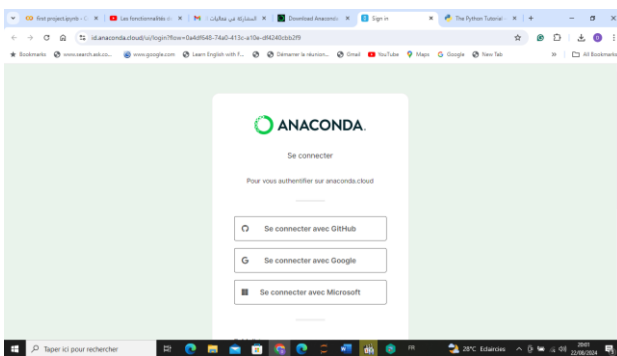
Or click **Continue** to proceed.

13. After a successful installation you will see the “Thanks for installing Anaconda” dialog box:



14. If you wish to read more about Anaconda.org and how to get started with Anaconda, check the boxes “Anaconda Distribution Tutorial” and “Learn more about Anaconda”. Click the **Finish** button.

15. [Verify your installation.](#)



YOUR FIRST JUPYTER NOTEBOOK

1) Once inside the Jupyter interface, **create a folder** to store your notebooks for the course

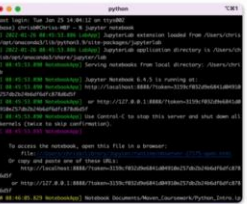


2) Open your new coursework folder and **launch your first Jupyter notebook**



THE NOTEBOOK SERVER

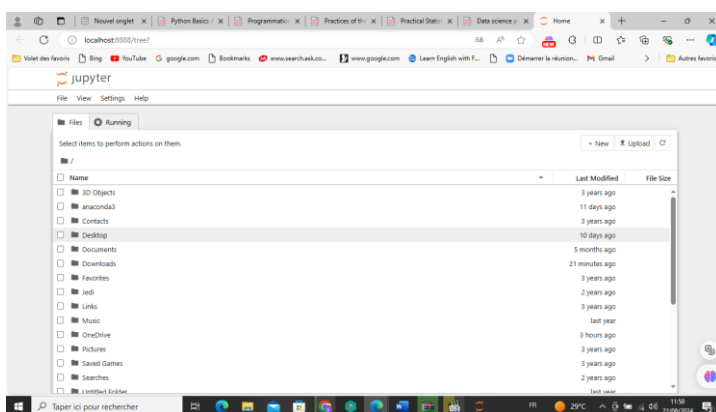
NOTE: When you launch a Jupyter notebook, a terminal window may pop up as well; this is called a **notebook server**, and it powers the notebook interface.



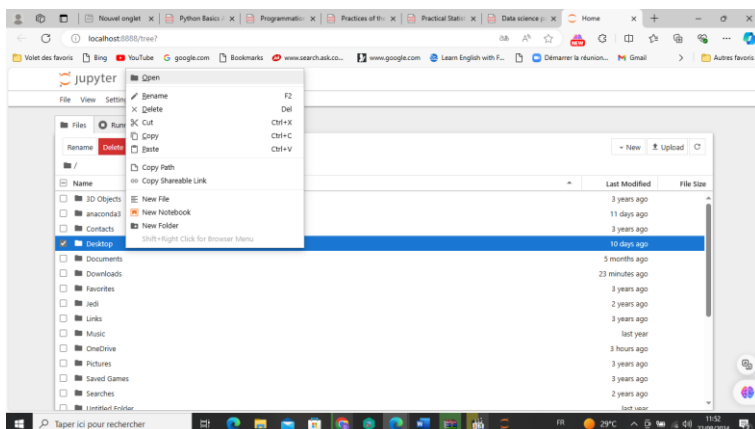
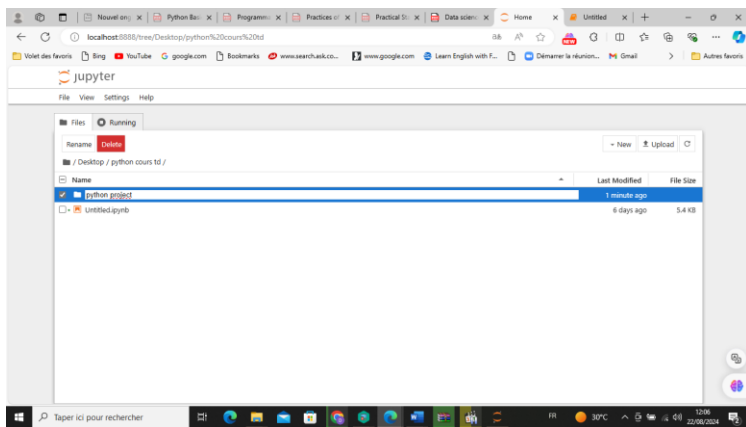
! If you close the server window, your notebooks will not run!

Depending on your OS, and method of launching Jupyter, one may not open. As long as you can run your notebooks, don't worry!

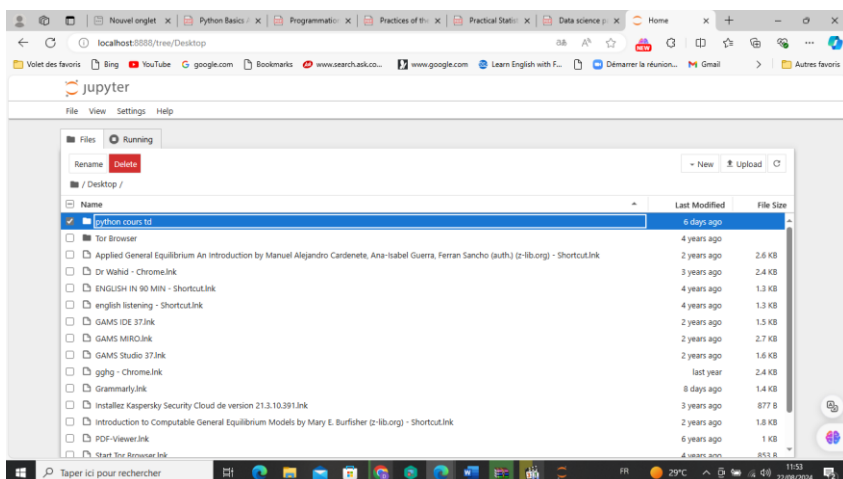
Running Python code:



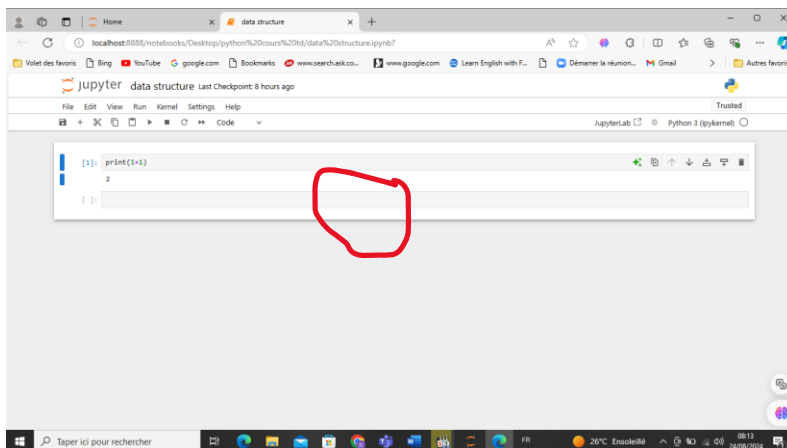
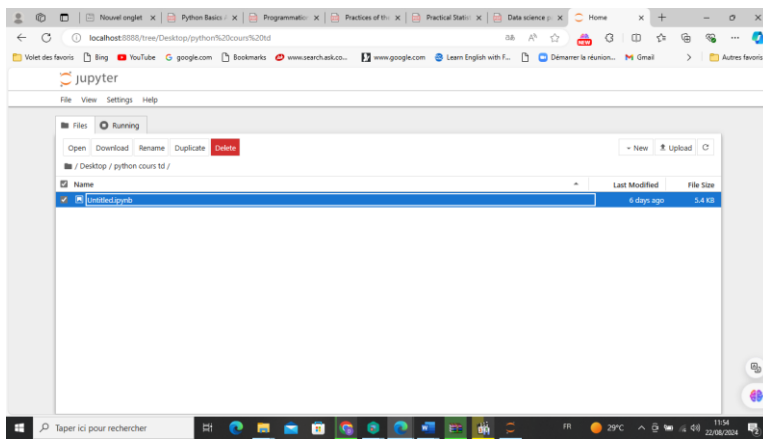
Create new folder



Choose folder :



Choose file:



You can write notes (markdown/code)

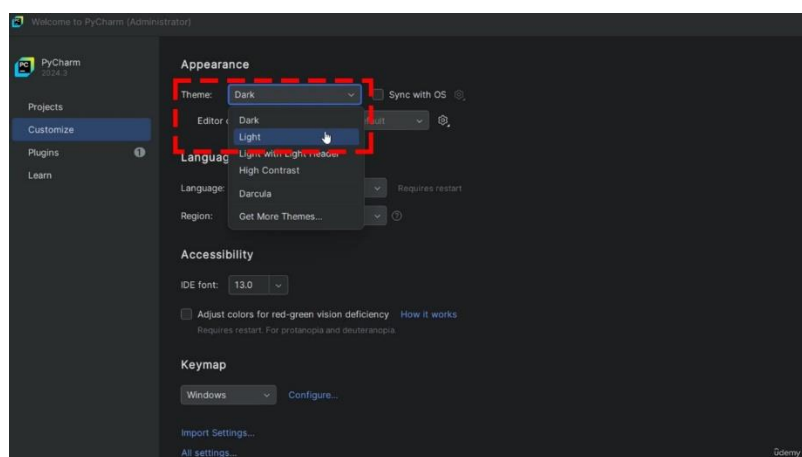
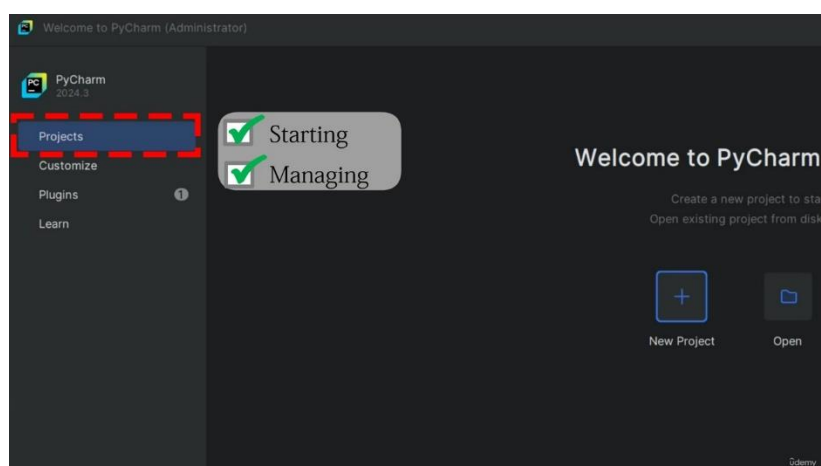
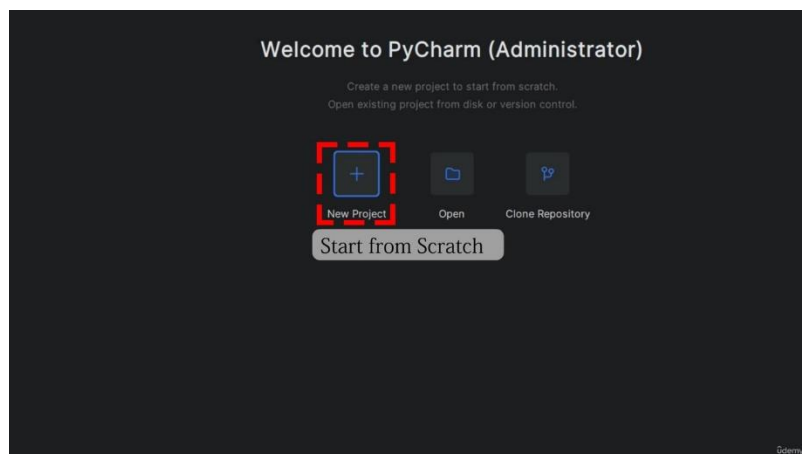
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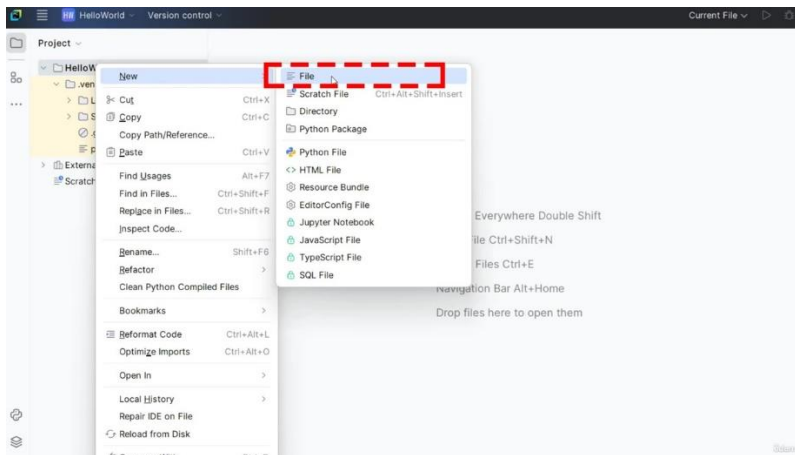
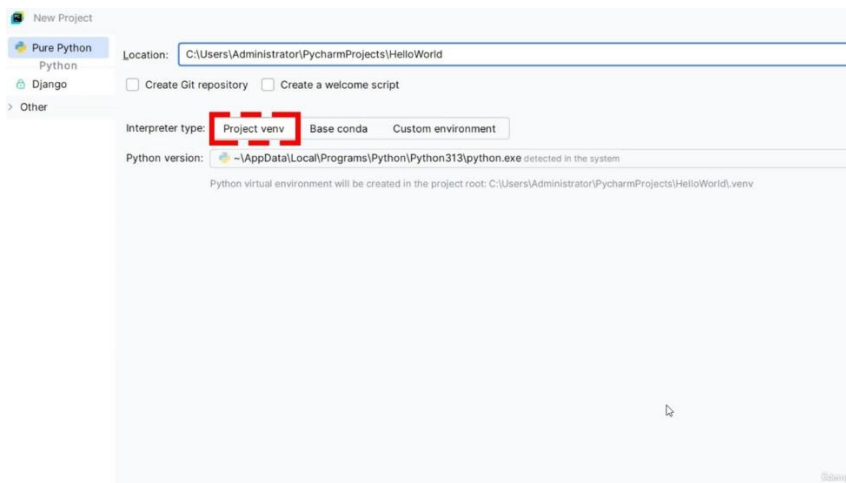
Intoduction to IDE



- ✓ Automates Tasks
- ✓ Offers Smart Suggestions
- ✓ Organizes Projects

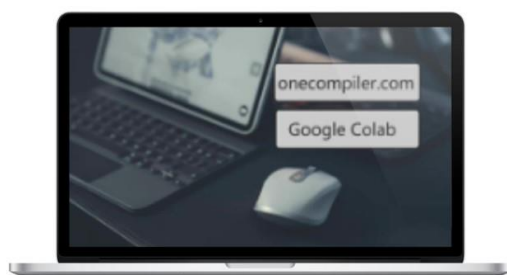
Prepared by Imran Afzal
www.utelsolutions.com



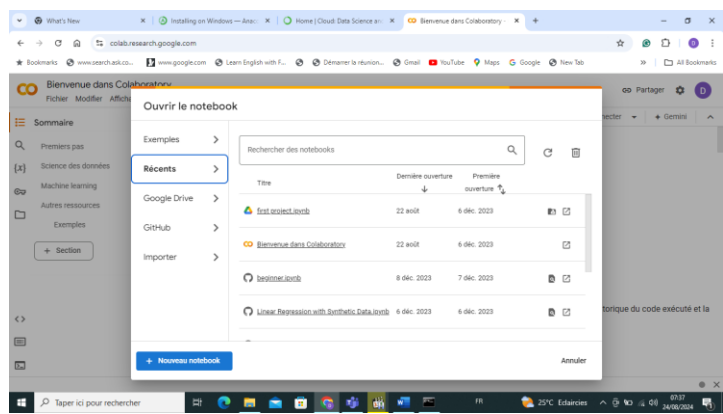


Online Python Practice Tools

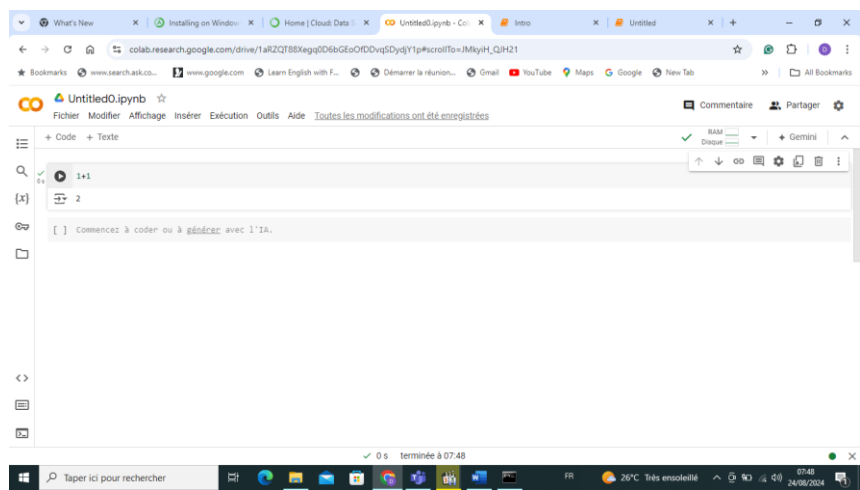
Online Python Practice Tools



1- Google collab on line notebooks



Choose new notebook



Jupyter.org/try

Choose Jupyter notbook