



MAY 11, 2023

PYTHON SOFTWARE SETUP

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ADDITIONAL CONTRIBUTORS. Document with your initial, revision date, and pages modified.




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Install Python

[Download Python | Python.org](https://python.org)



Download the latest version for Windows

Download Python 3.11.3

Looking for Python with a different OS? Python for [Windows](#),
[Linux/UNIX, macOS, Other](#)

Want to help test development versions of Python? [Prereleases](#),
[Docker images](#)




It's important to add Python to the path.

Install vscode

[Download Visual Studio Code - Mac, Linux, Windows](#)

Download Visual Studio Code


Free and built on open source. Integrated Git, debugging and extensions.



↓ Windows

Windows 8, 10, 11

User Installer	x64	x86	Arm64
System Installer	x64	x86	Arm64
.zip	x64	x86	Arm64
CLI	x64	x86	Arm64




↓ .deb

Debian, Ubuntu

↓ .rpm

Red Hat, Fedora, SUSE

.deb	x64	Arm32	Arm64
.rpm	x64	Arm32	Arm64
.tar.gz	x64	Arm32	Arm64
Snap	Snap Store		
CLI	x64	Arm32	Arm64



↓ Mac

macOS 10.11+

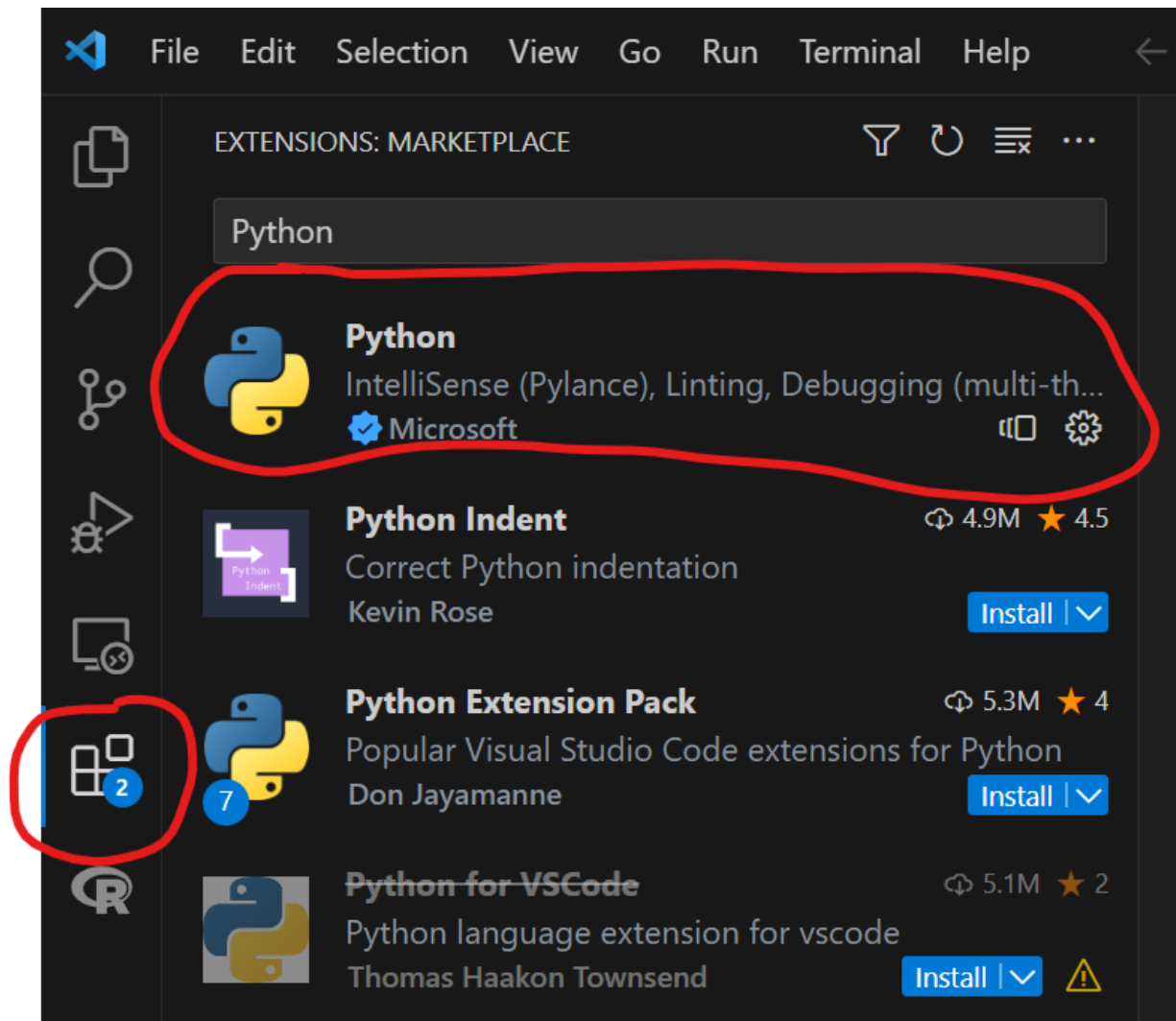
.zip	Intel chip	Apple silicon	Universal
CLI	Intel chip	Apple silicon	

Some tutorial if needed

[Getting started with Visual Studio Code](#)

Setup vscode for Python

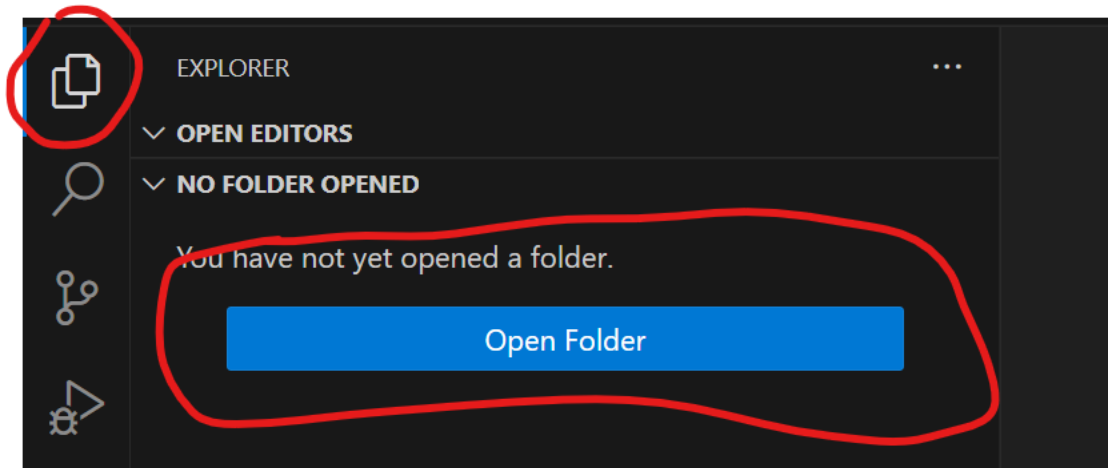
- Open vscode
- Click on extensions button on the left hand side
- Search for Python
- Install the Python extension from Microsoft



Start a new workspace for a new Project

- Create a new project folder in hard drive
- Open vscode
- Click on Explorer on the left hand side

- Click on Open Folder
- Navigate to and select the newly created folder



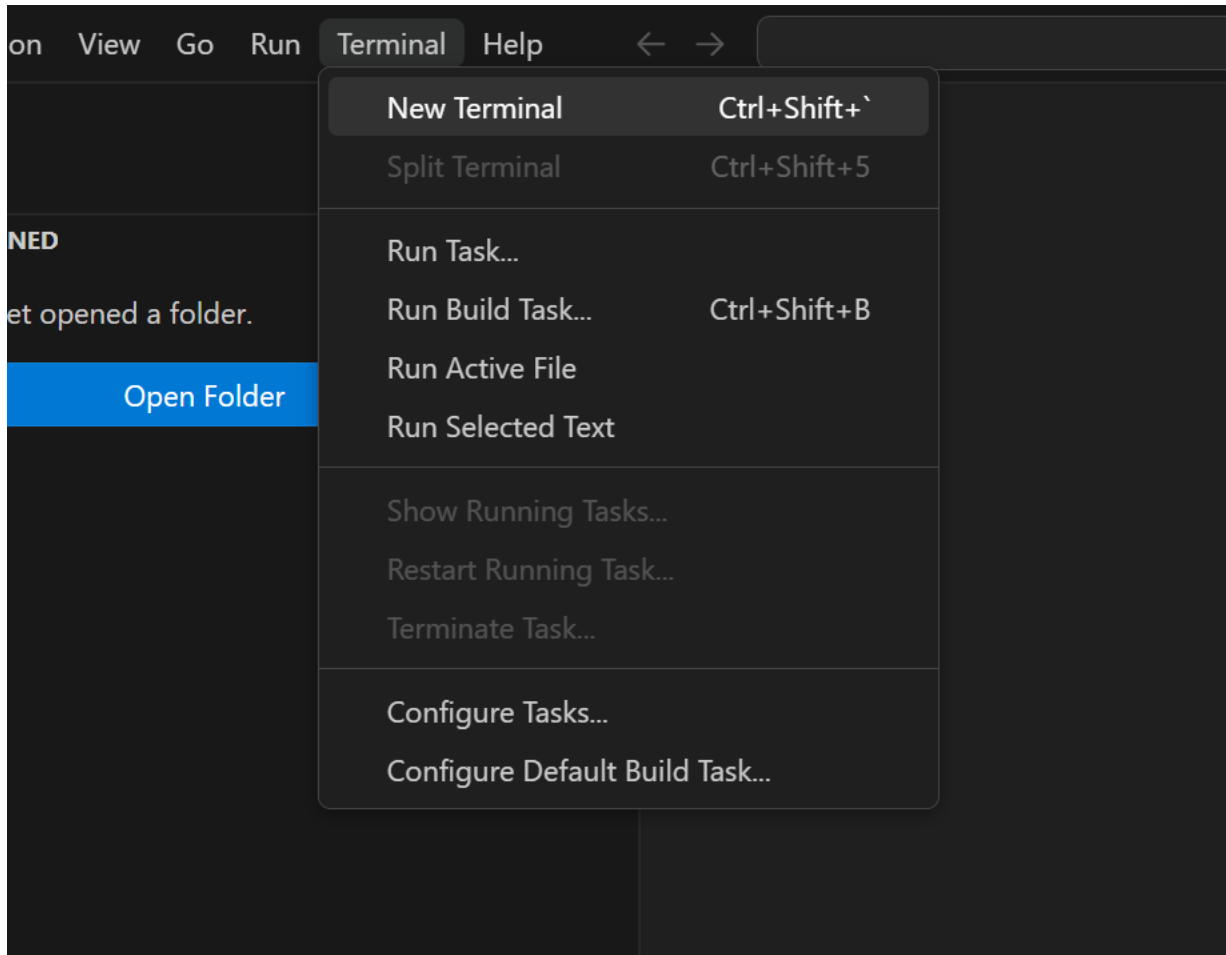
Install required software packages

e.g., Pytorch

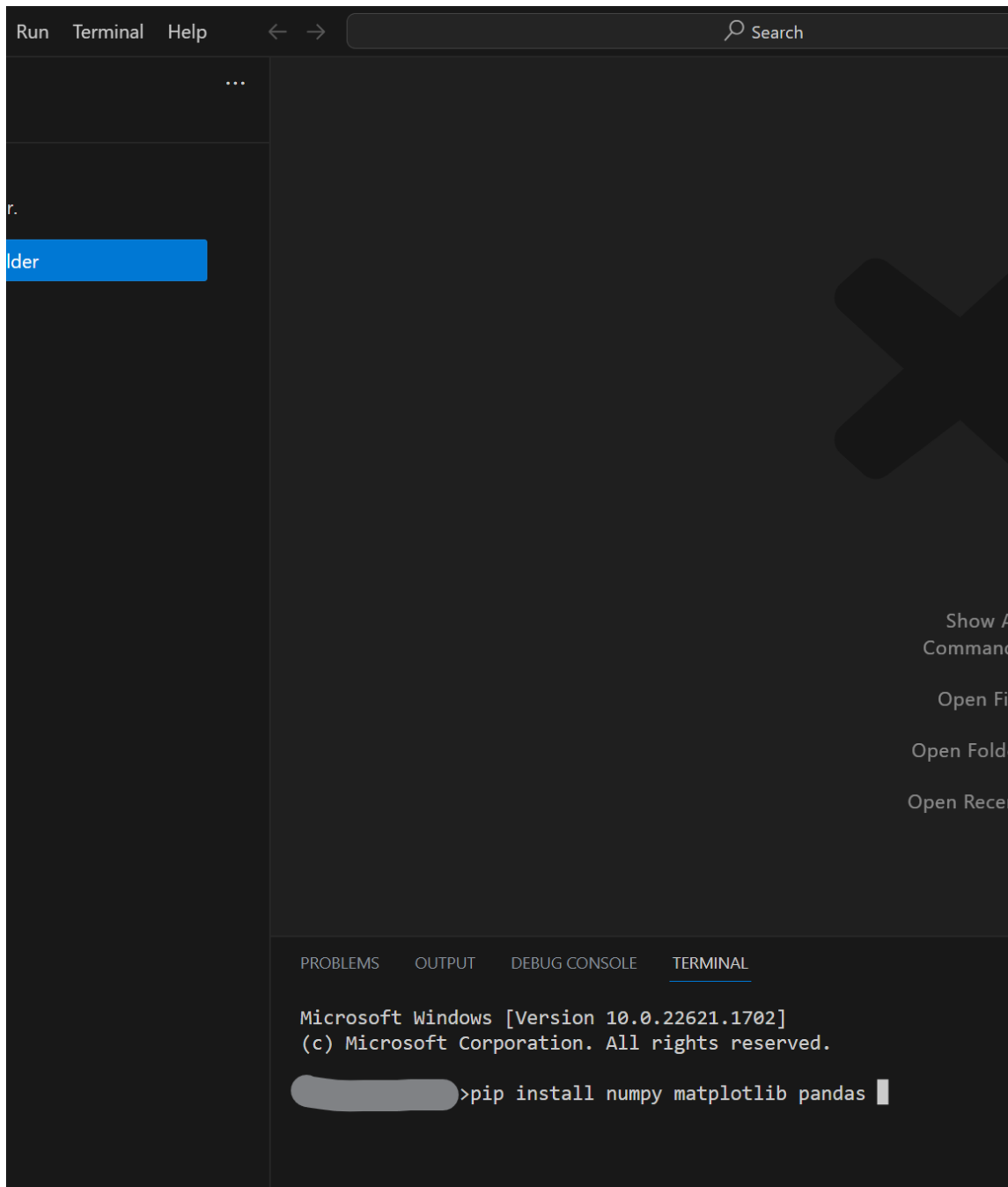
There are two broadly used commands to install software packages, pip and conda. Here we will discuss pip. Every software package website will provide the require command to install

But first we need to install some basic packages.

- Open terminal from vscode



- At the prompt run command
`pip install numpy matplotlib pandas`



Then install specific machine learning ecosystem. E.g., PyTorch.

[Start Locally | PyTorch](#)

PyTorch Build	Stable (2.0.1)		Preview (Nightly)	
Your OS	Linux	Mac	Windows	
Package	Conda	Pip	LibTorch	Source
Language	Python		C++ / Java	
Compute Platform	CUDA 11.7	CUDA 11.8	ROCm 5.4.2	CPU
Run this Command:	<code>pip3 install torch torchvision torchaudio</code>			

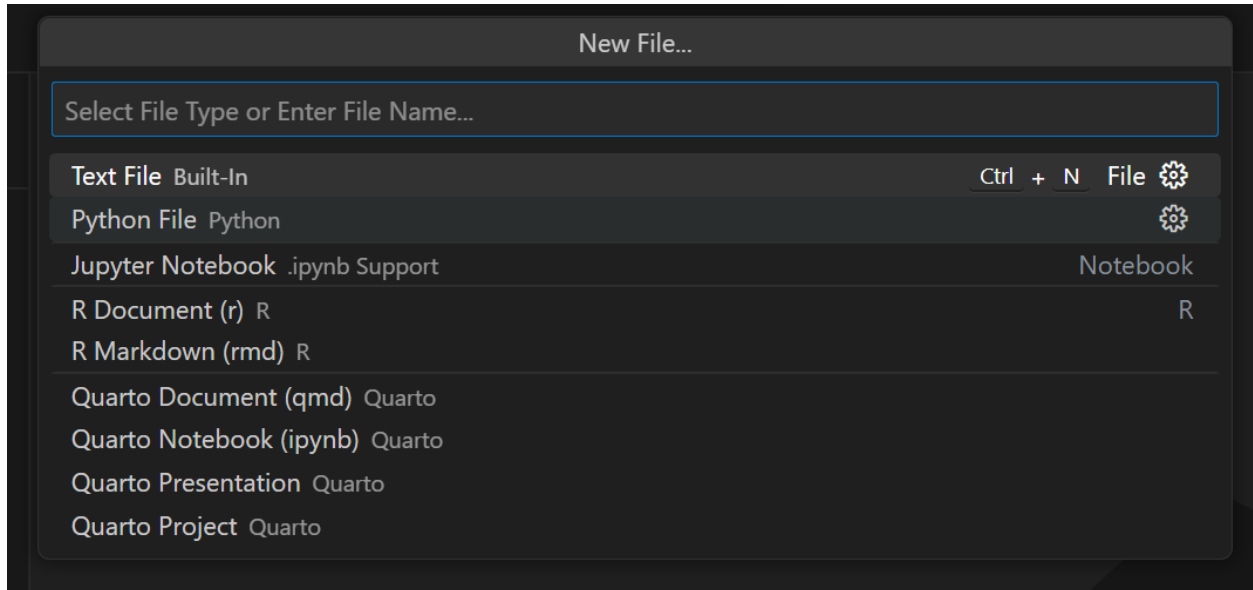
Pip3 is an alias to pip. Either should work. If not, it's safe to replace pip3 to pip in above command.

Installation DONE!

Start Coding

If typing the code from scratch

- On the current window of vscode where the required folder has been opened
 - Click on new file and select file type



Happy Coding!

If trying out a notebook from internet

E.g., [What is Question Answering? - Hugging Face](#)

- Download the notebook in the project folder

The screenshot shows a web browser at the URL <https://huggingface.co/tasks/question-answering>. The page has a dark blue header with a home icon, a refresh icon, and a security indicator that says "Added security". Below the header, the main content is titled "Useful Resources".

Would you like to learn more about QA? Awesome! Here are some curated resources t may find helpful!

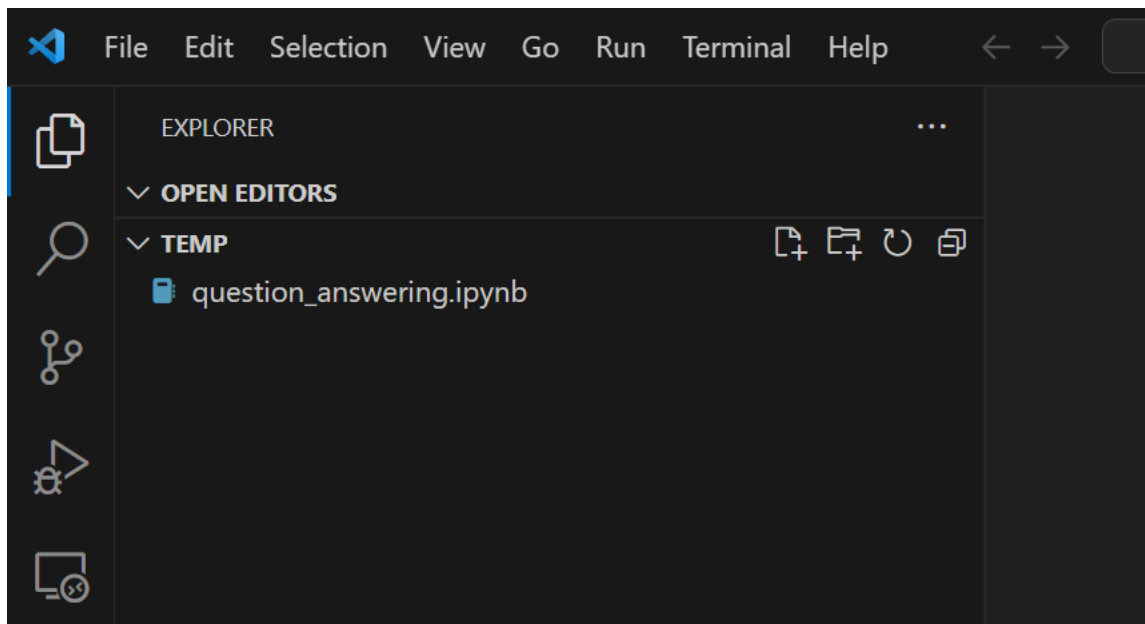
- [Course Chapter on Question Answering](#)
- [Question Answering Workshop](#)
- [How to Build an Open-Domain Question Answering System?](#)
- [Blog Post: ELI5 A Model for Open Domain Long Form Question Answering](#)

Below the resources, there is a section titled "Notebooks".

- [PyTorch](#)
- [TensorFlow](#)

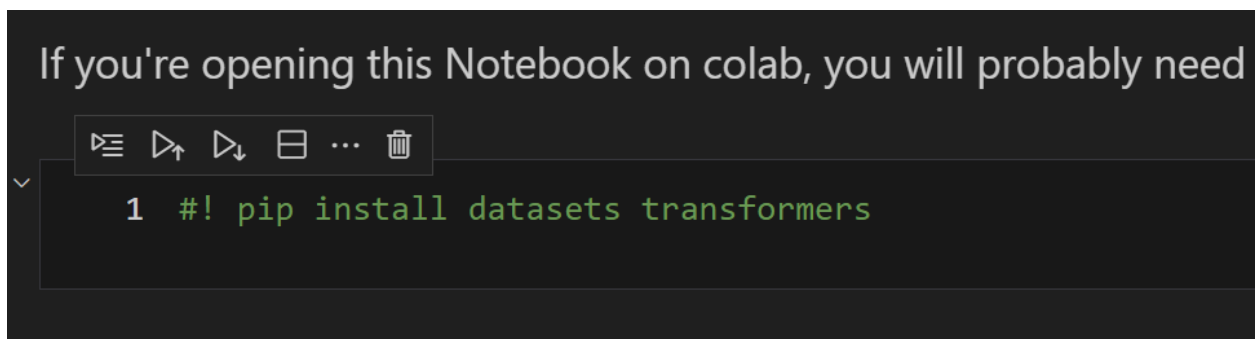
The screenshot shows a GitHub repository page for the HuggingFace notebook. The URL is https://github.com/huggingface/notebooks/blob/main/examples/question_answering.ipynb. The page shows the repository structure on the left, including a file named `question_answering.ipynb`. The main content area shows the notebook's code, which includes a comment: "Move TPU dataset creation out of the strategy.scope() and add TPU tel...". The code is displayed in a preview mode. A red circle highlights the download icon (a downward arrow) in the top right corner of the code editor area.

- Save in the project folder saved in vscode. The file should then appear in the vscode explorer (in the left hand side)

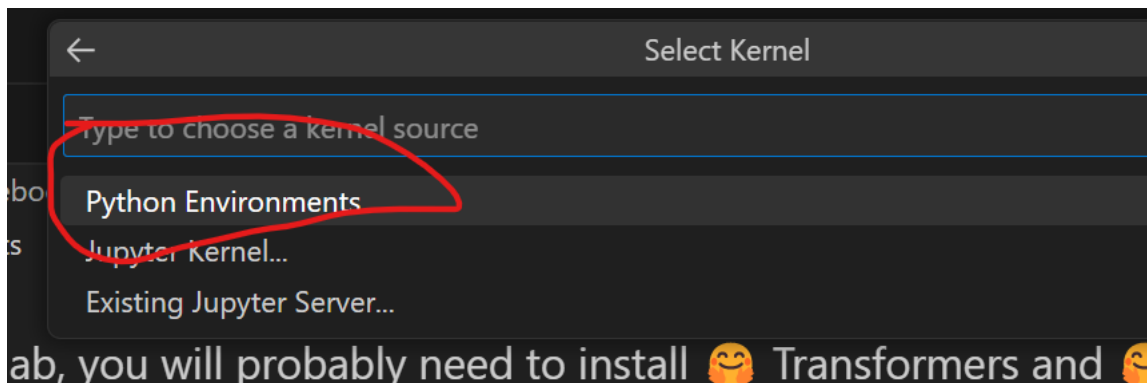
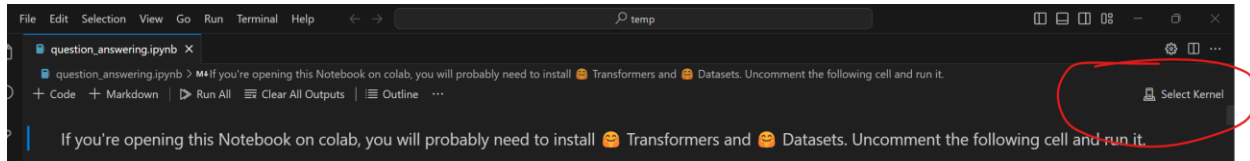


Installing required software for the notebook

- If the notebook already contains pip commands as comments. We are good, the required software will install automatically.
- Remember to remove the pip commands from the notebook to avoid reinstalling on the next run.
- These pip commands can be copied and installed manually in the terminal as well (as shown earlier).



- Before executing the notebook download from internet or our own, we need to select the kernel. This simply means we are selecting the programming language to run the code on e.g, Python, Julia.



- Now simply select, Run All in the notebook

