

python setup

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August 19, 2024

1 Download python

1. Download any of the stable releases of Python 3.

Python Releases for Windows

- [Latest Python 3 Release - Python 3.12.5](#)

Stable Releases

- [Python 3.12.5 - Aug. 6, 2024](#)

Note that Python 3.12.5 cannot be used on Windows 7 or earlier.

- Download [Windows installer \(64-bit\)](#)
- Download [Windows installer \(32-bit\)](#)
- Download [Windows installer \(ARM64\)](#)
- Download [Windows embeddable package \(64-bit\)](#)
- Download [Windows embeddable package \(32-bit\)](#)
- Download [Windows embeddable package \(ARM64\)](#)

- [Python 3.12.4 - June 6, 2024](#)

Note that Python 3.12.4 cannot be used on Windows 7 or earlier.

- Download [Windows installer \(64-bit\)](#)
- Download [Windows installer \(32-bit\)](#)
- Download [Windows installer \(ARM64\)](#)

Pre-releases

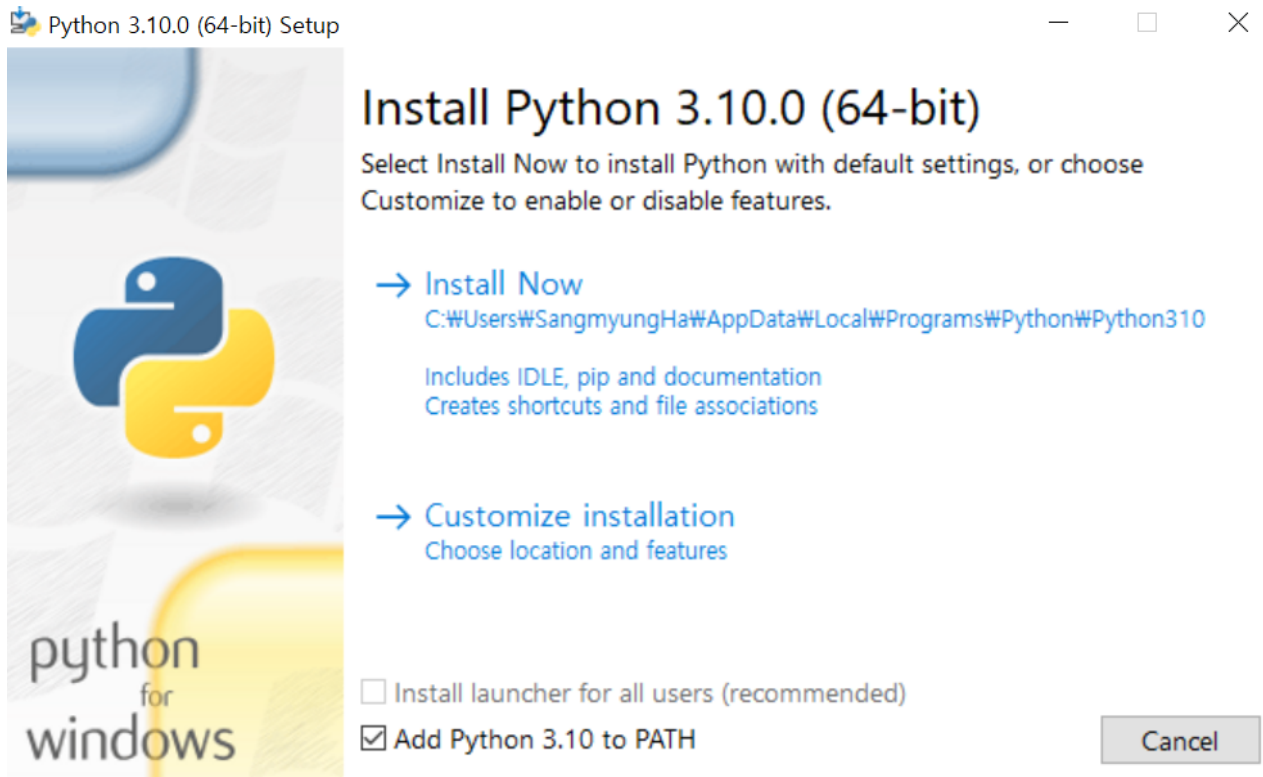
- [Python 3.13.0rc1 - Aug. 1, 2024](#)

- Download [Windows installer \(64-bit\)](#)
- Download [Windows installer \(32-bit\)](#)
- Download [Windows installer \(ARM64\)](#)
- Download [Windows embeddable package \(64-bit\)](#)
- Download [Windows embeddable package \(32-bit\)](#)
- Download [Windows embeddable package \(ARM64\)](#)

- [Python 3.13.0b4 - July 17, 2024](#)

- Download [Windows installer \(64-bit\)](#)
- Download [Windows installer \(32-bit\)](#)
- Download [Windows installer \(ARM64\)](#)
- Download [Windows embeddable package \(64-bit\)](#)
- Download [Windows embeddable package \(32-bit\)](#)
- Download [Windows embeddable package \(ARM64\)](#)

2. Click on the box: 'Add Python to PATH' and install. This is so that your command prompt or Python editor (VS Code, Pycharm, Thonny, etc.) can find your Python interpreter.



If you forgot to add to PATH, you need to (1) right-click on the 'This PC' icon (2) click 'Properties' (3) click 'Advanced system settings' (4) click 'Environment Variables', (5) double-click on the PATH and add

- (a) `C:\Users\USERNAME\AppData\Local\Programs\Python\Python312\Scripts\`
- (b) `C:\Users\USERNAME\AppData\Local\Programs\Python\Python312\`

Python312 denotes Python with version 3.12. This might be different depending on the version that you install.

If you have any problems, refer to:

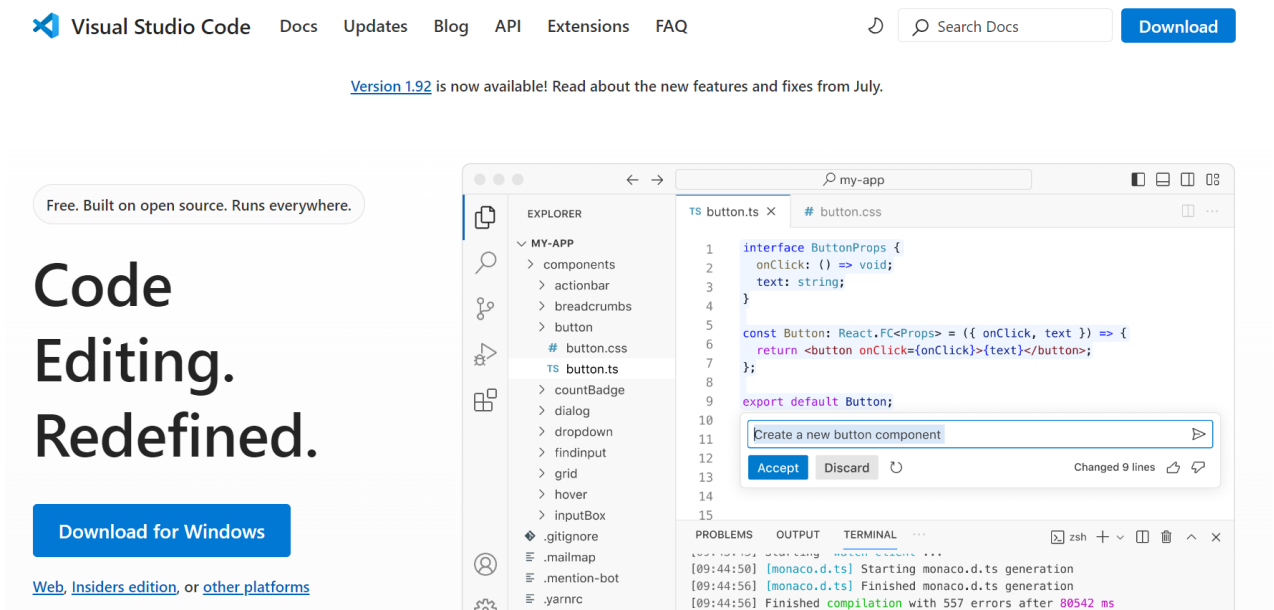
<https://www.computerhope.com/issues/ch000549.htm>

Note that any Python packages that you install on the global environment will be installed in

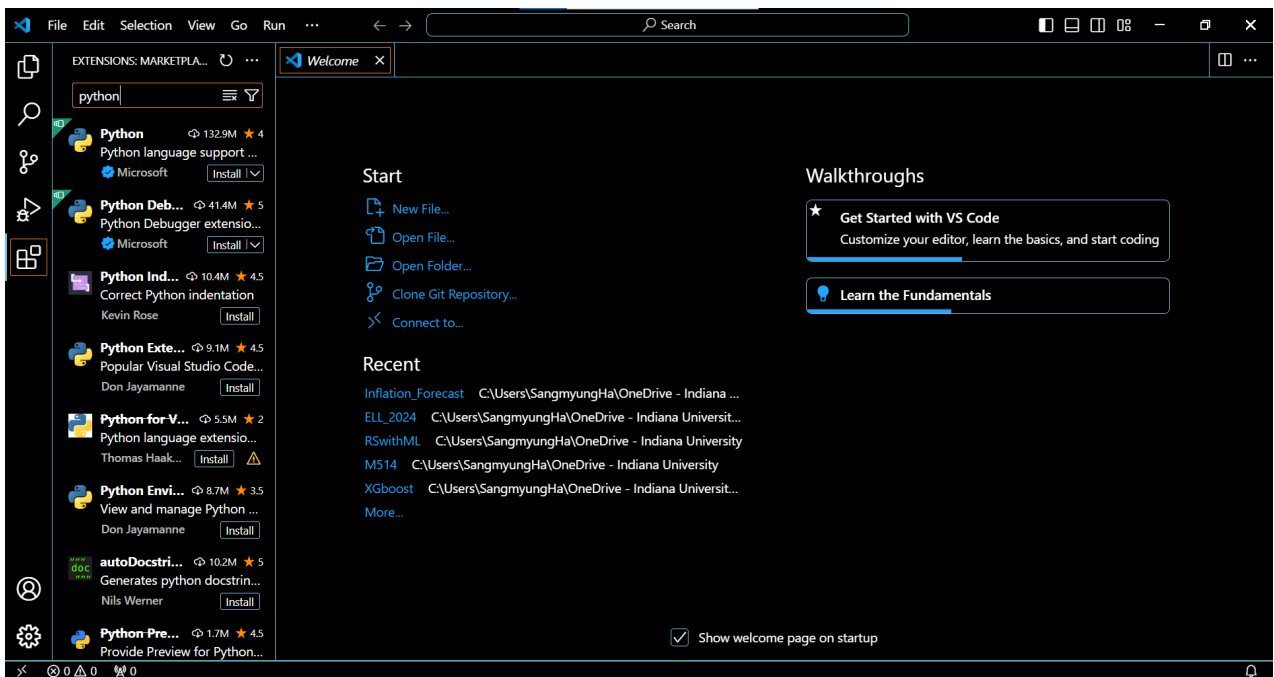
`C:\Users\USERNAME\AppData\Local\Programs\Python\Python312\Lib\site-packages`

To check the directories that your Python interpreter searches for, type 'py -m site' in the command prompt. If using virtual environments, packages are stored in the path: `<project folder>\venv\Lib\site-packages`.

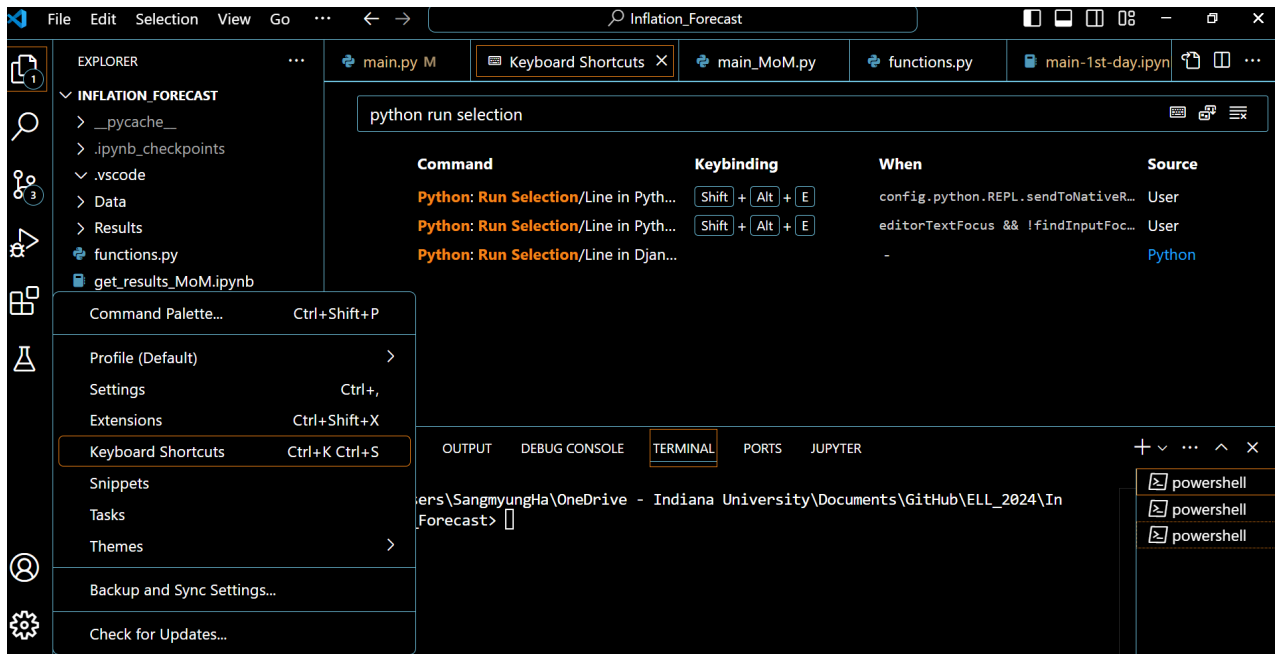
3. Install VS code



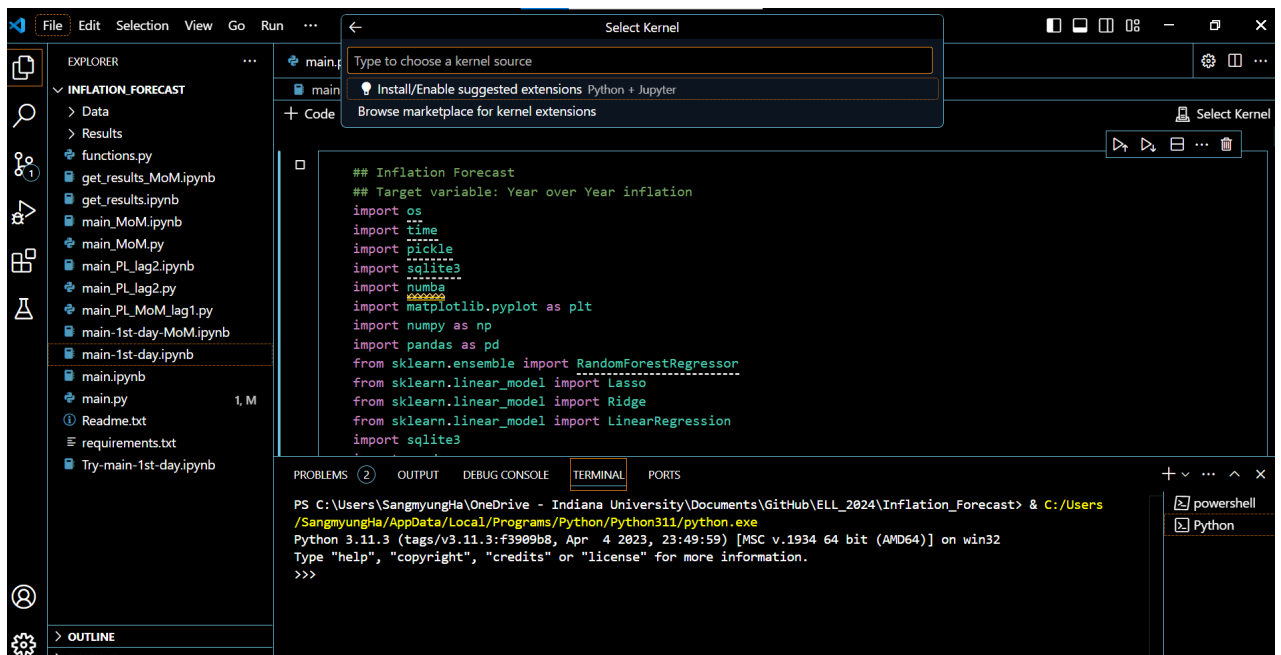
4. Open VS Code and download the 'Python' extension on VS code.



5. Press 'Shift+Enter' to run '*.py' files line by line. You can change this by changing the Keyboard Shortcuts for 'Python: Run Selection/Line in Python Terminal'.



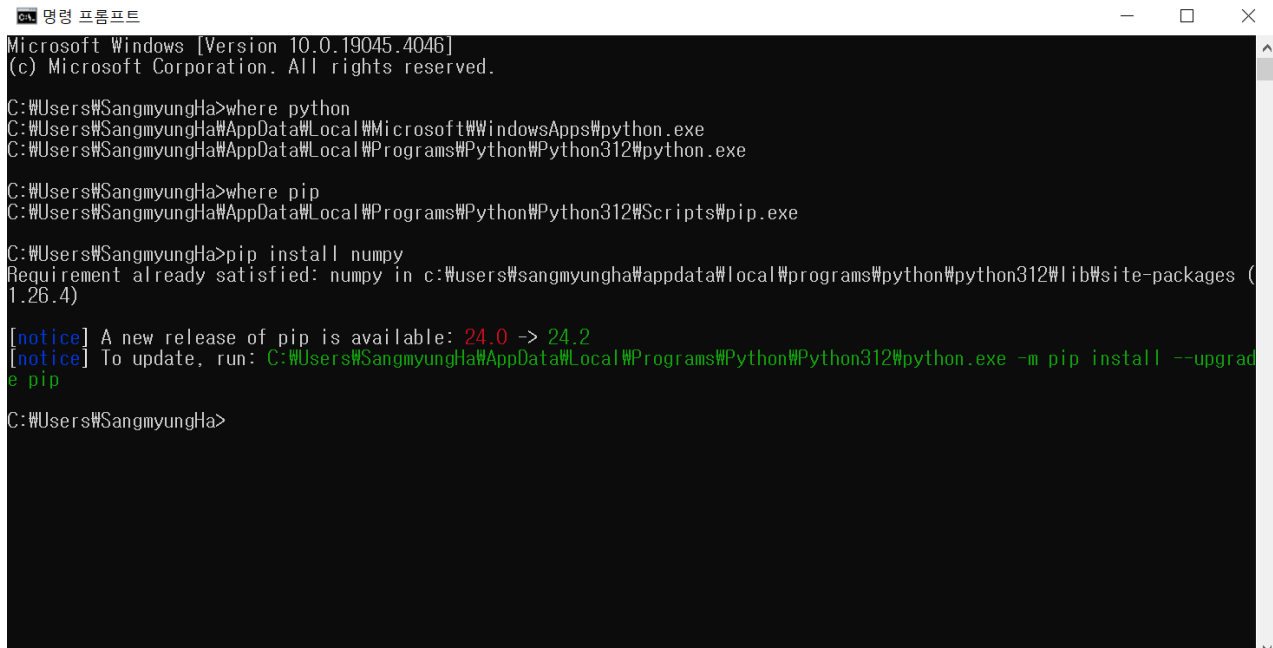
- If running '*.ipynb' files, download the recommended extensions after clicking on the square box on the top left of the code block.



- You might need to select the Python kernel (python interpreter) to run the codes. In this case, select the Python interpreter you have downloaded on 'USERNAME\AppData\

Local\Programs\Python\Python312'. If you want to use a separate interpreter or a virtual environment, I suggest using Pycharm. VS Code also has extensions for managing virtual environments, but I don't have any experience with them. In most cases, just using the global environment is enough.

8. If you need to install packages, run the command 'pip install <package name>' in the command prompt. If using a virtual environment, make sure that you execute the 'pip.exe' in your virtual environment so that the packages are installed in your virtual environment, not the global environment. If using the global environment, you don't need to search for 'pip.exe'. The 'pip.exe' that you execute is located at 'C:\Users\USERNAME\AppData\Local\Programs\Python\Python312\Scripts' and will be automatically found when you execute in the command line on the default directory 'C:\Users\USERNAME'. This is why you want to 'Add to PATH' when you install Python. Adding to PATH will enable your command prompt to find both 'python.exe' and 'pip.exe'. If you want to check where your pip.exe is located, type 'where pip' in the command prompt. If you want to avoid all this trouble of managing PATHs in installing packages, using Pycharm editor and thereby using Pycharm package manager is also a good choice.



```
명령 프롬프트
Microsoft Windows [Version 10.0.19045.4046]
(c) Microsoft Corporation. All rights reserved.

C:\Users\SangmyungHa>where python
C:\Users\SangmyungHa\AppData\Local\Microsoft\WindowsApps\python.exe
C:\Users\SangmyungHa\AppData\Local\Programs\Python\Python312\python.exe

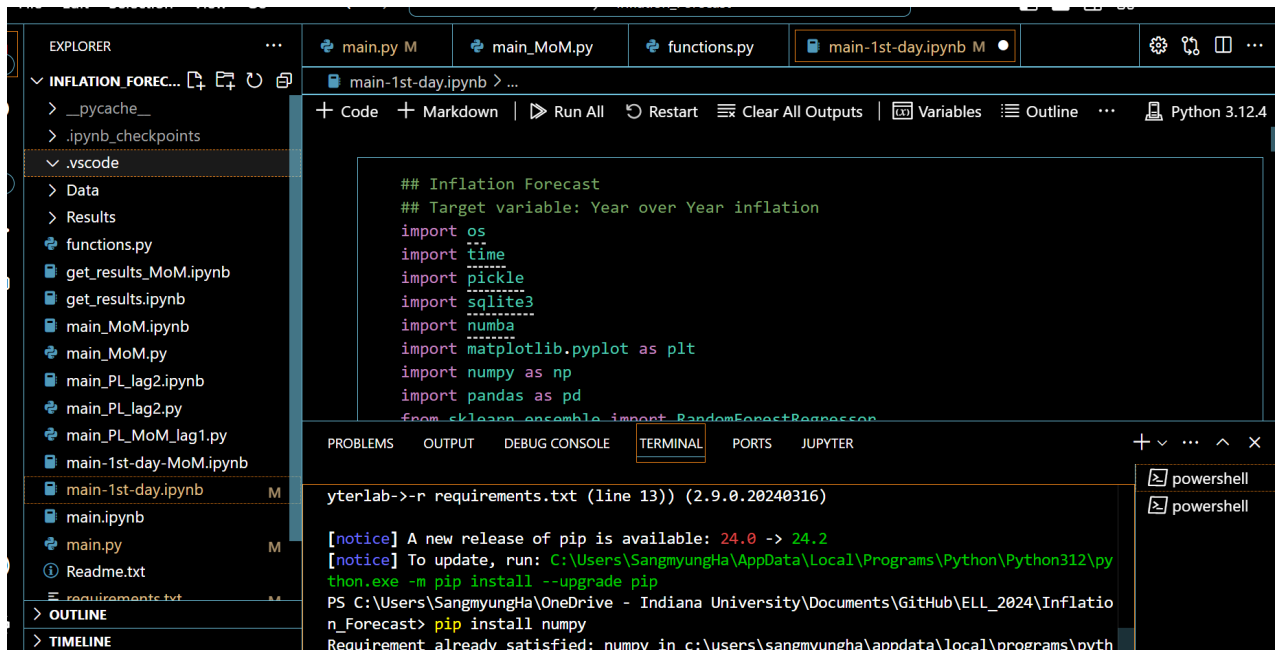
C:\Users\SangmyungHa>where pip
C:\Users\SangmyungHa\AppData\Local\Programs\Python\Python312\Scripts\pip.exe

C:\Users\SangmyungHa>pip install numpy
Requirement already satisfied: numpy in c:\users\sangmyungha\appdata\local\programs\python\python312\lib\site-packages (1.26.4)

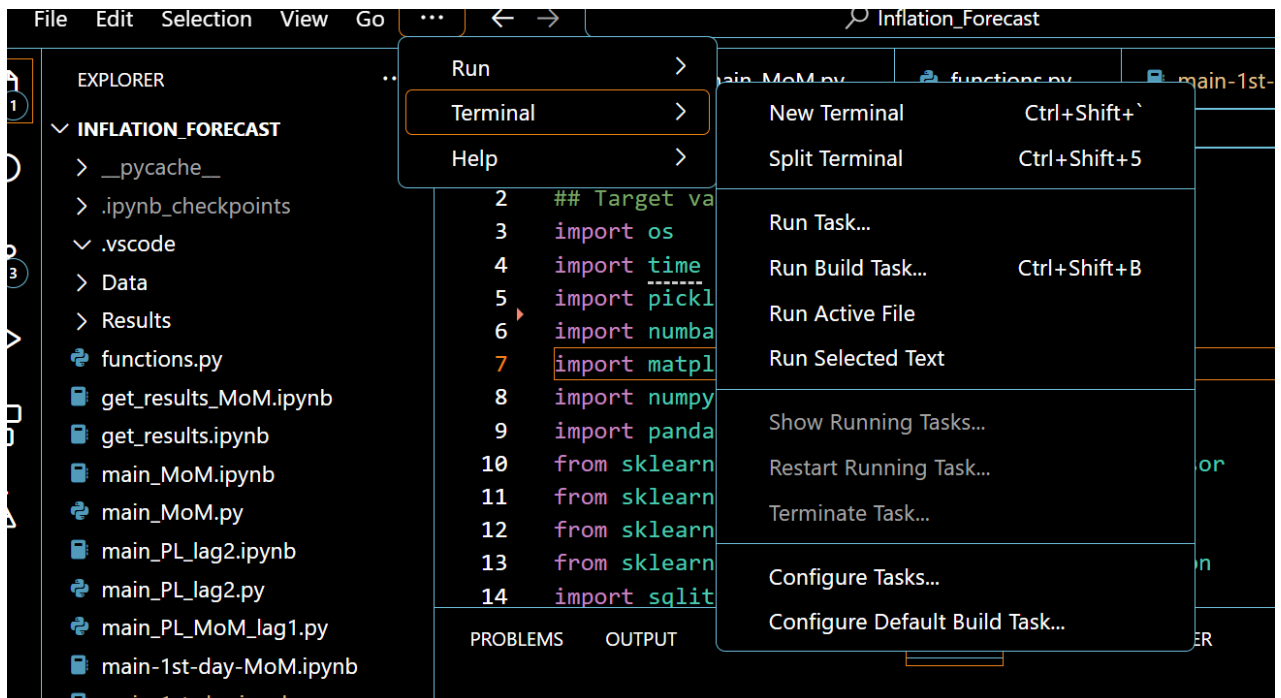
[notice] A new release of pip is available: 24.0 -> 24.2
[notice] To update, run: C:\Users\SangmyungHa\AppData\Local\Programs\Python\Python312\python.exe -m pip install --upgrade pip

C:\Users\SangmyungHa>
```

You can also run the command prompt at your project directory using VS Code Terminal.

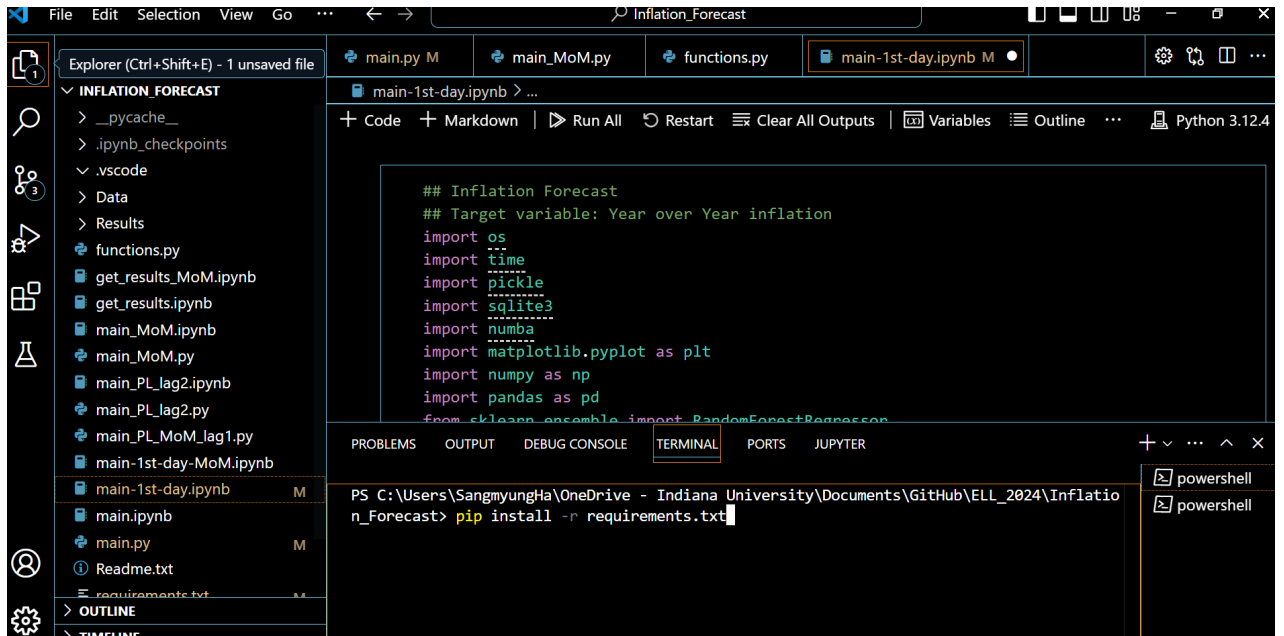


If you have trouble opening the Terminal in VS Code, see below figure.



9. If you have many Python packages that you need to install at once, run 'pip install

-r requirements.txt' in the command prompt. The packages that you need to install should be written in the 'requirements.txt' file. The 'requirements.txt' should be in the directory where you execute your command.



10. '*.ipynb' files can also be executed in jupyter lab (or jupyter notebook). Type either 'jupyter-lab' or 'jupyter lab' in the command prompt to open jupyter lab. The jupyterlab package should be installed.