

Python installation on Windows 10

Jae Yun JUN KIM*

1 Introduction

Follow the steps to the below

- Verify whether your Windows system is of 32-bit or of 64-bit version.
- Download Python choosing the version(s) of interest and that matches with your Windows' bit version.
- Install Python **adding Python to PATH**.
- Open a terminal (e.g. PowerShell with the administrator right)
- Go to **\$HOME\AppData\Local\Programs\Python**
- For each version of Python, copy `python.exe` to `python<# version>.exe`, where `<# version>` can be 37, if the version is 3.7.
- Check the Python version by typing the command: `python --version`
You can do same thing by typing: `python39 --version`
- Type: `python38`
Exit from Python by typing: `exit()`
You can achieve the same effect by `ctrl+z`
- Install *virtualenv* Python module: `python -m pip install virtualenv`
- Make sure that the execution of PowerShell scripts is enabled: *Get-ExecutionPolicy*
See that the returned value is *Unrestricted*. Then you are good to continue. However, if the answer was *Restricted*, then type the following command: *Set-ExecutionPolicy unrestricted*. Then, accept the change to be made.
- Now, go to your Python working directory and type: `python -m virtualenv -python python39 venv39`
- Then, activate the virtual environment *venv39*: `venv39\scripts\activate`
- Now, you are in the desired virtual environment, and you can install any Python libraries or code own Python scripts for your project with the Python version that you selected.
- To quit the virtual environment, just type: *deactivate*.

*ECE Paris Graduate School of Engineering, 10 Rue Sextius Michel 75015 Paris, France; jae-yun.jun-kim@ece.fr

2 Coding Python script and executing it with VS Code

Now, launch vs cODE from A terminal on which you have activated the Python virtual environment. (Note: Use the terminal window opened with `cmd`.)

```
code .
```

Now, you can run any code from VS Code within the virtual environment that you just created.

2.1 Running a Python script from Visual Studio editor

If you notice that your virtual environment is not taken into account, then, from **Command Palette** (`Ctrl+Shift+P`), type the command `Python:Select interpreter`, and then choose the right one among the suggested ones (e.g., Python 3.9.4 ('python3.9.4':venv)). Then, you should see that, when you run your code, it runs within the desired virtual environment.

On the other hand, from the VS Code terminal, you should activate your virtual environment as well.

3 References

- <https://medium.com/swlh/how-to-set-up-a-virtual-environment-with-a-different-python-version-on-windows-10-9900eb0acf9a>
- <https://superuser.com/questions/106360/how-to-enable-execution-of-powershell-scripts>
- <https://www.youtube.com/watch?v=fBBAGXjg2fk>
- <https://levelup.gitconnected.com/how-to-install-and-manage-multiple-python-versions-on-windows-10-c90098d7ba5a>