

Pip Installation for Windows – Corrected Instructions

Official Pip installation instructions: <https://pip.pypa.io/en/stable/installing/>,
(<https://bootstrap.pypa.io/get-pip.py>).

Problems:

- (1) Doesn't specify where to type the commands
- (2) Doesn't specify the environment variables editing step
- (3) Content of the commands is wrong

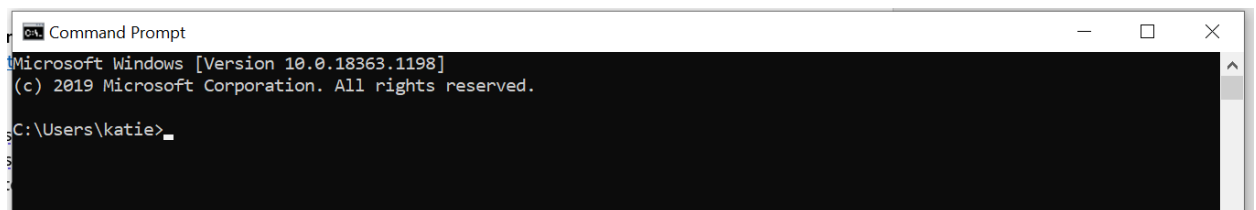
Error messages you may receive if running the commands in Python (Python shell) or in the Windows console shell ("Command Prompt"):

'python' is not recognized as an internal or external command, operable program or batch file.;
'python3' is not recognized as an internal or external command, operable program or batch file.;
'pip' is not recognized as an internal or external command, operable program or batch file.;
"NameError: name 'get' is not defined"
"SyntaxError: unexpected character after line continuation character";
"SyntaxError: invalid syntax".

Solutions:

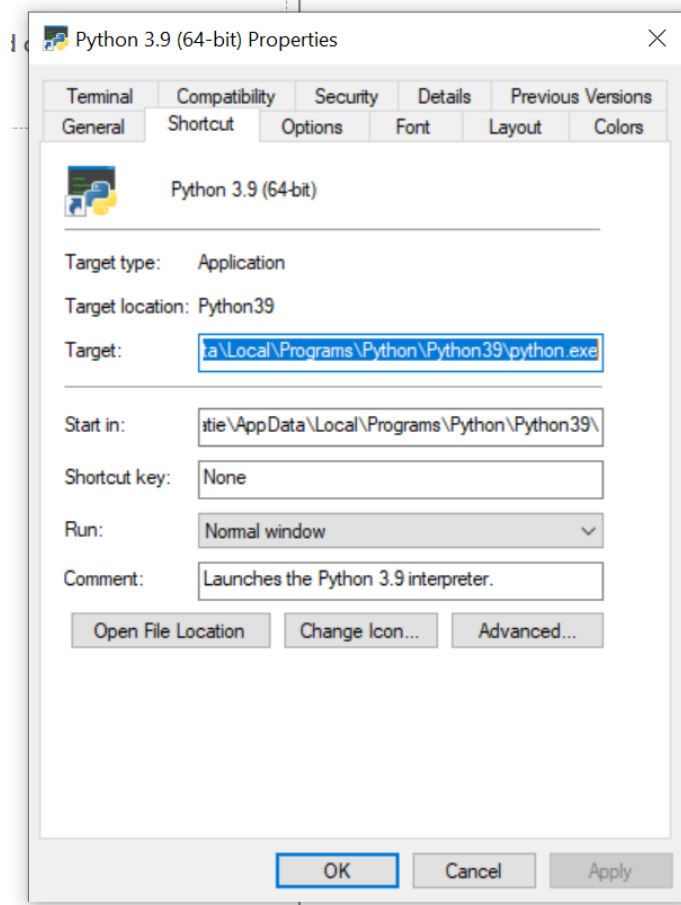
First, download Python from python.org. From this point on,

- (1) All commands are typed in the Windows console shell ("Command Prompt" program).



- (2) System 'Environment Variables' must then be edited to add the file pathway to Python.
(2a.)

Find the pathway to Python by right-clicking the Python program and looking at Properties. Copy the file pathway.



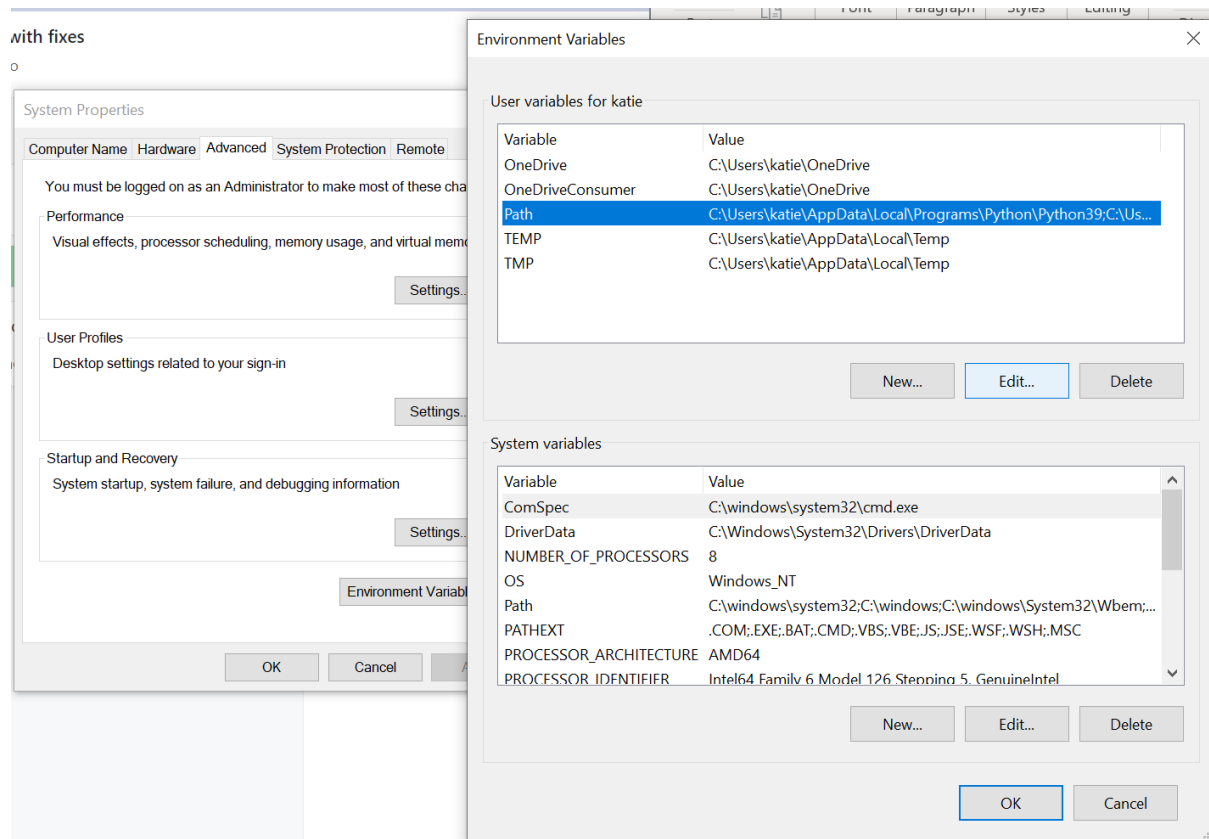
e.g. mine is:

C:\Users\katie\AppData\Local\Programs\Python\Python39

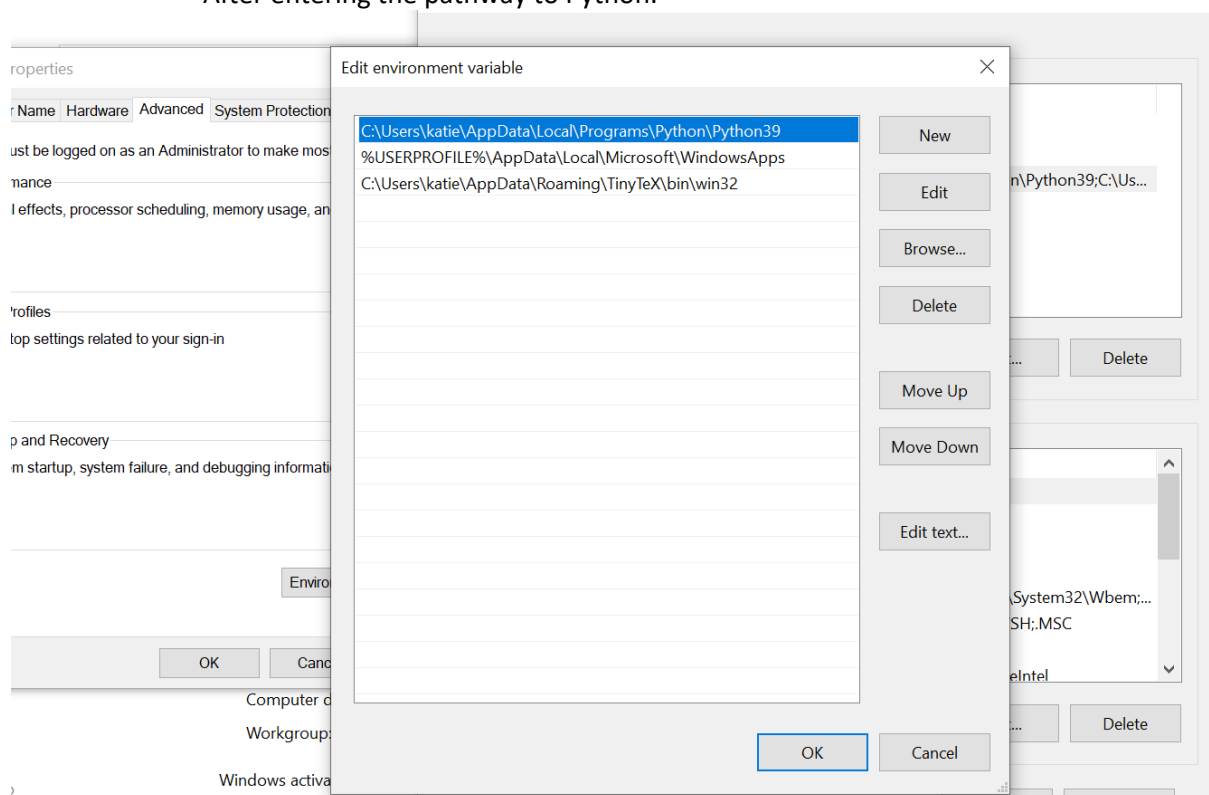
(2b) Add this pathway to your system's **Environment Variables**.

Go to Control Panel > ... > Advanced System Settings > "Environment Variables..", or search for it and click on this button.

Click "Path" and "Edit", then add a new environment variable that is the file pathway you copied. (I also moved it to the top of the list – not sure if necessary).

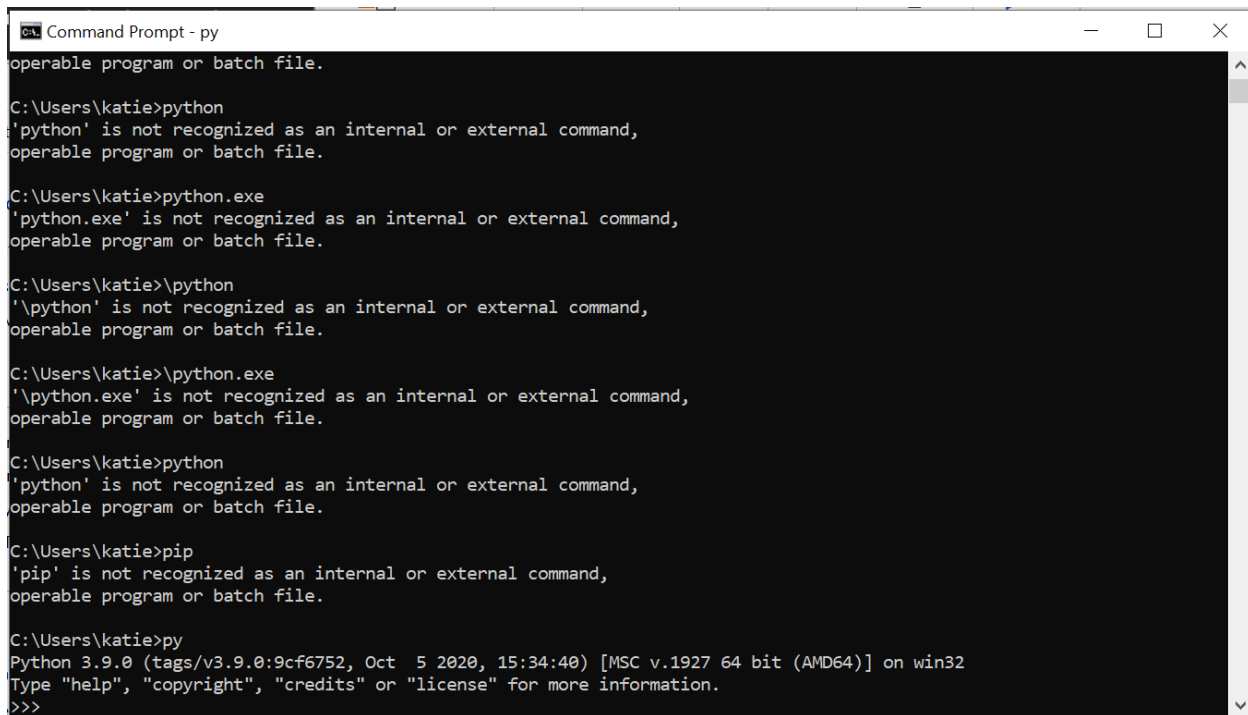


After entering the pathway to Python:



Click OK on all windows.

You can then call Python from the command shell:



```
operable program or batch file.

C:\Users\katie>python
'python' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\katie>python.exe
'python.exe' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\katie>\python
'\python' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\katie>\python.exe
'\python.exe' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\katie>python
'python' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\katie>pip
'pip' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\katie>py
Python 3.9.0 (tags/v3.9.0:9cf6752, Oct 5 2020, 15:34:40) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

*Note that only the last line where I called 'py' worked. Not "python" or "python3".

(credit: <https://stackoverflow.com/questions/17953124/python-is-not-recognized-as-an-internal-or-external-command>)

(3) Calling Pip from the command shell

(3a) Make sure you have the Pip script.

It is installed automatically with later versions of Python, but you will have to specify the location. You should see a file named "pip" in the Scripts folder within your Python folder. Copy the pathway to the folder containing the "pip" file.

e.g. for me:

C:\Users\katie\AppData\Local\Programs\Python\Python39\Scripts

(3b) Close and restart the Windows shell (Command Prompt) if you have already called Python with 'py'. This will allow you to reset the working directory.

Set the working directory in the command shell to the Scripts folder with 'cd' + the pathway:
e.g. for me (I type everything after the '>' exactly as written, in the command shell):

>cd C:\Users\katie\AppData\Local\Programs\Python\Python39\Scripts

I can then type “pip” in the shell:

>pip

To view a summary of the pip package:

```
where pip.exe exists, then do the following steps:

Command Prompt
Microsoft Windows [Version 10.0.18363.1198]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\katie>cd C:\Users\katie\AppData\Local\Programs\Python\Python39\scripts
C:\Users\katie\AppData\Local\Programs\Python\Python39\Scripts>pip

Usage:
  pip <command> [options]

Commands:
  install           Install packages.
  download          Download packages.
  uninstall         Uninstall packages.
  freeze            Output installed packages in requirements format.
  list              List installed packages.
  show              Show information about installed packages.
  check             Verify installed packages have compatible dependencies.
  config            Manage local and global configuration.
  search            Search PyPI for packages.
  cache             Inspect and manage pip's wheel cache.
  wheel             Build wheels from your requirements.
  hash              Compute hashes of package archives.
  completion        A helper command used for command completion.
  debug             Show information useful for debugging.
  help              Show help for commands.

General Options:
  -h, --help        Show help.
  --isolated         Run pip in an isolated mode, ignoring environment variables and user configuration.
```

(credit: <https://stackoverflow.com/questions/47632891/pip-install-returning-invalid-syntax?rq=1>)

(3c). I can then install Jupyter Notebook by typing:

>pip install notebook

in the Command shell.

Result:

```
Command Prompt - pip install notebook

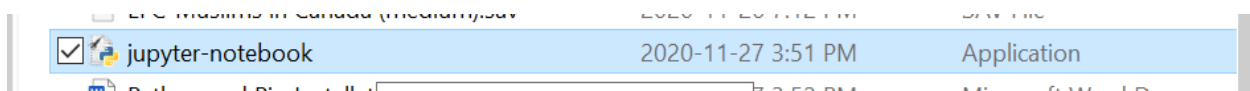
--disable-pip-version-check    Don't periodically check PyPI to determine whether a new version of pip is available for
                               download. Implied with --no-index.
--no-color                    Suppress colored output
--no-python-version-warning    Silence deprecation warnings for upcoming unsupported Pythons.
--use-feature <feature>       Enable new functionality, that may be backward incompatible.
--use-deprecated <feature>    Enable deprecated functionality, that will be removed in the future.

C:\Users\katie\AppData\Local\Programs\Python\Python39\Scripts>pip install notebook
Collecting notebook
  Downloading notebook-6.1.5-py3-none-any.whl (9.5 MB)
    | 9.5 MB 6.8 MB/s
Collecting ipython-genutils
  Downloading ipython_genutils-0.2.0-py2.py3-none-any.whl (26 kB)
Collecting nbformat
  Downloading nbformat-5.0.8-py3-none-any.whl (172 kB)
    | 172 kB 6.4 MB/s
Collecting jupyter-core>=4.6.1
  Downloading jupyter_core-4.7.0-py3-none-any.whl (82 kB)
    | 82 kB 6.1 MB/s
Collecting tornado>=5.0
  Downloading tornado-6.1-cp39-cp39-win_amd64.whl (422 kB)
    | 422 kB ...
Collecting Send2Trash
  Downloading Send2Trash-1.5.0-py3-none-any.whl (12 kB)
Collecting prometheus-client
  Downloading prometheus_client-0.9.0-py2.py3-none-any.whl (53 kB)
    | 53 kB 3.8 MB/s
```

This will download and install **Jupyter Notebook** in the Scripts folder. You can then use the program. (either type “jupyter notebook” in the shell or click through your files for it).
*Note that Jupyter Notebook will be downloaded to the Scripts folder; you may want to move it.

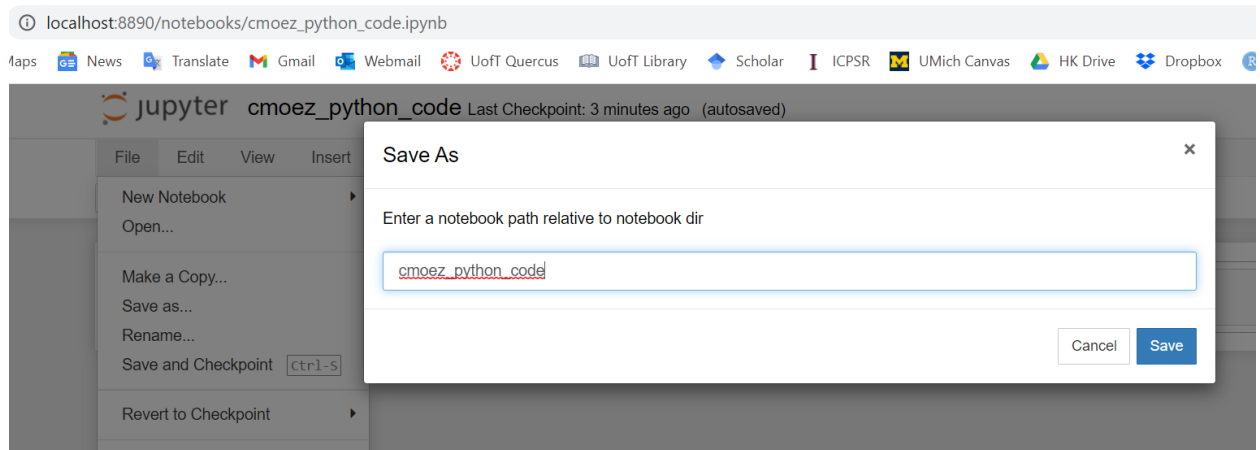
4. Getting started with Jupyter Notebook

I have moved the jupyter notebook program file to Documents:



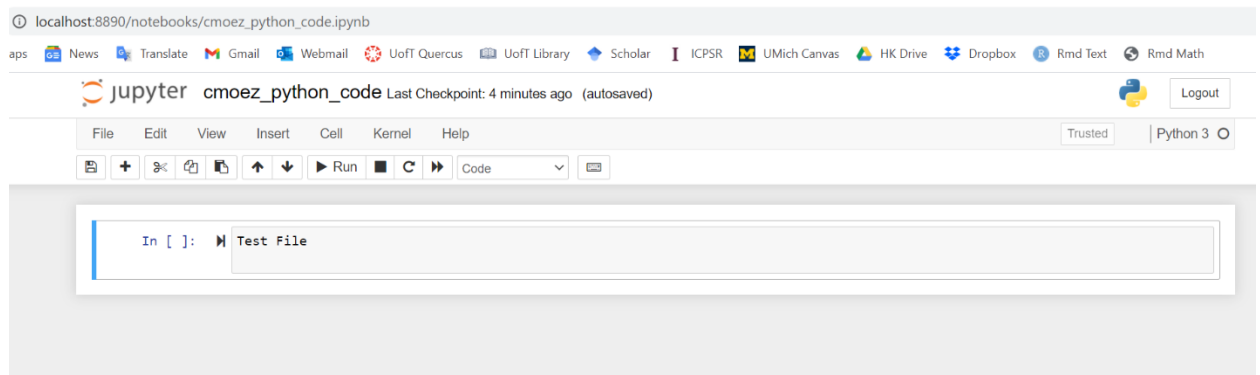
And then can save my Jupyter Notebook files to folders in Documents, using “Save as” and setting the folder location relative to where the Jupyter Notebook program is stored.

e.g.



(“cmoez_python_code” being a folder in my Documents folder).

The file itself will open in Chrome and be .ipnyb format:



Installation complete 😊