Window 환경설정

ai-contents

Exported on 06/18/2023

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1 📌anaconda 설치

https://www.anaconda.com/

1 아나콘다 진입

2 📌가상환경 생성

```
$ conda create -n <venv_name> python=<python_version>
```

```
(base) C:\Users\LWJ>conda create -n cv_tutorial python=3.9
Collecting package metadata (current_repodata.json): done
Solving environment: done

==> WARNING: A newer version of conda exists. <==
  current version: 23.1.0
  latest version: 23.3.1

Please update conda by running

    $ conda update -n base -c defaults conda

Or to minimize the number of packages updated during conda update use

    conda install conda=23.3.1


## Package Plan ##

  environment location: C:\Users\LWJ\anaconda3\envs\cv_tutorial

  added / updated specs:
    - python=3.9


The following packages will be downloaded:

    package                    |            build
    ---------------------------|-----------------
    certifi-2022.12.7          |   py39haa95532_0         149 KB
    pip-23.0.1                 |   py39haa95532_0         2.7 MB
    python-3.9.16              |       h6244533_2        19.5 MB
    setuptools-65.6.3          |   py39haa95532_0         1.1 MB
    sqlite-3.41.1              |       h2bbff1b_0         897 KB
    tzdata-2023c               |       h04d1e81_0         116 KB
    wheel-0.38.4               |   py39haa95532_0          83 KB
    wincertstore-0.2           |   py39haa95532_2          15 KB
    ------------------------------------------------------------
                                        Total:          24.6 MB

The following NEW packages will be INSTALLED:

  ca-certificates    pkgs/main/win-64::ca-certificates-2023.01.10-haa95532_0
  certifi            pkgs/main/win-64::certifi-2022.12.7-py39haa95532_0
  openssl            pkgs/main/win-64::openssl-1.1.1t-h2bbff1b_0
  pip                pkgs/main/win-64::pip-23.0.1-py39haa95532_0
  python             pkgs/main/win-64::python-3.9.16-h6244533_2
  setuptools         pkgs/main/win-64::setuptools-65.6.3-py39haa95532_0
  sqlite             pkgs/main/win-64::sqlite-3.41.1-h2bbff1b_0
  tzdata             pkgs/main/noarch::tzdata-2023c-h04d1e81_0
  vc                 pkgs/main/win-64::vc-14.2-h21ff451_1
  vs2015_runtime     pkgs/main/win-64::vs2015_runtime-14.27.29016-h5e58377_2
  wheel              pkgs/main/win-64::wheel-0.38.4-py39haa95532_0
  wincertstore       pkgs/main/win-64::wincertstore-0.2-py39haa95532_2


Proceed ([y]/n)? y
```

2 'y' 입력

```
Downloading and Extracting Packages

Preparing transaction: done
Verifying transaction: done
Executing transaction: done
#
# To activate this environment, use
#
#     $ conda activate cv_tutorial
#
# To deactivate an active environment, use
#
#     $ conda deactivate
```

3 설치 완료

2.1 가상환경 리스트 확인

`$ conda env list`

```
(base) C:₩Users₩LWJ>conda env list
# conda environments:
#
base                  *  C:₩Users₩LWJ₩anaconda3
cv_tutorial              C:₩Users₩LWJ₩anaconda3₩envs₩cv_tutorial
```

4 cv_tutorial 환경이 생겼다

2.2 가상환경 활성화

`$ conda activate <venv_name>`

```
(base) C:₩Users₩LWJ>conda activate cv_tutorial

(cv_tutorial) C:₩Users₩LWJ>_
```

5 cv_tutorial 활성화

2.3 가상환경 비활성화

`$ conda deactivate`

```
(cv_tutorial) C:₩Users₩LWJ>conda deactivate

(base) C:₩Users₩LWJ>_
```

3 📌 OpenCV 설치

가상환경 진입 후 설치 진행

```
$ pip install opencv-python
```

```
(cv_tutorial) C:\Users\LWJ>python
Python 3.9.16 (main, Mar  8 2023, 10:39:24) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import cv2
>>>
```

6 openCV 설치 성공

4 📌 Jupyter Notebook 설치

```
$ pip install jupyter notebook
```


7 설치 화면

4.1 가상환경에 커널 연결

```
$ python -m ipykernel install --user --name <venv_name> --display-name
<kernel_name>
```

'--display-name <kernel_name>'은 생략 가능

4.2 주피터 노트북 실행

```
$ jupyter notebook
```

8 실행시 터미널

9 실행 결과

5 📌Visual Studio Code
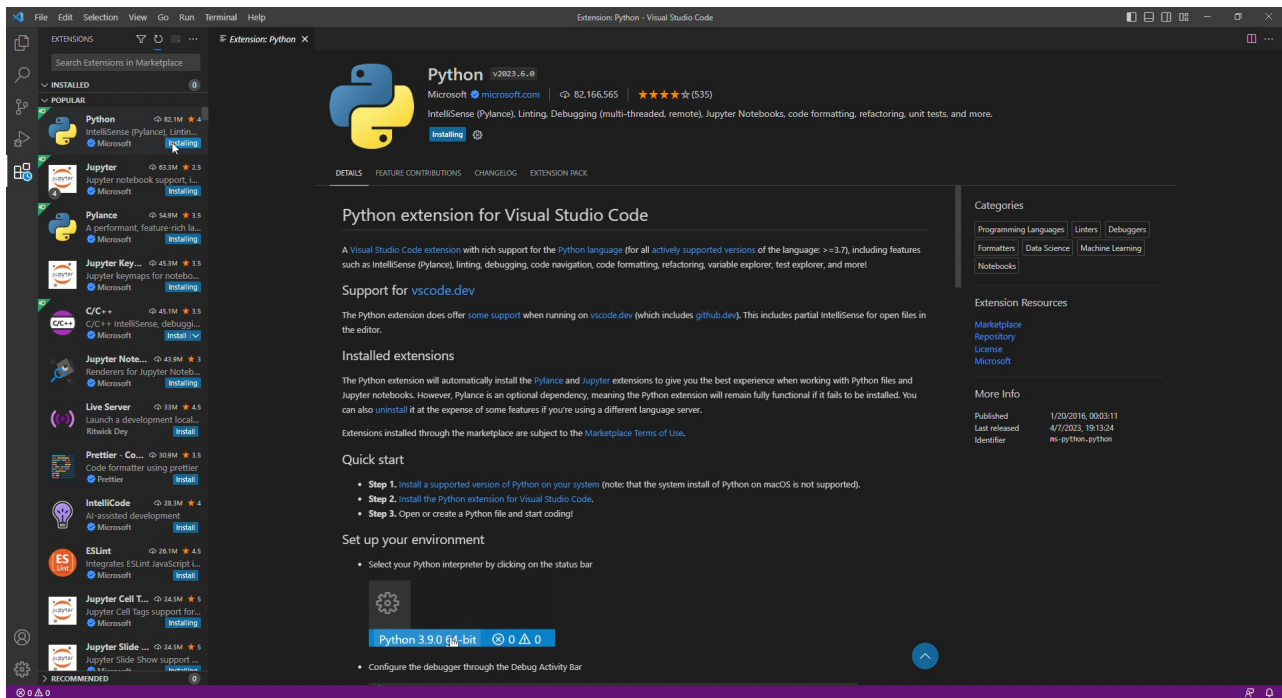
5.1 VScode 설치

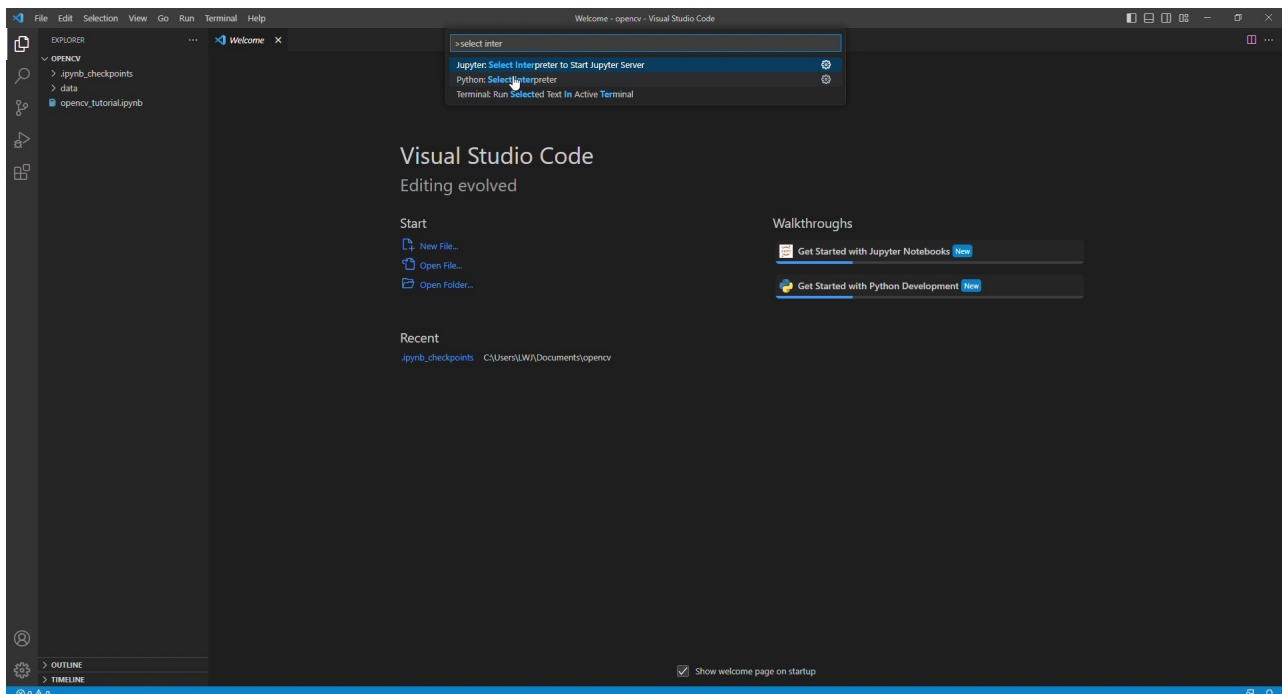https://code.visualstudio.com/download
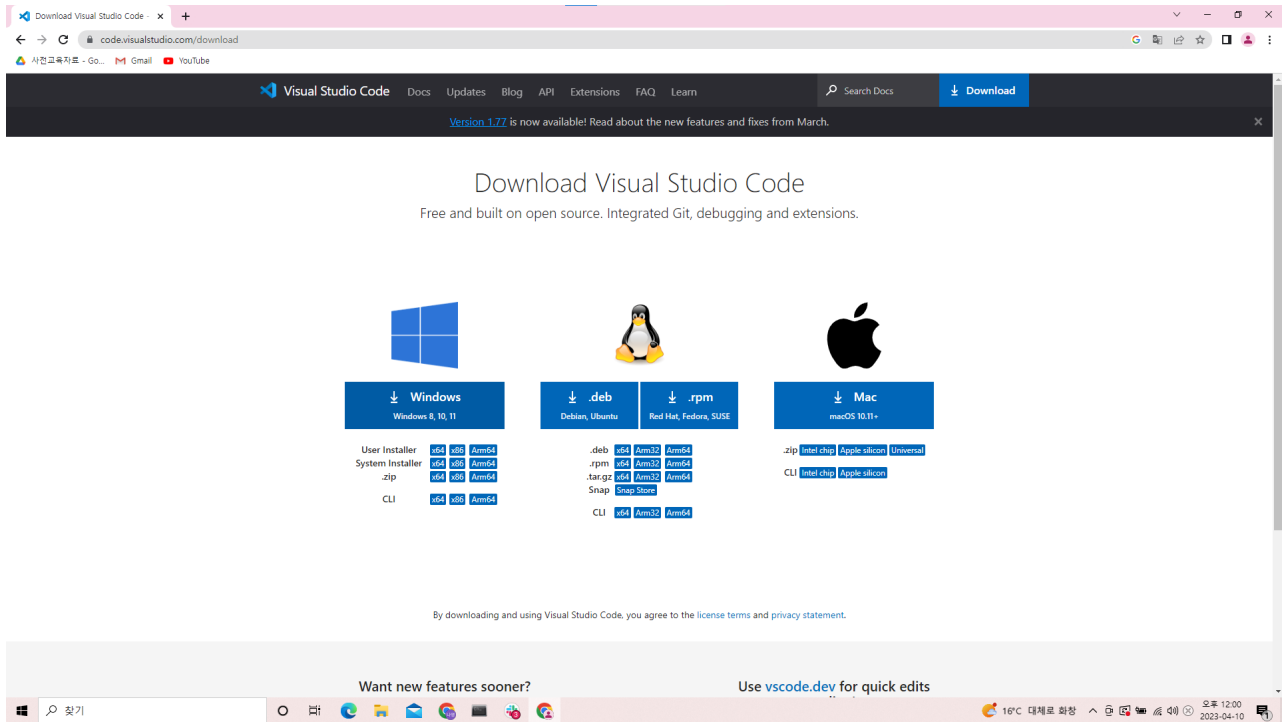
5.2 VScode에서 파이썬 사용

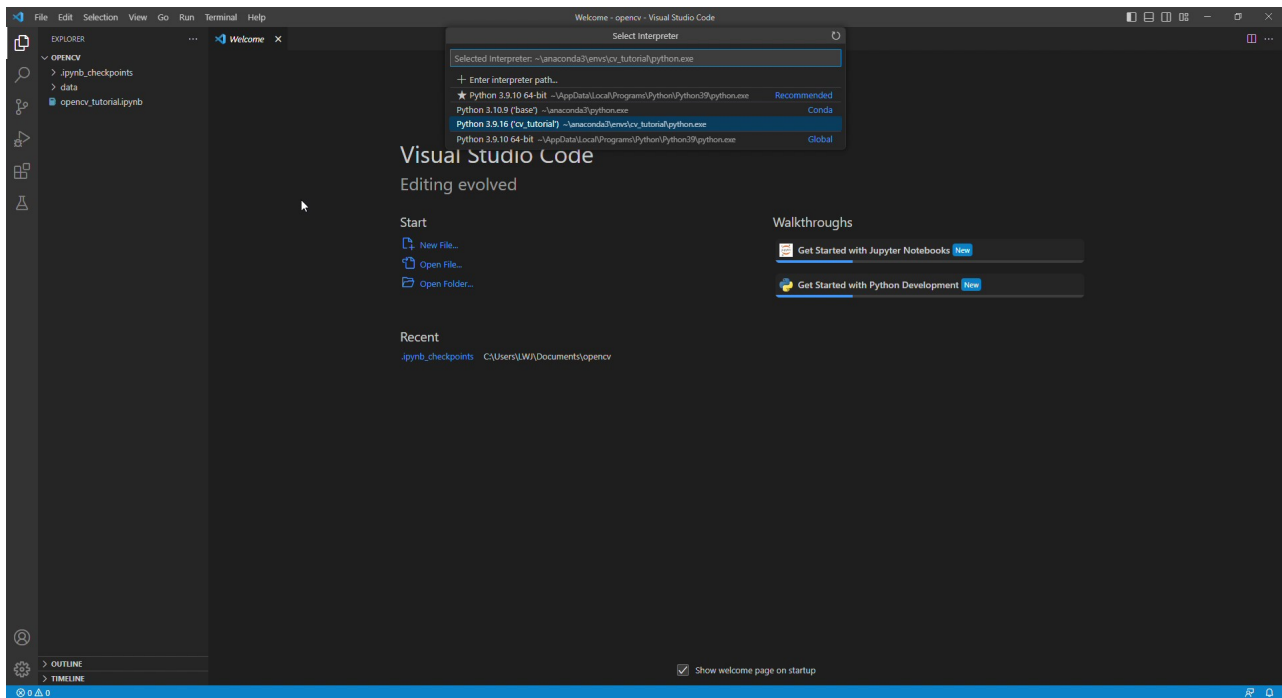- extension에서 'Python' 검색 후 설치
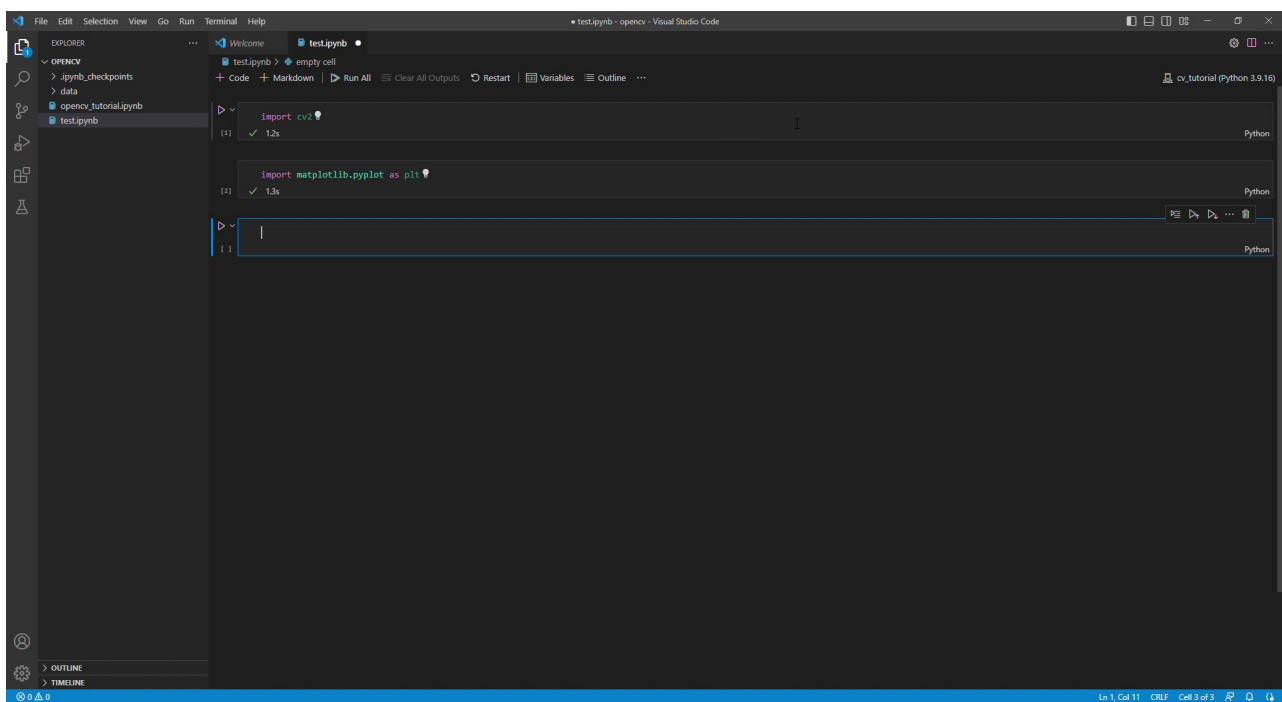
5.3 VScode에서 conda 가상환경 설정

- Ctrl + Shift + P 입력 > Python: Select Interpreter 선택 > 만들어준 가상환경 선택 (e.g. cv_tutorial)
- 파이썬 인터프리터 선택이란 어떤 경로의 파이썬을 실행시킬지 선택하는 것

10 Python: Select Interpreter 선택

11 가상환경 경로 선택

12 해당 가상환경에 설치한 라이브러리 불러와 확인