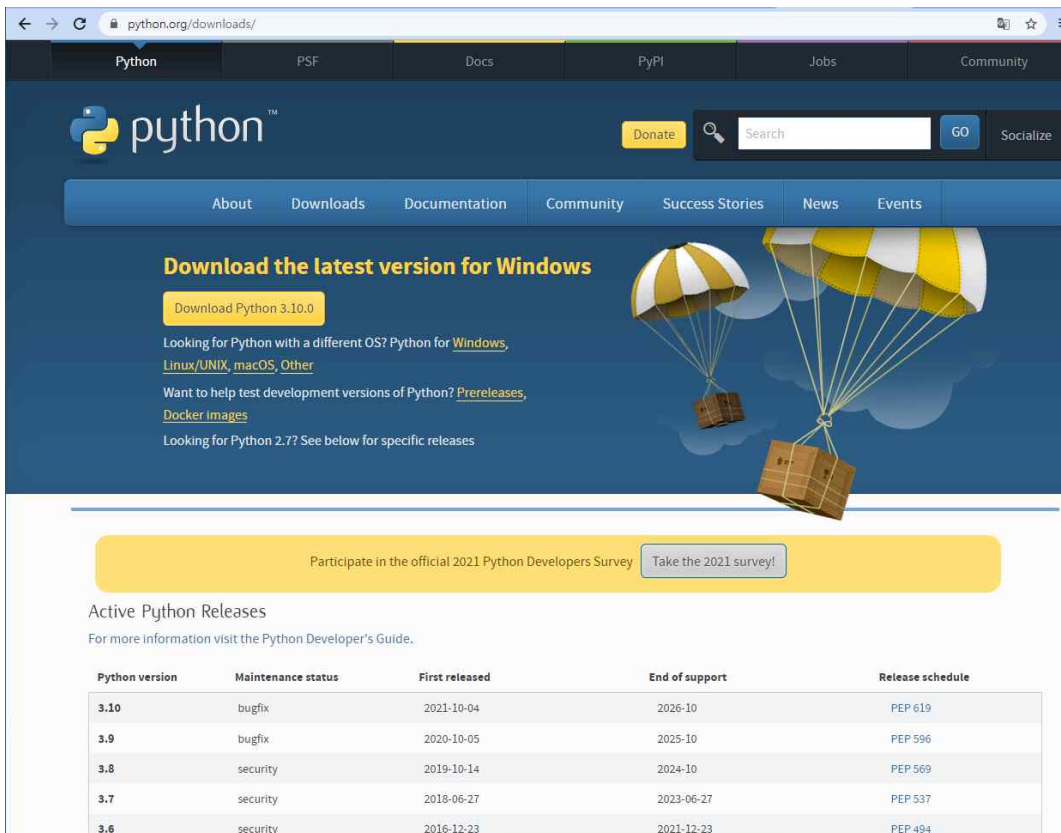


<부록 01. python 환경설치>

- 파이썬 공식 홈페이지의 다운로드 페이지(<http://www.python.org/downloads>)에서 윈도우용 파이썬 언어 패키지를 다운로드한다.



Download the latest version for Windows

[Download Python 3.10.0](#)

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](#)

Looking for Python 2.7? See below for specific releases

Participate in the official 2021 Python Developers Survey [Take the 2021 survey!](#)

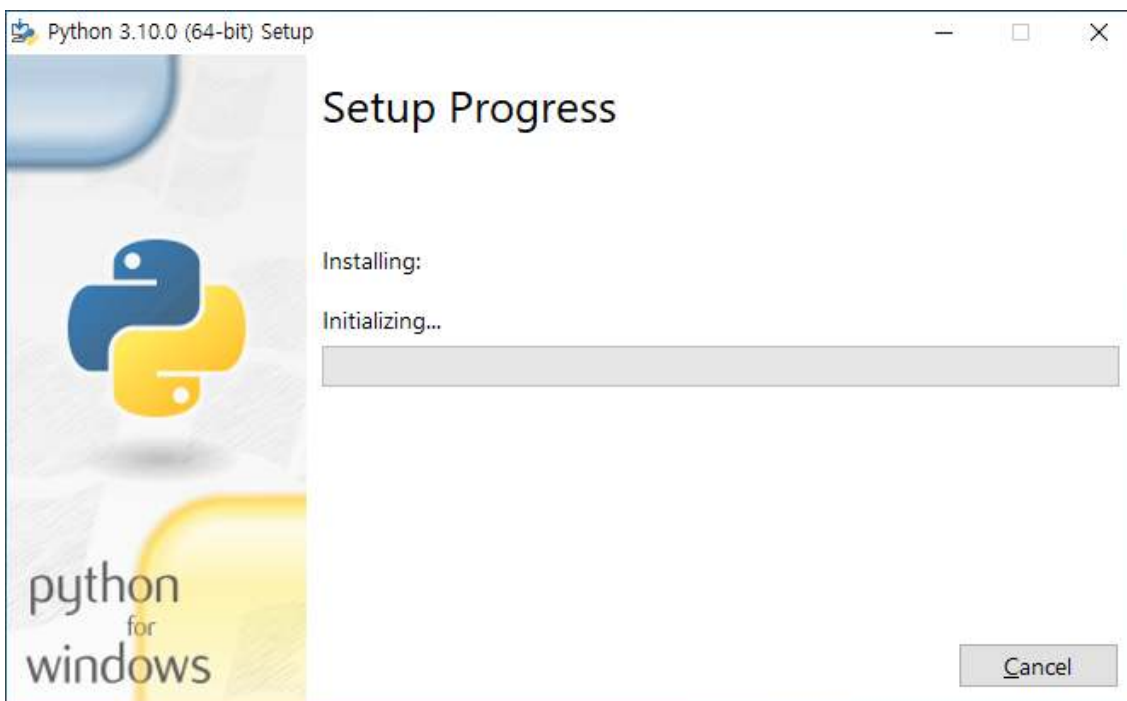
Active Python Releases
For more information visit the [Python Developer's Guide](#).

Python version	Maintenance status	First released	End of support	Release schedule
3.10	bugfix	2021-10-04	2026-10	PEP 619
3.9	bugfix	2020-10-05	2025-10	PEP 596
3.8	security	2019-10-14	2024-10	PEP 569
3.7	security	2018-06-27	2023-06-27	PEP 537
3.6	security	2016-12-23	2021-12-23	PEP 494

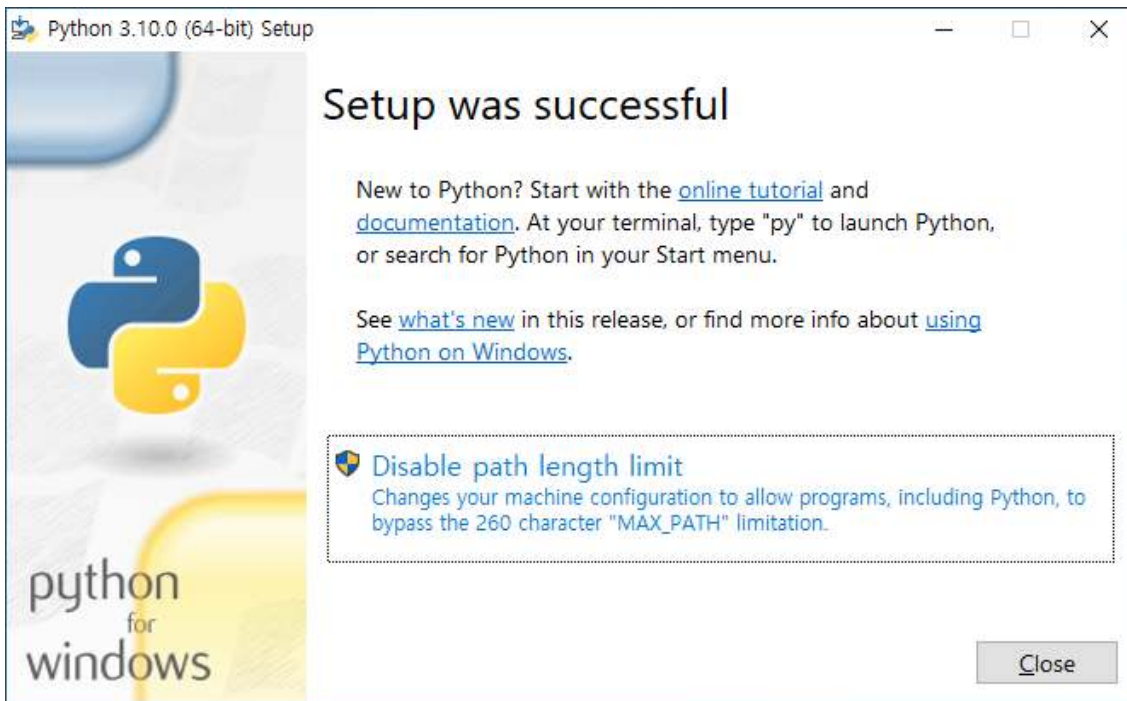
- Download python 3.10.0 클릭하여 다운로드함.
- 다운로드 후 python 3.10.0-amd64.exe 실행



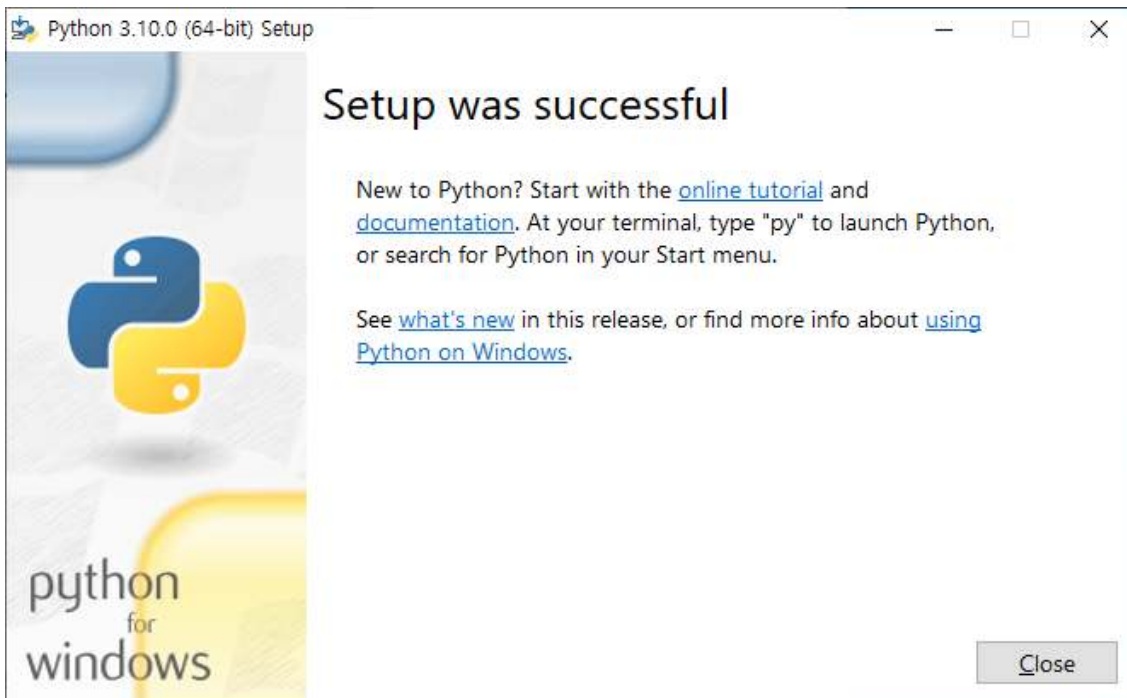
- Install Now 선택 (저장 위치 확인)
- Add Python 3.10 to PATH를 반드시 선택



- 설치가 끝나면 다음과 같은 창이 나타남



- Disable path length limit 항목이 나타나면 클릭하여 선택



- 설치가 완료되면 다음과 같이 설치됨을 확인 할 수 있음



<pip 설치>

- window cmd 창에서 다음과 같은 명령어를 입력

```
C:\Users\WDEU-AL>curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py
```

% Total	% Received	% Xferd	Average Speed		Time	Time	Time	Current
			Dload	Upload	Total	Spent	Left	Speed
100 2108k	100 2108k	0 0	2108k	0	0:00:01	--:--:--	0:00:01	8434k

- python get-pip.py 실행

```
C:\Users\DEU_AI>python get-pip.py
```

Collecting pip

Downloading pip-21.3.1-py3-none-any.whl (1.7 MB)

1.7 MB 3.3 MB/s

Collecting wheel

Downloading wheel-0.37.0-py2.py3-none-any.whl (35 kB)

Installing collected packages: wheel, pip

WARNING: The script wheel.exe is installed in 'C:\Users\DEU_AI\AppData\Local\Packages\PythonSoftwareFoundation.Python.3.9_qbz5n2kfra8p0\LocalCache\local-packages\Python39\Scripts' which is not on PATH.

Consider adding this directory to PATH or, if you prefer to suppress this warning, use `--no-warn-script-location`.

WARNING: The scripts pip.exe, pip3.9.exe and pip3.exe are installed in 'C:\Users\DEU_AI\AppData\Local\Packages\PythonSoftwareFoundation.Python.3.9_qbz5n2kfra8p0\LocalCache\local-packages\Python39\Scripts' which is not on PATH.

Consider adding this directory to PATH or, if you prefer to suppress this warning, use `--no-warn-script-location`.

Successfully installed pip-21.3.1 wheel-0.37.0

WARNING: You are using pip version 21.2.3; however, version 21.3.1 is available.

You should consider upgrading via the 'C:\Users\DEU_AI\AppData\Local\Microsoft\WindowsApps\PythonSoftwareFoundation.Python.3.9_qbz5n2kfra8p0\python.exe -m pip install --upgrade pip' command.

- pip upgrade 실행

- ```
- python.exe -m pip install --upgrade pip
```

```
C:\Users\DEU_AI>python.exe -m pip install --upgrade pip
```

Requirement already satisfied: pip in c:\users\deu\_ai\appdata\local\packages\pythonsoftwarefoundation.python.3.9\_qbz5n2kfra8p0\localcache\local-packages\python39\site-packages (21.3.1)

```
C:\Users\DEU_AI>pip --version
```

```
pip 21.3.1 from C:\Users\DEU_AI\AppData\Local\Programs\Python\Python310\lib\site-packages\pip
(python 3.10)
```

- pip version이 맞지 않으면 upgrade 다시 한번 실행

```
C:\Users\DEU_AI>python.exe -m pip install --upgrade pip
```

Requirement already satisfied: pip in  
c:\users\deu\_ai\appdata\local\programs\python\python310\lib\site-packages (21.2.3)

Collecting pip

Using cached pip-21.3.1-py3-none-any.whl (1.7 MB)

Installing collected packages: pip

Attempting uninstall: pip

Found existing installation: pip 21.2.3

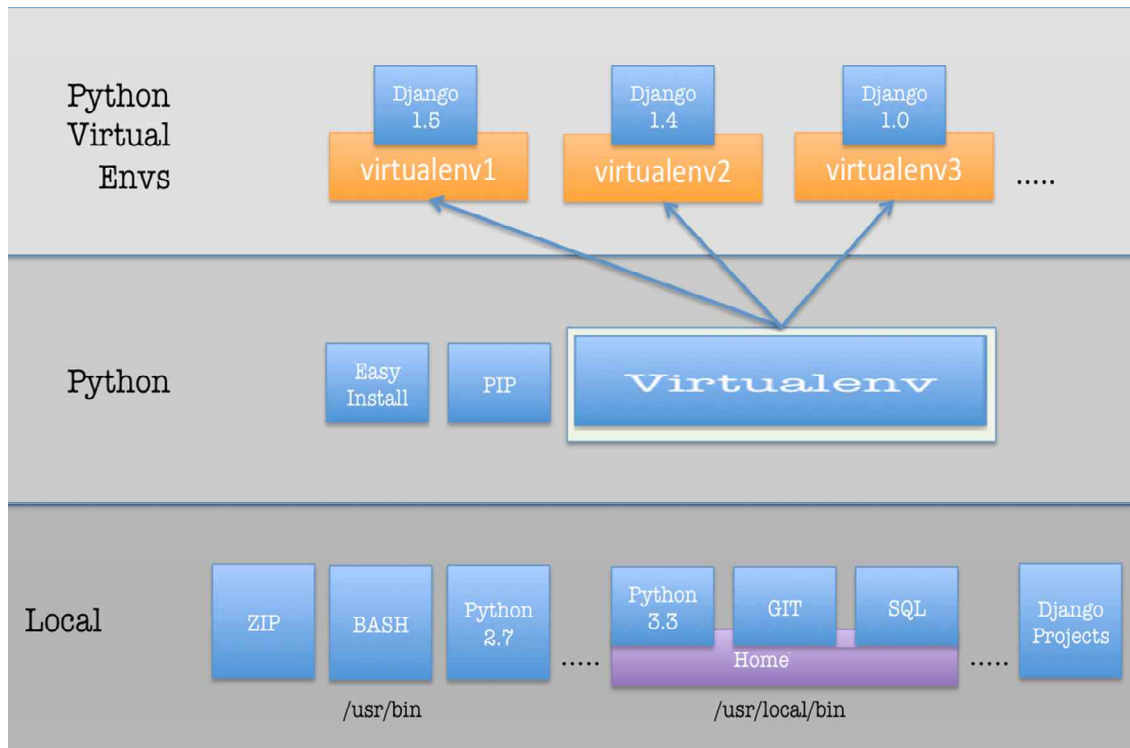
Uninstalling pip-21.2.3:

Successfully uninstalled pip-21.2.3

Successfully installed pip-21.3.1

가상 환경이란

- 자신이 원하는 개발 환경을 구축하기 위해 필요한 모듈만 관리하는 환경.



<가상 환경의 구조-파이썬 가상 환경>

출처: <https://django-easy-tutorial.blogspot.kr/2015/08/python-virtual-environment-setup-in-ubuntu.html>

- 각각의 가상 환경(virtualenv1, 2, 3...)은 독립적으로 관리됨
- 각 모듈은 다른 모듈에 대한 의존성(dependency)이 다르기 때문에 실험 환경마다 개개의 가상 환경을 만들어 놓고 사용하는 것이 좋음.
- 파이썬에서 가상환경을 만드는 방법은 virtualenv와 conda를 이용하는 방법임.





```
seeder FromAppData(download=False, pip=bundle, setuptools=bundle, wheel=bundle, via=copy,
app_data_dir=C:\Users\DEU_AI
\AppData\Local\pypa\virtualenv)
added seed packages: pip==21.3.1, setuptools==58.3.0, wheel==0.37.0
a c t i v a t o r s
BashActivator,BatchActivator,FishActivator,NushellActivator,PowerShellActivator,PythonActivator
```

\* C:\Users\DEU\_AI\myenv 경로에 myenv 가상 환경이 생성됨

myenv 가상환경 활성화

C:\Users\DEU\_AI>activate myenv

'activate'은(는) 내부 또는 외부 명령, 실행할 수 있는 프로그램, 또는  
배치 파일이 아닙니다.

- activate 실행시 에러 발생하면 C:\Users\DEU\_AI\myenv\Scripts>로 이동하여 activate 실행  
C:\Users\DEU\_AI\myenv\Scripts>dir  
C 드라이브의 볼륨에는 이름이 없습니다.  
볼륨 일련 번호: 627B-4030

C:\Users\DEU\_AI\myenv\Scripts 디렉터리

|            |          |                 |                  |
|------------|----------|-----------------|------------------|
| 2021-10-26 | 오후 04:15 | <DIR>           | .                |
| 2021-10-26 | 오후 04:15 | <DIR>           | ..               |
| 2021-10-26 | 오후 04:15 | 2,141           | activate         |
| 2021-10-26 | 오후 04:15 | 1,007           | activate.bat     |
| 2021-10-26 | 오후 04:15 | 3,064           | activate.fish    |
| 2021-10-26 | 오후 04:15 | 1,284           | activate.nu      |
| 2021-10-26 | 오후 04:15 | 1,755           | activate.ps1     |
| 2021-10-26 | 오후 04:15 | 1,193           | activate_this.py |
| 2021-10-26 | 오후 04:15 | 510             | deactivate.bat   |
| 2021-10-26 | 오후 04:15 | 333             | deactivate.nu    |
| 2021-10-26 | 오후 04:15 | 106,351         | pip-3.10.exe     |
| 2021-10-26 | 오후 04:15 | 106,351         | pip.exe          |
| 2021-10-26 | 오후 04:15 | 106,351         | pip3.10.exe      |
| 2021-10-26 | 오후 04:15 | 106,351         | pip3.exe         |
| 2021-10-26 | 오후 04:15 | 24              | pydoc.bat        |
| 2021-10-26 | 오후 04:15 | 242,920         | python.exe       |
| 2021-10-26 | 오후 04:15 | 232,688         | pythonw.exe      |
| 2021-10-26 | 오후 04:15 | 106,338         | wheel-3.10.exe   |
| 2021-10-26 | 오후 04:15 | 106,338         | wheel.exe        |
| 2021-10-26 | 오후 04:15 | 106,338         | wheel3.10.exe    |
| 2021-10-26 | 오후 04:15 | 106,338         | wheel3.exe       |
|            | 19개 파일   | 1,337,675       | 바이트              |
|            | 2개 디렉터리  | 776,536,633,344 | 바이트 남음           |

- activate myenv 가상환경 실행

```
C:\Users\DEU_AI\myenv\Scripts>activate myenv
```

```
C:\Users\DEU_AI\myenv\Scripts>activate myenv
```

```
(myenv) C:\Users\DEU_AI\myenv\Scripts>
```

- 가상환경 종료

\* deactivate 실행

```
(myenv) C:\Users\DEU_AI\myenv\Scripts>deactivate
```

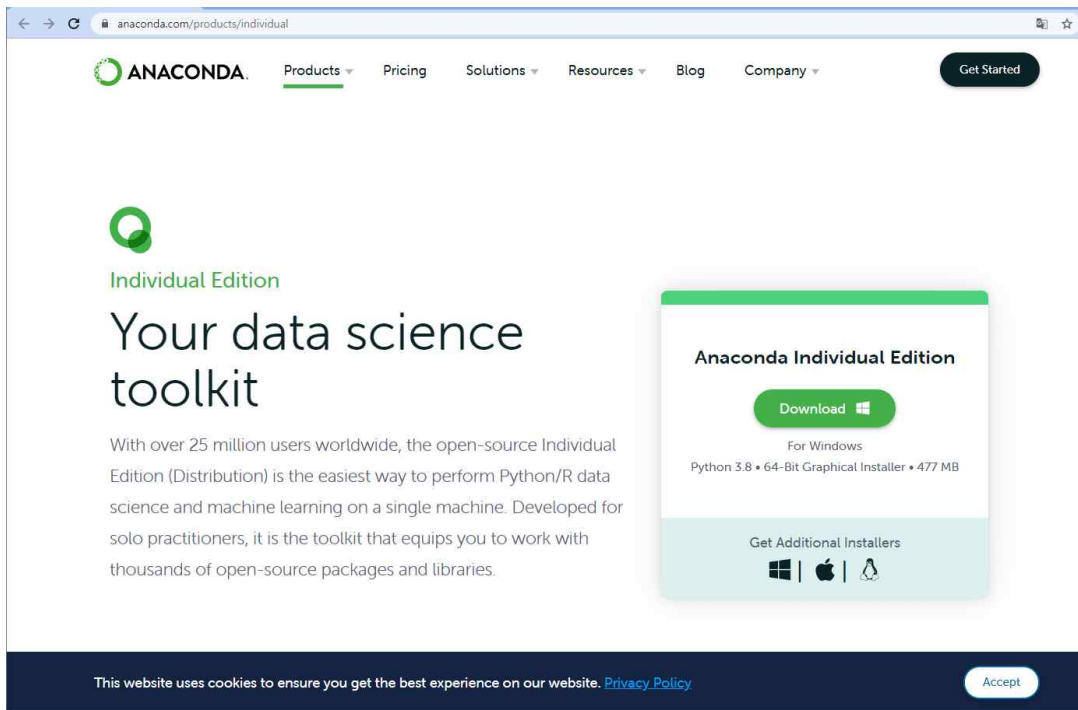
```
C:\Users\DEU_AI\myenv\Scripts>
```

- 가상환경 삭제

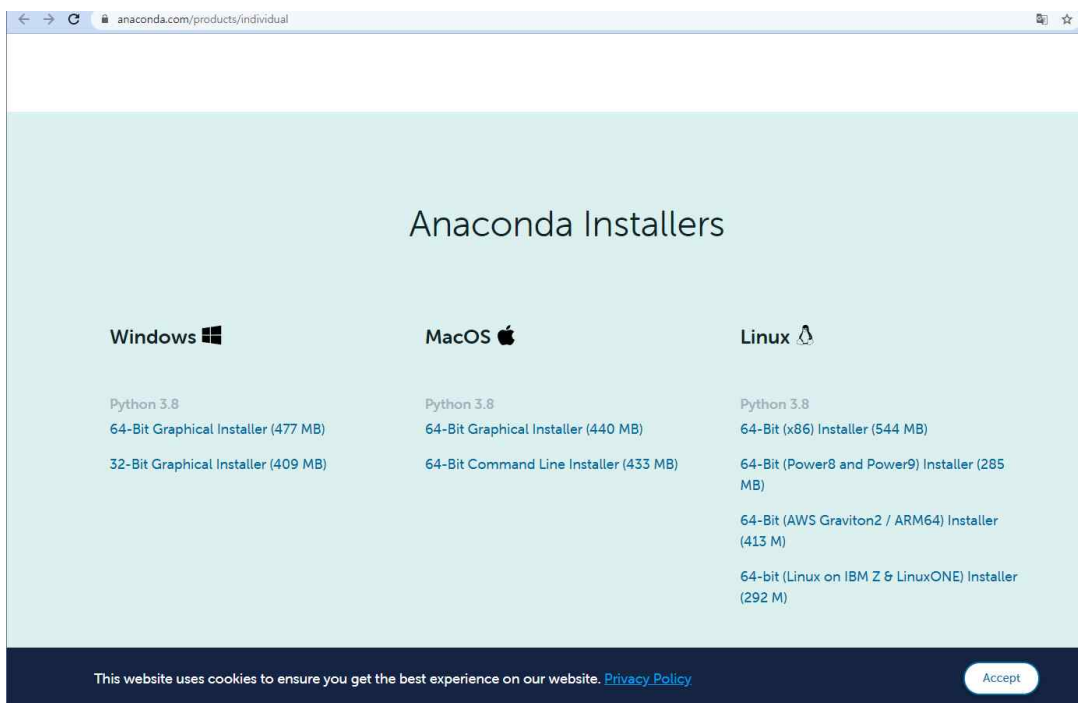
\* C:\Users\DEU\_AI\myenv 경로 삭제

- 아나콘다 가상환경 설치

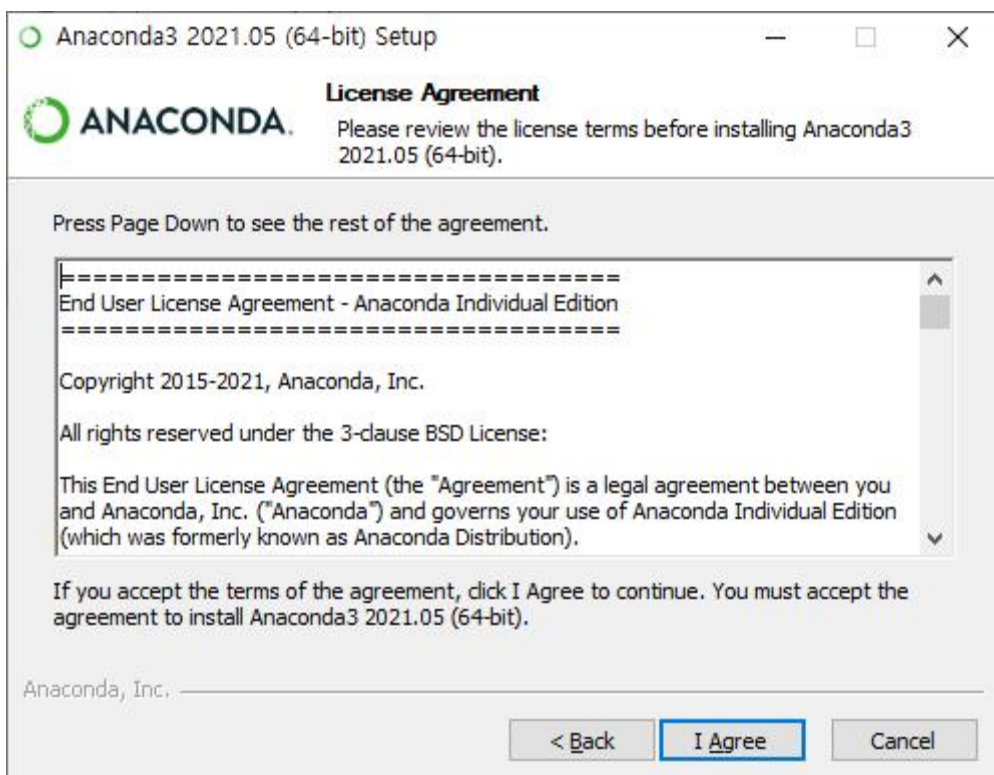
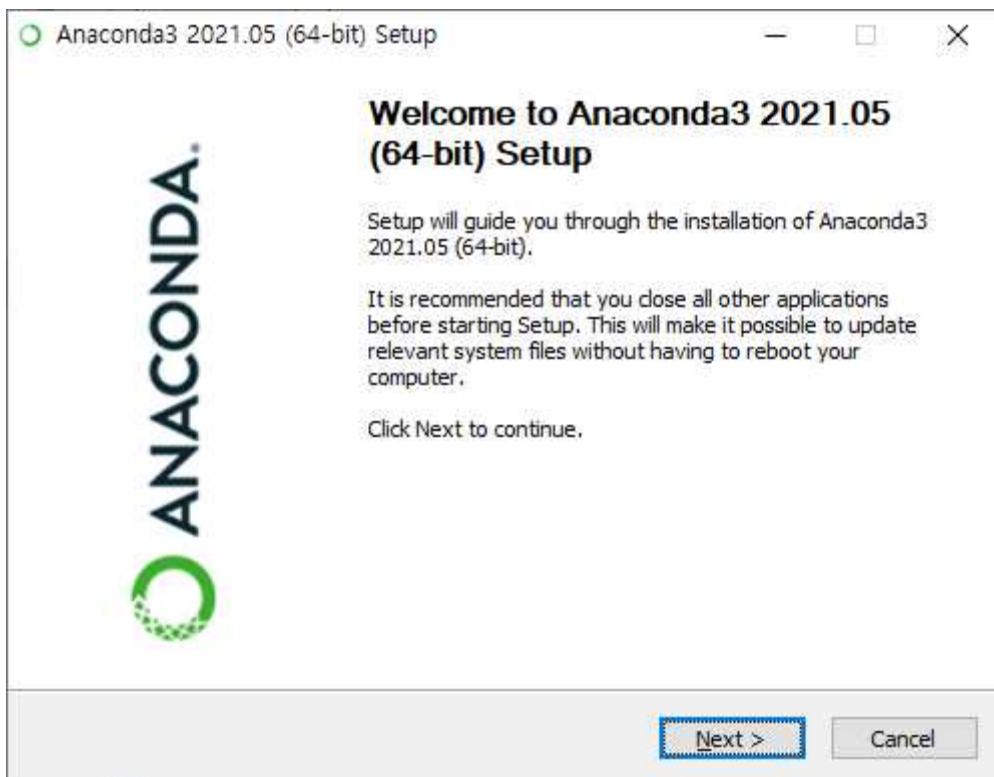
- 아나콘다 홈페이지 접속 : <https://www.anaconda.com/products/individual>

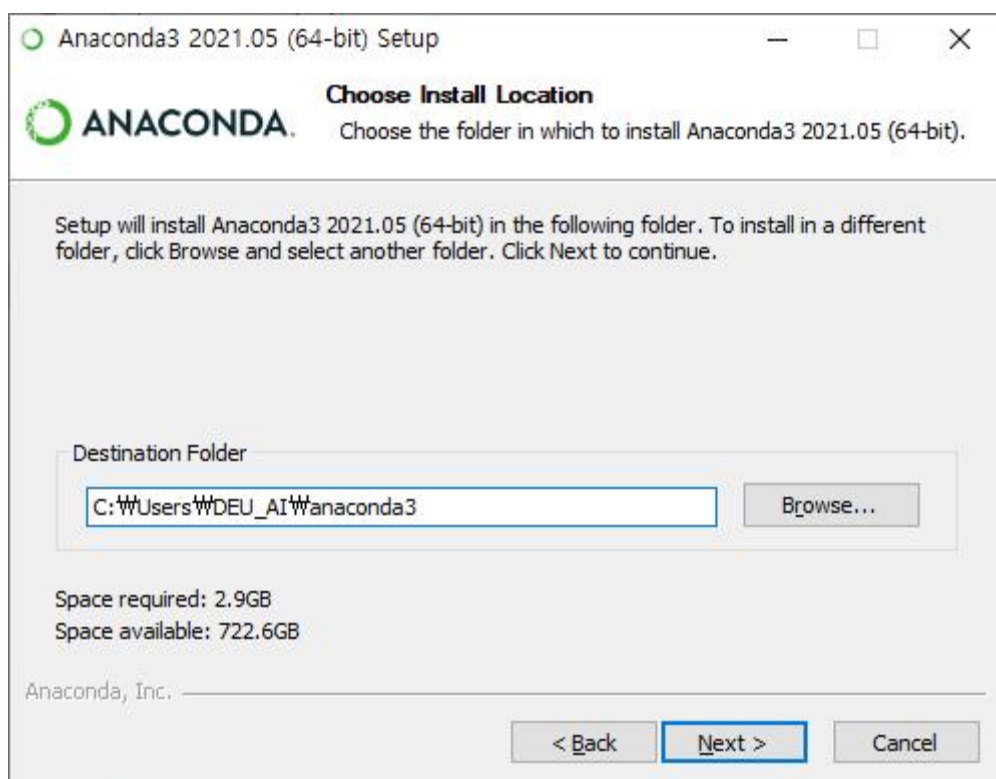
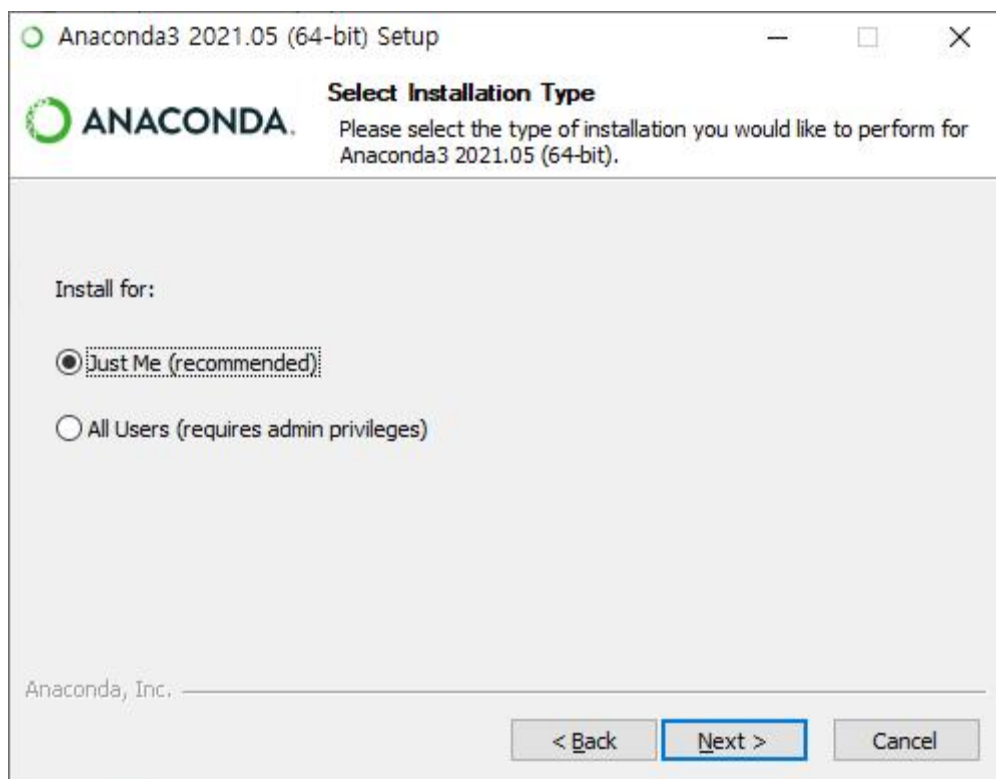


- 중간쯤 밑에 보면 Install Anaconda 클릭

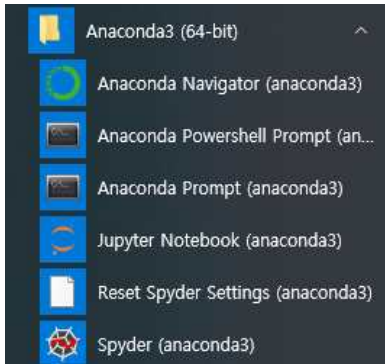


Anaconda3-2021.05-Windows-x86\_64.exe 다운로드 후 설치

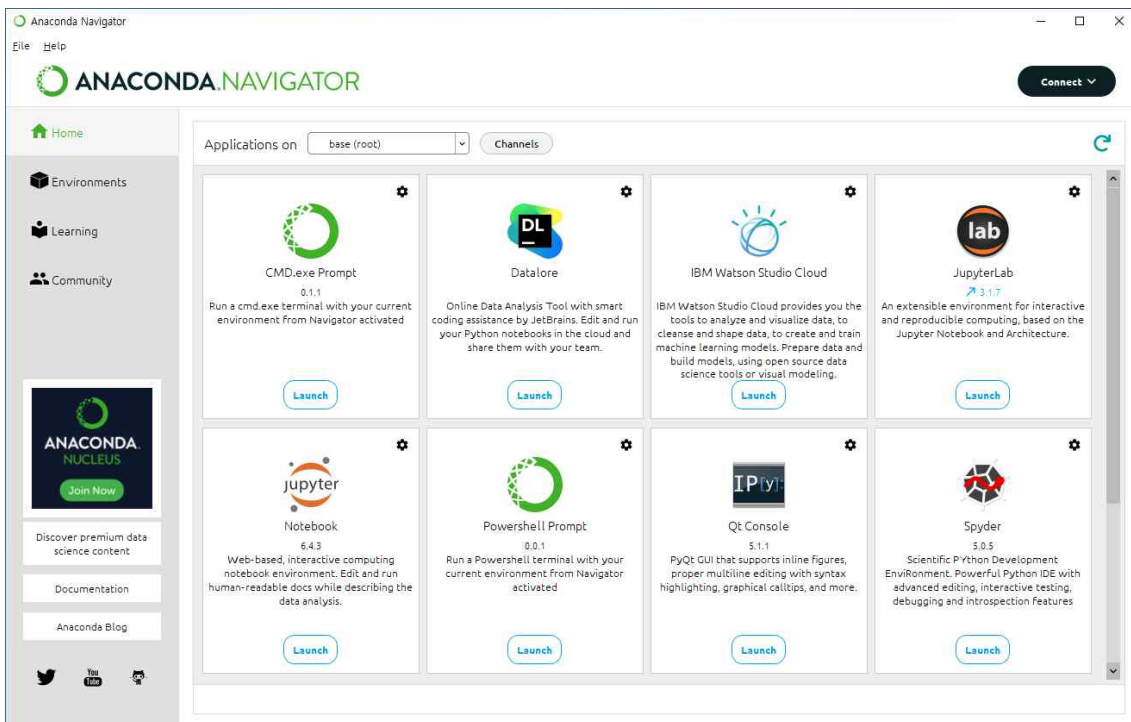




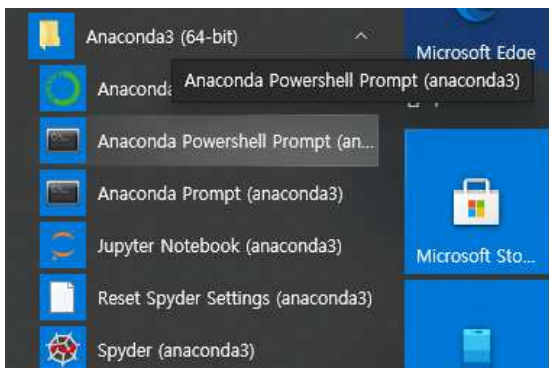
- 설치 완료 후 확인

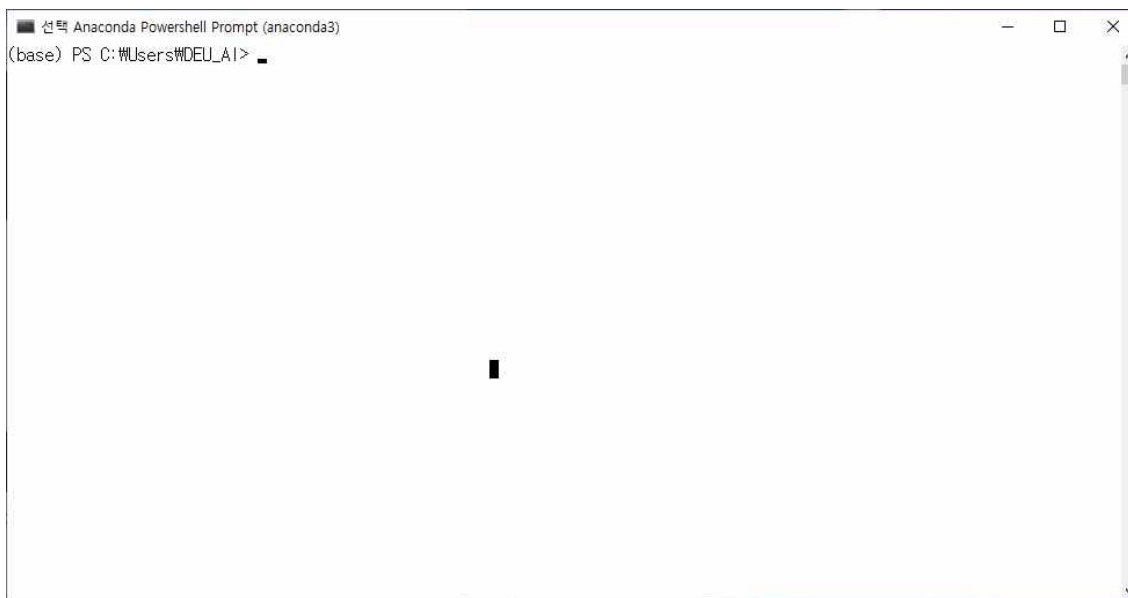


- Anaconda Navigator 실행



- Anaconda Powershell Prompt(anaconda3) 실행





#### - conda 실행

(base) PS C:\Users\DEU\_AI> conda

usage: conda-script.py [-h] [-V] command ...

conda is a tool for managing and deploying applications, environments and packages.

Options:

positional arguments:

command

- clean Remove unused packages and caches.
- compare Compare packages between conda environments.
- config Modify configuration values in .condarc. This is modeled after the git config command.

Writes to the

user .condarc file (C:\Users\DEU\_AI\.condarc) by default.

- create Create a new conda environment from a list of specified packages.
- help Displays a list of available conda commands and their help strings.
- info Display information about current conda install.
- init Initialize conda for shell interaction. [Experimental]
- install Installs a list of packages into a specified conda environment.
- list List linked packages in a conda environment.
- package Low-level conda package utility. (EXPERIMENTAL)
- remove Remove a list of packages from a specified conda environment.
- uninstall Alias for conda remove.
- run Run an executable in a conda environment. [Experimental]
- search Search for packages and display associated information. The input is a MatchSpec, a query language for conda packages. See examples below.

update        Updates conda packages to the latest compatible version.  
upgrade       Alias for conda update.

optional arguments:

-h, --help     Show this help message and exit.  
-V, --version   Show the conda version number and exit.

conda commands available from other packages:

build  
content-trust  
convert  
debug  
develop  
env  
index  
inspect  
metapackage  
render  
repo  
server  
skeleton  
token  
verify

(base) PS C:\Users\DEU\_AI>

-conda create -n 가상환경이름 python=버전

(base) PS C:\Users\DEU\_AI> conda create -n myconda python=3.7

Collecting package metadata (current\_repodata.json): done

Solving environment: done

## Package Plan ##

environment location: C:\Users\DEU\_AI\anaconda3\envs\myconda

added / updated specs:

- python=3.7

The following packages will be downloaded:

| package |  | build |
|---------|--|-------|
| -----   |  | ----- |



|                           |  |                |         |
|---------------------------|--|----------------|---------|
| ca-certificates-2021.9.30 |  | haa95532_1     | 116 KB  |
| certifi-2021.10.8         |  | py37haa95532_0 | 151 KB  |
| pip-21.2.4                |  | py37haa95532_0 | 1.8 MB  |
| python-3.7.11             |  | h6244533_0     | 14.5 MB |
| setuptools-58.0.4         |  | py37haa95532_0 | 776 KB  |
| wincertstore-0.2          |  | py37haa95532_2 | 15 KB   |

-----

Total: 17.3 MB

The following NEW packages will be INSTALLED:

|                 |                                                         |
|-----------------|---------------------------------------------------------|
| ca-certificates | pkgs/main/win-64::ca-certificates-2021.9.30-haa95532_1  |
| certifi         | pkgs/main/win-64::certifi-2021.10.8-py37haa95532_0      |
| openssl         | pkgs/main/win-64::openssl-1.1.1l-h2bbff1b_0             |
| pip             | pkgs/main/win-64::pip-21.2.4-py37haa95532_0             |
| python          | pkgs/main/win-64::python-3.7.11-h6244533_0              |
| setuptools      | pkgs/main/win-64::setuptools-58.0.4-py37haa95532_0      |
| sqlite          | pkgs/main/win-64::sqlite-3.36.0-h2bbff1b_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/noarch::wheel-0.37.0-pyhd3eb1b0_1             |
| wincertstore    | pkgs/main/win-64::wincertstore-0.2-py37haa95532_2       |

Proceed ([y]/n)?

설치 후

done

#

# To activate this environment, use

#

# \$ conda activate myconda

#

# To deactivate an active environment, use

#

# \$ conda deactivate

(base) PS C:\Users\DEU\_AI>

- C:\Users\DEU\_AI\anaconda3\envs\myconda 경로에 myconda 가상 환경 설치됨

| myconda                                                                                                                                                                                                                    |                     |                   |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------|----|
| 파일                                                                                                                                                                                                                         | 폴더                  | 공유                | 보기 |
| <div> <div> <div>←</div> <div>→</div> <div>↑</div> <div>↓</div> </div> <div> <div>내 PC</div> <div>로컬 디스크 (C:)</div> <div>사용자</div> <div>DEU_AI</div> <div>anaconda3</div> <div>envs</div> <div>myconda</div> </div> </div> |                     |                   |    |
| 이름                                                                                                                                                                                                                         | 수정된 날짜              | 유형                |    |
| conda-meta                                                                                                                                                                                                                 | 2021-10-26 오후 5:36  | 파일 폴더             |    |
| DLLs                                                                                                                                                                                                                       | 2021-10-26 오후 5:36  | 파일 폴더             |    |
| include                                                                                                                                                                                                                    | 2021-10-26 오후 5:36  | 파일 폴더             |    |
| Lib                                                                                                                                                                                                                        | 2021-10-26 오후 5:36  | 파일 폴더             |    |
| Library                                                                                                                                                                                                                    | 2021-10-26 오후 5:36  | 파일 폴더             |    |
| libs                                                                                                                                                                                                                       | 2021-10-26 오후 5:36  | 파일 폴더             |    |
| Scripts                                                                                                                                                                                                                    | 2021-10-26 오후 5:36  | 파일 폴더             |    |
| tcl                                                                                                                                                                                                                        | 2021-10-26 오후 5:36  | 파일 폴더             |    |
| Tools                                                                                                                                                                                                                      | 2021-10-26 오후 5:36  | 파일 폴더             |    |
| .nonadmin                                                                                                                                                                                                                  | 2021-10-26 오후 5:36  | NONADMIN 파일       |    |
| api-ms-win-core-console-l1-1-0.dll                                                                                                                                                                                         | 2018-04-20 오후 2:28  | 응용 프로그램 확장        |    |
| api-ms-win-core-datetime-l1-1-0.dll                                                                                                                                                                                        | 2018-04-20 오후 2:28  | 응용 프로그램 확장        |    |
| api-ms-win-core-debug-l1-1-0.dll                                                                                                                                                                                           | 2018-04-20 오후 2:28  | 응용 프로그램 확장        |    |
| api-ms-win-core-errorhandling-l1-1-0.dll                                                                                                                                                                                   | 2018-04-20 오후 2:28  | 응용 프로그램 확장        |    |
| api-ms-win-core-file-l1-1-0.dll                                                                                                                                                                                            | 2018-04-20 오후 2:29  | 응용 프로그램 확장        |    |
| api-ms-win-core-file-l1-2-0.dll                                                                                                                                                                                            | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-file-l2-1-0.dll                                                                                                                                                                                            | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-handle-l1-1-0.dll                                                                                                                                                                                          | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-heap-l1-1-0.dll                                                                                                                                                                                            | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-interlocked-l1-1-0.dll                                                                                                                                                                                     | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-libraryloader-l1-1-0.dll                                                                                                                                                                                   | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-localization-l1-2-0.dll                                                                                                                                                                                    | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-memory-l1-1-0.dll                                                                                                                                                                                          | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-namedpipe-l1-1-0.dll                                                                                                                                                                                       | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-processenvironment-l1-1-0.dll                                                                                                                                                                              | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-processthreads-l1-1-0.dll                                                                                                                                                                                  | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-processthreads-l1-1-1.dll                                                                                                                                                                                  | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-profile-l1-1-0.dll                                                                                                                                                                                         | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-rtlsupport-l1-1-0.dll                                                                                                                                                                                      | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-string-l1-1-0.dll                                                                                                                                                                                          | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-synch-l1-1-0.dll                                                                                                                                                                                           | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-synch-l1-2-0.dll                                                                                                                                                                                           | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-sysinfo-l1-1-0.dll                                                                                                                                                                                         | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-timezone-l1-1-0.dll                                                                                                                                                                                        | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-core-util-l1-1-0.dll                                                                                                                                                                                            | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-conio-l1-1-0.dll                                                                                                                                                                                            | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-convert-l1-1-0.dll                                                                                                                                                                                          | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-environment-l1-1-0.dll                                                                                                                                                                                      | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-filestream-l1-1-0.dll                                                                                                                                                                                       | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-heap-l1-1-0.dll                                                                                                                                                                                             | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-locale-l1-1-0.dll                                                                                                                                                                                           | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-math-l1-1-0.dll                                                                                                                                                                                             | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-multibyte-l1-1-0.dll                                                                                                                                                                                        | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-private-l1-1-0.dll                                                                                                                                                                                          | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-process-l1-1-0.dll                                                                                                                                                                                          | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-runtime-l1-1-0.dll                                                                                                                                                                                          | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-stdio-l1-1-0.dll                                                                                                                                                                                            | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-string-l1-1-0.dll                                                                                                                                                                                           | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-time-l1-1-0.dll                                                                                                                                                                                             | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| api-ms-win-crt-utility-l1-1-0.dll                                                                                                                                                                                          | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| concrtdll                                                                                                                                                                                                                  | 2020-09-08 오후 7:10  | 응용 프로그램 확장        |    |
| LICENSE_PYTHON.txt                                                                                                                                                                                                         | 2021-06-29 오전 1:51  | 텍스트 문서            |    |
| msvcp140.dll                                                                                                                                                                                                               | 2020-09-08 오후 7:10  | 응용 프로그램 확장        |    |
| msvcp140_1.dll                                                                                                                                                                                                             | 2020-09-08 오후 7:10  | 응용 프로그램 확장        |    |
| msvcp140_2.dll                                                                                                                                                                                                             | 2020-09-08 오후 7:10  | 응용 프로그램 확장        |    |
| msvcp140_codecvt_ids.dll                                                                                                                                                                                                   | 2020-09-08 오후 7:10  | 응용 프로그램 확장        |    |
| python.exe                                                                                                                                                                                                                 | 2021-07-27 오후 11:43 | 응용 프로그램           |    |
| python.pdb                                                                                                                                                                                                                 | 2021-07-27 오후 11:43 | Program Debug ... |    |
| python3.dll                                                                                                                                                                                                                | 2021-07-27 오후 11:43 | 응용 프로그램 확장        |    |
| python37.dll                                                                                                                                                                                                               | 2021-07-27 오후 11:42 | 응용 프로그램 확장        |    |
| python37.pdb                                                                                                                                                                                                               | 2021-07-27 오후 11:42 | Program Debug ... |    |
| pythonw.exe                                                                                                                                                                                                                | 2021-07-27 오후 11:43 | 응용 프로그램           |    |
| pythonw.pdb                                                                                                                                                                                                                | 2021-07-27 오후 11:43 | Program Debug ... |    |
| ucrtbase.dll                                                                                                                                                                                                               | 2018-04-20 오후 2:37  | 응용 프로그램 확장        |    |
| vccorlib140.dll                                                                                                                                                                                                            | 2020-09-08 오후 7:10  | 응용 프로그램 확장        |    |
| vcomp140.dll                                                                                                                                                                                                               | 2020-09-08 오후 7:10  | 응용 프로그램 확장        |    |
| vcruntime140.dll                                                                                                                                                                                                           | 2020-09-08 오후 7:10  | 응용 프로그램 확장        |    |
| vcruntime140.dll.conda_trash                                                                                                                                                                                               | 2020-09-08 오후 7:10  | CONDA_TRASH ...   |    |
| vcruntime140_1.dll                                                                                                                                                                                                         | 2020-09-08 오후 7:10  | 응용 프로그램 확장        |    |
| venvlauncher.exe                                                                                                                                                                                                           | 2021-07-27 오후 11:43 | 응용 프로그램           |    |
| venvlauncher.exe                                                                                                                                                                                                           | 2021-07-27 오후 11:43 | 응용 프로그램           |    |

- 기존에 설치되어 있는 가상환경 확인하기

```
(base) PS C:\Users\DEU_AI> conda info --envs
```

```
conda environments:
```

```
#
```

```
base * C:\Users\DEU_AI\anaconda3
[sirius] C:\Users\DEU_AI\anaconda3\envs\[sirius]
myconda C:\Users\DEU_AI\anaconda3\envs\myconda
sirius C:\Users\DEU_AI\anaconda3\envs\sirius
yolov5_py38_0702 C:\Users\DEU_AI\anaconda3\envs\yolov5_py38_0702
```

```
(base) PS C:\Users\DEU_AI>
```

- 가상환경 실행하기

```
(base) PS C:\Users\DEU_AI> conda activate myconda
```

```
(myconda) PS C:\Users\DEU_AI>
```

- 가상환경 비활성화 하기

```
(myconda) PS C:\Users\DEU_AI> conda deactivate
```

```
(base) PS C:\Users\DEU_AI>
```

- 가상환경에 설치되어 있는 리스트 확인하기

```
(myconda) PS C:\Users\DEU_AI> conda list
```

```
packages in environment at C:\Users\DEU_AI\anaconda3\envs\myconda:
```

```
#
```

| # | Name            | Version     | Build          | Channel |
|---|-----------------|-------------|----------------|---------|
|   | ca-certificates | 2021.9.30   | haa95532_1     |         |
|   | certifi         | 2021.10.8   | py37haa95532_0 |         |
|   | openssl         | 1.1.1l      | h2bbff1b_0     |         |
|   | pip             | 21.2.4      | py37haa95532_0 |         |
|   | python          | 3.7.11      | h6244533_0     |         |
|   | setuptools      | 58.0.4      | py37haa95532_0 |         |
|   | sqlite          | 3.36.0      | h2bbff1b_0     |         |
|   | vc              | 14.2        | h21ff451_1     |         |
|   | vs2015_runtime  | 14.27.29016 | h5e58377_2     |         |
|   | wheel           | 0.37.0      | pyhd3eb1b0_1   |         |
|   | wincertstore    | 0.2         | py37haa95532_2 |         |

```
(myconda) PS C:\Users\DEU_AI>
```

- 가상환경 삭제하기

```
(base) PS C:\Users\DEU_AI> conda remove -n myconda --all
```

Remove all packages in environment C:\Users\DEU\_AI\anaconda3\envs\myconda:

```
Package Plan
```

environment location: C:\Users\DEU\_AI\anaconda3\envs\myconda

The following packages will be REMOVED:

ca-certificates-2021.9.30-haa95532\_1  
certifi-2021.10.8-py37haa95532\_0  
openssl-1.1.1l-h2bbff1b\_0  
pip-21.2.4-py37haa95532\_0  
python-3.7.11-h6244533\_0  
setuptools-58.0.4-py37haa95532\_0  
sqlite-3.36.0-h2bbff1b\_0  
vc-14.2-h21ff451\_1  
vs2015\_runtime-14.27.29016-h5e58377\_2  
wheel-0.37.0-pyhd3eb1b0\_1  
wincertstore-0.2-py37haa95532\_2

Proceed ([y]/n)? y

Preparing transaction: done

Verifying transaction: done

Executing transaction: done

(base) PS C:\Users\DEU\_AI>

(myconda) PS C:\Users\DEU\_AI> conda list

EnvironmentLocationNotFound: Not a conda environment: C:\Users\DEU\_AI\anaconda3\envs\myconda

(myconda) PS C:\Users\DEU\_AI>

- (base) PS C:\Users\DEU\_AI> conda create -n myconda python=3.7 다시 실행

(base) PS C:\Users\DEU\_AI> conda activate myconda

(myconda) PS C:\Users\DEU\_AI> conda list

# packages in environment at C:\Users\DEU\_AI\anaconda3\envs\myconda:

#

| # Name          | Version     | Build          | Channel |
|-----------------|-------------|----------------|---------|
| ca-certificates | 2021.9.30   | haa95532_1     |         |
| certifi         | 2021.10.8   | py37haa95532_0 |         |
| openssl         | 1.1.1l      | h2bbff1b_0     |         |
| pip             | 21.2.4      | py37haa95532_0 |         |
| python          | 3.7.11      | h6244533_0     |         |
| setuptools      | 58.0.4      | py37haa95532_0 |         |
| sqlite          | 3.36.0      | h2bbff1b_0     |         |
| vc              | 14.2        | h21ff451_1     |         |
| vs2015_runtime  | 14.27.29016 | h5e58377_2     |         |
| wheel           | 0.37.0      | pyhd3eb1b0_1   |         |
| wincertstore    | 0.2         | py37haa95532_2 |         |

(myconda) PS C:\Users\DEU\_AI>

(myconda) PS C:\Users\DEU\_AI> pip freeze > requirements.txt

(myconda) PS C:\Users\DEU\_AI> ls

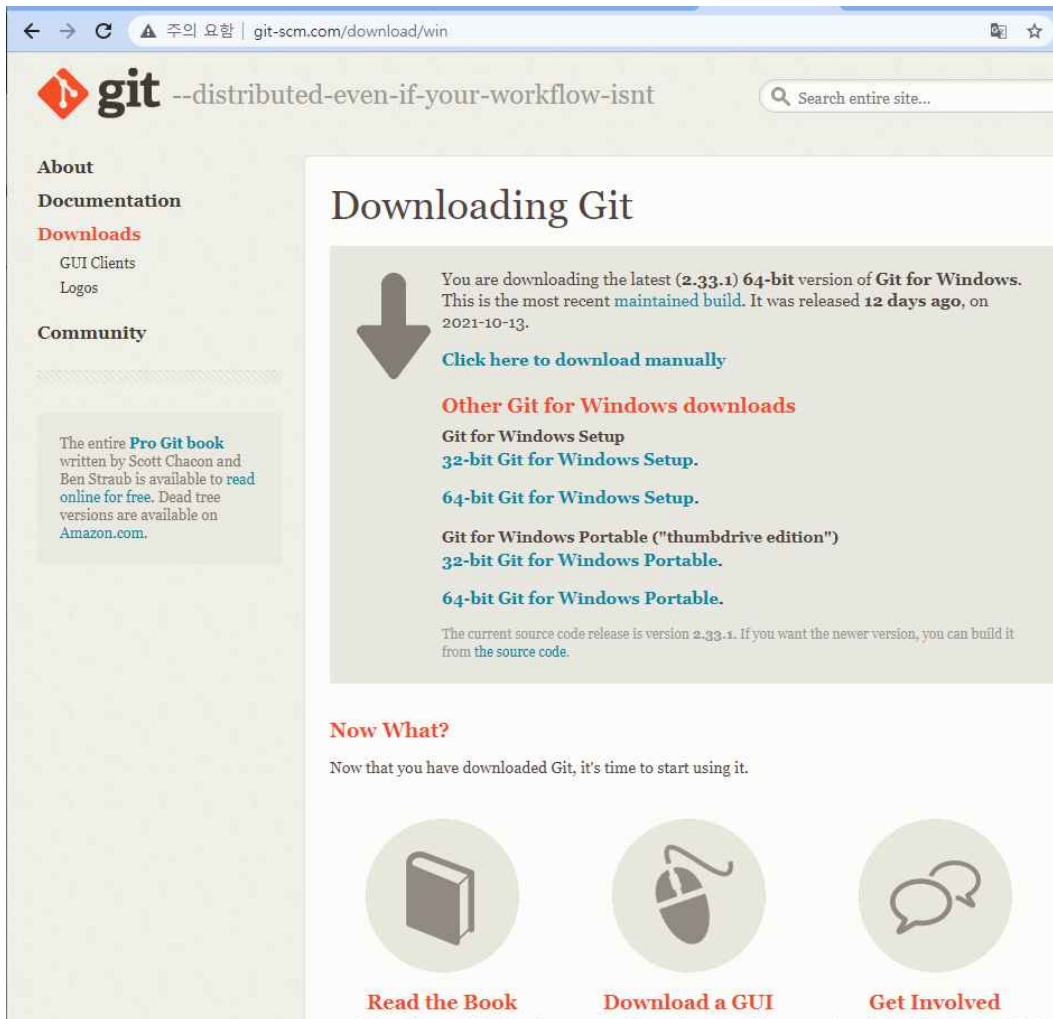
디렉터리: C:\Users\DEU\_AI

| Mode   | LastWriteTime       | Length | Name               |
|--------|---------------------|--------|--------------------|
| d----- | 2021-08-12 오전 11:59 |        | .anaconda          |
| d----- | 2021-09-14 오후 5:00  |        | .cache             |
| d----- | 2021-10-26 오후 5:48  |        | .conda             |
| d----- | 2021-08-12 오전 11:58 |        | .continuum         |
| d----- | 2021-08-03 오전 10:36 |        | .dotnet            |
| d----- | 2021-09-15 오후 2:23  |        | .ipynb_checkpoints |
| d----- | 2021-07-30 오후 3:34  |        | .ipython           |
| d----- | 2021-09-28 오전 11:56 |        | .jupyter           |
| d----- | 2021-08-31 오전 11:41 |        | .keras             |
| d----- | 2021-07-05 오후 1:33  |        | .matplotlib        |
| d----- | 2021-09-30 오후 3:08  |        | .spyder-py3        |
| d-r--- | 2021-07-01 오후 9:56  |        | 3D Objects         |

|        |            |          |                     |
|--------|------------|----------|---------------------|
| d----- | 2021-09-28 | 오후 12:52 | anaconda3           |
| d----- | 2021-07-05 | 오후 2:44  | ansel               |
| d-r--- | 2021-07-01 | 오후 9:56  | Contacts            |
| d-r--- | 2021-09-29 | 오전 11:27 | Desktop             |
| d-r--- | 2021-09-23 | 오후 2:58  | Documents           |
| d-r--- | 2021-10-26 | 오후 5:03  | Downloads           |
| d-r--- | 2021-07-08 | 오전 9:49  | Favorites           |
| d----- | 2021-09-28 | 오후 1:21  | Jedi                |
| d-r--- | 2021-07-01 | 오후 9:56  | Links               |
| d-r--- | 2021-07-13 | 오후 2:22  | Music               |
| dar--l | 2021-10-26 | 오전 10:46 | OneDrive            |
| d----- | 2021-10-26 | 오후 3:07  | Phython Program     |
| d-r--- | 2021-07-13 | 오후 1:25  | Pictures            |
| d----- | 2021-07-21 | 오전 10:45 | Postman             |
| d----- | 2021-09-07 | 오후 3:35  | RoboMaster-SDK      |
| d----- | 2021-08-10 | 오후 4:50  | RoboMaster-SDK1     |
| d-r--- | 2021-07-01 | 오후 9:56  | Saved Games         |
| d-r--- | 2021-07-01 | 오후 9:57  | Searches            |
| d----- | 2021-08-03 | 오후 1:14  | source              |
| d-r--- | 2021-10-26 | 오전 10:46 | Videos              |
| d----- | 2021-08-03 | 오전 10:14 | _bazel_DEU_AI       |
| -a---- | 2021-08-12 | 오전 11:59 | 25 .condarc         |
| -a---- | 2021-09-07 | 오후 2:40  | 131 .python_history |
| -a---- | 2021-10-26 | 오후 4:10  | 0 1.0.4             |
| -a---- | 2021-10-26 | 오후 3:45  | 0 curl              |
| -a---- | 2021-10-26 | 오후 3:46  | 2159352 get-pip.py  |
| -a---- | 2021-10-26 | 오후 4:10  | 0 pip               |
| -a---- | 2021-10-26 | 오후 3:43  | 0 pip.txt           |
| -a---- | 2021-10-26 | 오후 3:44  | 0 pip.txt'          |
| -a---- | 2021-10-26 | 오후 5:48  | 80 requirements.txt |
| -a---- | 2021-09-15 | 오후 2:23  | 72 Untitled.ipynb   |

(myconda) PS C:\Users\DEU\_AI>

-git 설치



참 고 자 료 :

<https://velog.io/@saakmiso/Windows-%EC%BB%B4%ED%93%A8%ED%84%B0-Git-%EC%84%A4%EC%B9%98%ED%95%98%EA%B8%B0>

```
(myconda) PS C:\Users\DEU_AI> git
usage: git [--version] [--help] [-C <path>] [-c <name>=<value>]
 [--exec-path[=<path>]] [--html-path] [--man-path] [--info-path]
 [-p | --paginate | -P | --no-pager] [--no-replace-objects] [--bare]
 [--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]
 [--super-prefix=<path>] [--config-env=<name>=<envvar>]
 <command> [<args>]
```

These are common Git commands used in various situations:

start a working area (see also: git help tutorial)

|       |                                                                |
|-------|----------------------------------------------------------------|
| clone | Clone a repository into a new directory                        |
| init  | Create an empty Git repository or reinitialize an existing one |

work on the current change (see also: `git help everyday`)

|                              |                                                       |
|------------------------------|-------------------------------------------------------|
| <code>add</code>             | Add file contents to the index                        |
| <code>mv</code>              | Move or rename a file, a directory, or a symlink      |
| <code>restore</code>         | Restore working tree files                            |
| <code>rm</code>              | Remove files from the working tree and from the index |
| <code>sparse-checkout</code> | Initialize and modify the sparse-checkout             |

examine the history and state (see also: `git help revisions`)

|                     |                                                            |
|---------------------|------------------------------------------------------------|
| <code>bisect</code> | Use binary search to find the commit that introduced a bug |
| <code>diff</code>   | Show changes between commits, commit and working tree, etc |
| <code>grep</code>   | Print lines matching a pattern                             |
| <code>log</code>    | Show commit logs                                           |
| <code>show</code>   | Show various types of objects                              |
| <code>status</code> | Show the working tree status                               |

grow, mark and tweak your common history

|                     |                                                             |
|---------------------|-------------------------------------------------------------|
| <code>branch</code> | List, create, or delete branches                            |
| <code>commit</code> | Record changes to the repository                            |
| <code>merge</code>  | Join two or more development histories together             |
| <code>rebase</code> | Reapply commits on top of another base tip                  |
| <code>reset</code>  | Reset current HEAD to the specified state                   |
| <code>switch</code> | Switch branches                                             |
| <code>tag</code>    | Create, list, delete or verify a tag object signed with GPG |

collaborate (see also: `git help workflows`)

|                    |                                                                    |
|--------------------|--------------------------------------------------------------------|
| <code>fetch</code> | Download objects and refs from another repository                  |
| <code>pull</code>  | Fetch from and integrate with another repository or a local branch |
| <code>push</code>  | Update remote refs along with associated objects                   |

'`git help -a`' and '`git help -g`' list available subcommands and some concept guides. See '`git help <command>`' or '`git help <concept>`' to read about a specific subcommand or concept.

See '`git help git`' for an overview of the system.

(myconda) PS C:\Users\DEU\_AI>