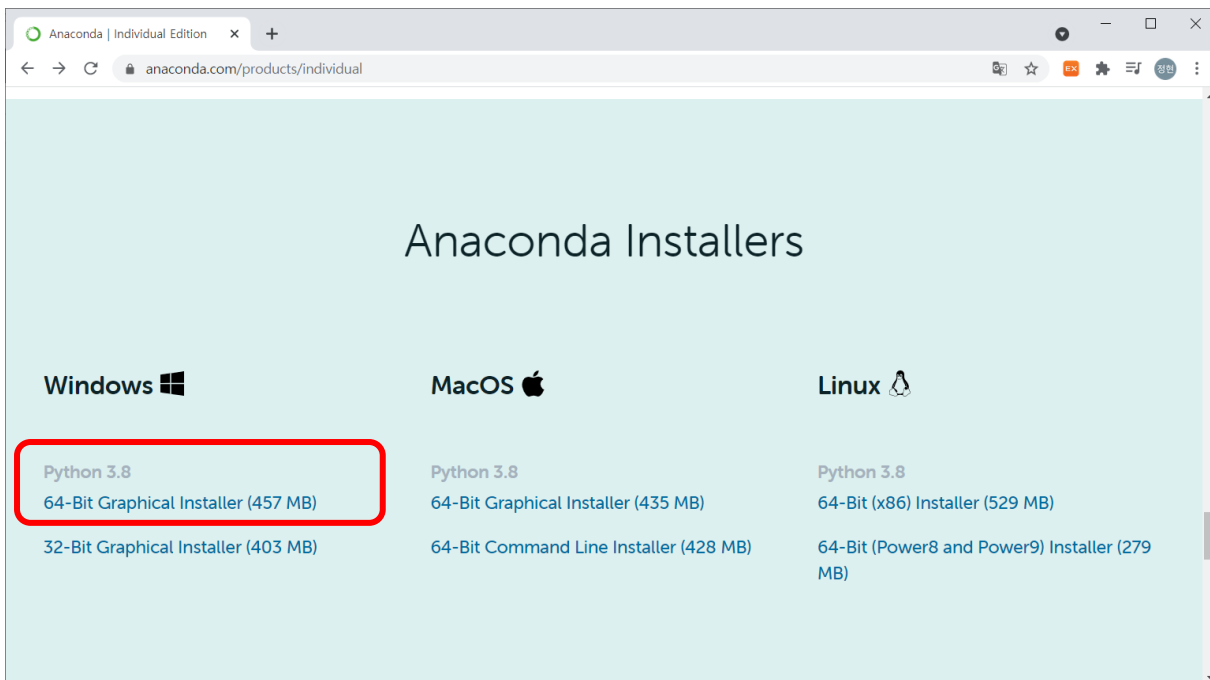
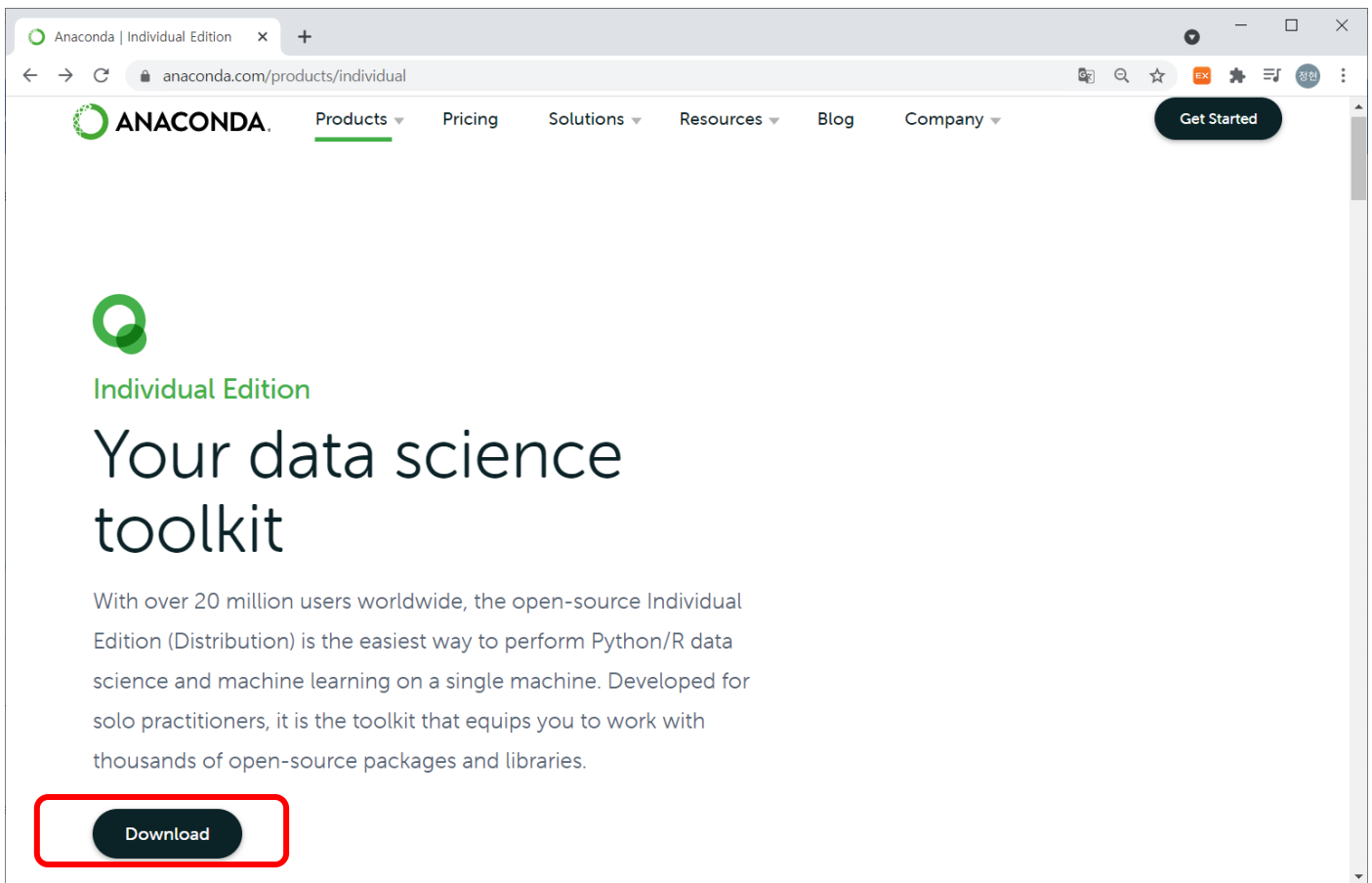
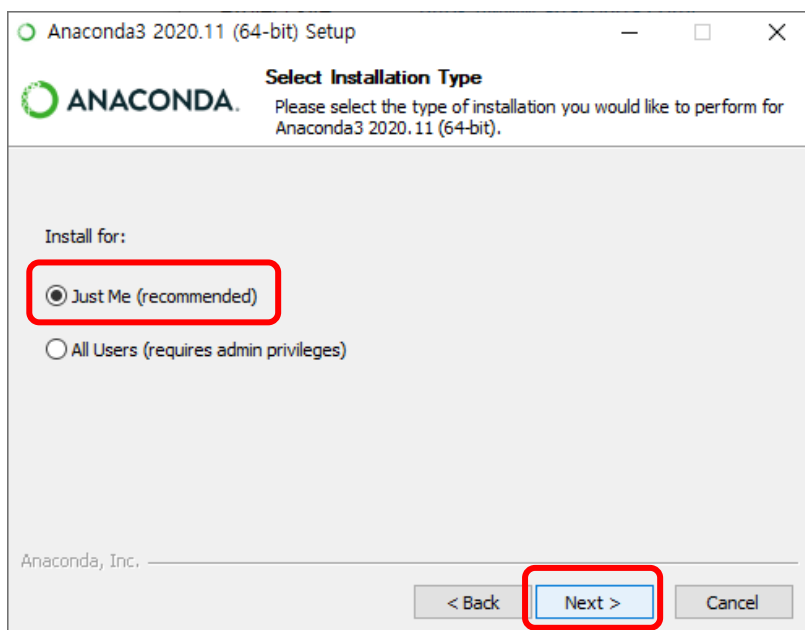
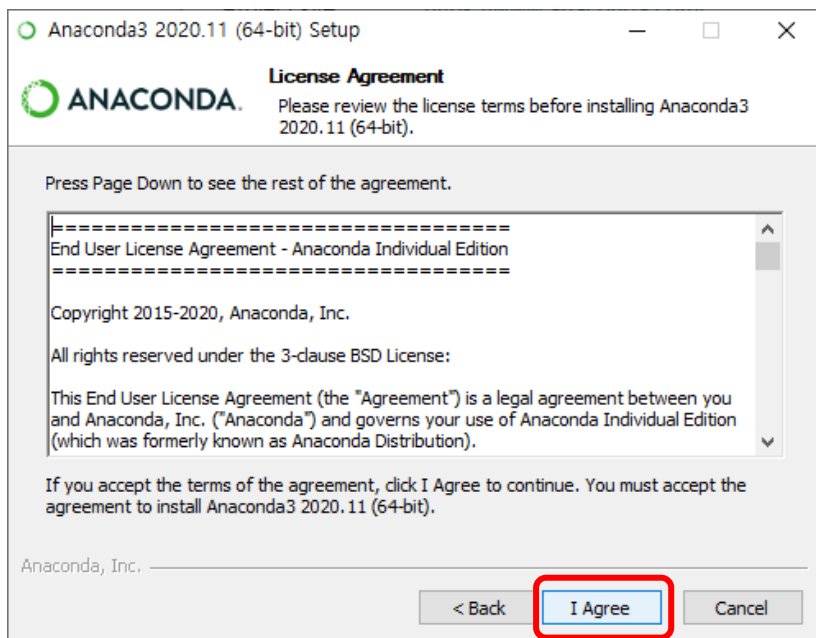
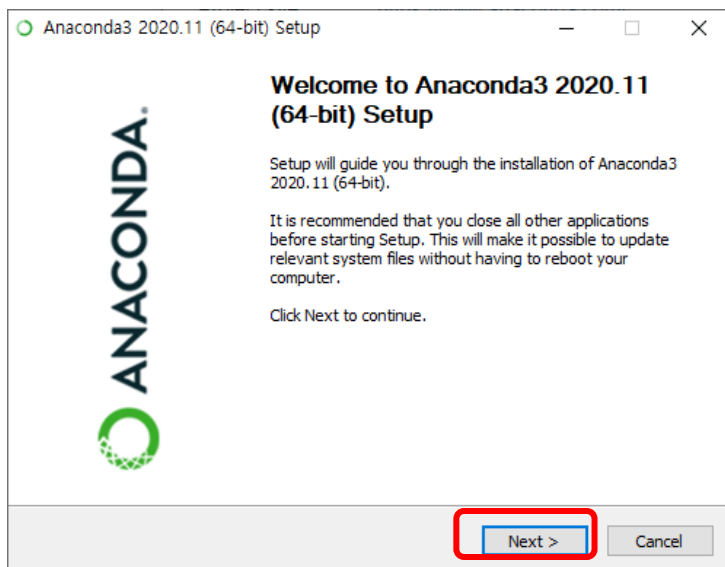


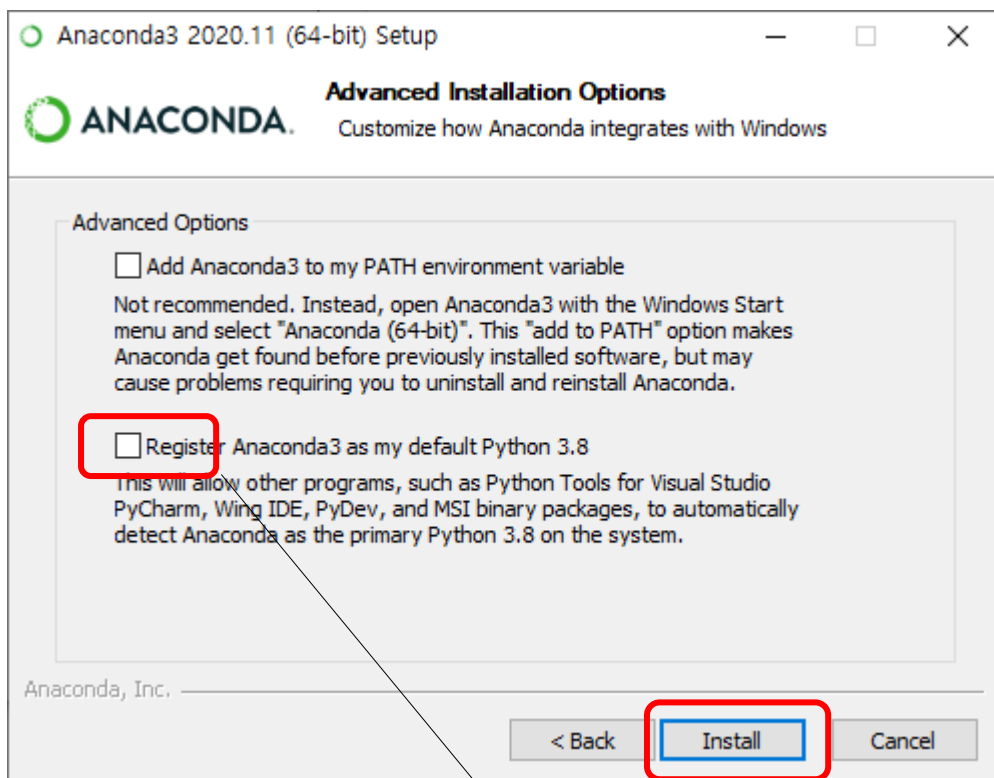
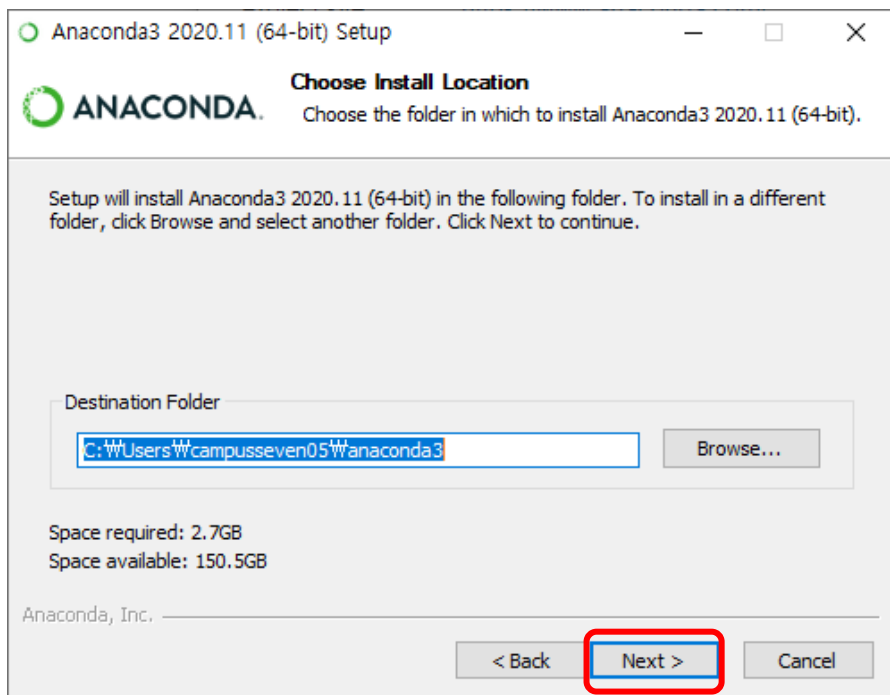
[아나콘다(Anaconda3) 설치하기]

<https://www.anaconda.com/products/individual> 에서 다운로드한다.

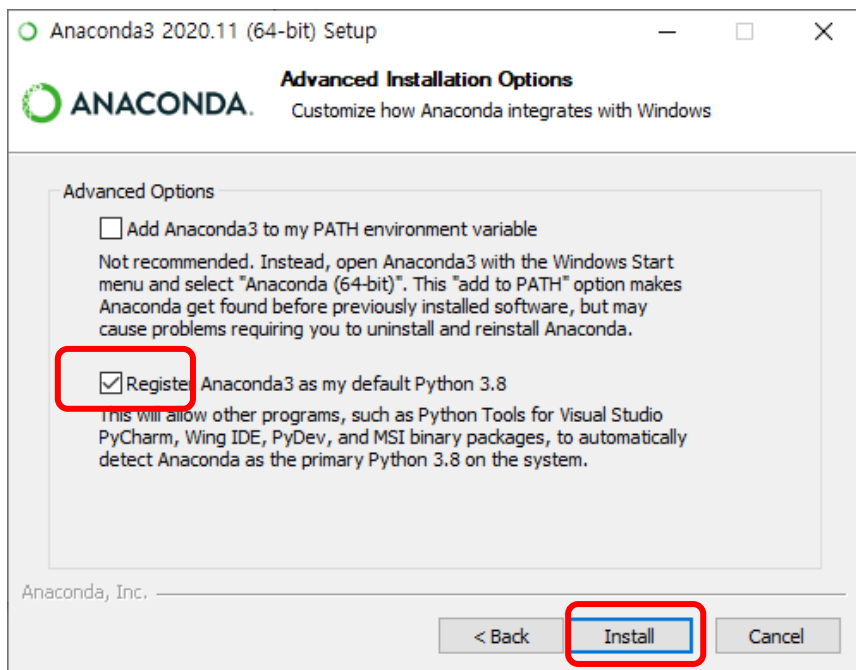


다운로드한 파일(Anaconda3-2020.11-Windows-x86_64.exe)을 더블클릭하여 설치를 시작한다.

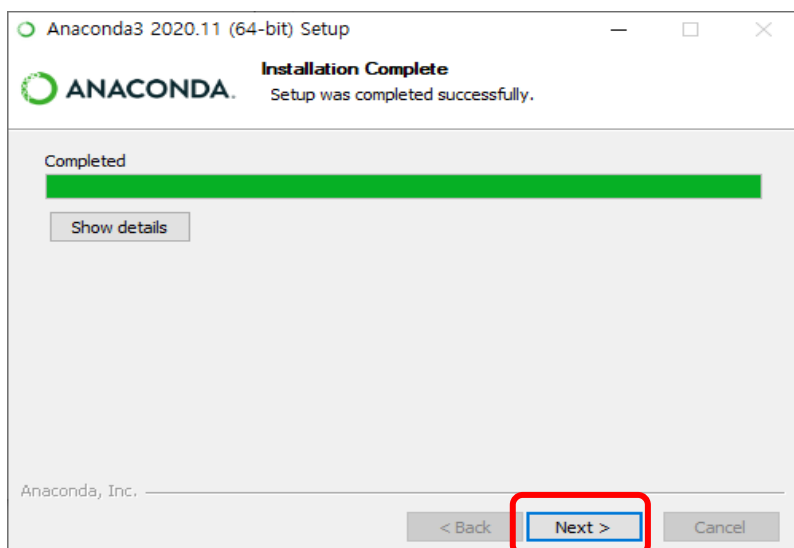
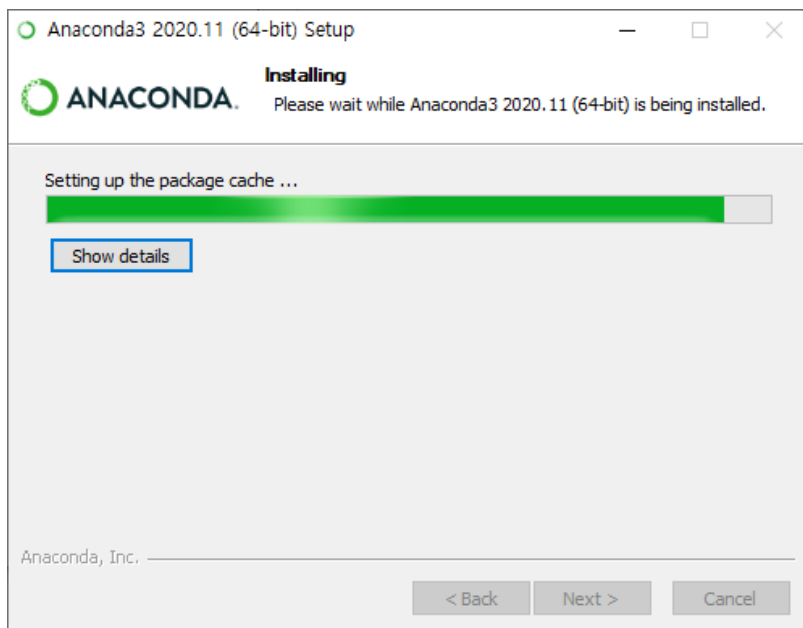


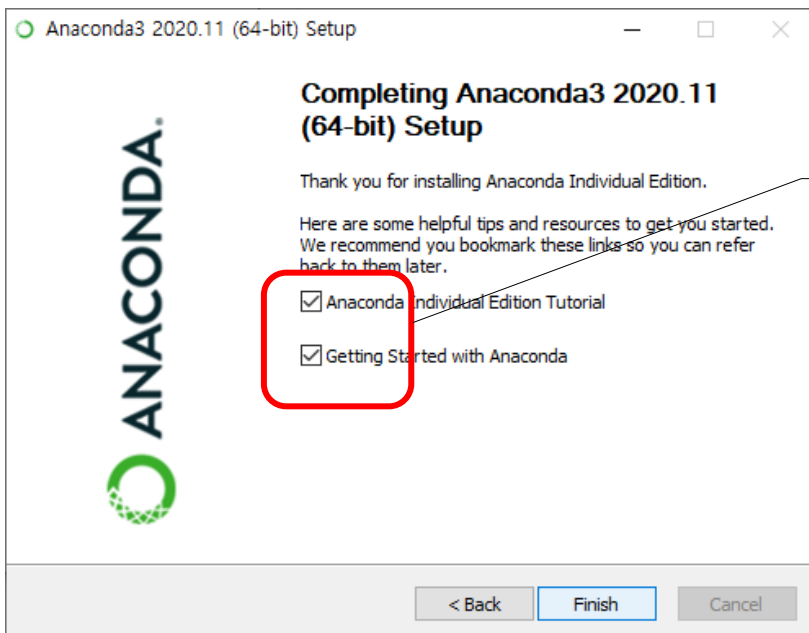
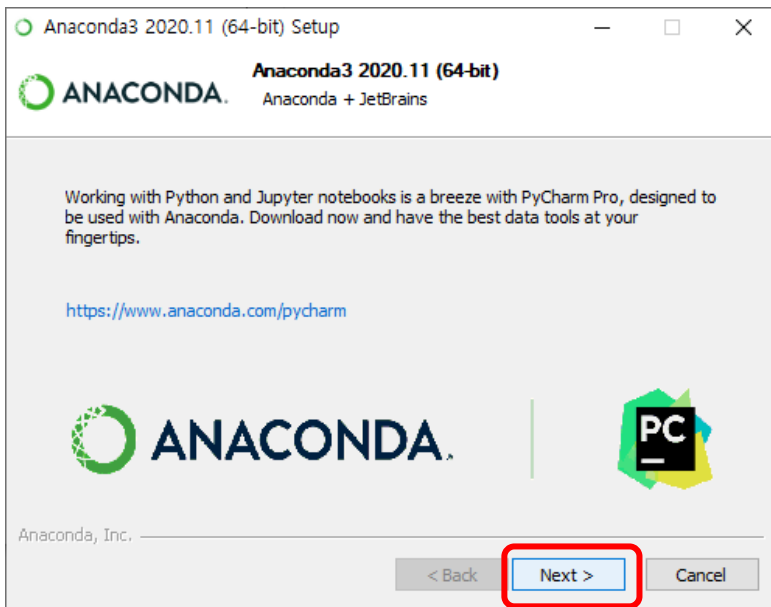


체크한 후에 Install 버튼 클릭 시 시스템에 따라서는 왼쪽 화면의 서브 창이 출력될 수도 있다. 이 때는 확인 버튼을 클릭한다.

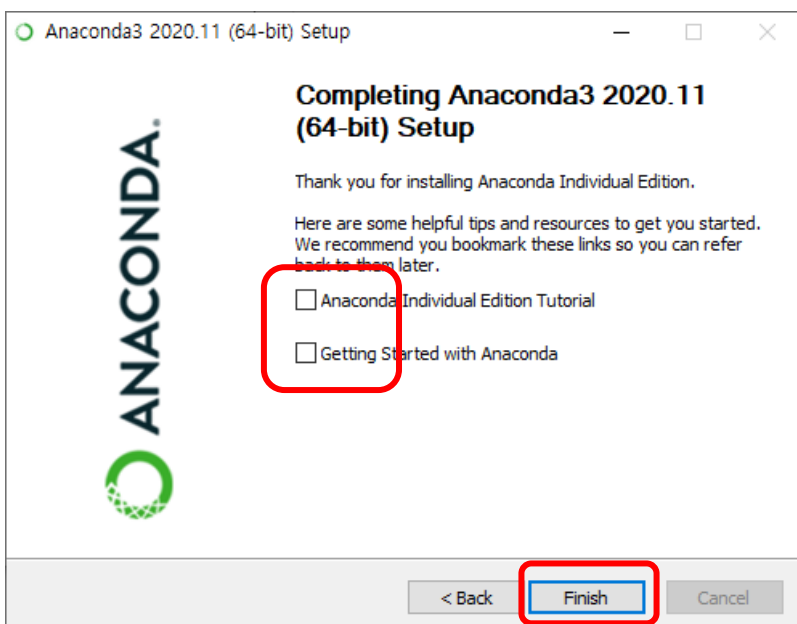


시간이 좀 오래 걸린다. 완료되면 Next 버튼이 활성화 된다.

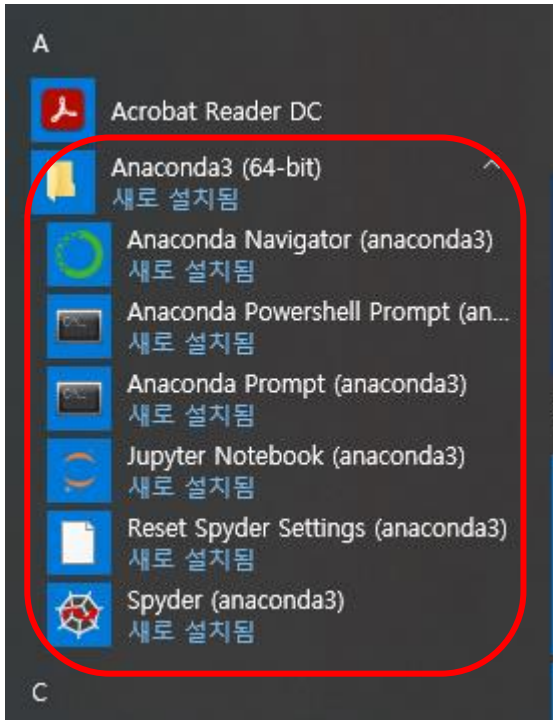




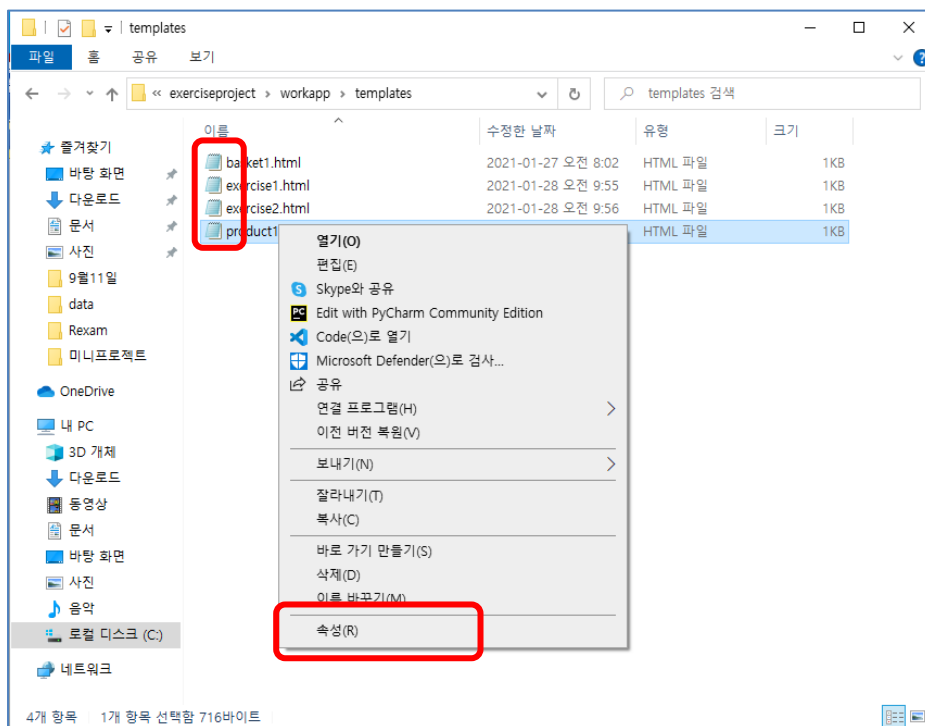
읽어보지 않아도 되는 내용이므로
두 개 모두 체크박스를 해제한
후에 Finish 버튼을 클릭한다.



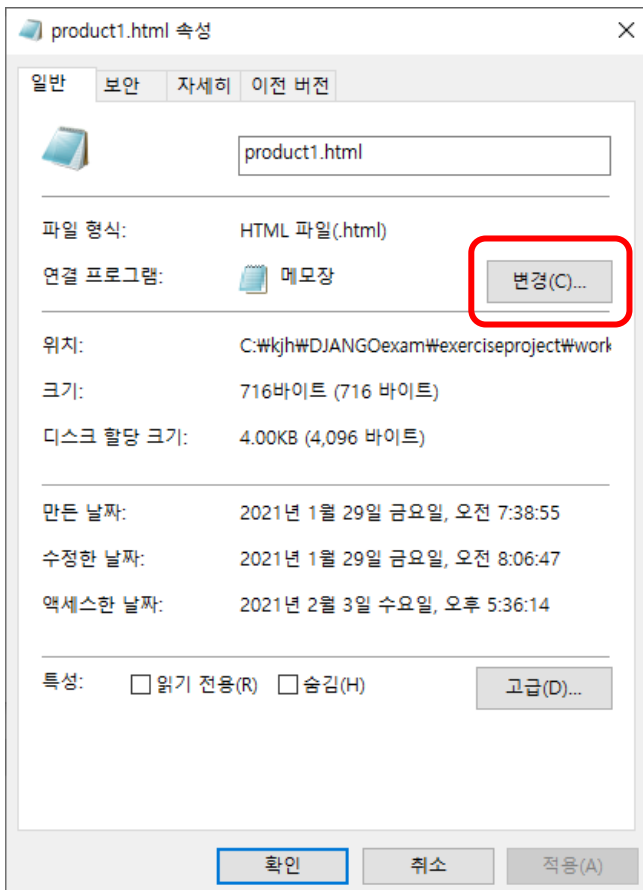
윈도우즈 운영체제의 시작 버튼을 클릭하면 다음과 같이 A 항목에 Anaconda3 메뉴가 추가된 것을 볼 수 있다.



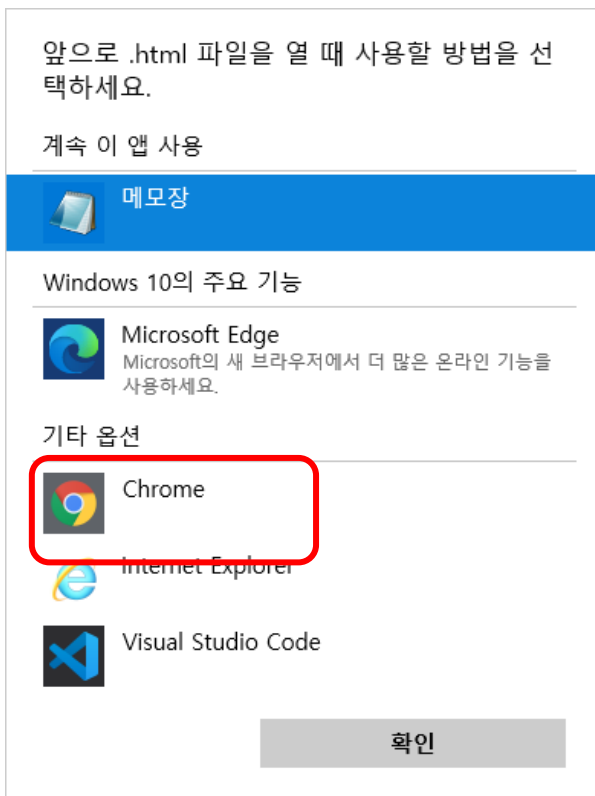
다음 과정은 진행해야 하는 교육생도 있고 그렇지 않은 교육생도 있다. 어떤 폴더에서든 관계없다 html 파일의 기본 프로그램이 메모장으로 되어 있는 시스템에서는 기본프로그램을 chrome 브라우저로 변경해야 한다. 적당한 html 파일을 선택한 후에 마우스 오른쪽 버튼을 클릭하고 출력된 팝업 메뉴에서 속성이라는 메뉴를 클릭한다.



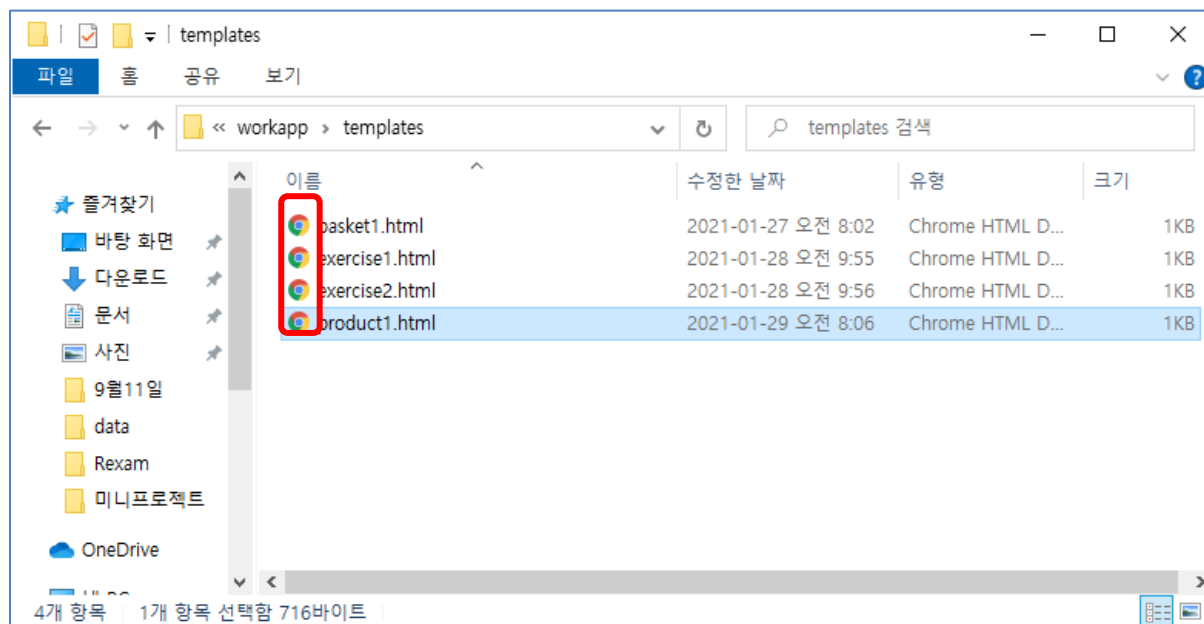
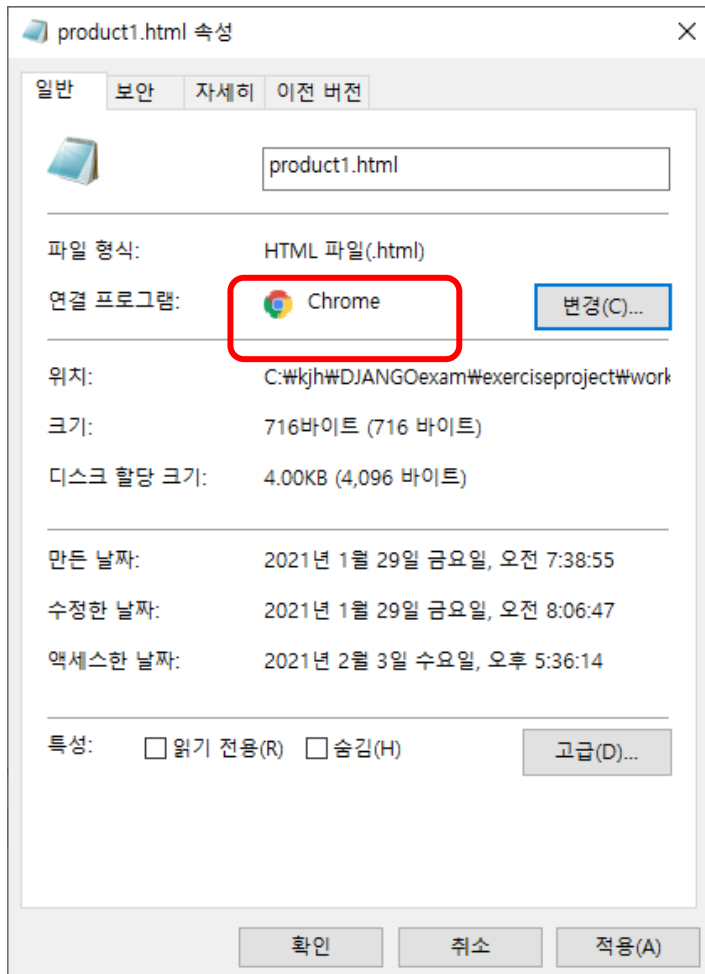
그러면 다음과 같이 연결 프로그램을 선택할 수 있는 서브창이 출력된다. 변경 버튼을 클릭한 다음에



아래와 같은 프로그램 선택창이 출력되면 여기에서 chrome 브라우저를 선택한 후에 확인 버튼을 클릭한다.

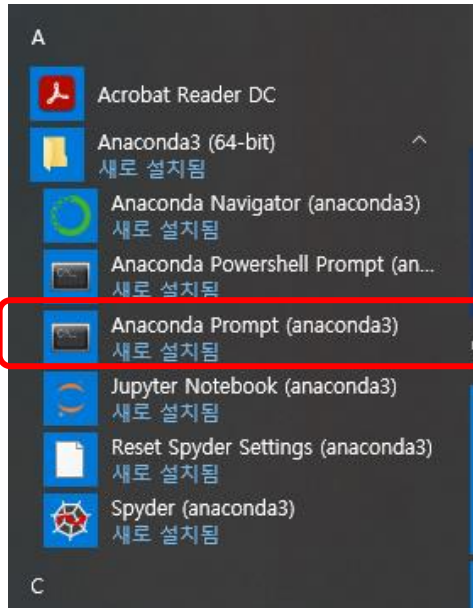


그러면 다음과 같이 연결 프로그램이 chrome 브라우저로 변경된 것을 확인할 수 있다.

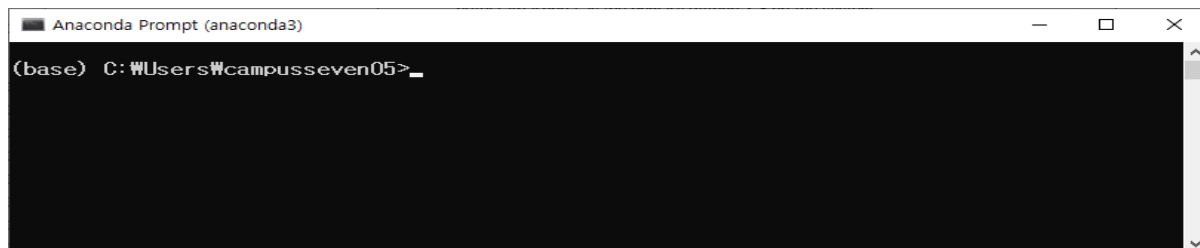


[jupyter lab 기동]

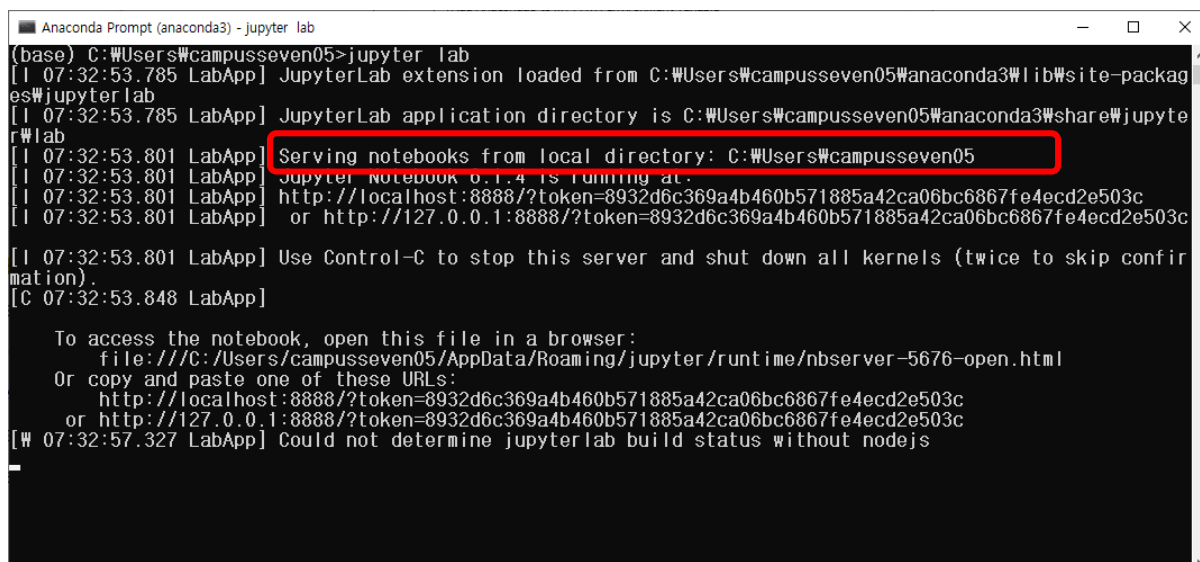
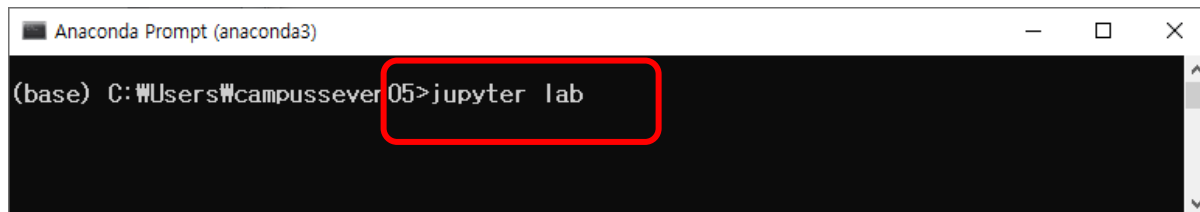
시작 메뉴에서 Anaconda Prompt 를 선택하여 Anaconda Prompt 창을 출력한다.



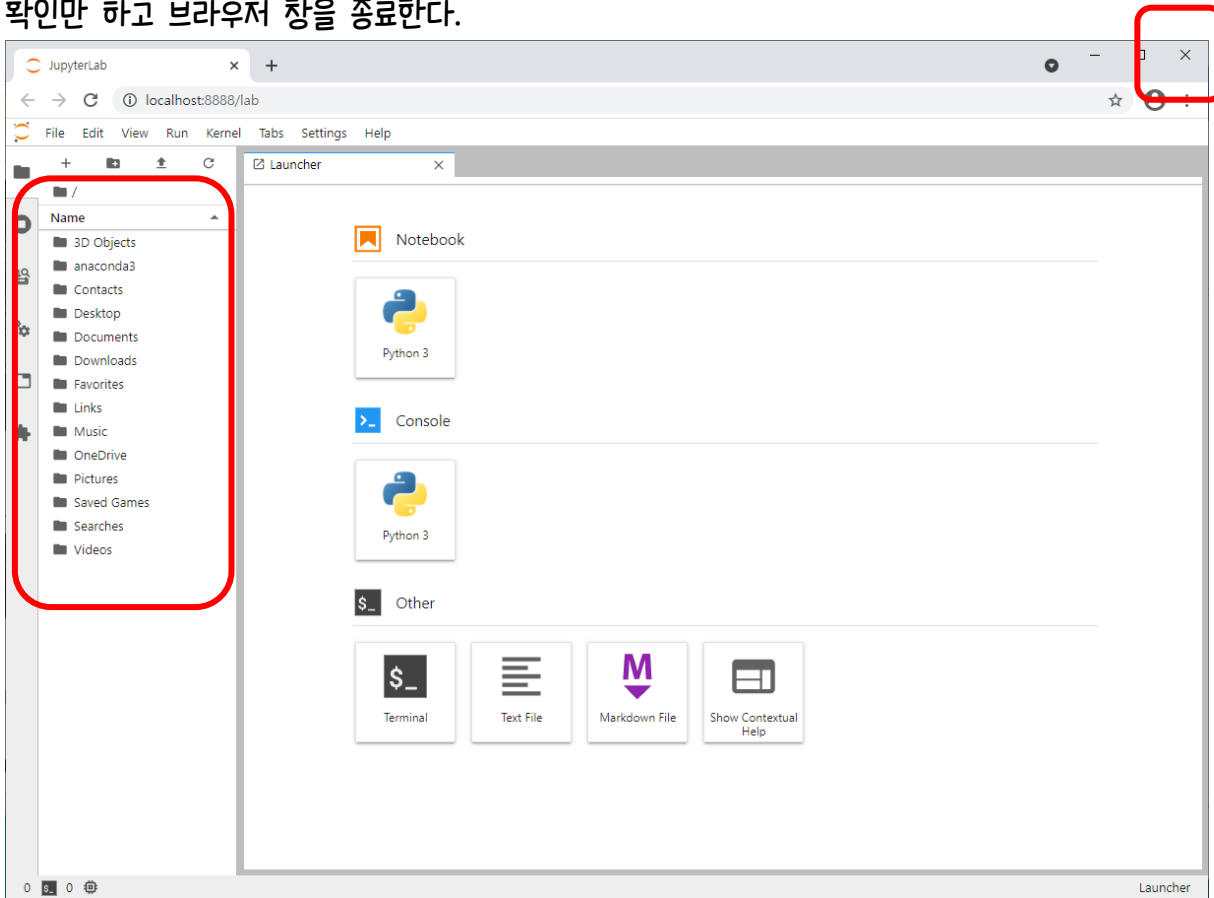
다음과 같이 Anaconda Prompt 창이 출력된다.



다음과 같이 jupyter lab 을 실행시켜서 jupyter lab 을 기동시킨다.



jupyter lab 은 jupyter notebook 과 비슷한 개발 환경이다. 브라우저를 통해서 개발 페이지를 제공한다. 자동으로 인식하게 되는 현재 디렉토리 위치는 시스템 사용자명 디렉토리이다. 확인만 하고 브라우저 창을 종료한다.



jupyter lab 이 잘 기동되는 것을 확인했으니 jupyter lab 을 기동시킨 Anaconda Prompt 창에 와서 ctrl + c 를 여러 번 입력해서 jupyter lab 를 강제로 종료한다.

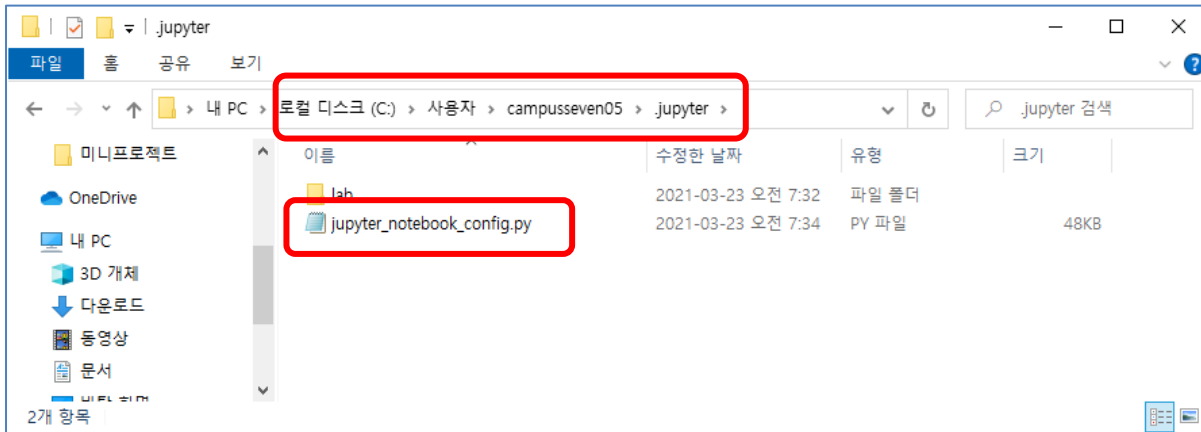
```
Anaconda Prompt (anaconda3)
(base) C:\Users\campussevent05>jupyter lab
[I 07:32:53.785 LabApp] JupyterLab extension loaded from C:\Users\campussevent05\anaconda3\lib\site-packages\jupyterlab
[I 07:32:53.785 LabApp] JupyterLab application directory is C:\Users\campussevent05\anaconda3\share\jupyterlab
[I 07:32:53.801 LabApp] Serving notebooks from local directory: C:\Users\campussevent05
[I 07:32:53.801 LabApp] Jupyter Notebook 6.1.4 is running at:
[I 07:32:53.801 LabApp] http://localhost:8888/?token=8932d6c369a4b460b571885a42ca06bc6867fe4ecd2e503c
[I 07:32:53.801 LabApp] or http://127.0.0.1:8888/?token=8932d6c369a4b460b571885a42ca06bc6867fe4ecd2e503c
[I 07:32:53.801 LabApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 07:32:53.848 LabApp]

To access the notebook, open this file in a browser:
    file:///C:/Users/campusseven05/AppData/Roaming/jupyter/runtime/nbserver-5676-open.html
Or copy and paste one of these URLs:
    http://localhost:8888/?token=8932d6c369a4b460b571885a42ca06bc6867fe4ecd2e503c
    or http://127.0.0.1:8888/?token=8932d6c369a4b460b571885a42ca06bc6867fe4ecd2e503c
[W 07:32:57.327 LabApp] Could not determine jupyterlab build status without nodejs
[I 07:34:28.859 LabApp] Interrupted...
[I 07:34:28.859 LabApp] Shutting down 0 kernels
[I 07:34:28.859 LabApp] Shutting down 0 terminals
(base) C:\Users\campussevent05>
```

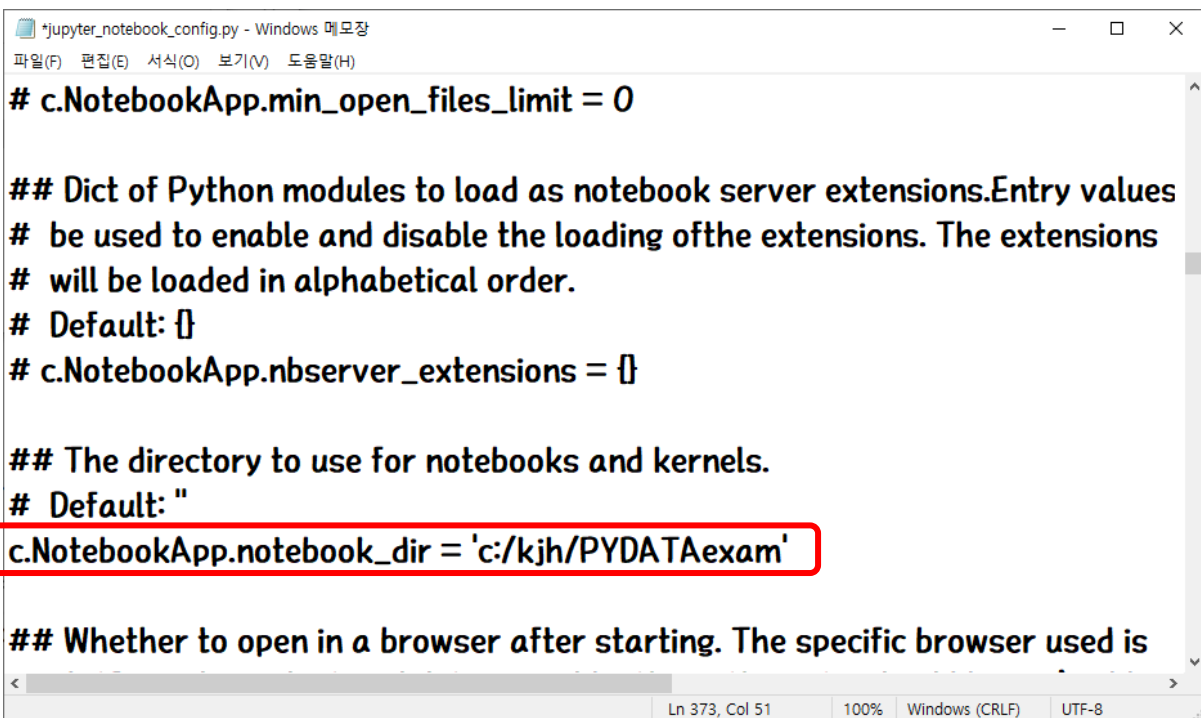
jupyter notebook --generate-config 명령을 실행시켜서 설정파일을 생성한다.

```
Anaconda Prompt (anaconda3)
[I 07:34:28.859 LabApp] Interrupted...
[I 07:34:28.859 LabApp] Shutting down 0 kernels
[I 07:34:28.859 LabApp] Shutting down 0 terminals
(base) C:\Users\campussevent05>jupyter notebook --generate-config
Writing default config to: C:\Users\campussevent05\jupyter\jupyter_notebook_config.py
(base) C:\Users\campussevent05>
```

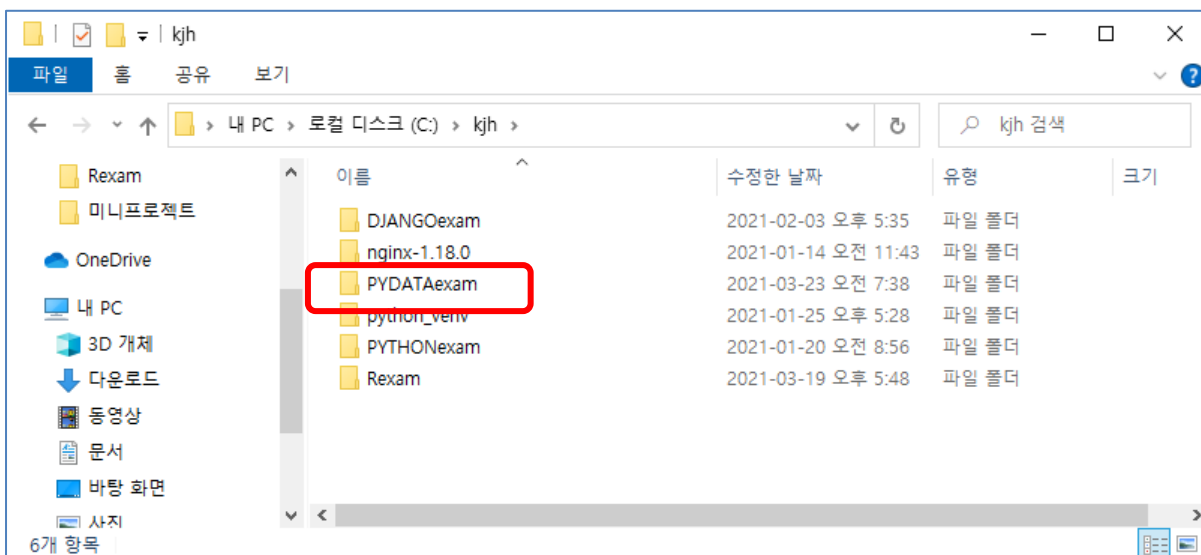
사용하는 시스템의 사용자 디렉토리에 이동해서 .jupyter 라는 폴더를 찾는다. 이 폴더안에 jupyter_notebook_config.py 가 존재하며 이 파일을 메모장으로 엽니다.



373행으로 이동해서 이동해서 다음과 같이 수정한다. 제일 앞에 있는 주석기호(#)도 꼭 해제한다.



여러분들의 소스폴더에 PYDATAexam 이라는 폴더를 생성한다.

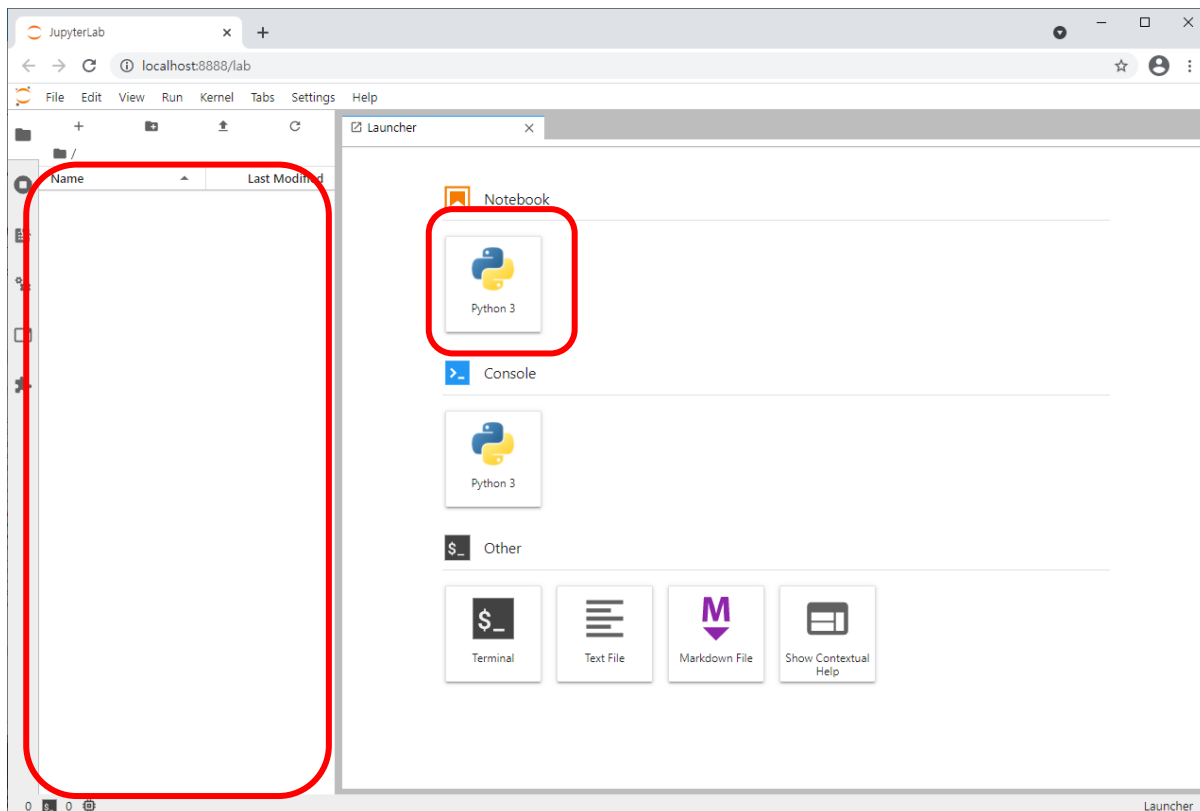


저장한 후에 다시 Anaconda Prompt 창에 와서 jupyter lab 을 기동시킨다. 기동시키는 화면에서 출력되는 시작 디렉토리가 변경된 것을 확인한다.

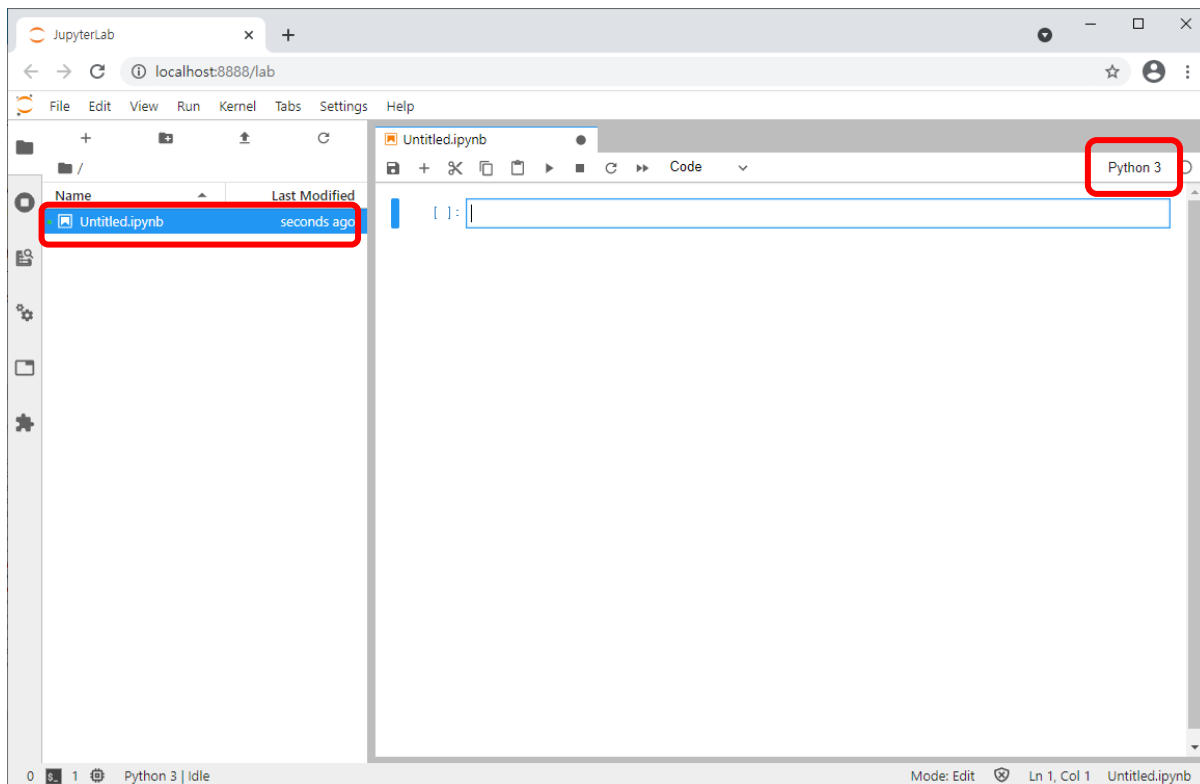
```
Anaconda Prompt (anaconda3) - jupyter lab
[1 07:34:28.859 LabApp] Shutting down 0 terminals
(base) C:\Users\campussevent05>jupyter notebook --generate-config
Writing default config to: C:\Users\campussevent05\jupyter\jupyter_notebook_config.py
(base) C:\Users\campussevent05>jupyter lab
[1 07:38:44.779 LabApp] JupyterLab extension loaded from C:\Users\campussevent05\anaconda3\lib\site-packages\jupyterlab
[1 07:38:44.779 LabApp] JupyterLab application directory is C:\Users\campussevent05\anaconda3\share\jupyterlab
[1 07:38:44.779 LabApp] Serving notebooks from local directory: c:/kjh/PYDATAexam
[1 07:38:44.779 LabApp] Jupyter Notebook 6.1.4 is running at:
[1 07:38:44.779 LabApp] http://localhost:8888/?token=22ebc265e9b4707feaaa733f421e77bcdc2ca12a5f25fc45
[1 07:38:44.779 LabApp] or http://127.0.0.1:8888/?token=22ebc265e9b4707feaaa733f421e77bcdc2ca12a5f25fc45
[1 07:38:44.779 LabApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 07:38:44.842 LabApp]

To access the notebook, open this file in a browser:
file:///C:/Users/campussevent05/AppData/Roaming/jupyter/runtime/nbserver-10716-open.html
Or copy and paste one of these URLs:
http://localhost:8888/?token=22ebc265e9b4707feaaa733f421e77bcdc2ca12a5f25fc45
or http://127.0.0.1:8888/?token=22ebc265e9b4707feaaa733f421e77bcdc2ca12a5f25fc45
[W 07:38:48.052 LabApp] Could not determine jupyterlab build status without nodejs
```

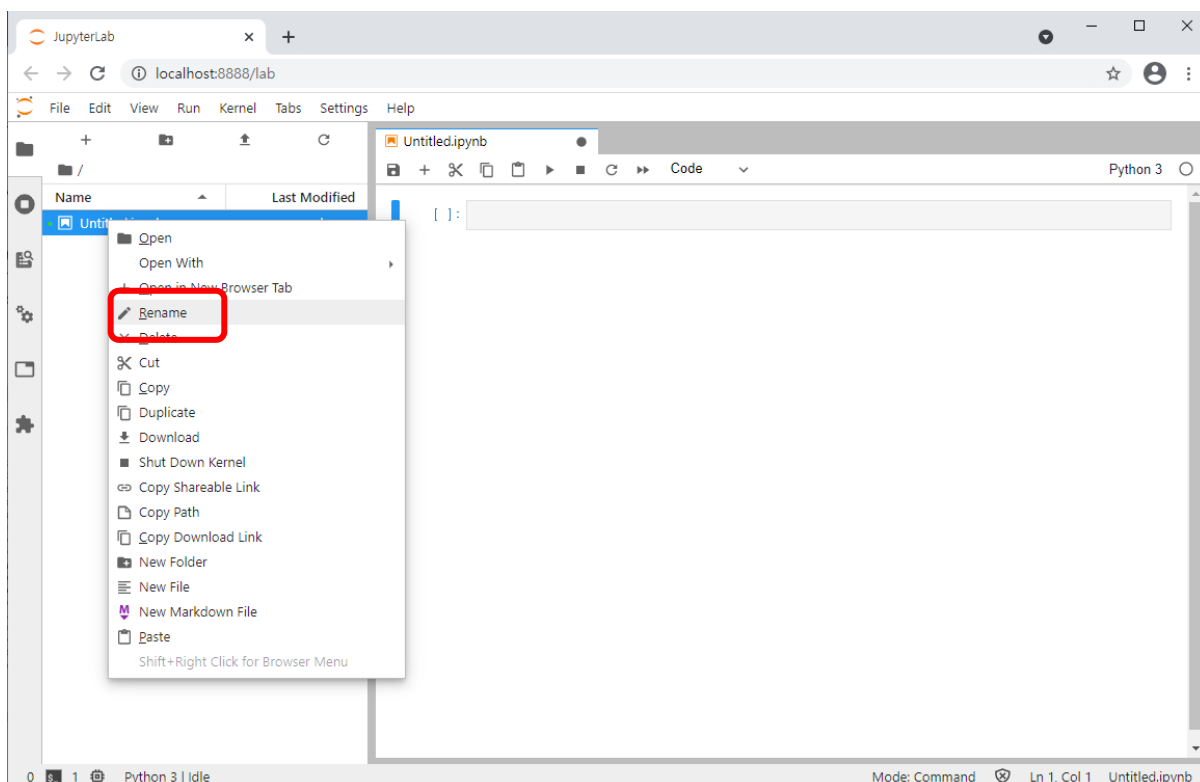
다음과 같이 왼쪽 패널이 깨끗한 것을 볼 수 있다. 오른쪽 패널의 Python 3 버튼을 클릭한다.

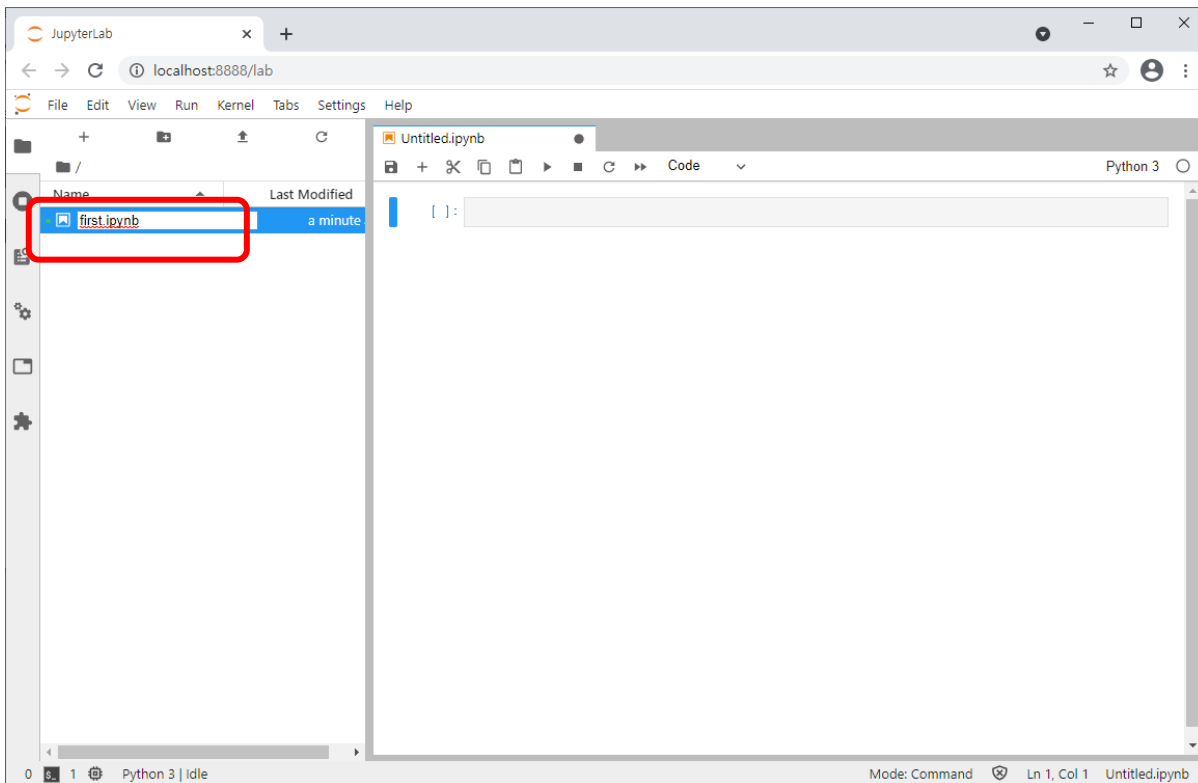


그러면 다음과 같이 소스를 작성하고 실행시킬 수 있는 노트북 화면이 출력되고 Untitled.ipynb 라는 명칭으로 노트북 소스의 파일이 생성되는 것을 볼 수 있다.

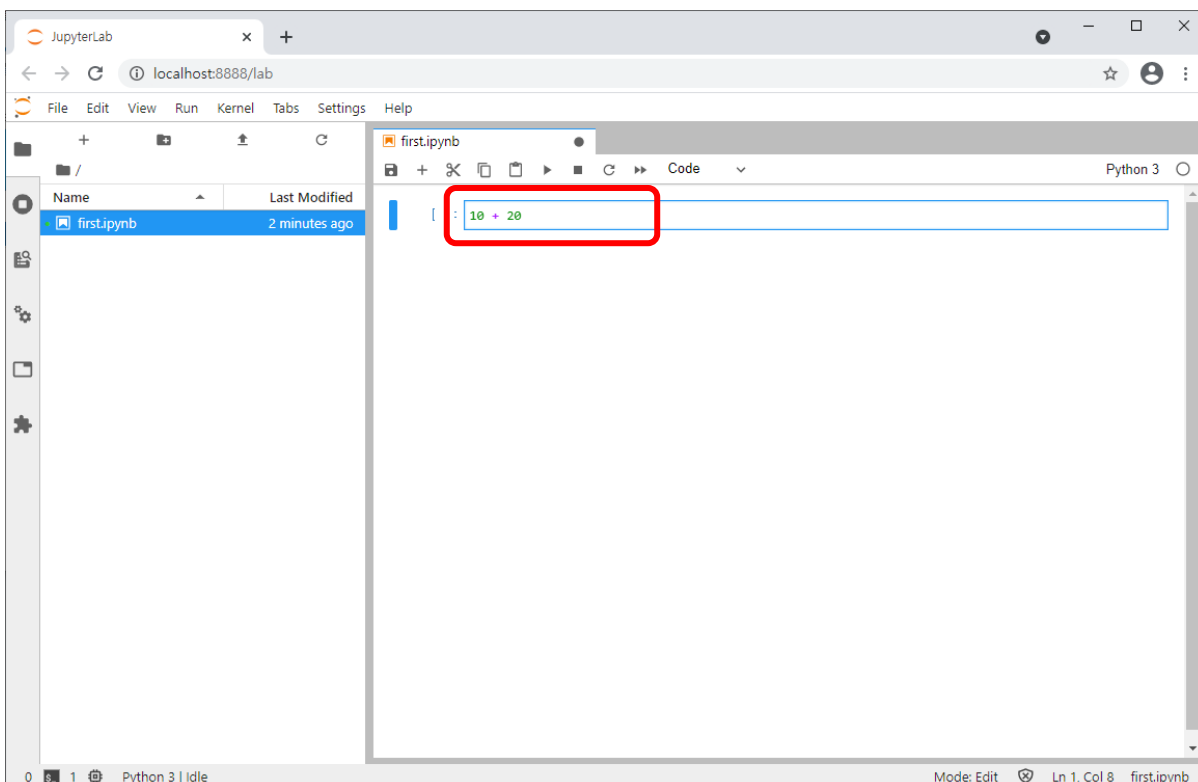


Untitled.ipynb 이라는 파일 명을 선택한 후에 마우스 오른쪽 버튼을 클릭하면 다음과 같은 팝업 메뉴가 출력된다. Rename 이라는 메뉴를 선택하여 파일명을 first.ipynb 로 변경한다.

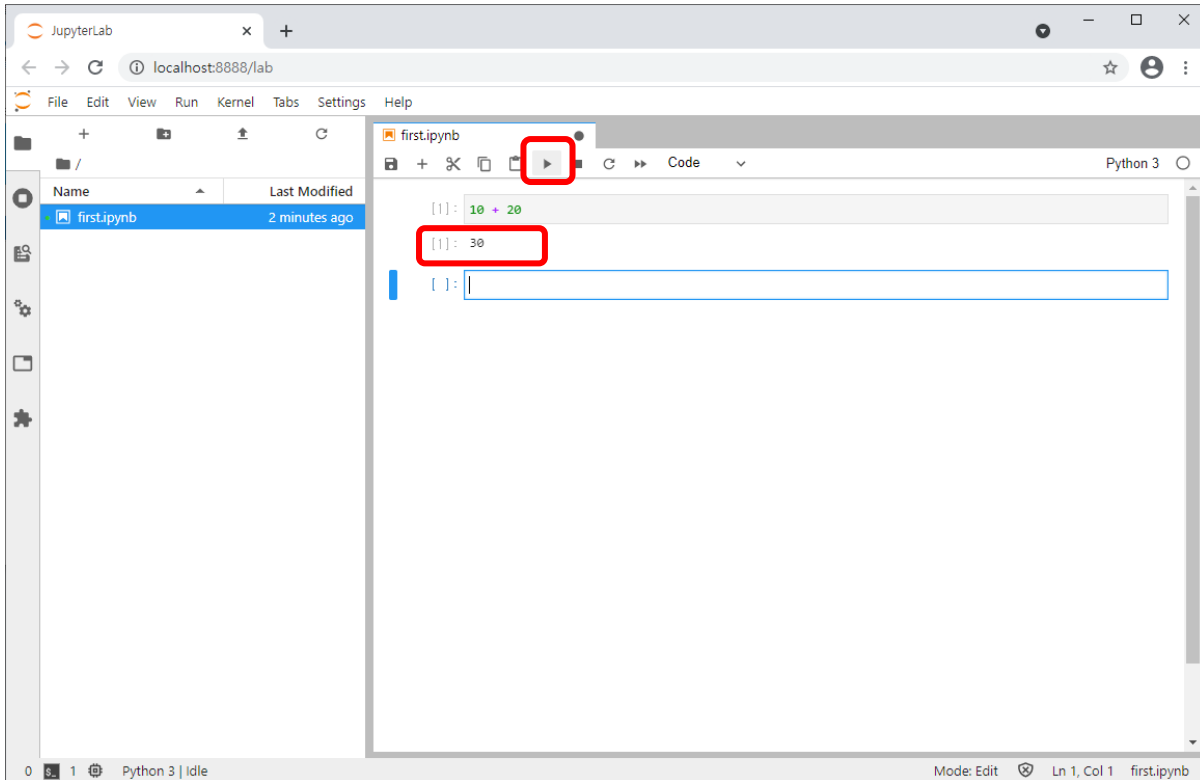




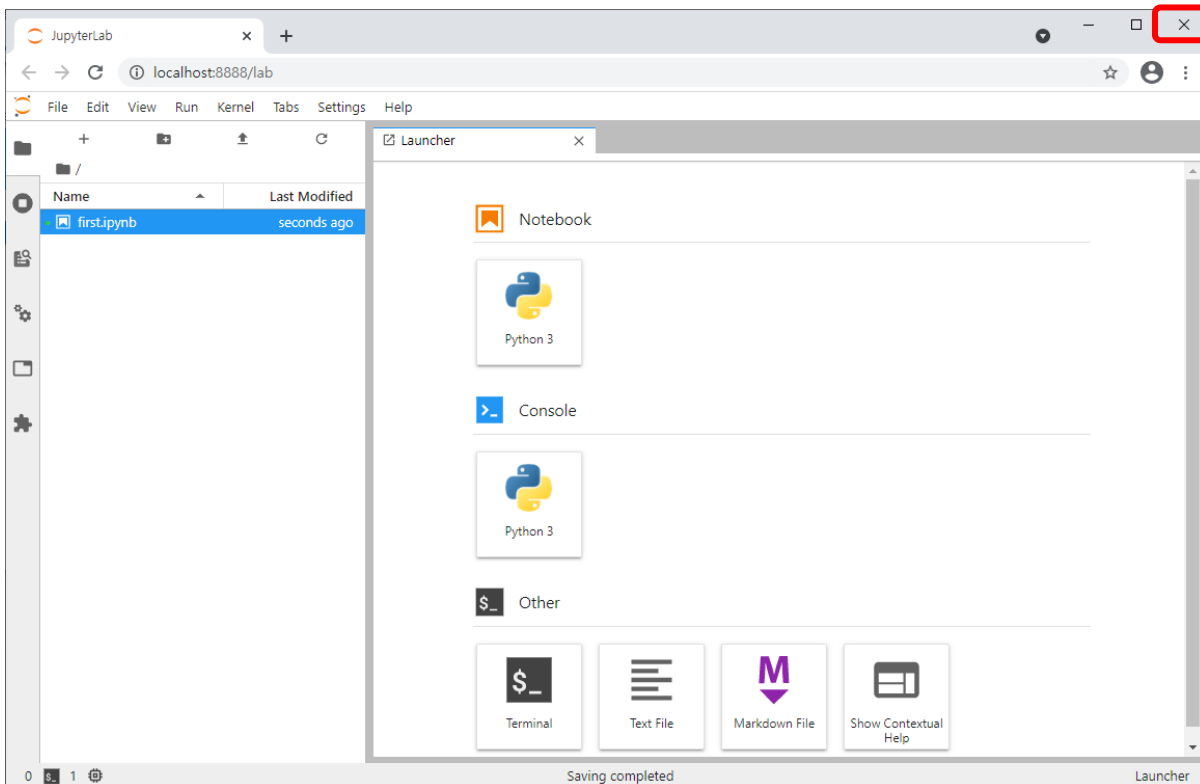
소스 작성 셀(박스)안에 간단한 파이썬 코드를 작성한다.



셀을 선택한 후에 상단에 있는 실행(run) 버튼을 클릭하면 실행 결과가 바로 아래에 출력된다.



맞보기 파이썬 코드의 실행을 성공적으로 완료하면 다시 jupyter lab 창을 종료하고 Anaconda Prompt 창에 와서 ctrl + c 를 여러 번 입력해서 jupyter lab 를 강제로 종료한다.



[Anaconda에 가상환경 만들기]

파이썬 3.8 기반의 가상환경 pydatavenv 를 생성하는 명령을 실행한다.

conda create --name pydatavenv python=3.8

```
Anaconda Prompt (anaconda3) - conda create --name pydatavenv python=3.8
(base) C:\Users\campussevent05>conda create --name pydatavenv python=3.8
Collecting package metadata (current_repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: C:\Users\campussevent05\anaconda3\envs\pydatavenv

  added / updated specs:
    - python=3.8

The following packages will be downloaded:

package                                     build                                     119 KB
ca-certificates-2021.1.19                  haa95532_1                               141 KB
certifi-2020.12.5                           py38haa95532_0                             4.8 MB
openssl-1.1.1j                              h2bbff1b_0                               1.8 MB
pip-21.0.1                                  py38haa95532_0                             15.9 MB
python-3.8.8                                hdbf39b2_4                                726 KB
setuptools-52.0.0                           py38haa95532_0                             762 KB
sqlite-3.35.2                               h2bbff1b_0                                8 KB
vc-14.2                                      h21ff451_1                                1007 KB
vs2015_runtime-14.27.29016                  h5e58377_2                                33 KB
wheel-0.36.2                                pyhd3eb1b0_0
Total: 25.3 MB

The following NEW packages will be installed:

package                                     build                                     119 KB
ca-certificates-2021.1.19                  haa95532_1                               141 KB
certifi-2020.12.5                           py38haa95532_0                             4.8 MB
openssl-1.1.1j                              h2bbff1b_0                               1.8 MB
pip-21.0.1                                  py38haa95532_0                             15.9 MB
python-3.8.8                                hdbf39b2_4                                726 KB
setuptools-52.0.0                           py38haa95532_0                             762 KB
sqlite-3.35.2                               h2bbff1b_0                                8 KB
vc-14.2                                      h21ff451_1                                1007 KB
vs2015_runtime-14.27.29016                  h5e58377_2                                33 KB
wheel-0.36.2                                pyhd3eb1b0_0
Total: 25.3 MB

Proceed ([y]/n)? y

The following NEW packages will be INSTALLED:

ca-certificates      pkgs/main/win-64::ca-certificates-2021.1.19-haa95532_1
certifi              pkgs/main/win-64::certifi-2020.12.5-py38haa95532_0
openssl              pkgs/main/win-64::openssl-1.1.1j-h2bbff1b_0
pip                  pkgs/main/win-64::pip-21.0.1-py38haa95532_0
python               pkgs/main/win-64::python-3.8.8-hdbf39b2_4
setuptools            pkgs/main/win-64::setuptools-52.0.0-py38haa95532_0
sqlite               pkgs/main/win-64::sqlite-3.35.2-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-0.36.2-pyhd3eb1b0_0
wincertstore          pkgs/main/win-64::wincertstore-0.2-py38_0

Proceed ([y]/n)? y

Downloading and Extracting Packages
python-3.8.8                    15.9 MB |#####| 100%
wheel-0.36.2                    33 KB |#####| 100%
certifi-2020.12.5               141 KB |#####| 100%
pip-21.0.1                      1.8 MB |#####| 100%
vs2015_runtime-14.27            1007 KB |#####| 100%
setuptools-52.0.0               726 KB |#####| 100%
vc-14.2                         8 KB |#####| 100%
sqlite-3.35.2                  762 KB |#####| 100%
ca-certificates-2021            119 KB |#####| 100%
openssl-1.1.1j                 4.8 MB |#####| 100%
Preparing transaction: done

done
#
# To activate this environment, use
#
#     $ conda activate pydatavenv
#
# To deactivate an active environment, use
#
#     $ conda deactivate
#
(base) C:\Users\campussevent05>
```


다음 명령을 실행시켜서 pydatavenv 라는 이름으로 가상환경이 잘 만들어졌는지 확인한다.

```
Anaconda Prompt (anaconda3)

(base) C:\Users\campussevent05>conda info --envs
# conda environments:
#
base                  * C:\Users\campussevent05\anaconda3
pydatavenv            C:\Users\campussevent05\anaconda3\envs\pydatavenv

(base) C:\Users\campussevent05>
```

pydatavenv 라는 이름으로 만든 가상환경을 활성화 한다.

```
Anaconda Prompt (anaconda3) - conda install ipykernel

(base) C:\Users\campussevent05>
(base) C:\Users\campussevent05>
(base) C:\Users\campussevent05>conda activate pydatavenv
(pydatavenv) C:\Users\campussevent05>conda install ipykernel
Collecting package metadata (current_repodata.json): done
Solving environment: failed with initial frozen solve. Retrying with flexible solve.
Solving environment: failed with repodata from current_repodata.json, will retry with next repodata source.
Collecting package metadata (repodata.json): done
Solving environment: -
Warning: 2 possible package resolutions (only showing differing packages):
- defaults/noarch::parso-0.8.1-pyhd3eb1b0_0, defaults/win-64::jedi-0.17.0-py38_0
- defaults/noarch::parso-0.7.0-py_0, defaults/win-64::jedi-0.17.2-py38haa95532done

## Package Plan ##

  environment location: C:\Users\campussevent05\anaconda3\envs\pydatavenv

  added / updated specs:
    - ipykernel

The following packages will be downloaded:
```

```
Anaconda Prompt (anaconda3) - conda install ipykernel

ipykernel             pkgs/main/win-64::ipykernel-5.3.4-py38h5cald4c_0
ipython               pkgs/main/win-64::ipython-7.21.0-py38hd4e2768_0
ipython_genutils      pkgs/main/noarch::ipython_genutils-0.2.0-pyhd3eb1b0_1
jedi                  pkgs/main/win-64::jedi-0.17.0-py38_0
jupyter_client        pkgs/main/noarch::jupyter_client-6.1.7-py_0
jupyter_core          pkgs/main/win-64::jupyter_core-4.7.1-py38haa95532_0
libsodium             pkgs/main/win-64::libsodium-1.0.18-h62dcd97_0
parso                  pkgs/main/noarch::parso-0.8.1-pyhd3eb1b0_0
pickleshare           pkgs/main/noarch::pickleshare-0.7.5-pyhd3eb1b0_1003
prompt_toolkit        pkgs/main/noarch::prompt_toolkit-3.0.17-pyh06a4308_0
pygments              pkgs/main/noarch::pygments-2.8.1-pyhd3eb1b0_0
python-dateutil       pkgs/main/noarch::python-dateutil-2.8.1-pyhd3eb1b0_0
pywin32               pkgs/main/win-64::pywin32-227-py38he774522_1
pyzmq                 pkgs/main/win-64::pyzmq-20.0.0-py38hd77b12b_1
six                   pkgs/main/win-64::six-1.15.0-py38haa95532_0
tornado               pkgs/main/win-64::tornado-6.1-py38h2bbff1b_0
traitlets             pkgs/main/noarch::traitlets-5.0.5-pyhd3eb1b0_0
wcwidth               pkgs/main/noarch::wcwidth-0.2.5-py_0
zeromq                pkgs/main/win-64::zeromq-4.3.3-ha925a31_3

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

```
Anaconda Prompt (anaconda3) - conda install ipykernel

pygments                pkgs/main/noarch::pygments-2.8.1-pyhd3eb1b0_0
python-dateutil          pkgs/main/noarch::python-dateutil-2.8.1-pyhd3eb1b0_0
pywin32                  pkgs/main/win-64::pywin32-227-py38he774522_1
pyzmq                    pkgs/main/win-64::pyzmq-20.0.0-py38hd77b12b_1
six                       pkgs/main/win-64::six-1.15.0-py38haa95532_0
tornado                   pkgs/main/win-64::tornado-6.1-py38h2bbff1b_0
traitlets                 pkgs/main/noarch::traitlets-5.0.5-pyhd3eb1b0_0
wcwidth                  pkgs/main/noarch::wcwidth-0.2.5-py_0
zeromq                    pkgs/main/win-64::zeromq-4.3.3-ha925a31_3

Proceed ([y]/n)? y

Downloading and Extracting Packages
tornado-6.1                612 KB |#####| 100%
pickleshare-0.7.5          13 KB |#####| 100%
ipython-7.21.0             996 KB |#####| 100%
pygments-2.8.1             703 KB |#####| 100%
backcall-0.2.0             13 KB |#####| 100%
traitlets-5.0.5            81 KB |#####| 100%
decorator-4.4.2            12 KB |#####| 100%
parso-0.8.1                69 KB |#####| 100%
colorama-0.4.4             21 KB |#####| 100%
python-dateutil-2.8.1      221 KB |#####| 100%
jupyter_core-4.7.1         85 KB |#####| 100%
zeromq-4.3.3               4.2 MB |#####| 100%
pyzmq-20.0.0               405 KB |#####| 100%
jedi-0.17.0                780 KB |#####| 100%
ipython_genutils-0.2       27 KB |#####| 100%
prompt_toolkit-3.0.1       256 KB |#####| 100%
Preparing transaction: done
Verifying transaction: done
Executing transaction: /
```

```
Anaconda Prompt (anaconda3) - conda install ipykernel

done

(pydatavenv) C:\Users\campusseven05>
```

다음 명령을 실행시켜서 pyzmq 를 삭제했다가 다시 설치한다. **너무 중요함!!!**

```
Anaconda Prompt (anaconda3) - conda deactivate - deactivate - conda install ipykernel - conda uninstall pyzmq - conda deactivate - conda install ipykernel

done

(pydatavenv) C:\Users\campusseven05>pip uninstall pyzmq
Found existing installation: pyzmq 20.0.0
Uninstalling pyzmq-20.0.0:
  Would remove:
    c:\users\campusseven05\anaconda3\envs\pydatavenv\lib\site-packages\pyzmq-20.0.0-py3.8.egg-info
    c:\users\campusseven05\anaconda3\envs\pydatavenv\lib\site-packages\zmq*
  Would not remove (might be manually added):
    c:\users\campusseven05\anaconda3\envs\pydatavenv\lib\site-packages\zmq\include\zmq.h
    c:\users\campusseven05\anaconda3\envs\pydatavenv\lib\site-packages\zmq\include\zmq_utils.h
Proceed (y/n)? y
Successfully uninstalled pyzmq-20.0.0

(pydatavenv) C:\Users\campusseven05>pip install pyzmq
Collecting pyzmq
  Using cached pyzmq-22.0.3-cp38-cp38-win_amd64.whl (1.2 MB)
Installing collected packages: pyzmq
Successfully installed pyzmq-22.0.3

(pydatavenv) C:\Users\campusseven05>
```

`python -m ipykernel install --user --name pydatavenv` 명령을 실행시켜서

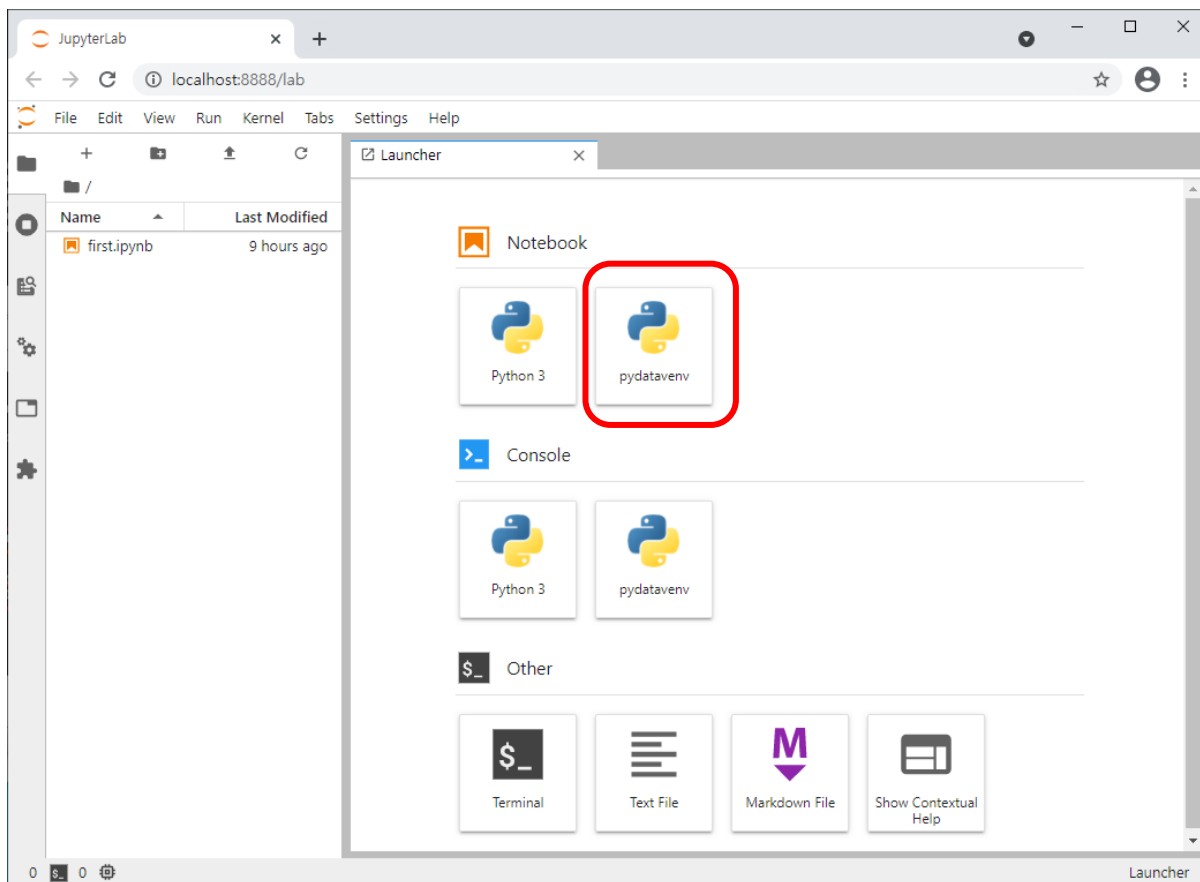
pydatavenv 라는 가상환경을 jupyter lab 의 커널로 등록한다.

```
Anaconda Prompt (anaconda3) - conda deactivate - deactivate - conda install ipykernel - conda uninstall pyzmq - conda deactivate - conda install ipykernel
(pydatavenv) C:\Users\campussevent05>python -m ipykernel install --user --name pydatavenv
Installed kernelspec pydatavenv in C:\Users\campussevent05\AppData\Roaming\jupyter\kernels\pydatavenv
(pydatavenv) C:\Users\campussevent05>
```

Anaconda Prompt 창을 한 개 더 열고 jupyter lab 를 기동시킨다.

```
Anaconda Prompt (anaconda3)
(base) C:\Users\campussevent05>jupyter lab
```

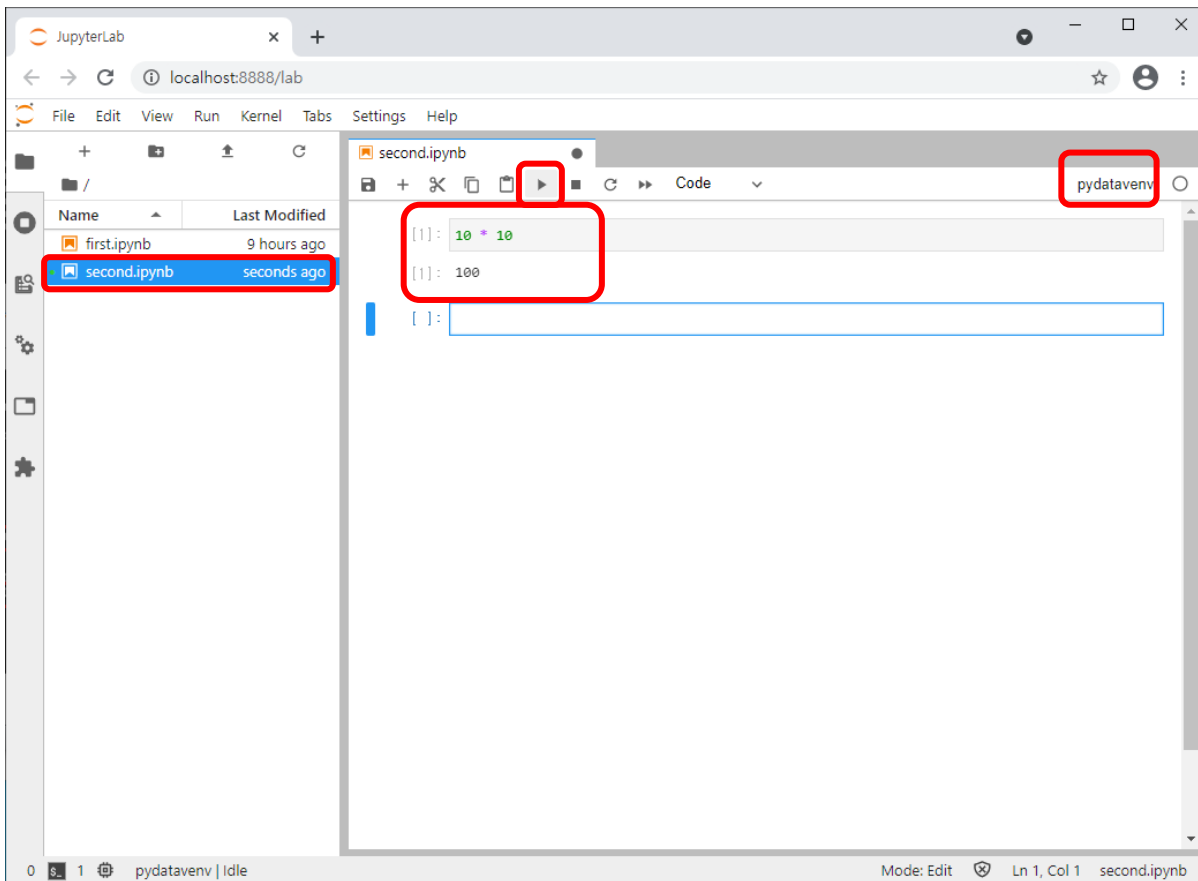
다음과 같이 Python3 버튼 옆에 새로이 추가한 pydatavenv 라는 커널에 대한 버튼이 추가된 것을 확인할 수 있다.



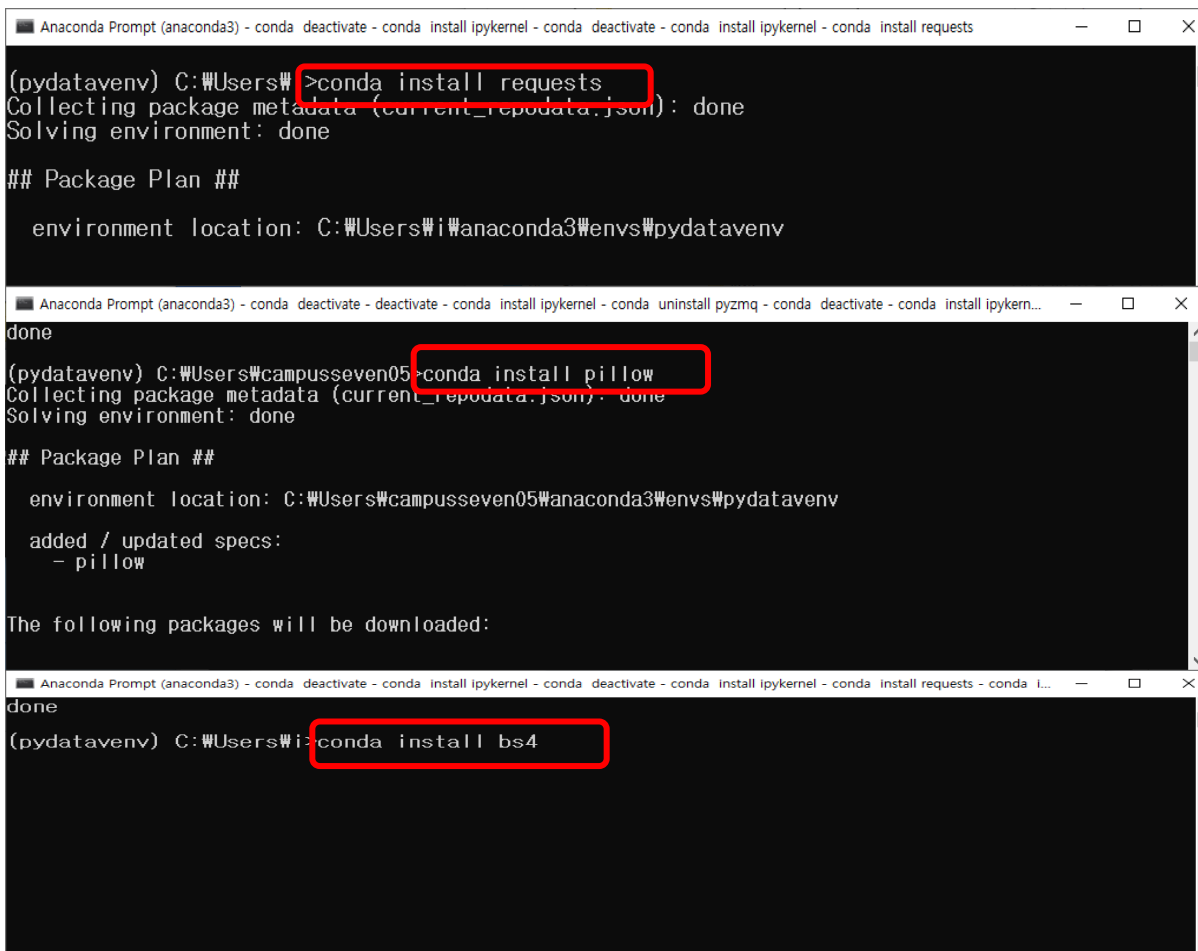
pydatavenv 라는 커널 버튼을 클릭하면 pydatavenv 라는 커널 기반의 노트북 화면이 하나 출력된다.

파일명을 second.ipynb 로 변경하고 소스작성 셀에 `10 * 10` 을 입력한후 실행 버튼 클릭시

100이 결과로 출력되는지 확인한다.



[pydatavenv 가상환경에 추가패키지 설치하기]



```

Anaconda Prompt (anaconda3) - conda deactivate - conda install ipynbkernel - conda deactivate - conda install ipynbkernel - conda install requests - conda i...
(pydatavenv) C:\Users\Wi>conda install selenium
Collecting package metadata (current_repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: C:\Users\Wi\anaconda3\envs\pydatavenv

  added / updated specs:
    - selenium

The following packages will be downloaded:

Anaconda Prompt (anaconda3) - conda deactivate - conda install ipynbkernel - conda deactivate - conda install ipynbkernel - conda install requests - conda i...
(pydatavenv) C:\Users\Wi>conda install lxml
Collecting package metadata (current_repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: C:\Users\Wi\anaconda3\envs\pydatavenv

  added / updated specs:
    - lxml

The following packages will be downloaded:

Anaconda Prompt (anaconda3) - conda deactivate - conda install ipynbkernel - conda deactivate - conda install ipynbkernel - conda install requests - conda i...
(pydatavenv) C:\Users\Wi>conda install html5lib
Collecting package metadata (current_repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: C:\Users\Wi\anaconda3\envs\pydatavenv

  added / updated specs:
    - html5lib


The following packages will be downloaded:


Anaconda Prompt (anaconda3) - conda deactivate - deactivate - conda install ipynbkernel - conda uninstall pyzmq - conda deactivate - conda install ipynb...
done
(pydatavenv) C:\Users\campussevent05>pip install tweepy
Collecting tweepy
  Downloading tweepy-3.10.0-py2.py3-none-any.whl (30 kB)
Collecting requests-oauthlib>=0.7.0
  Downloading requests_oauthlib-1.3.0-py2.py3-none-any.whl (23 kB)
Requirement already satisfied: requests[socks]>=2.11.1 in c:\users\campussevent05\anaconda3\envs\pydata
venv\lib\site-packages (from tweepy) (2.25.1)
Requirement already satisfied: six>=1.10.0 in c:\users\campussevent05\anaconda3\envs\pydatavenv\lib\sit
e-packages (from tweepy) (1.15.0)
Collecting oauthlib>=3.0.0
  Downloading oauthlib-3.1.0-py2.py3-none-any.whl (147 kB)
  | 147 kB 2.2 MB/s
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\campussevent05\anaconda3\envs\pydatave
nv\lib\site-packages (from requests[socks]>=2.11.1->tweepy) (1.26.4)

```

[크롬 드라이버 다운로드]

Chrome 정보

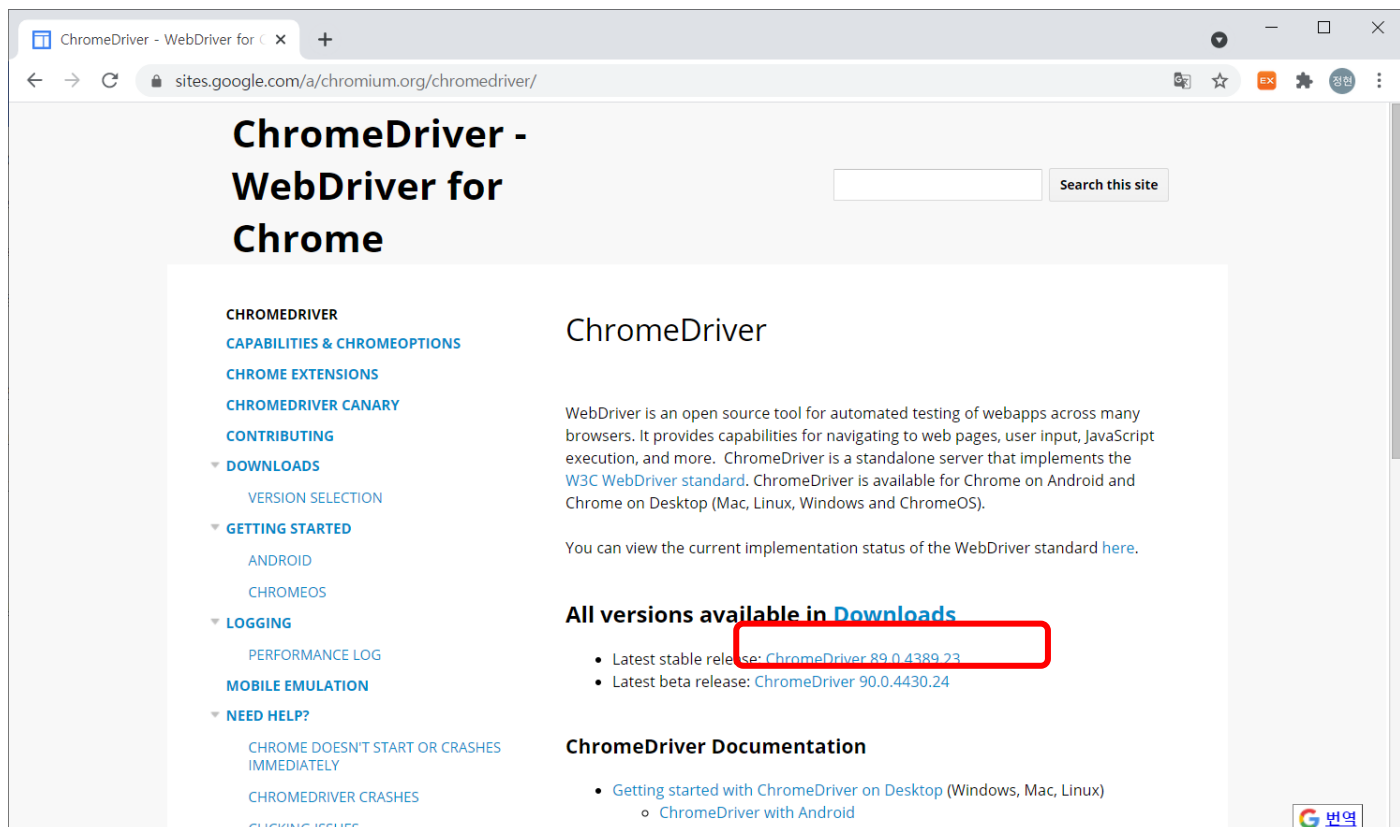
 Chrome

 Chrome이 최신 버전입니다.
버전 89.0.4389.90(공식 빌드) (64비트)

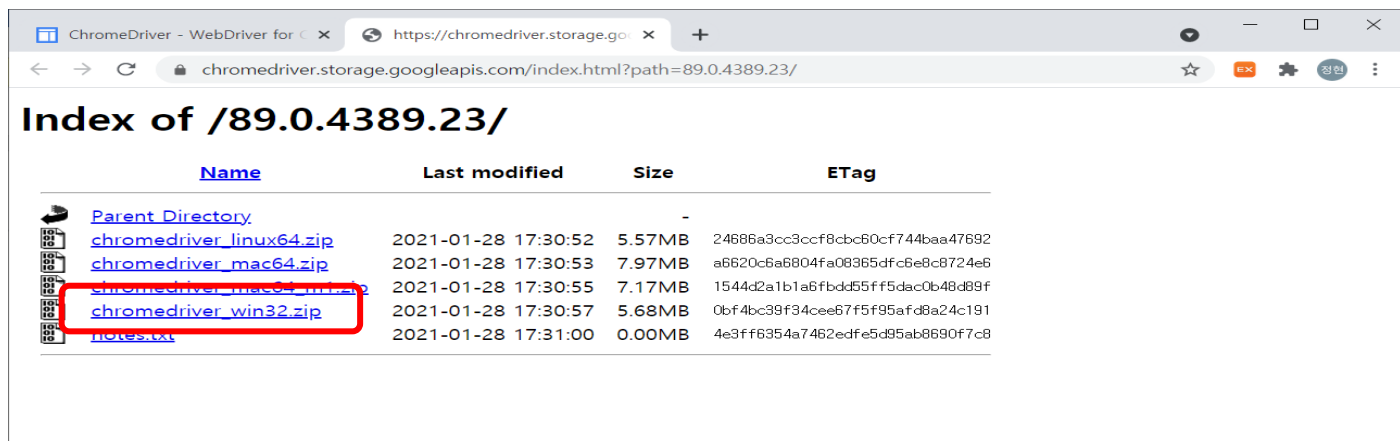
Chrome 도움말 보기

문제 신고

https://sites.google.com/a/chromium.org/chromedriver/



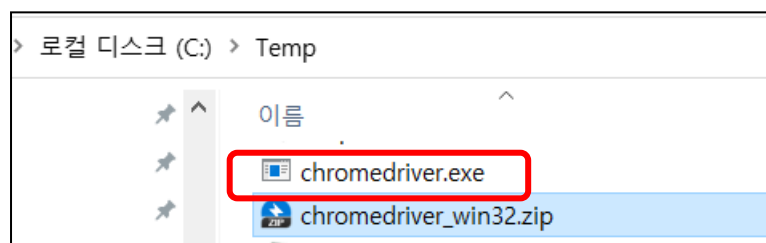
The screenshot shows the ChromeDriver website. The main heading is "ChromeDriver - WebDriver for Chrome". On the left, there is a sidebar with a list of links: CHROMEDRIVER, CAPABILITIES & CHROME OPTIONS, CHROME EXTENSIONS, CHROMEDRIVER CANARY, CONTRIBUTING, DOWNLOADS, GETTING STARTED, LOGGING, MOBILE EMULATION, and NEED HELP?. The "DOWNLOADS" link is highlighted. The main content area has a section titled "ChromeDriver" with a description of the tool and a link to the "All versions available in Downloads" section. This link is highlighted with a red box. Below it, there are two bullet points: "Latest stable release: ChromeDriver 89.0.4389.23" and "Latest beta release: ChromeDriver 90.0.4430.24". The "89.0.4389.23" version number is also highlighted with a red box. At the bottom, there is a section titled "ChromeDriver Documentation" with links to "Getting started with ChromeDriver on Desktop" and "ChromeDriver with Android".



The screenshot shows the "Index of /89.0.4389.23/" page from the ChromeDriver storage. The page lists files and directories with columns for Name, Last modified, Size, and ETag. The files listed are: Parent Directory, chromedriver_linux64.zip, chromedriver_mac64.zip, chromedriver_win32.zip, and notes.txt. The "chromedriver_win32.zip" file is highlighted with a red box.

Name	Last modified	Size	ETag
Parent Directory		-	
chromedriver_linux64.zip	2021-01-28 17:30:52	5.57MB	24686a3cc3ccf8cbc60cf744baa47692
chromedriver_mac64.zip	2021-01-28 17:30:53	7.97MB	a6620c6a6804fa08365dfc6e8c8724e6
chromedriver_win32.zip	2021-01-28 17:30:55	7.17MB	1544d2a1b1a6fbd55ff5dac0b48d89f
notes.txt	2021-01-28 17:30:57	5.68MB	0bf4bc39f34cee67f5f95afd8a24c191
notes.txt	2021-01-28 17:31:00	0.00MB	4e3ff6354a7462edfe5d95ab8690f7c8

다운로드한 chromedriver_win32.zip의 압축을 해제하여 chromedriver.exe 파일을 c:\Temp 디렉토리에 저장한다.



The screenshot shows a Windows File Explorer window with the address bar set to "로컬 디스크 (C:) > Temp". The file list shows two files: "chromedriver.exe" and "chromedriver_win32.zip". The "chromedriver.exe" file is highlighted with a red box.