

개발환경 구축

개발 환경

- **Anaconda 설치**
- **Pycharm 설치 및 anaconda base와 연동**
- **Tensorflow**
- Anaconda: 수학, 과학 분야에서 사용되는 여러 패키지를 기본적으로 포함하고 있는 Python 배포판 (데이터 분석, 머신러닝에 필요한 라이브러리 포함)
- Pycharm: 파이썬 프로그램을 쉽게 개발할 수 있도록 하는 IDE
- Tensorflow: ML(incl. Deep Learning) 학습 프레임워크

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Anaconda Installers

Windows 

Python 3.8

64-Bit Graphical Installer (457 MB)

32-Bit Graphical Installer (403 MB)

MacOS 

Python 3.8

64-Bit Graphical Installer (435 MB)

64-Bit Command Line Installer (428 MB)

Linux 

Python 3.8

64-Bit (x86) Installer (529 MB)

64-Bit (Power8 and Power9) Installer (279 MB)

Window키 + Pause 키
검색->시스템

프로세서:

Intel(R) Xeon(R) Silver 4215R CPU @ 3.20GHz 3.19 GHz (2개 프로세서)

설치된 메모리(RAM):

64.0GB(63.6GB 사용 가능)

시스템 종류:

64비트 운영 체제, x64 기반 프로세서

펜 및 터치:

이 디스플레이에 사용할 수 있는 펜 또는 터치식 입력이 없습니다.

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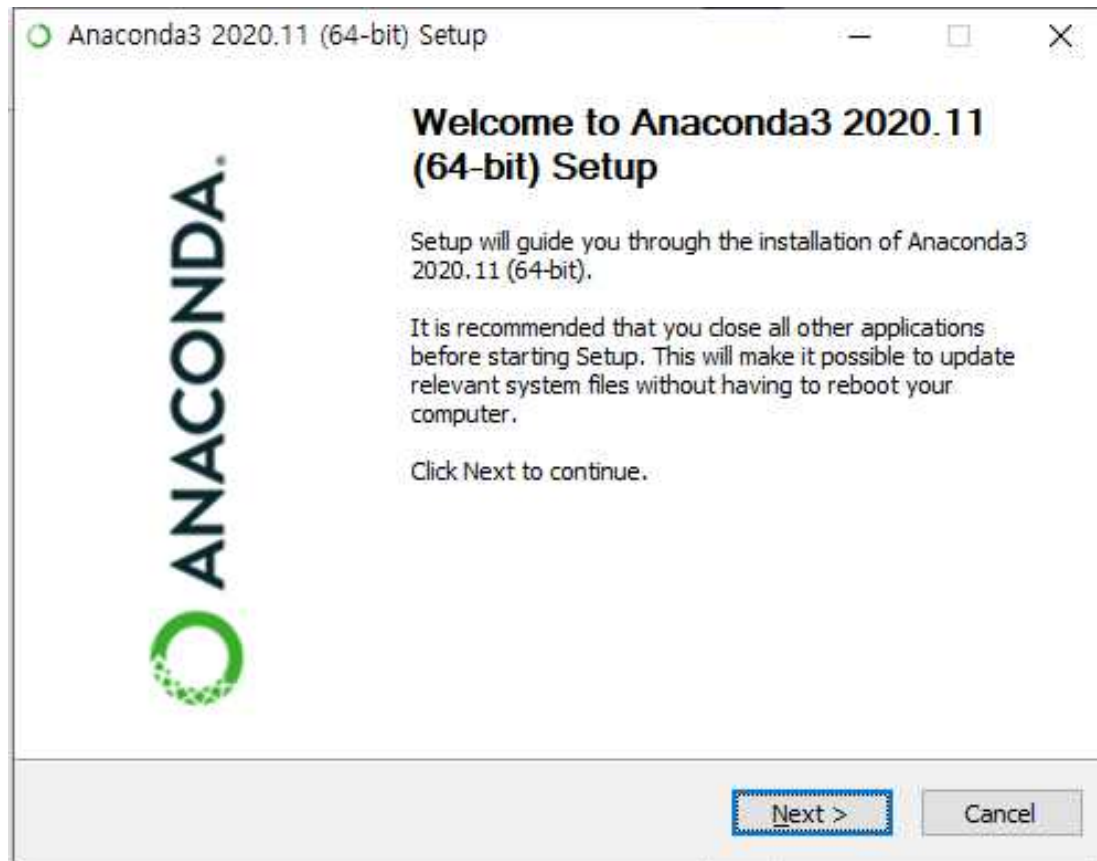


An Anaconda C

- More than 7 learning pac
- Unlimited c
- Guaranteed
- Compliance

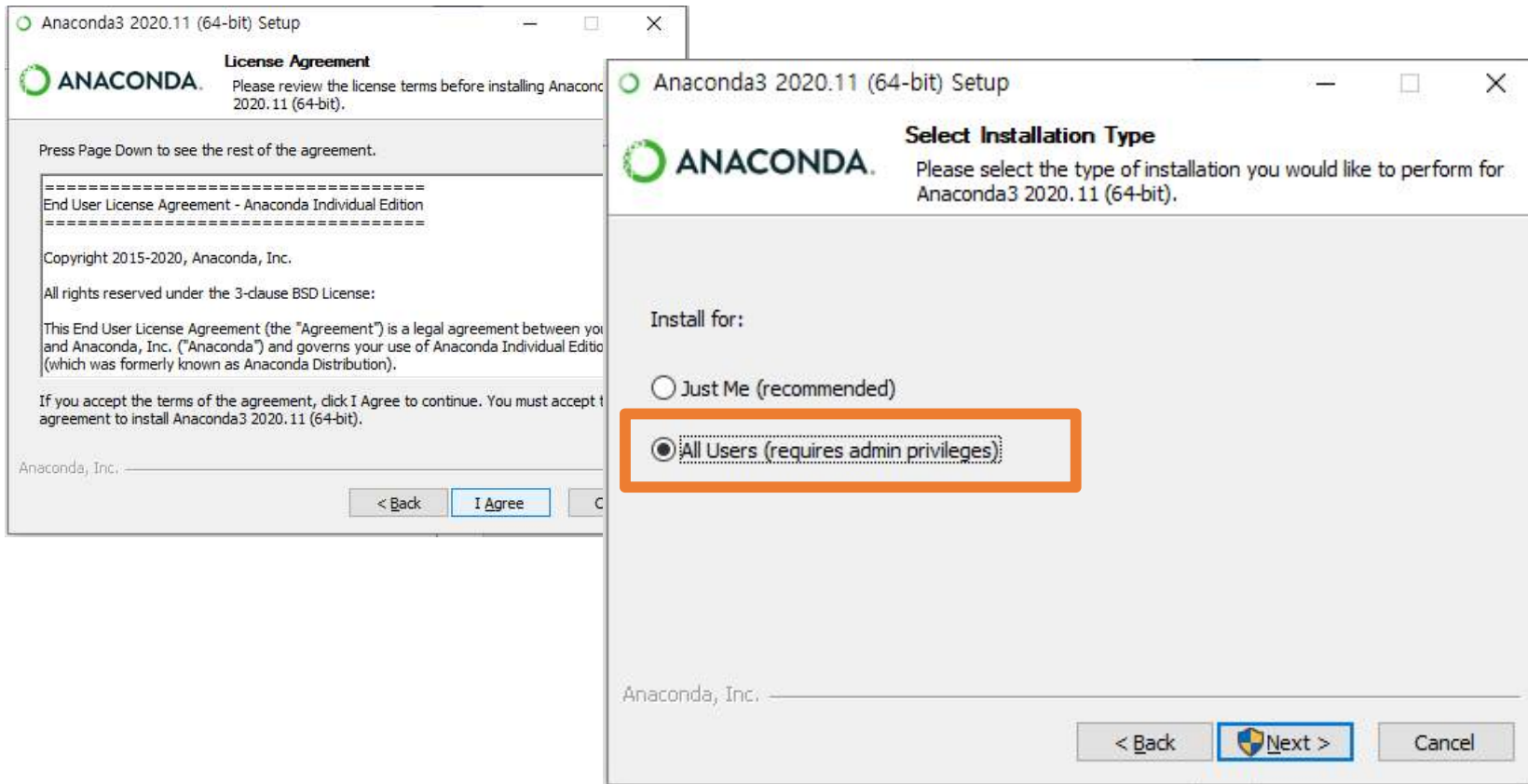
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Anaconda3-2020.....exe



Anaconda 설치

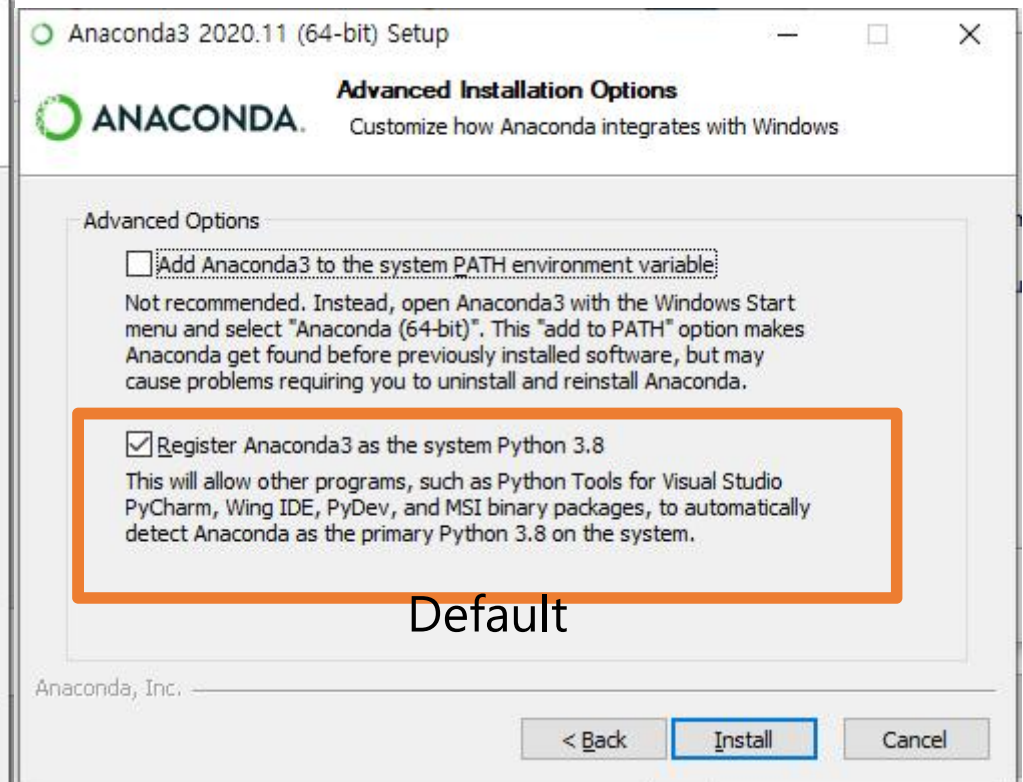
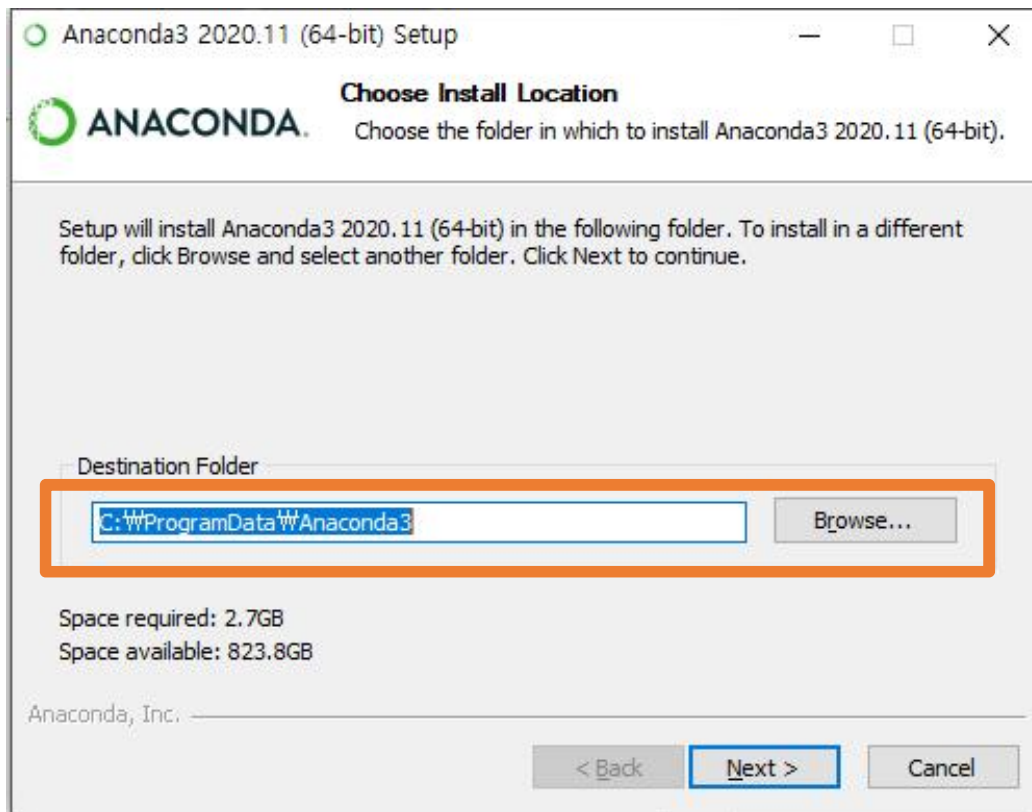
- www.anaconda.com



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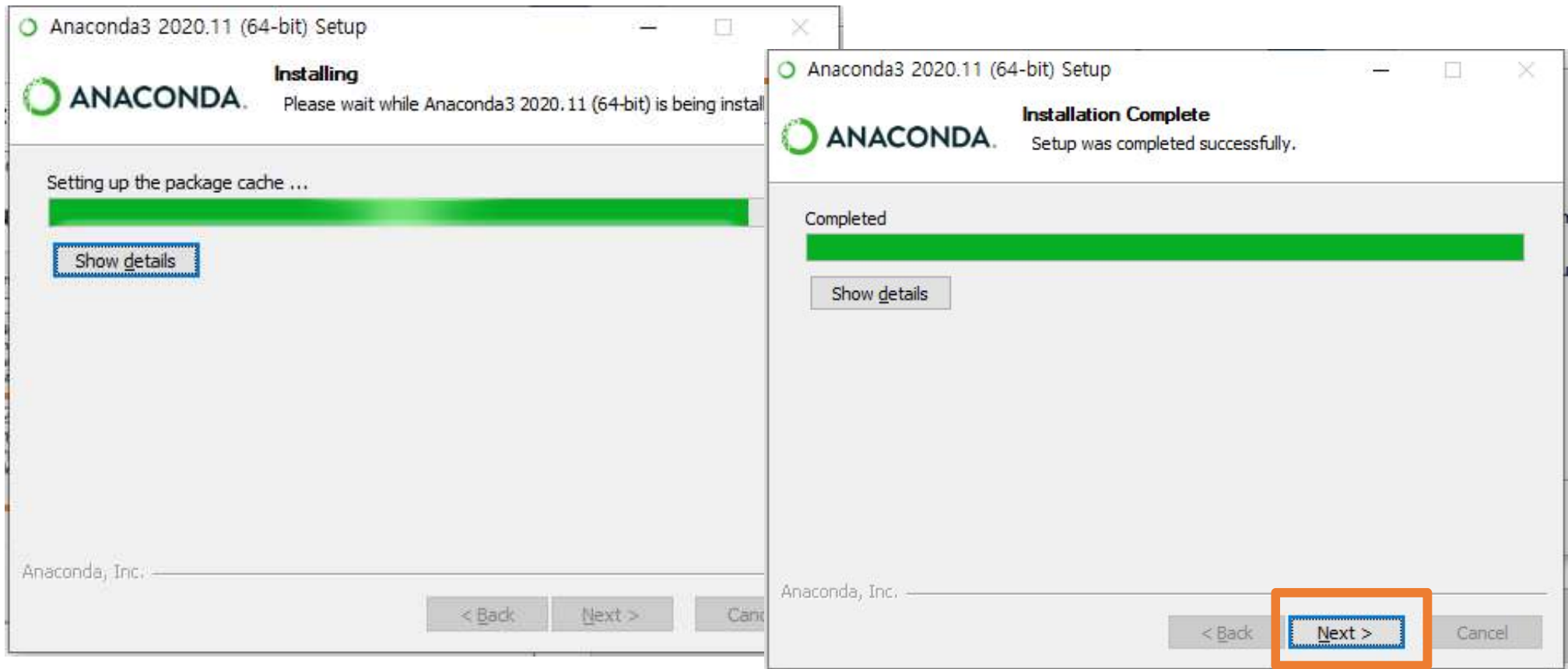
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c:\programData\Anaconda3 ← 기억하기



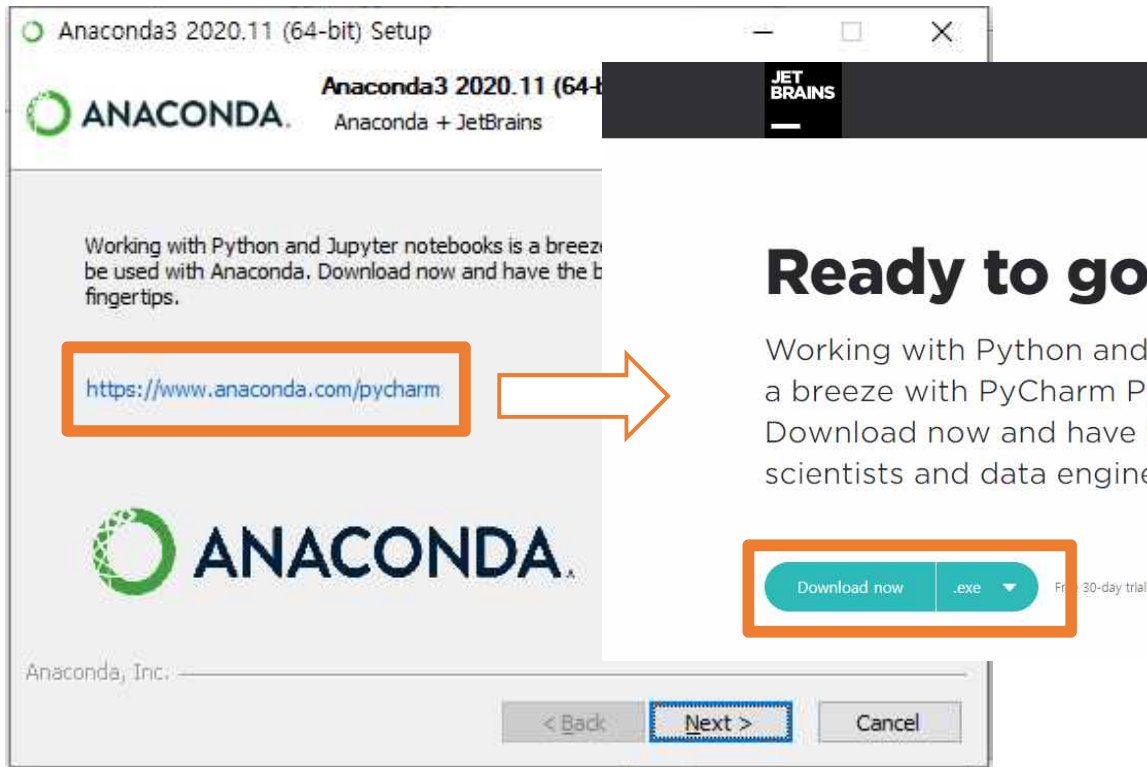
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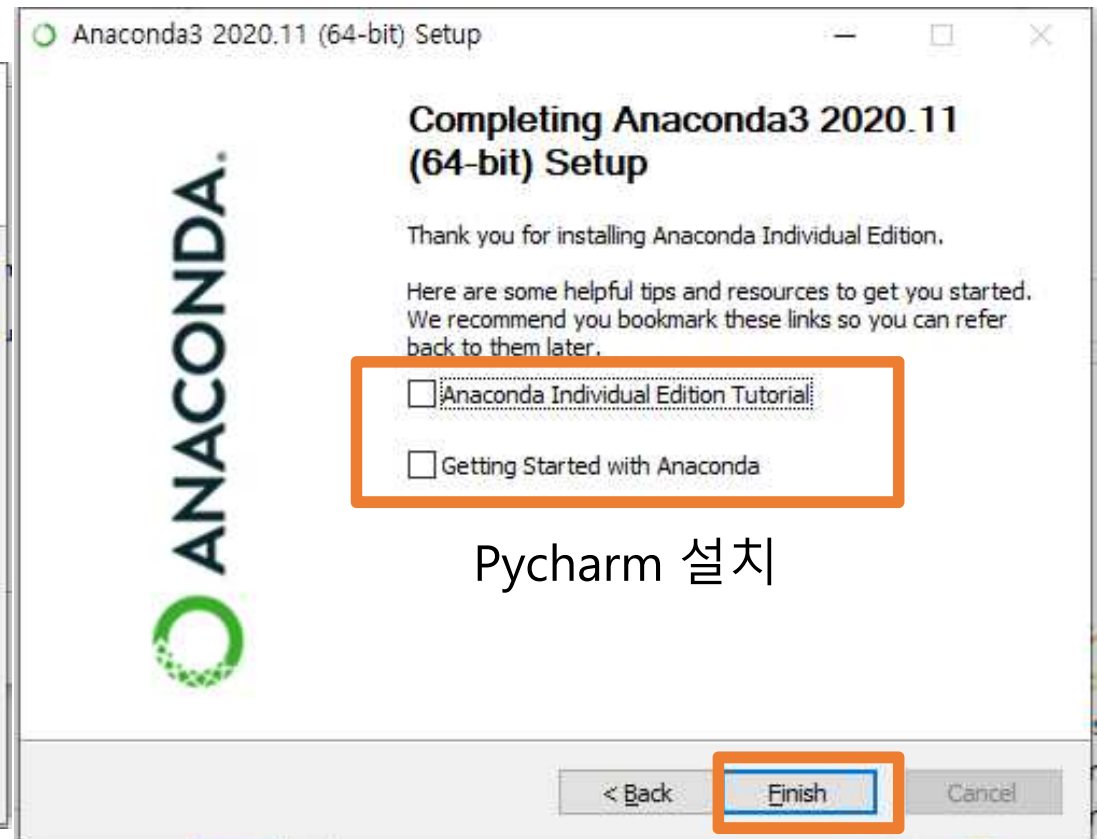
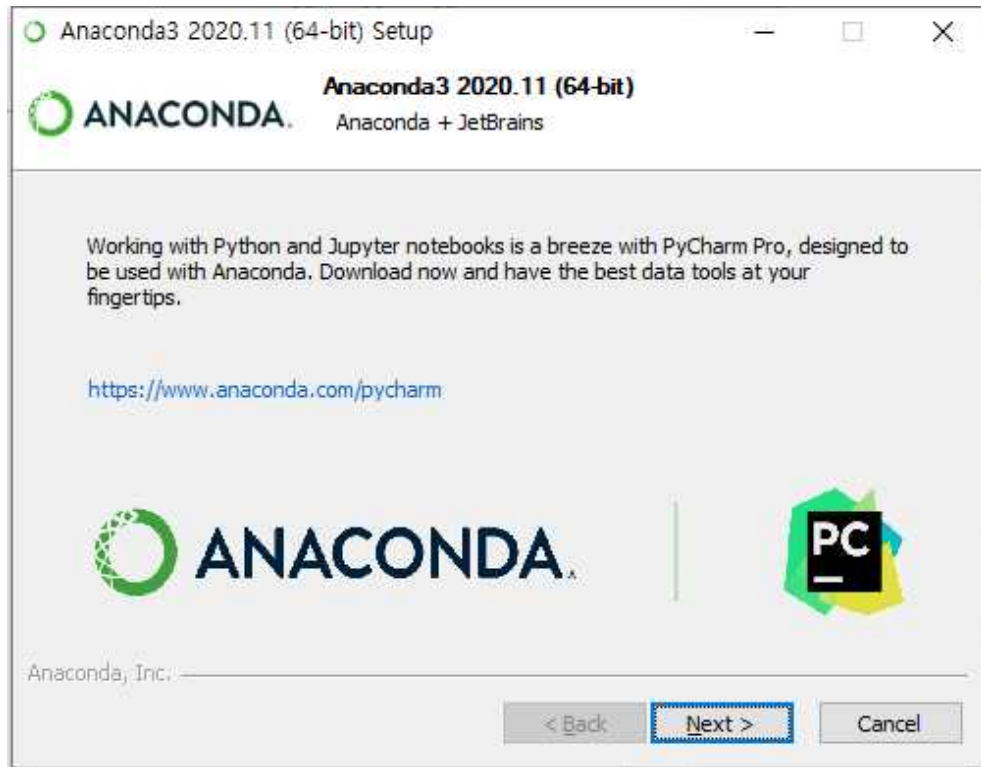


PC PyCharm

ANACONDA

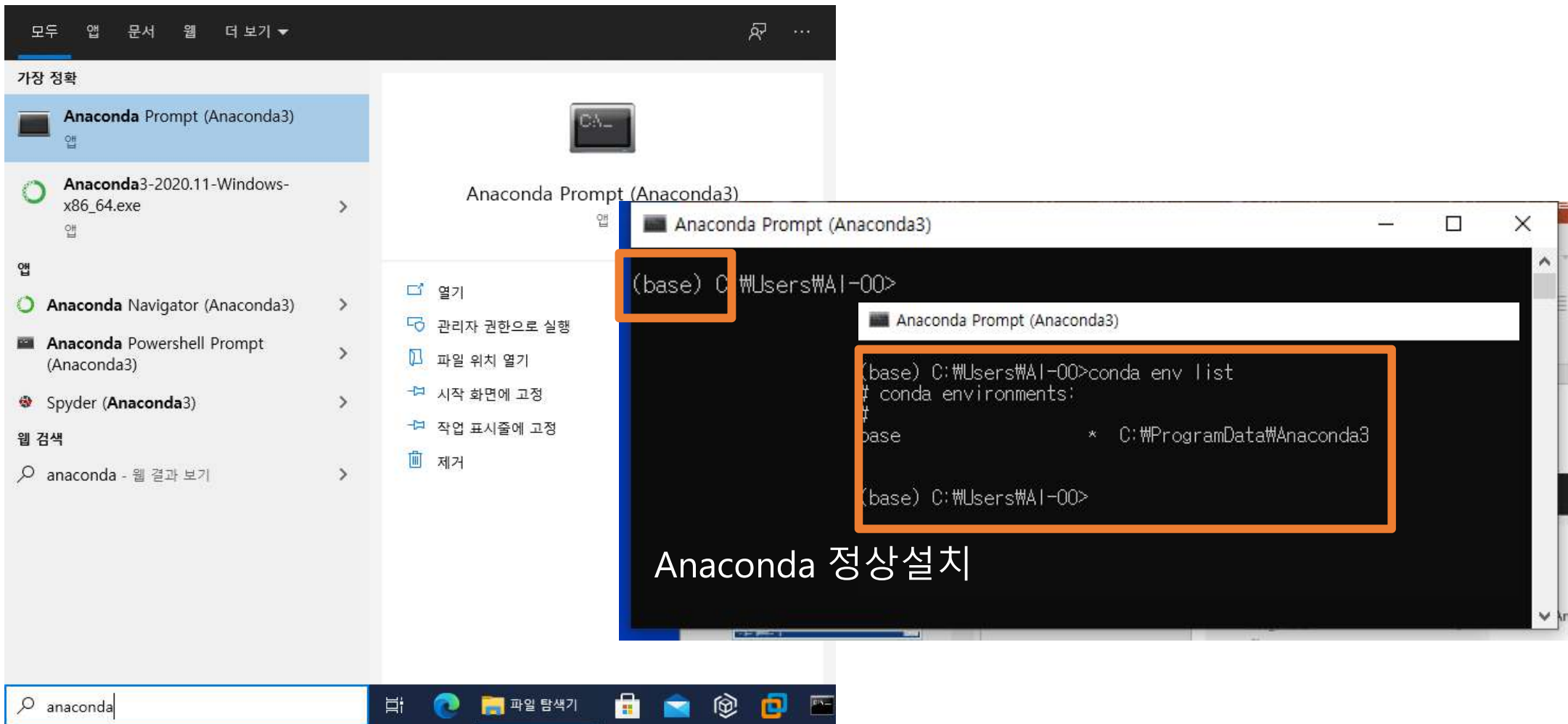
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Pycharm 설치

Anaconda 실행 및 확인

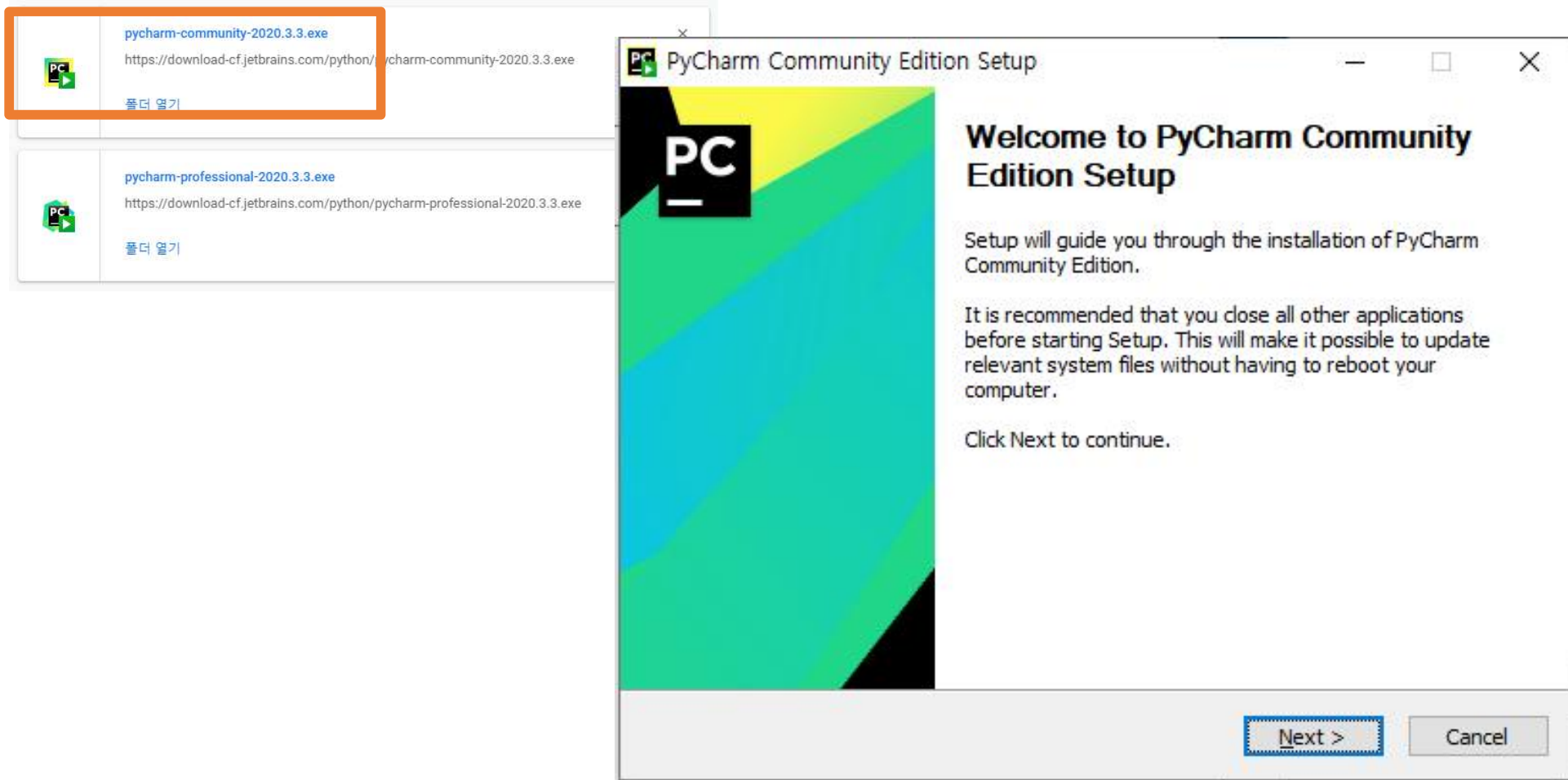


Anaconda 정상설치

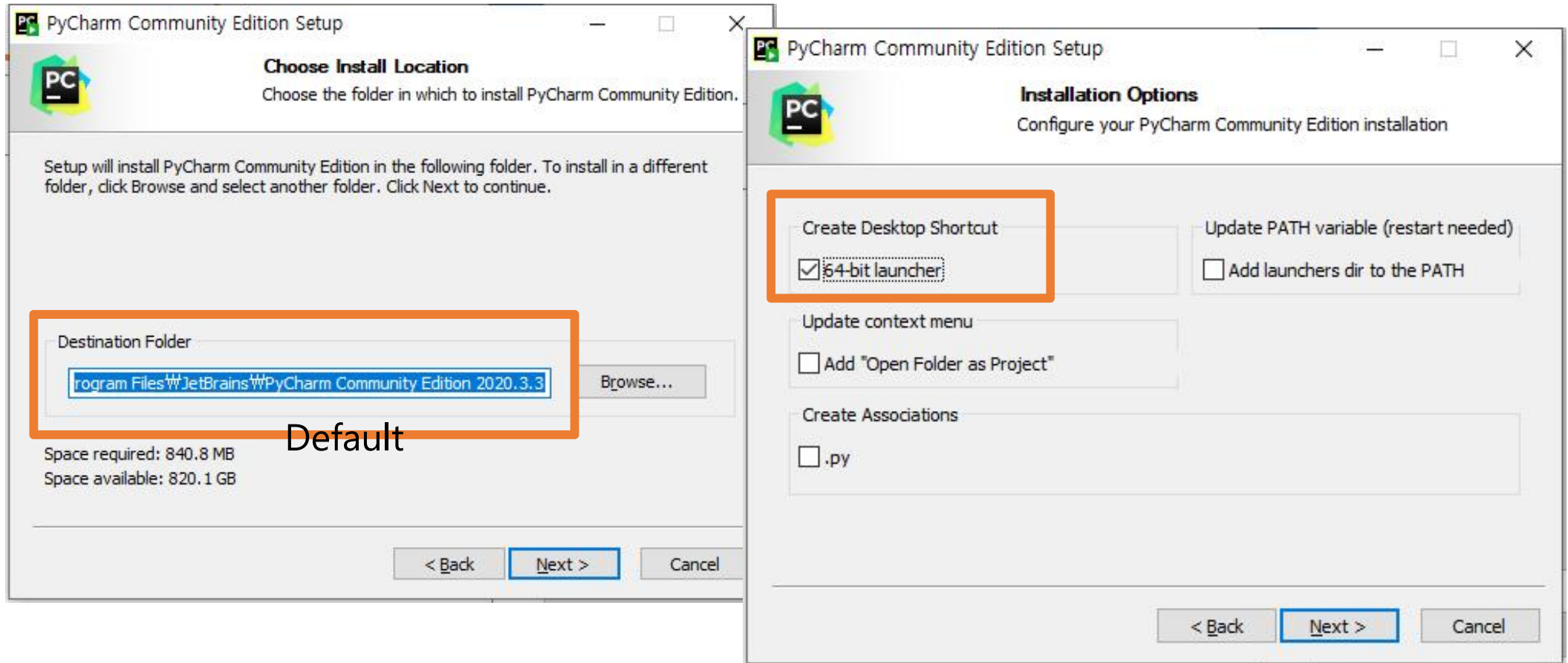
100%



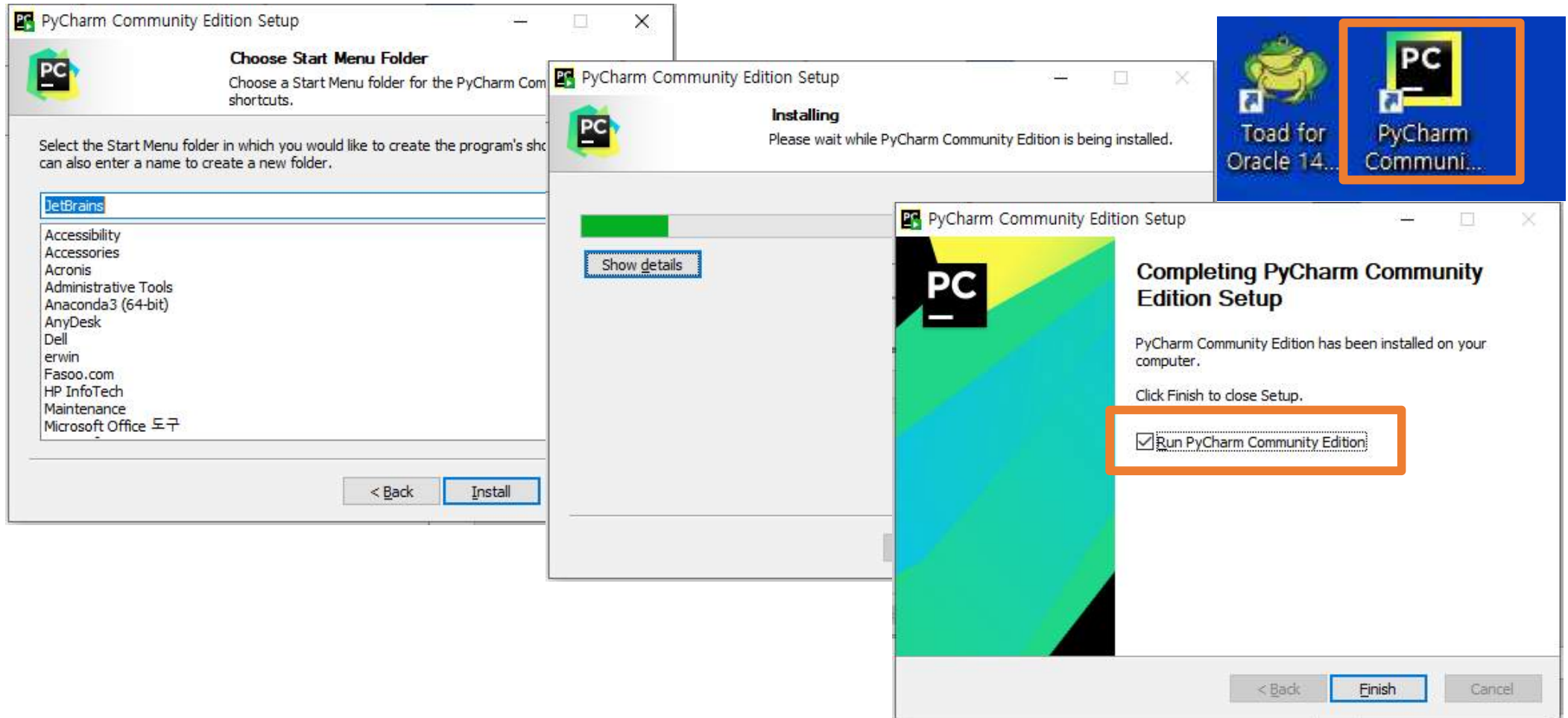
Pycharm 설치



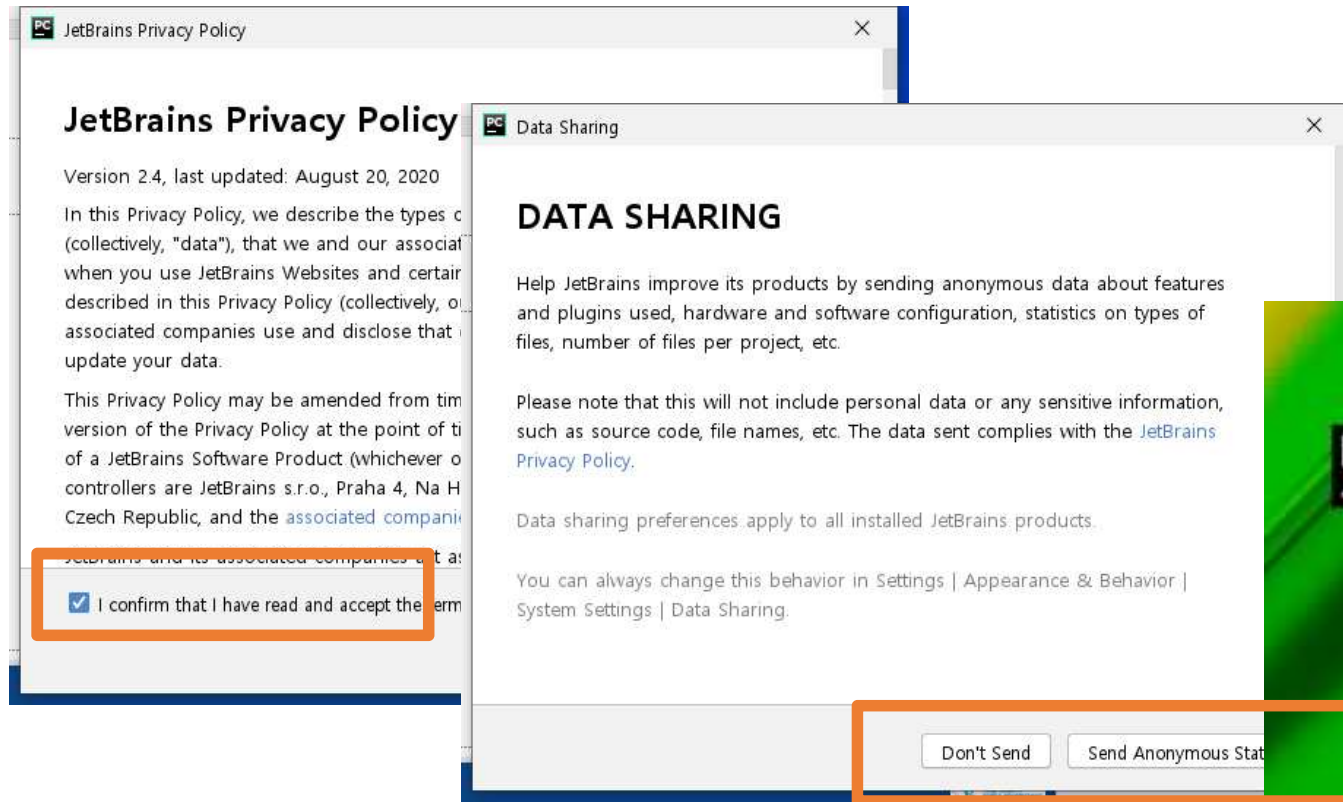
Pycharm 설치



Pycharm 설치



Pycharm 설치

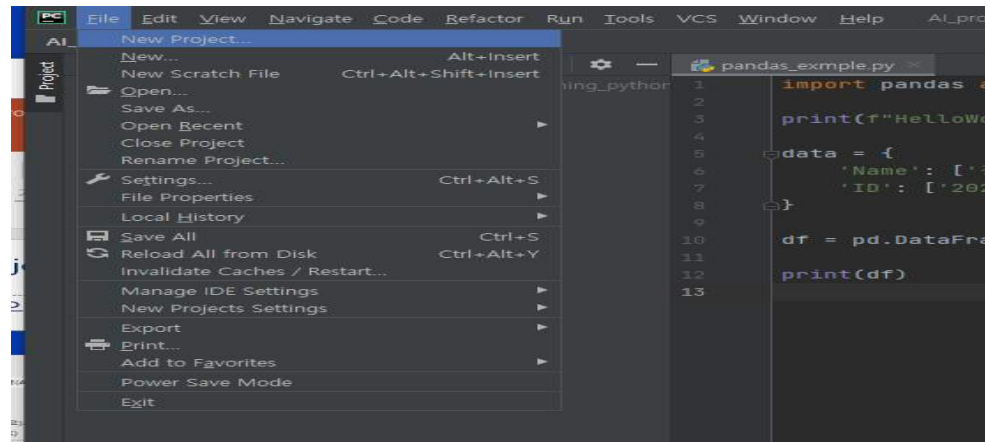


Pycharm – Project 생성 – Anaconda Base 연동

1. 관리자 권한으로 Pycharm 실행

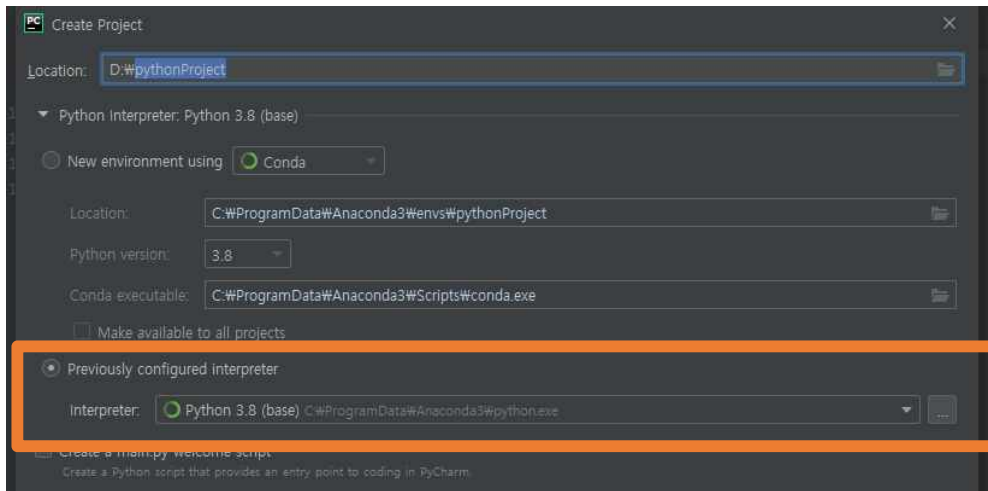


2. File->New Project

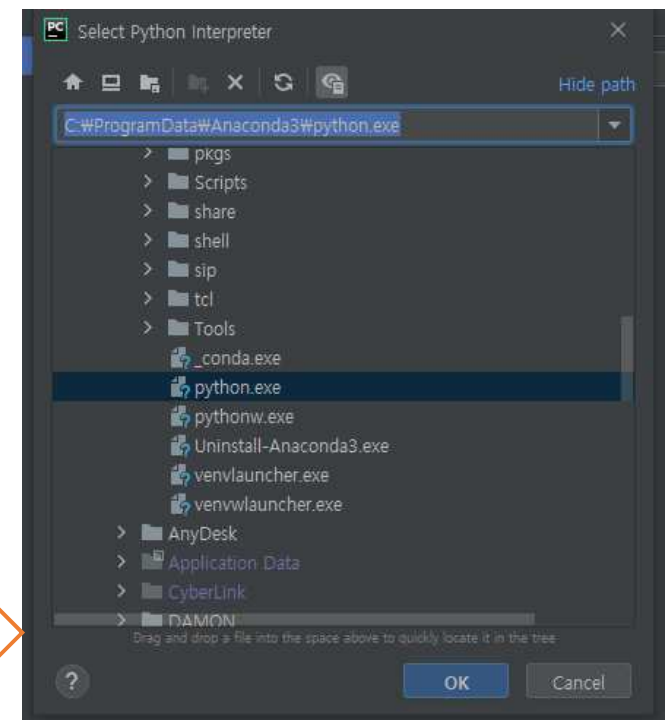
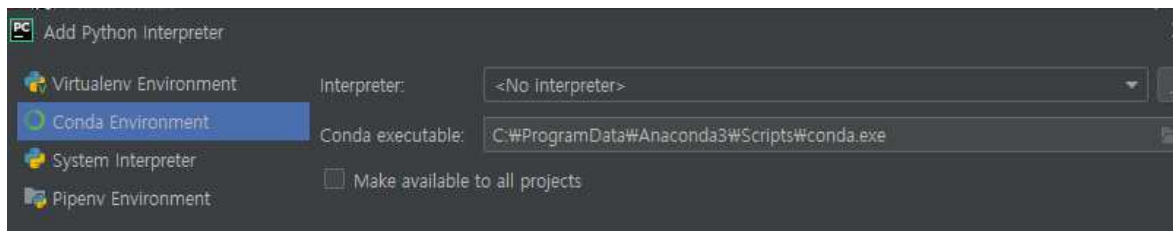


Pycharm – Project 생성 – Anaconda Base 연동

3. Anaconda (Base) 연동



4. Previously Interpreter->선택버튼->Conda Environment 선택 Anaconda 기본 위치 지정\Python.exe 지정



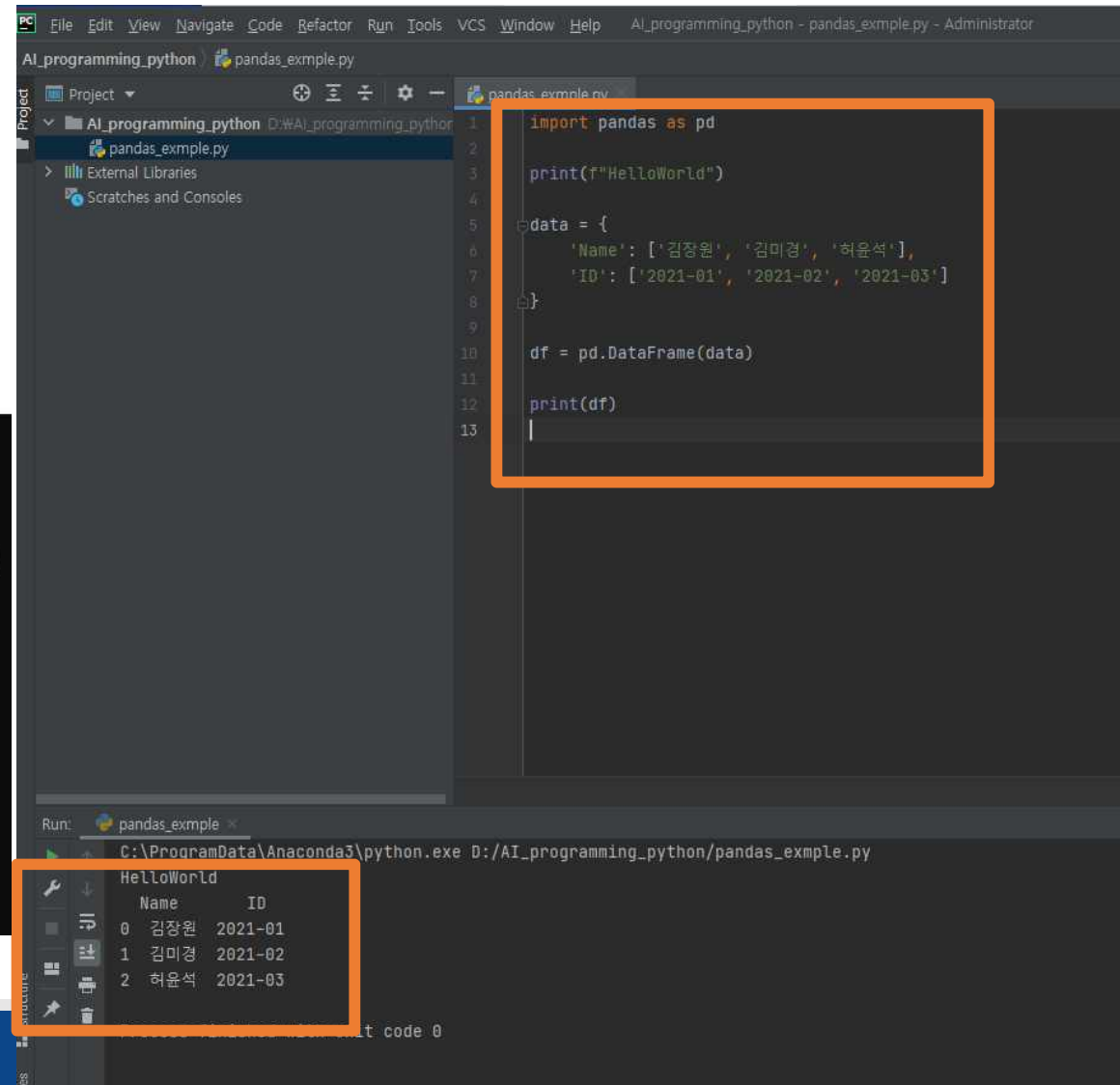
Pycharm – Project 생성 – Anaconda (Base) 연동

Pandas 기본 예제 실행

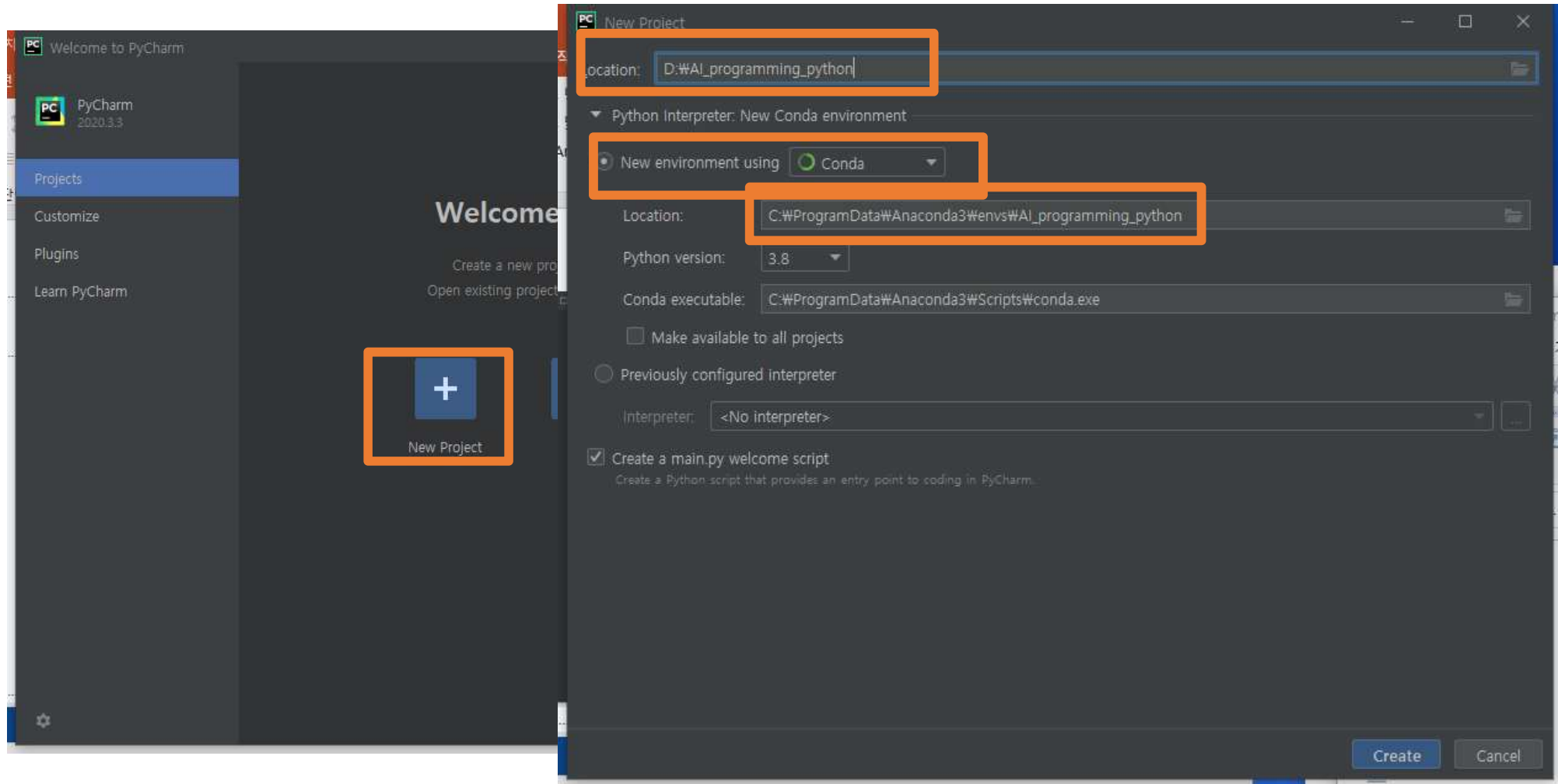
- Anaconda 설치 시 기본 셋팅으로 포함된 Pandas 패키지 사용 가능 (별도 pip install 하지 않아도 됨)

```
Anaconda Prompt (Anaconda3)
zstd 1.4.5 h04227a9_0

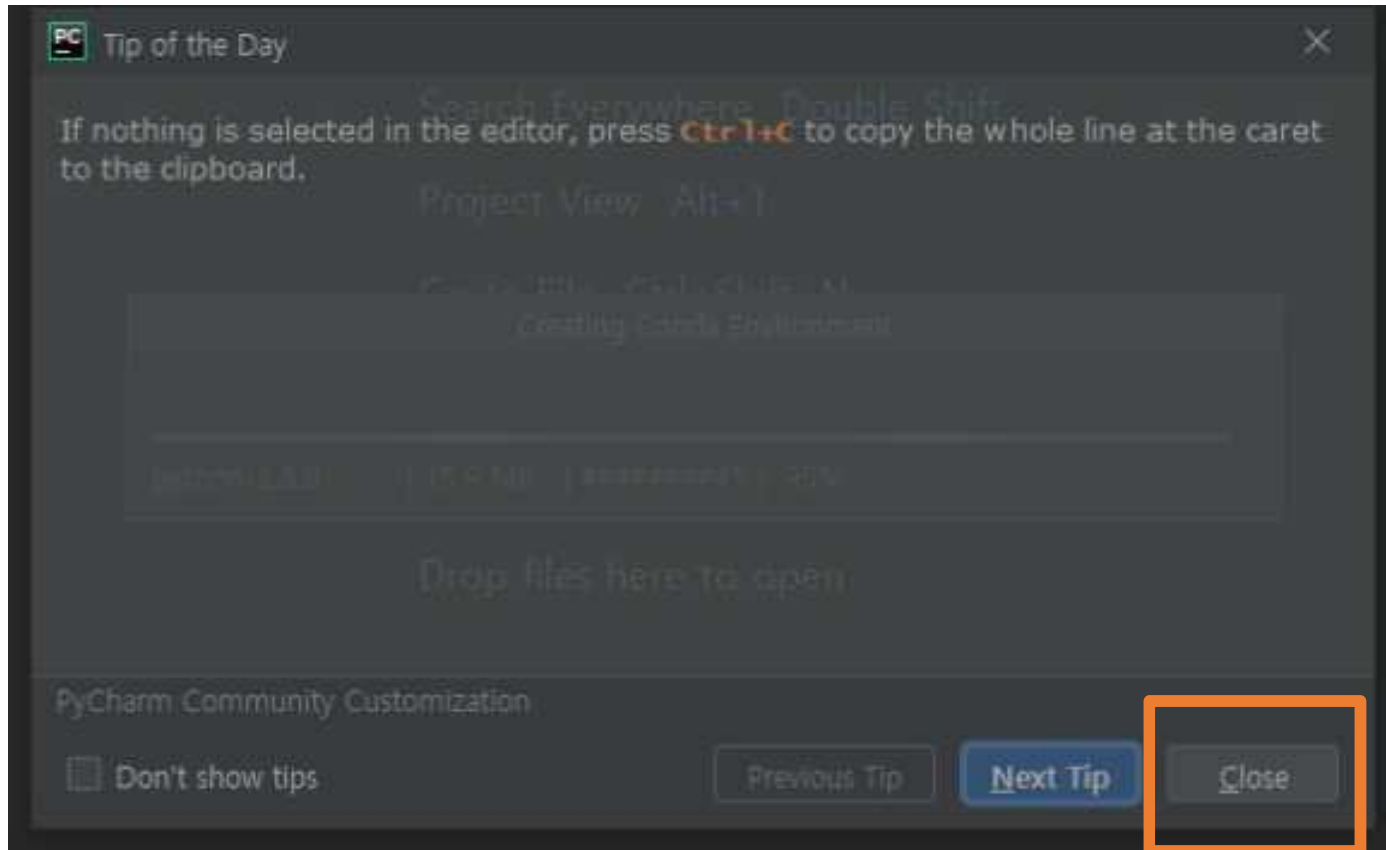
(base) C:\Users\AI-00>
(base) C:\Users\AI-00>conda list pan*
# packages in environment at C:\ProgramData\Anaconda3:
#
# Name                        Version      Build                Channel
conda-package-handling       1.7.2        py38h76e460a_0      conda-forge
diff-match-patch              20200713     py_0                 conda-forge
libspatialindex               1.9.3        h33f27b4_0           conda-forge
msgpack-python                1.0.0        py38h74a9793_1       conda-forge
multipledispatch              0.6.0        py38_0               conda-forge
pandas                         1.1.3        py38ha925a31_0       conda-forge
pandoc                         2.11         h9490d1a_0           conda-forge
pandocfilters                 1.4.3        py38haa95532_1       conda-forge
paramiko                      2.7.2        py_0                 conda-forge
parso                         0.7.0        py_0                 conda-forge
partd                         1.1.0        py_0                 conda-forge
path                           15.0.0       py38_0               conda-forge
path.py                       12.5.0       py_0                 conda-forge
pathlib2                      2.3.5        py38_0               conda-forge
pathtools                     0.1.2        py_1                 conda-forge
```



Pycharm 실행/프로젝트 생성/New Environment



Pycharm 실행/프로젝트 생성



Pycharm 실행/프로젝트 생성/실행

Anaconda Prompt (Anaconda3)

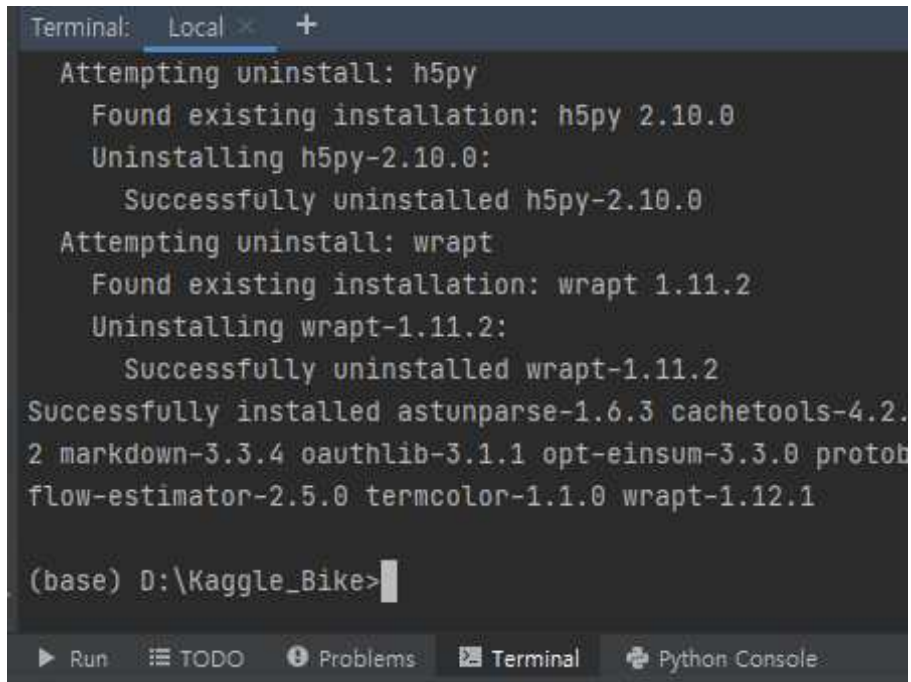
```
(base) C:\Users\AI-00>conda env list
# conda environments:
#
base                * C:\ProgramData\Anaconda3
AI_programming_python  C:\ProgramData\Anaconda3\envs\AI_
```

Anaconda Env

2개 이상 파일
Ctrl+Shift+F10키

또는 Shift+F10키

Tensorflow 설치



```
Terminal: Local x +
Attempting uninstall: h5py
Found existing installation: h5py 2.10.0
Uninstalling h5py-2.10.0:
Successfully uninstalled h5py-2.10.0
Attempting uninstall: wrapt
Found existing installation: wrapt 1.11.2
Uninstalling wrapt-1.11.2:
Successfully uninstalled wrapt-1.11.2
Successfully installed astunparse-1.6.3 cachetools-4.2.
2 markdown-3.3.4 oauthlib-3.1.1 opt-einsum-3.3.0 protob
flow-estimator-2.5.0 termcolor-1.1.0 wrapt-1.12.1

(base) D:\Kaggle_Bike>
```

Terminal tab: pip install tensorflow (파이참 실행 시 관리자 권한으로 실행)

Appendix: conda 가상환경 생성/삭제 (Command line 환경)

```
smg-research 0.4.0 py_0
testpath      0.4.4 py_0

(base) C:\Users\WAI-00>conda create -n tmp_anaconda
Collecting package metadata (current_repodata.json): done
Solving environment: failed with repodata from current_repodata.json, will retry with next repodata source.
Collecting package metadata (repodata.json): done
Solving environment: -
```

가상환경 생성

```
conda env list # 가상환경 목록 확인
conda create -n 가상환경이름 python # 파이썬 가상환경 만들기
conda create -n 가상환경이름 python=3.7 # 파이썬 특정 버전 가상환경 만들기
conda create -n 가상환경이름 python anaconda # 기본 라이브러리 함께 설치
```

가상환경 삭제

```
conda remove --name tensorflow35 --all
```

Appendix: conda 가상환경 생성/삭제 (Command line 환경)

```
smg-research 0.4.0 py_0
testpath      0.4.4 py_0

(base) C:\Users\WAI-00>conda create -n tmp anaconda
Collecting package metadata (current_repodata.json): done
Solving environment: failed with repodata from current_repodata.json, will retry with next repodata source.
Collecting package metadata (repodata.json): done
Solving environment: -
```

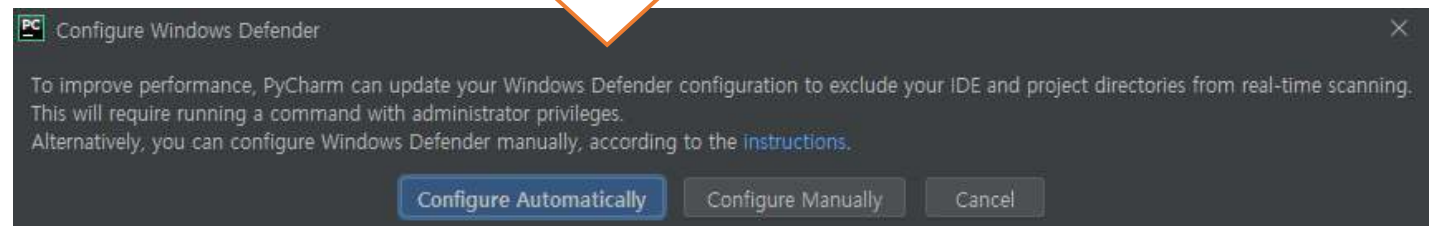
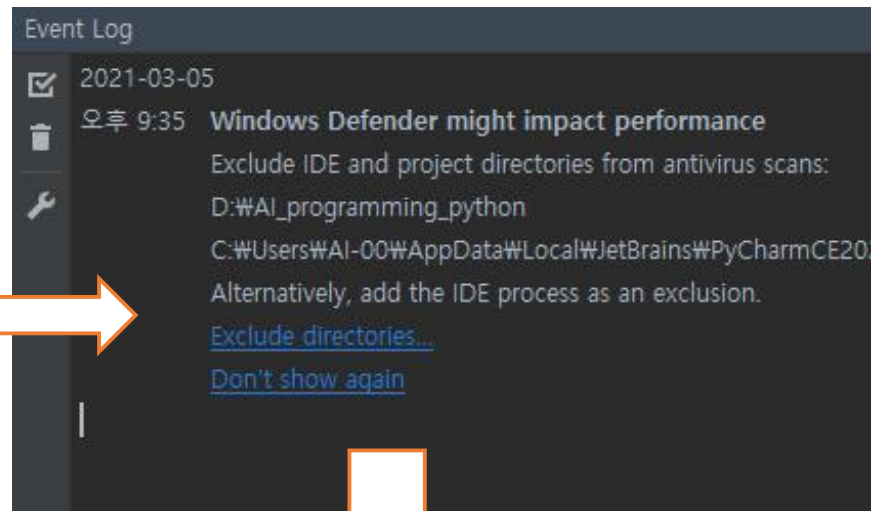
가상환경 생성

```
conda env list # 가상환경 목록 확인
conda create -n 가상환경이름 python # 파이썬 가상환경 만들기
conda create -n 가상환경이름 python=3.7 # 파이썬 특정 버전 가상환경 만들기
conda create -n 가상환경이름 python anaconda # 기본 라이브러리 함께 설치
```

가상환경 삭제

```
conda remove --name tensorflow35 --all
```

Appendix: Pycharm 관리자 권한으로 Window Defend

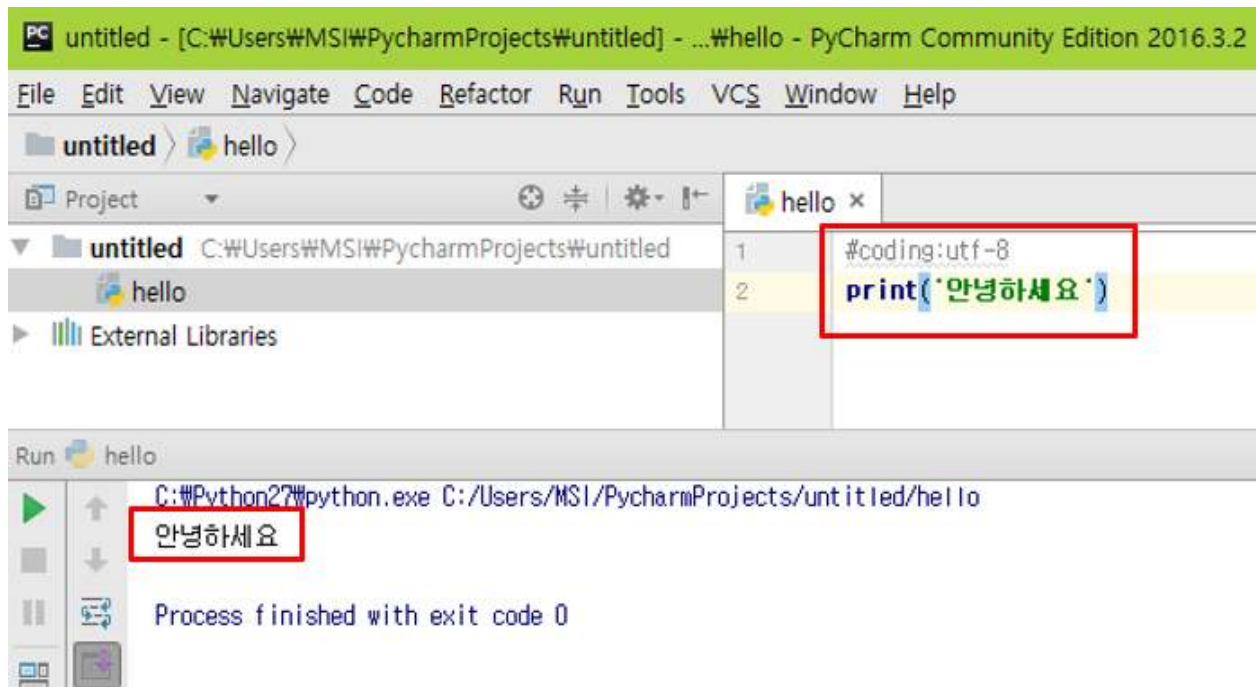


Appendix: 한글깨짐

.py의 한글 처리 해결

코드의 최상단에 다음의 코드 삽입

#coding:utf-8



Thank you

Q&A

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