

# 개발환경 구축

## 개발 환경

- **Anaconda 설치**
- **Pycharm 설치 및 anaconda base와 연동**
- 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

# Anaconda 설치

- [www.anaconda.com](https://www.anaconda.com)



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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.

# Anaconda 설치

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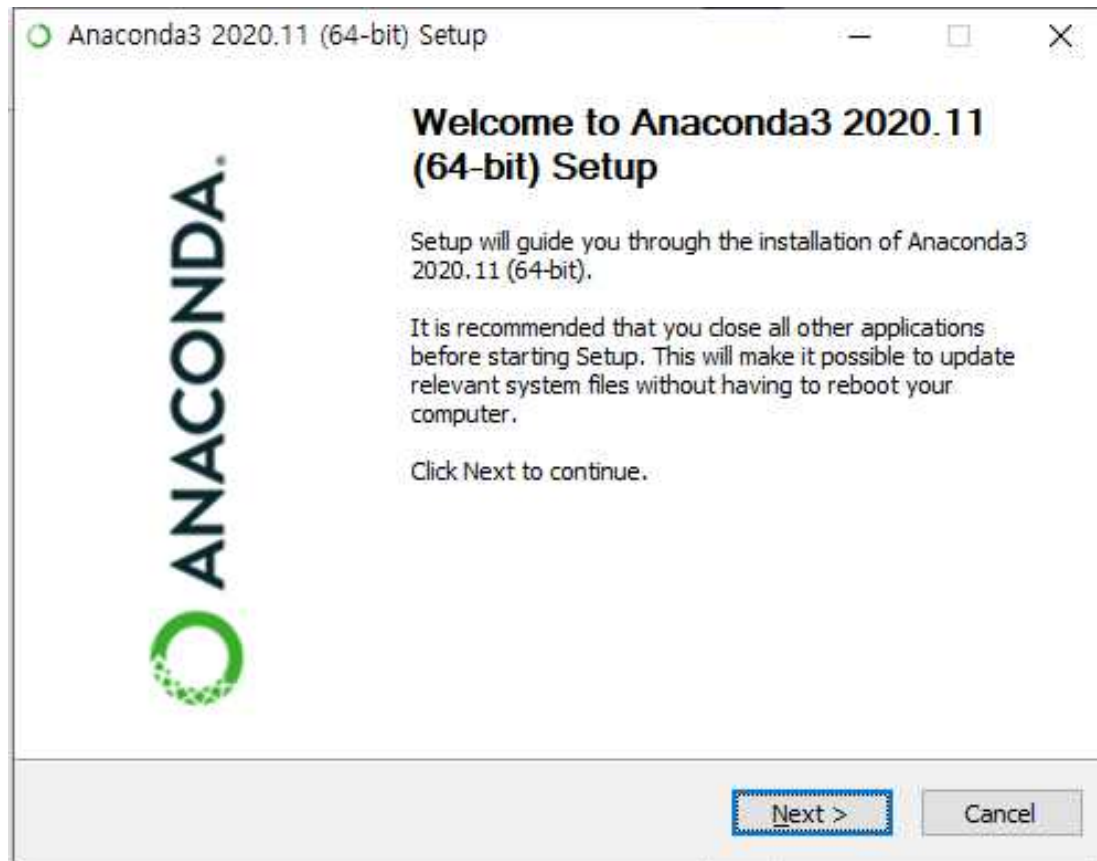
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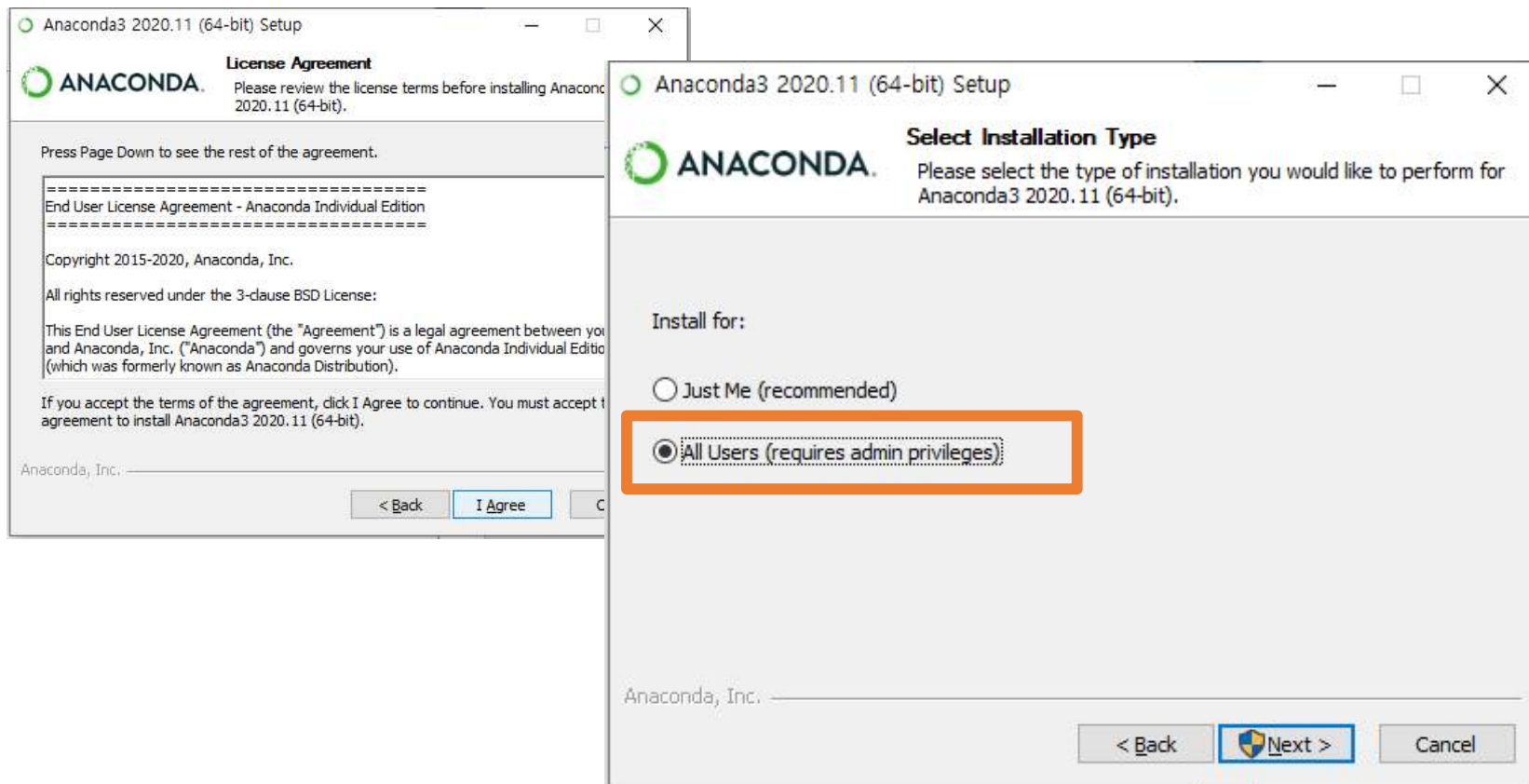
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Anaconda3-2020.....exe



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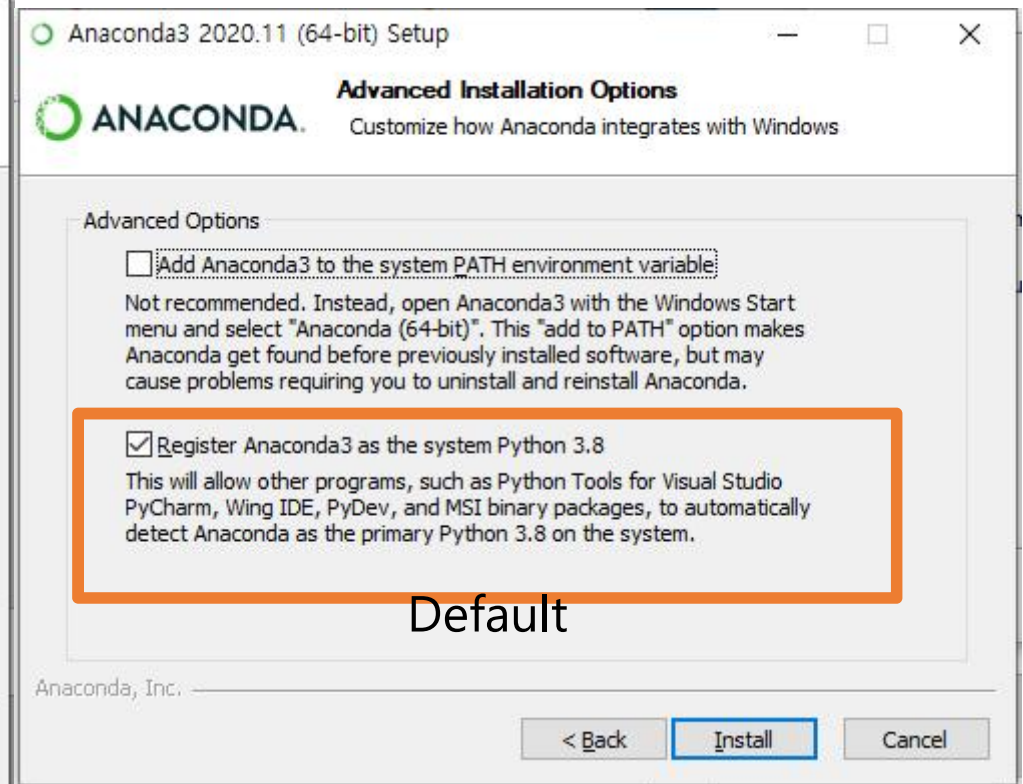
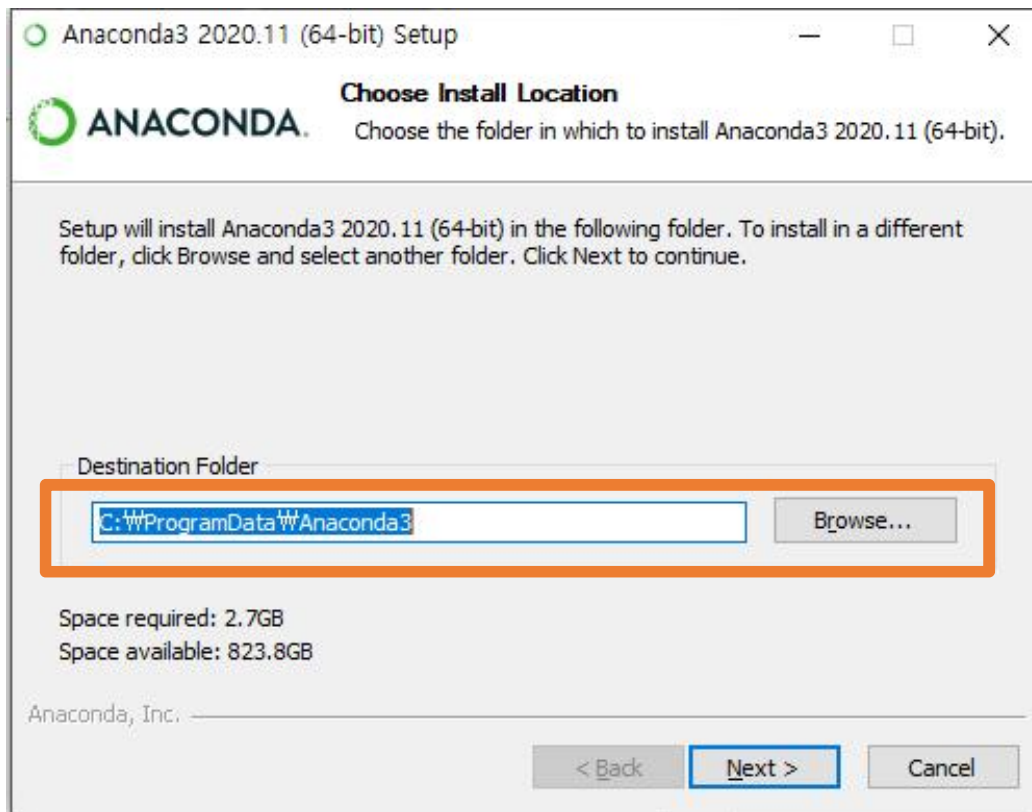
- [www.anaconda.com](http://www.anaconda.com)



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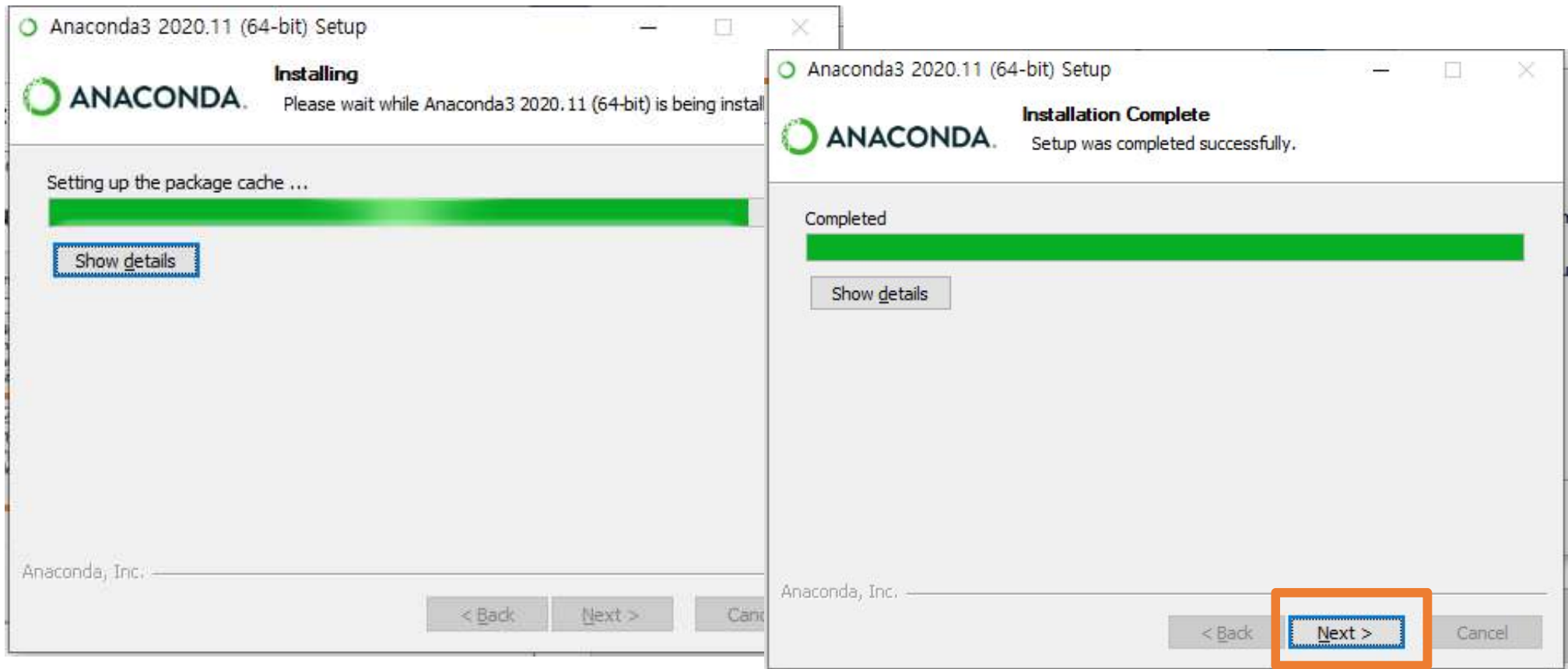
c:\programData\Anaconda3 ← 기억하기





# Anaconda 설치

- [www.anaconda.com](http://www.anaconda.com)





# Anaconda 설치

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Anaconda3 2020.11 (64-bit) Setup

ANAACONDA Anaconda3 2020.11 (64-bit) Anaconda + JetBrains English

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<https://www.anaconda.com/pycharm>

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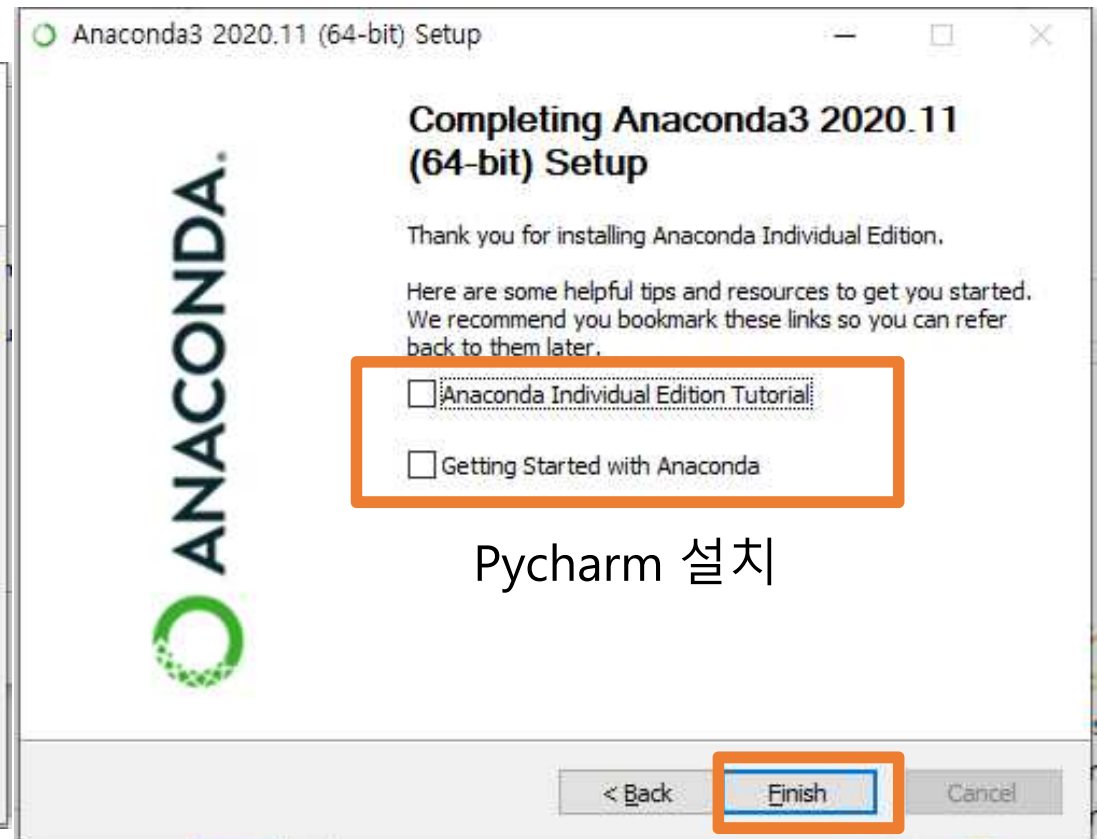
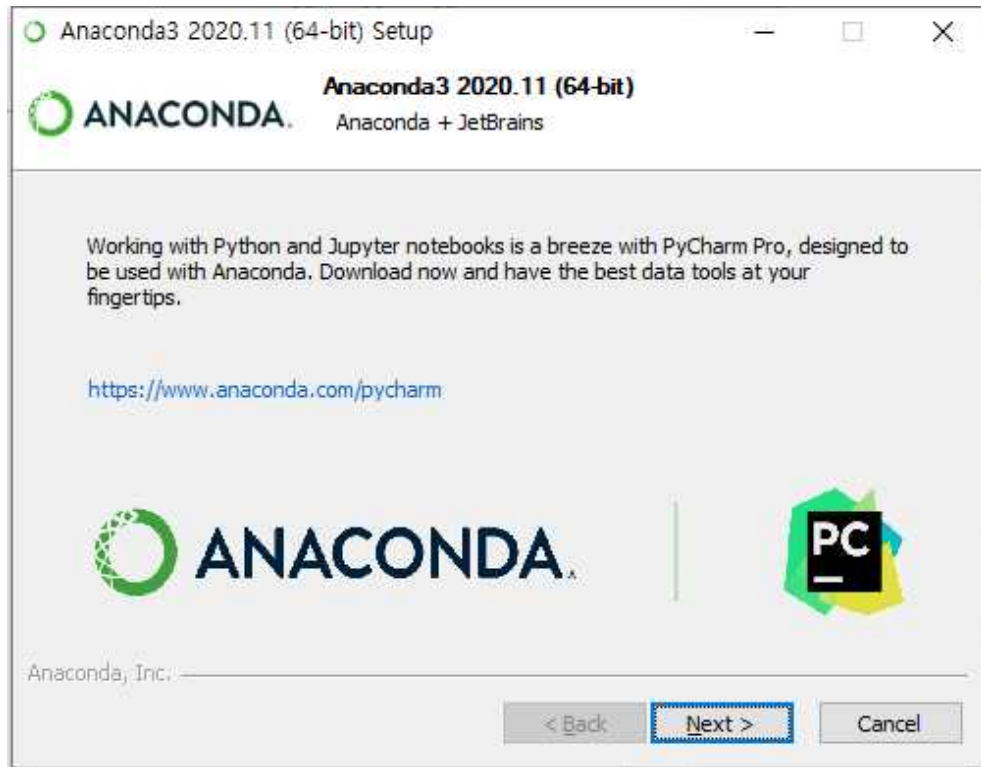
Anaconda, Inc. < Back Next > Cancel

PC PyCharm

ANAACONDA

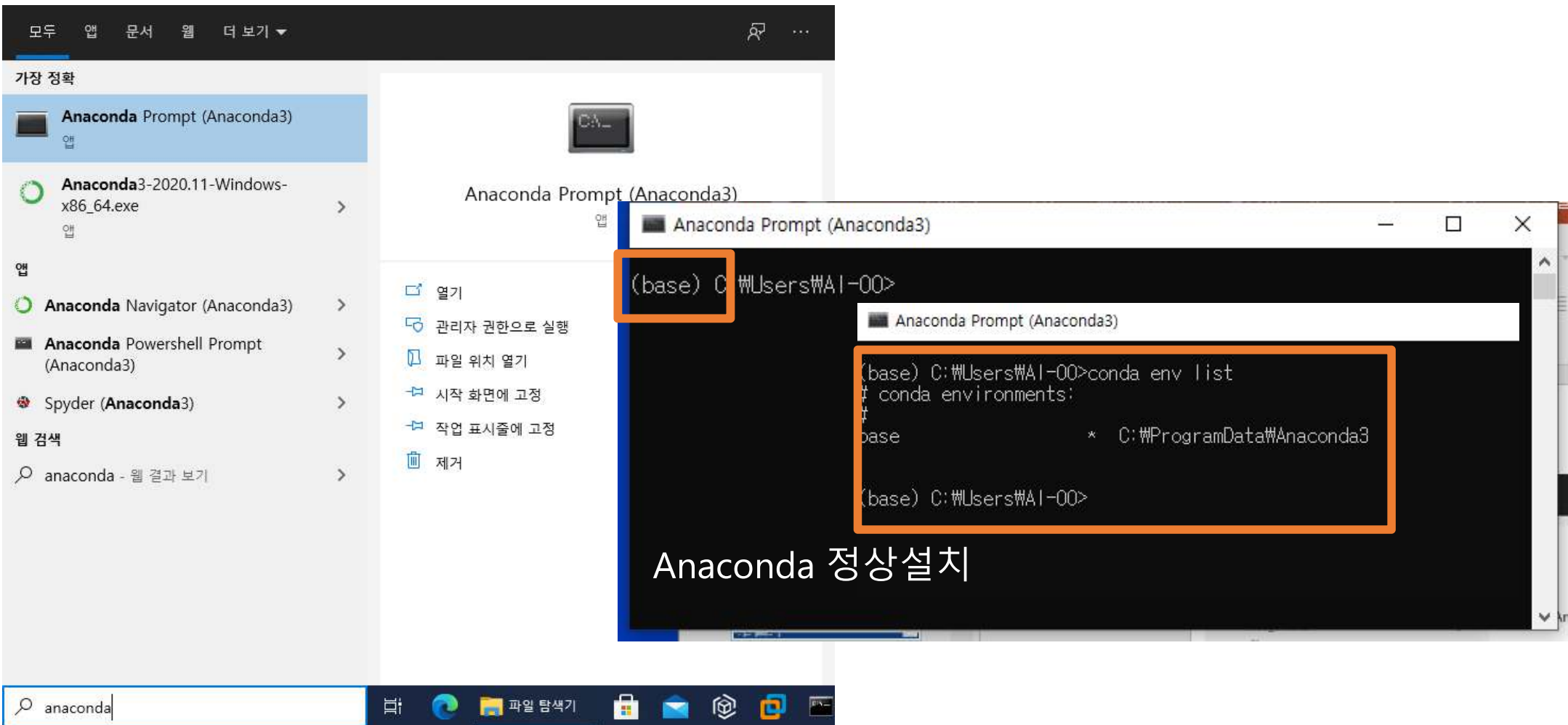
# Anaconda 설치

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Pycharm 설치

# Anaconda 실행 및 확인

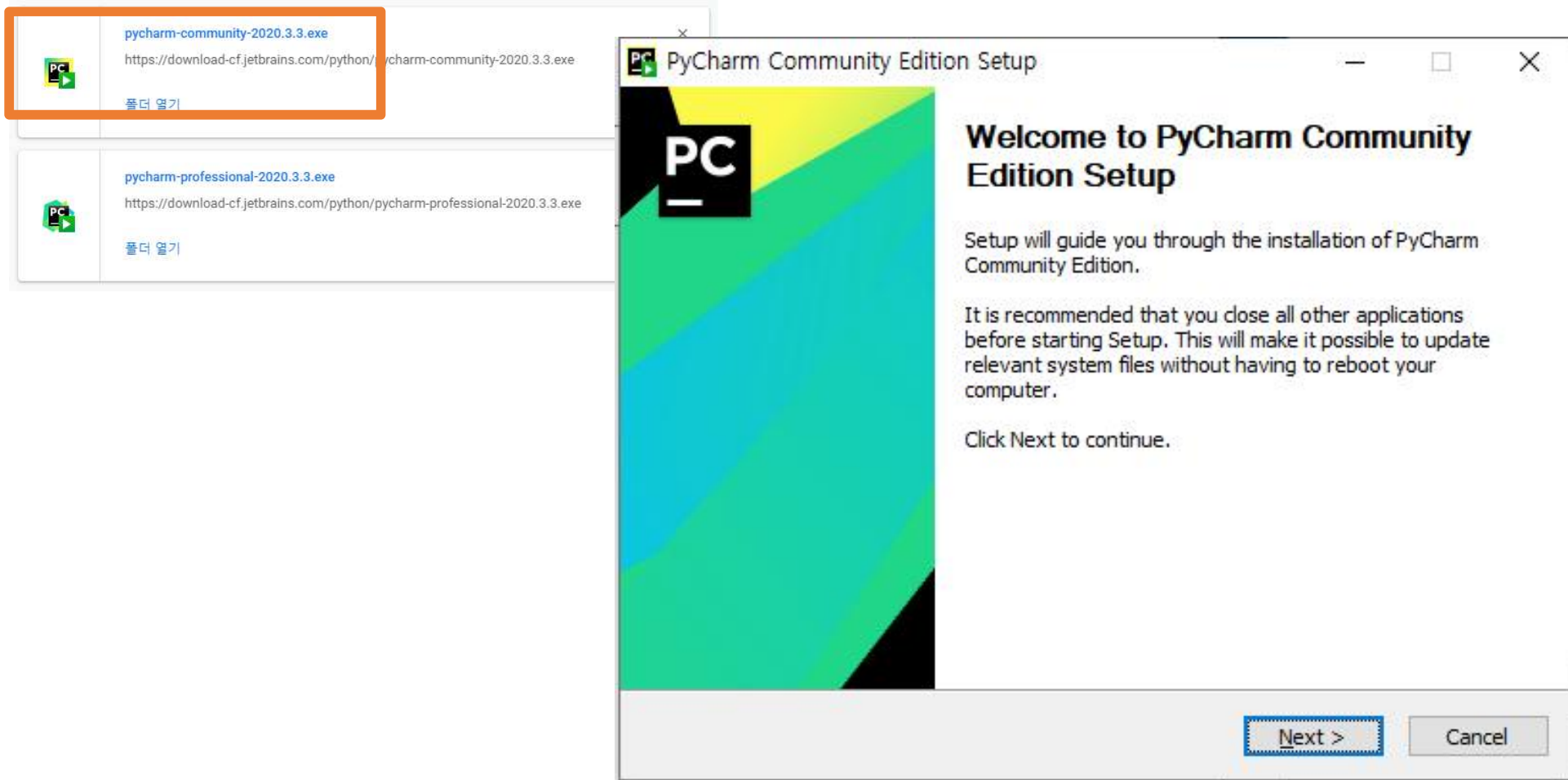


Anaconda 정상설치

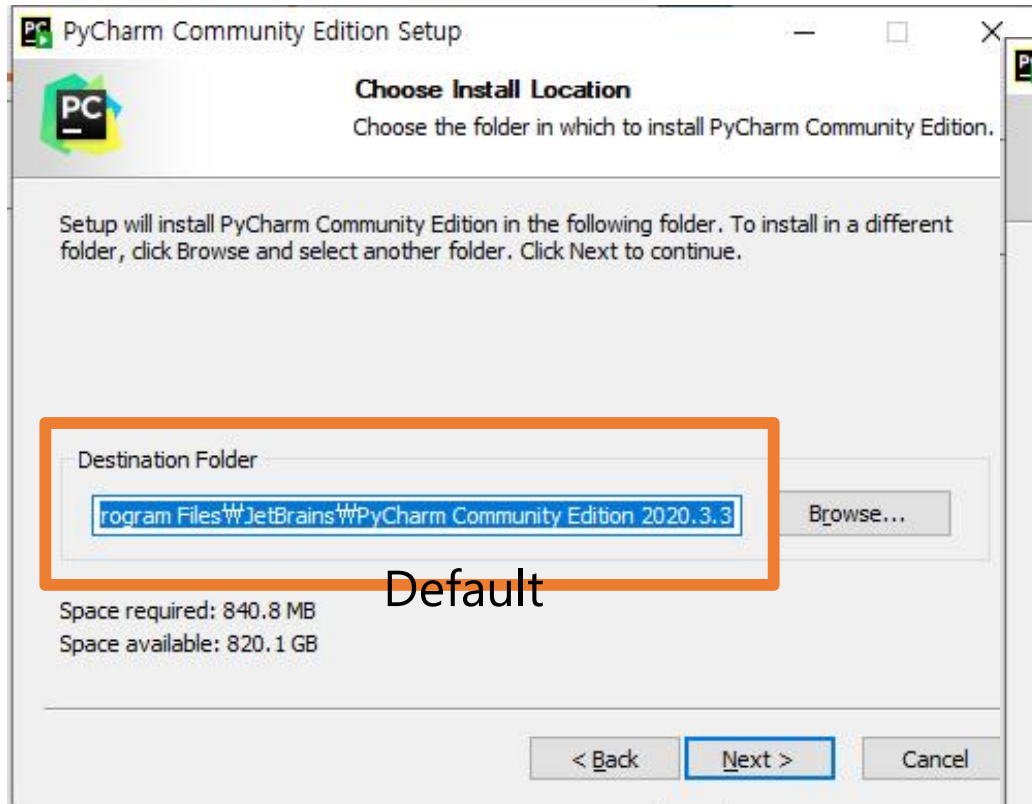
11



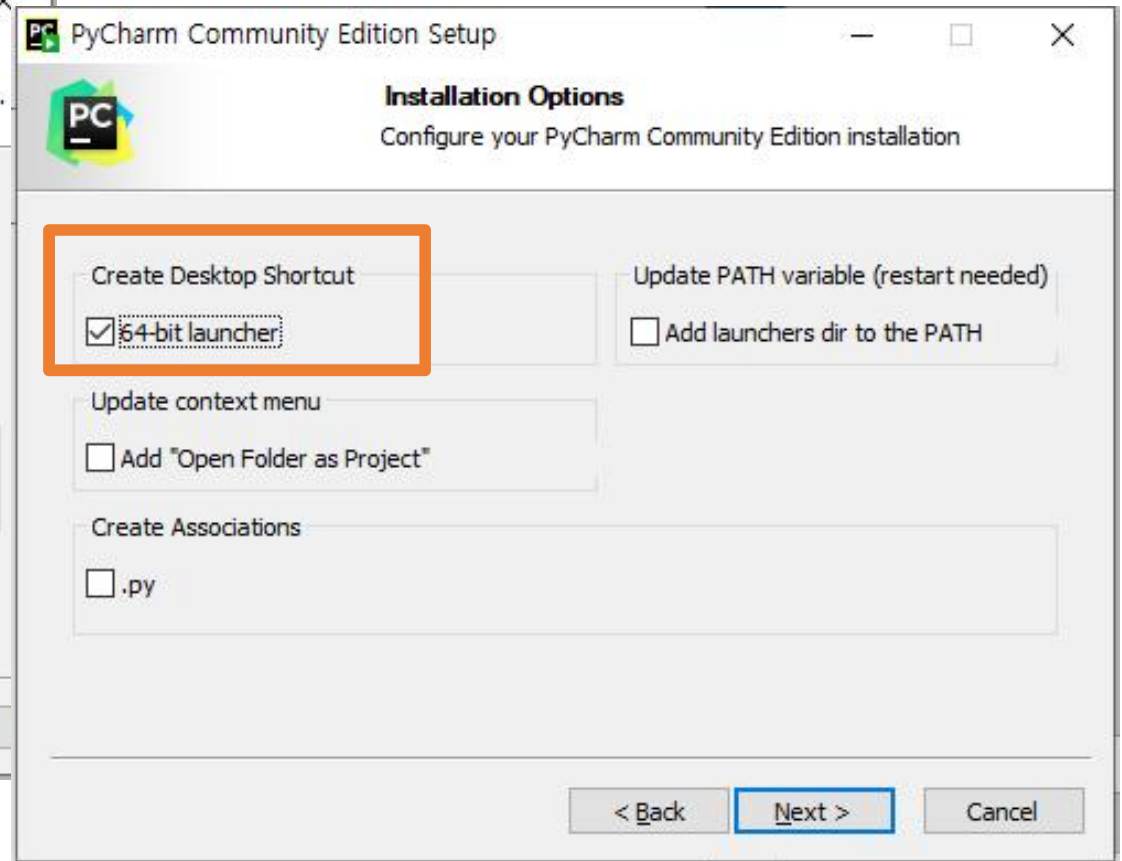
# Pycharm 설치



# Pycharm 설치

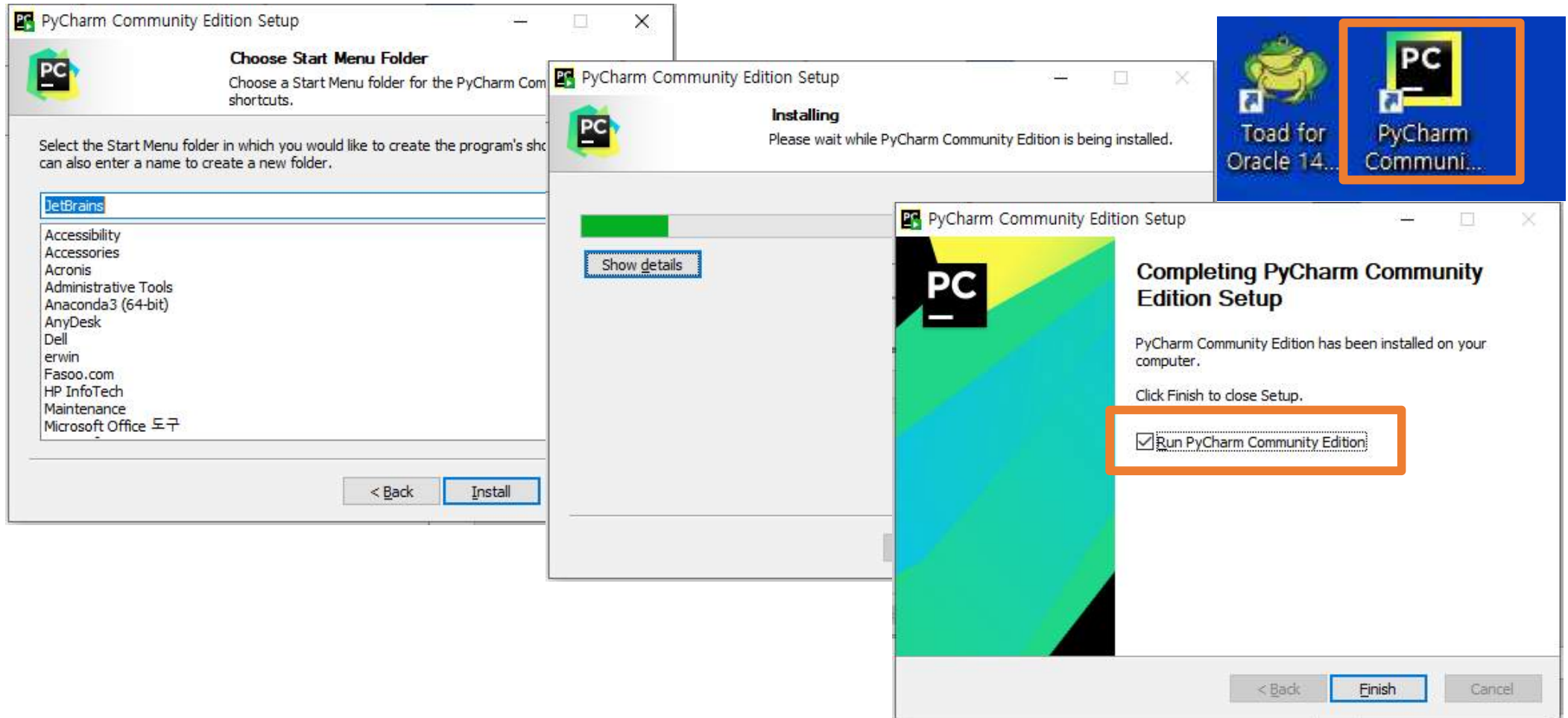


Default



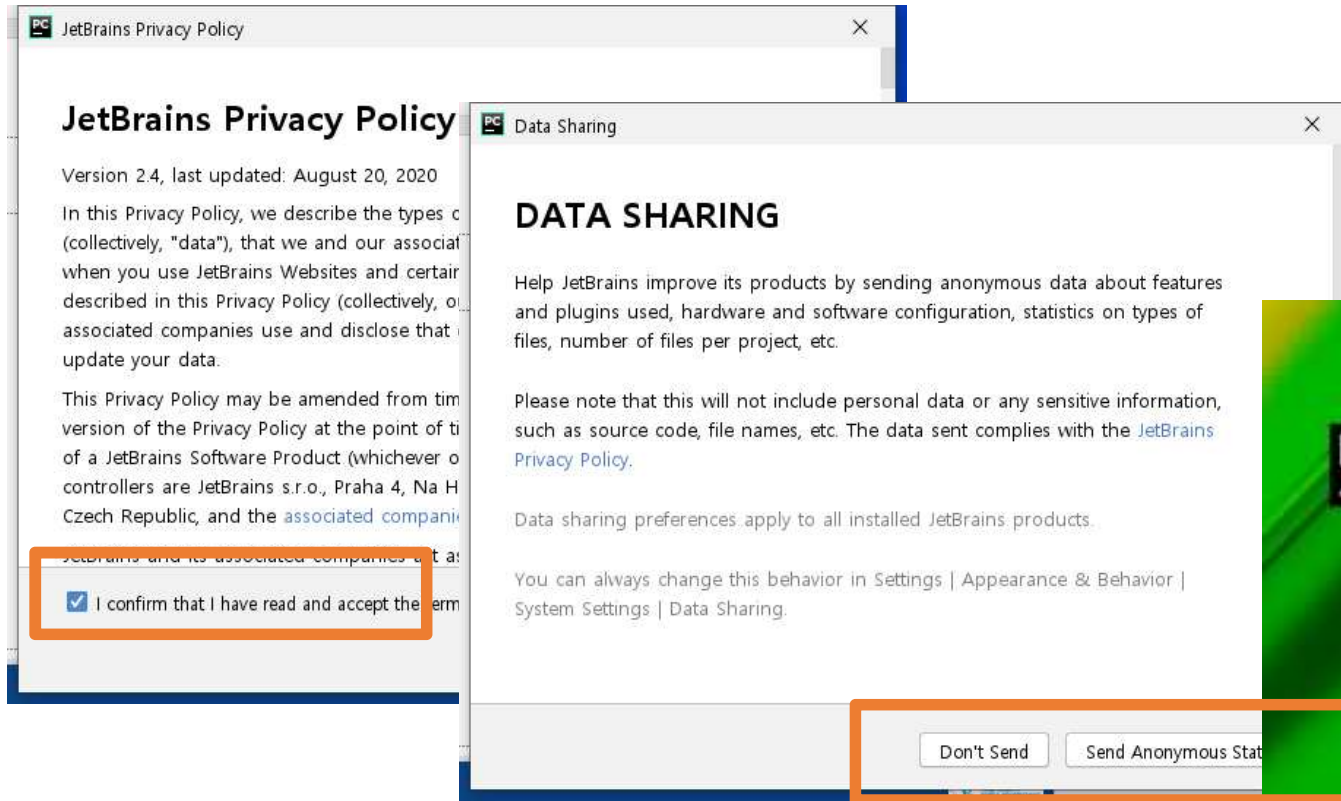


# Pycharm 설치





# Pycharm 설치

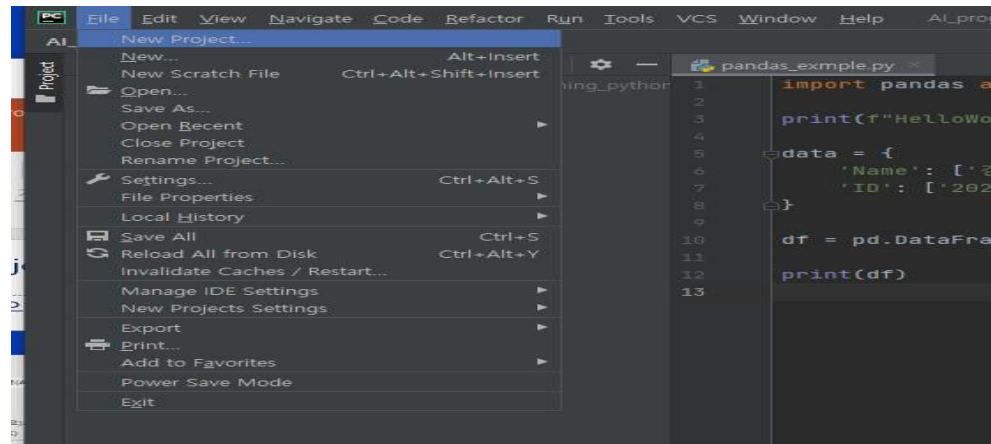


# Pycharm – Project 생성 – Anaconda Base 연동

## 1. 관리자 권한으로 Pycharm 실행

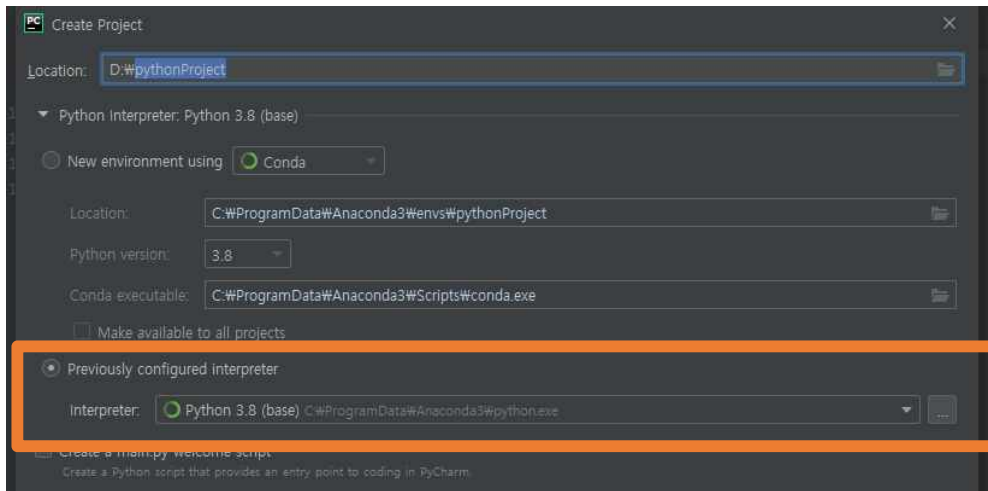


## 2. File->New Project

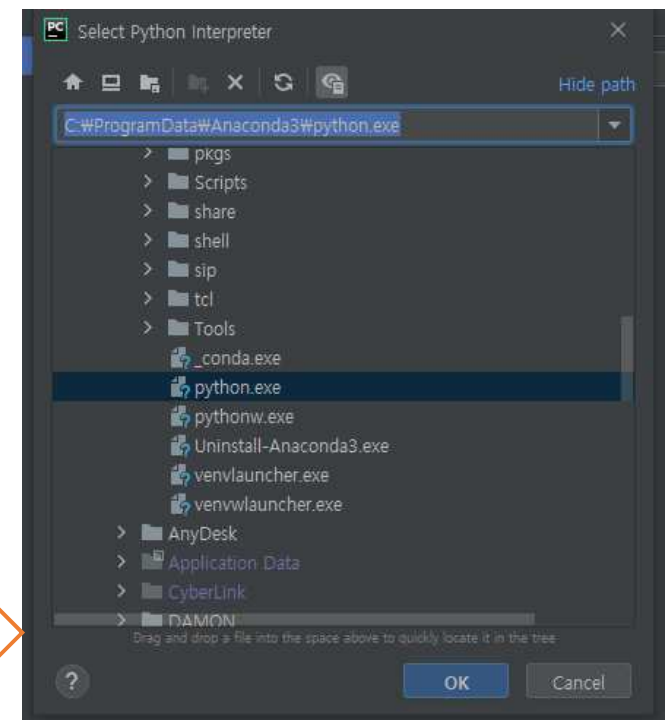
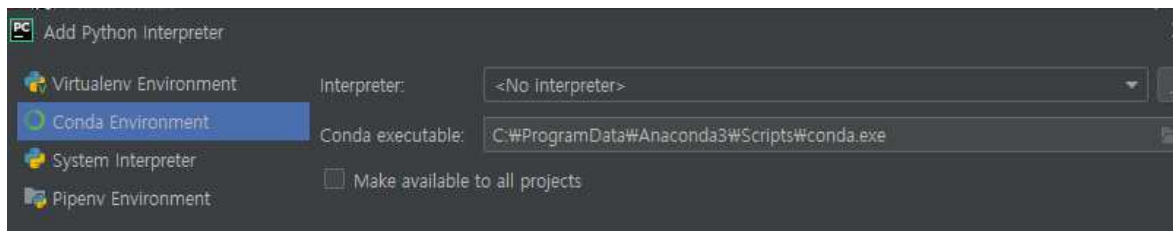


# Pycharm – Project 생성 – Anaconda Base 연동

## 3. Anaconda (Base) 연동



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



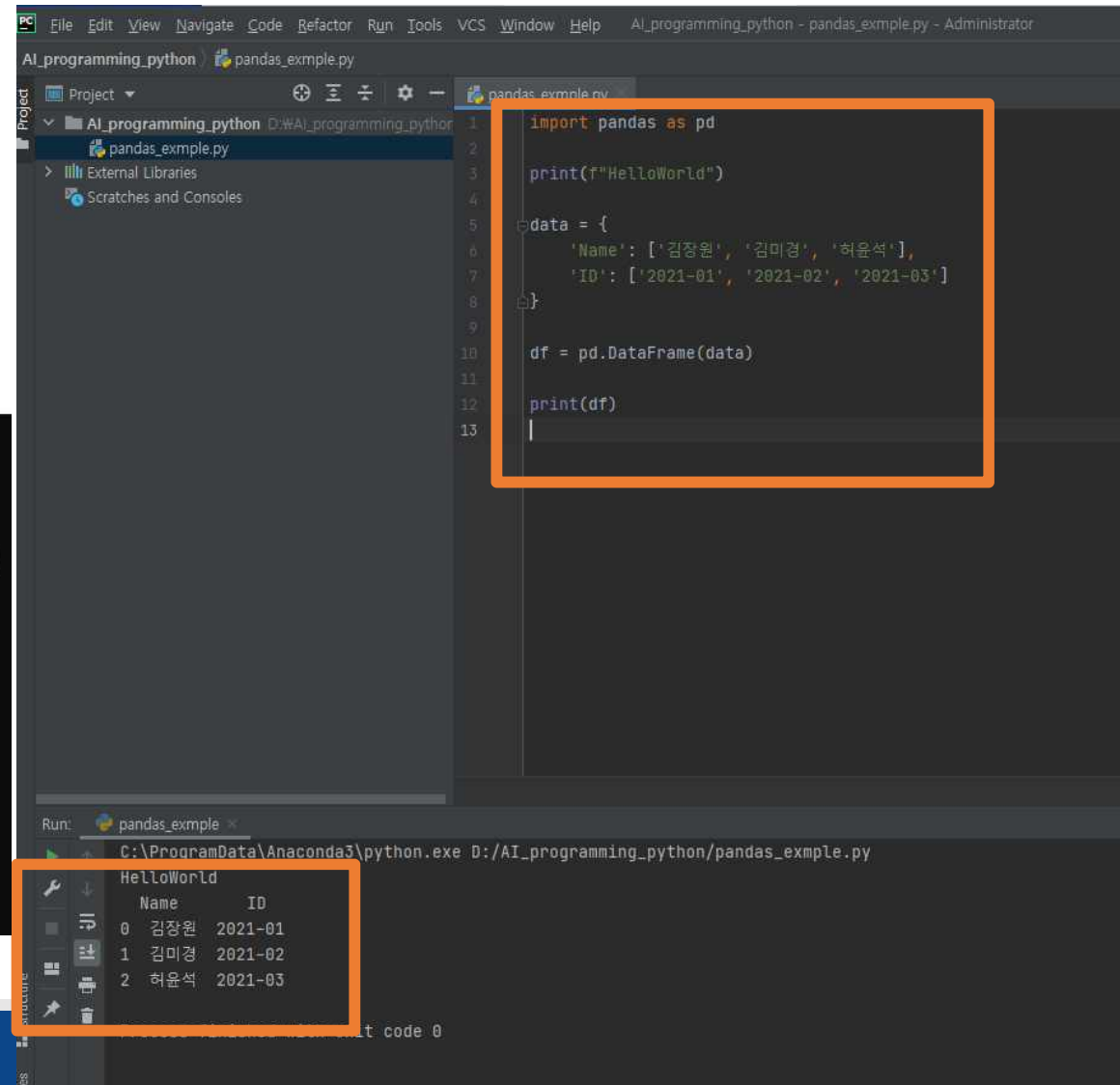
# Pycharm – Project 생성 – Anaconda (Base) 연동

## Pandas 기본 예제 실행

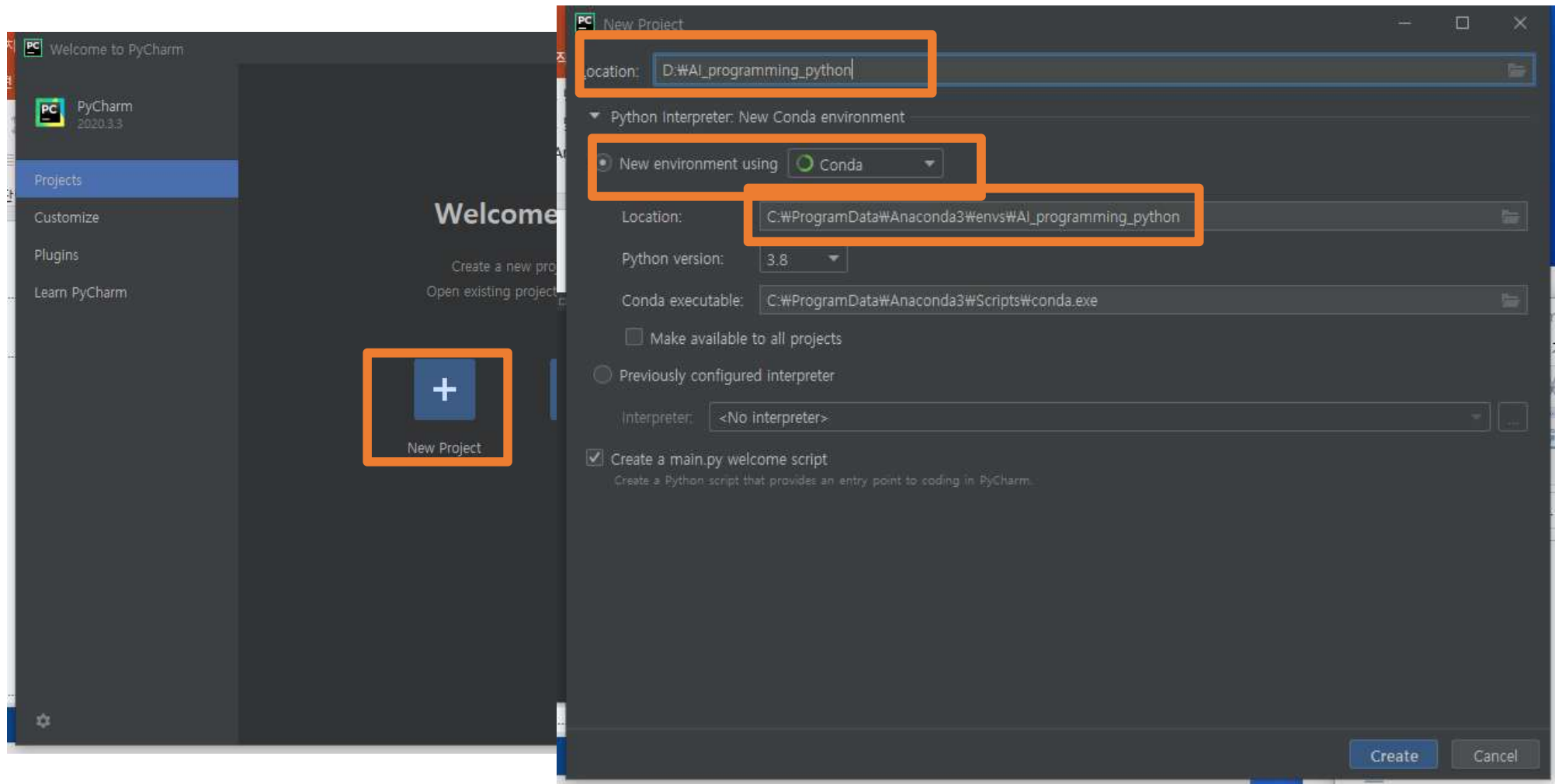
- Anaconda 설치 시 기본 셋팅으로 포함된 Pandas 패키지 사용 가능 (별도 pip install 하지 않아도 됨)

```
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 Channel
diff-match-patch          20200713          py_0
libspatialindex           1.9.3             h33f27b4_0
msgpack-python            1.0.0             py38h74a9793_1
multipledispatch          0.6.0             py38_0
pandas                    1.1.3             py38ha925a31_0
pandoc                    2.11              h9490d1a_0
pandocfilters             1.4.3             py38haa95532_1
paramiko                  2.7.2             py_0
parso                     0.7.0             py_0
partd                     1.1.0             py_0
path                      15.0.0            py38_0
path.py                   12.5.0            py_0
pathlib2                  2.3.5             py38_0
pathtools                 0.1.2             py_1
```



## Pycharm 실행/프로젝트 생성/New Environment



## Pycharm 실행/프로젝트 생성/실행

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

(base) C:\Users\AI-00>
```

Anaconda Env

The PyCharm IDE interface shows a project named 'AI\_programming\_python' with a file 'main.py'. The code in 'main.py' includes a function 'print\_hi(name)' and a main block that calls it with 'PyCharm'. The console at the bottom shows the command 'C:\ProgramData\Anaconda3\envs\AI\_programming\_python\python.exe D:/AI\_programming\_python/main.py' and the output 'Hi, PyCharm'. The status bar indicates 'Process finished with exit code 0'.

현재 작성 파일 바로 실행  
Ctrl+Shift+F10키  
파일 선택해서 실행  
Alt+Shift+F10키

또는 Shift+F10키

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

```
smg-research 0.4.0.0 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
```



Thank you

Q&A

[www.kopo.ac.kr](http://www.kopo.ac.kr)  
[jsshin7@kopo.ac.kr](mailto:jsshin7@kopo.ac.kr)