파이썬 개발 환경 설치

(Anaconda 설치)

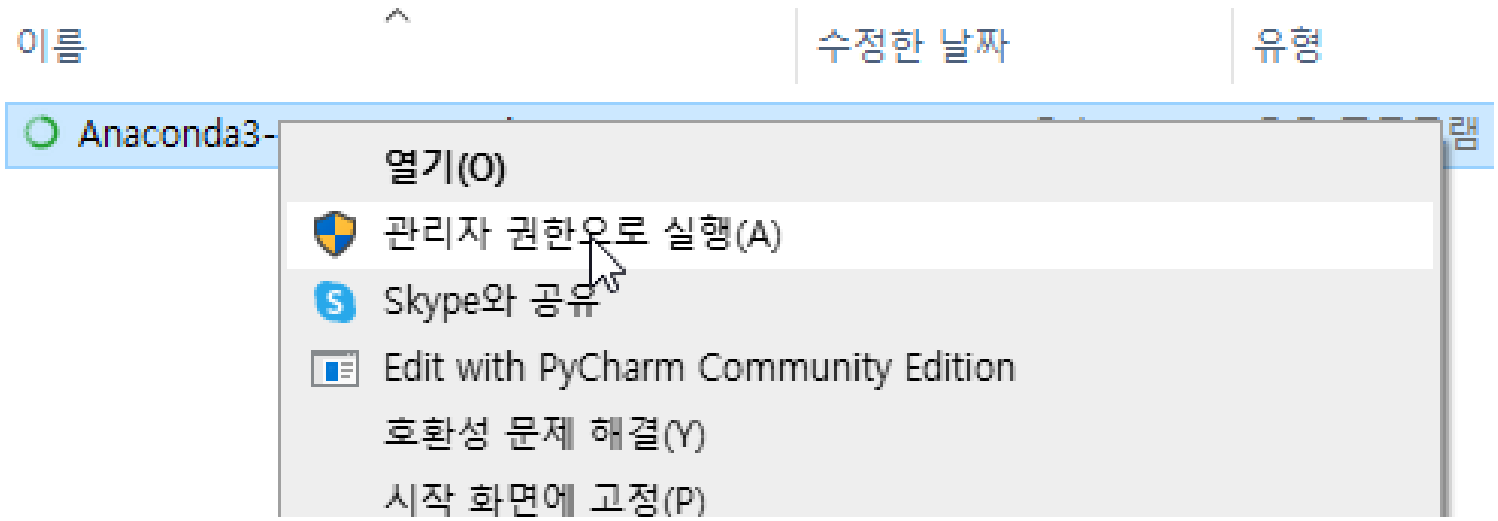
Anaconda 특징

- Anaconda는 Python 기반의 개방형 데이터 과학 플랫폼.
- Anaconda의 오픈 소스 버전은 Python 및 R의 고성능 배포이며 데이터 과학을 위해 가장 많이 사용되는 Python, R 및 Scala 패키지 중 100개 이상을 포함.
- Anaconda에 포함된 유명한 패키지인 의존성 및 환경 관리자인 conda를 사용하여 쉽게 설치할 수 있는 720개가 넘는 패키지에 액세스 할 수 있음.

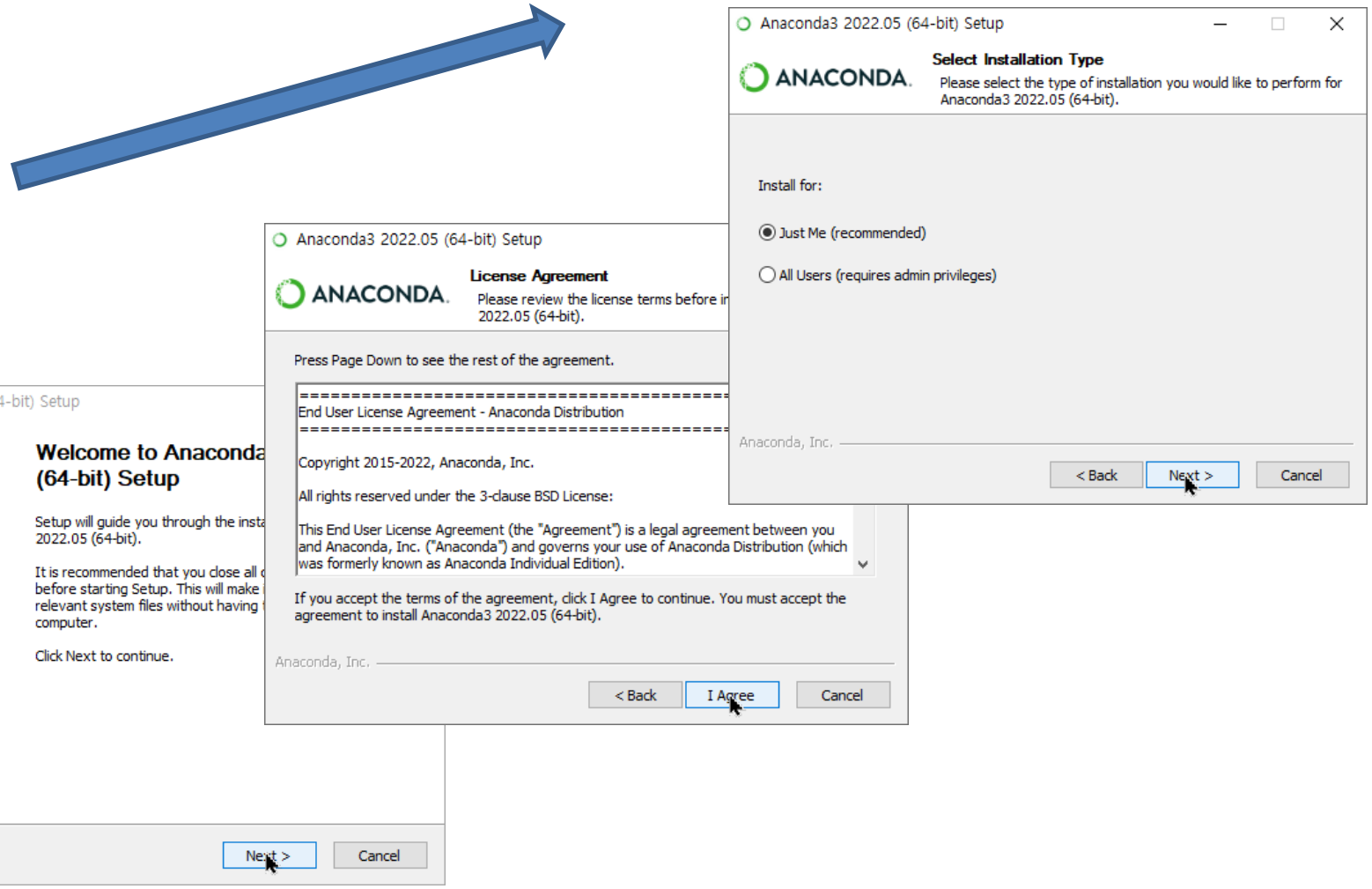
- 다운로드 사이트
  - https://www.anaconda.com/downloads/

- 이전 버전 다운로드 사이트
  - https://repo.continuum.io/archive/index.html

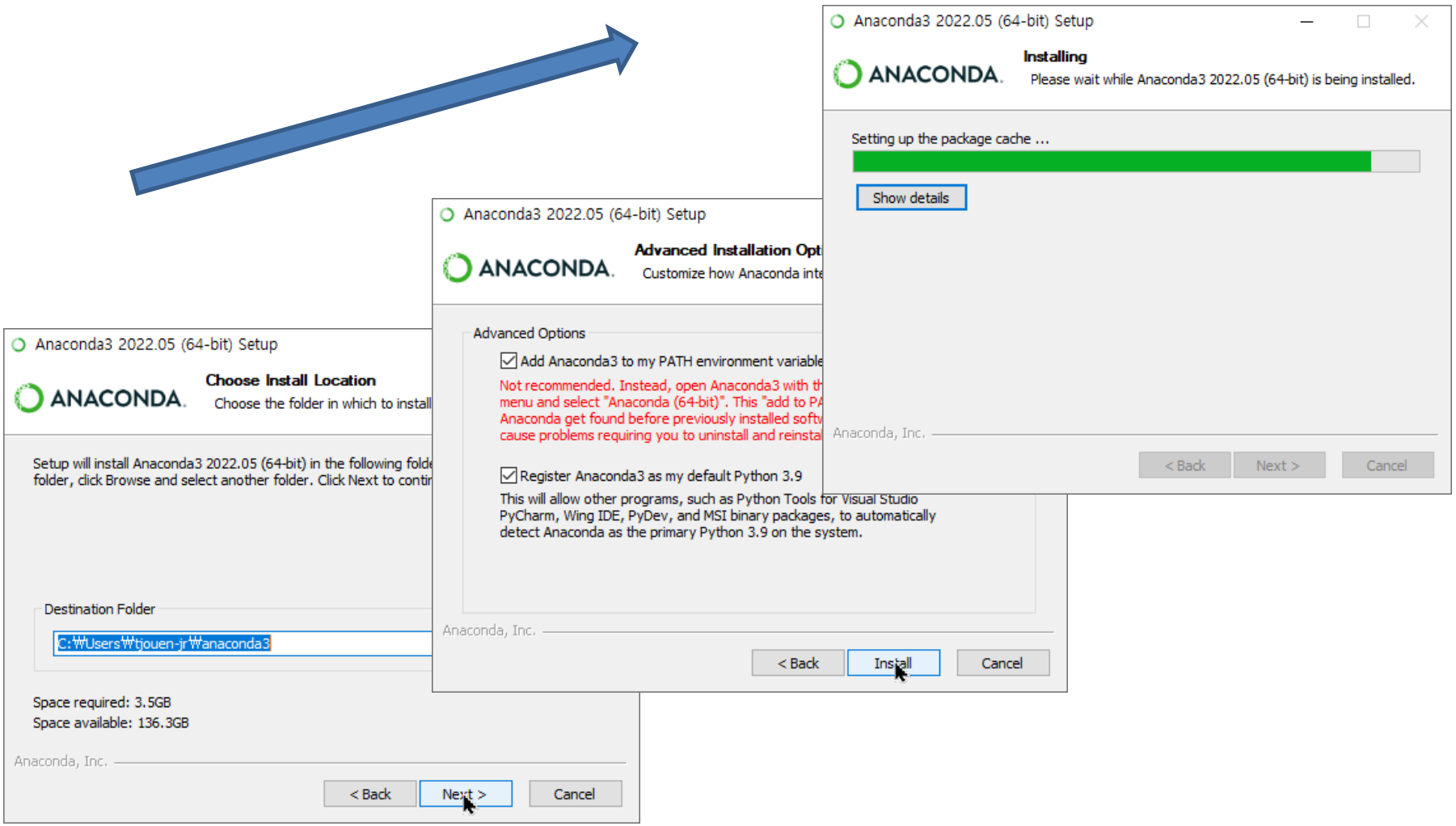
아나콘다 설치


이름
수정한 날짜
유형
Anaconda3-
램
열기(O)
관리자 권한으로 실행(A)
Skype와 공유
Edit with PyCharm Community Edition
호환성 문제 해결(Y)
시작 화면에 고정(P)

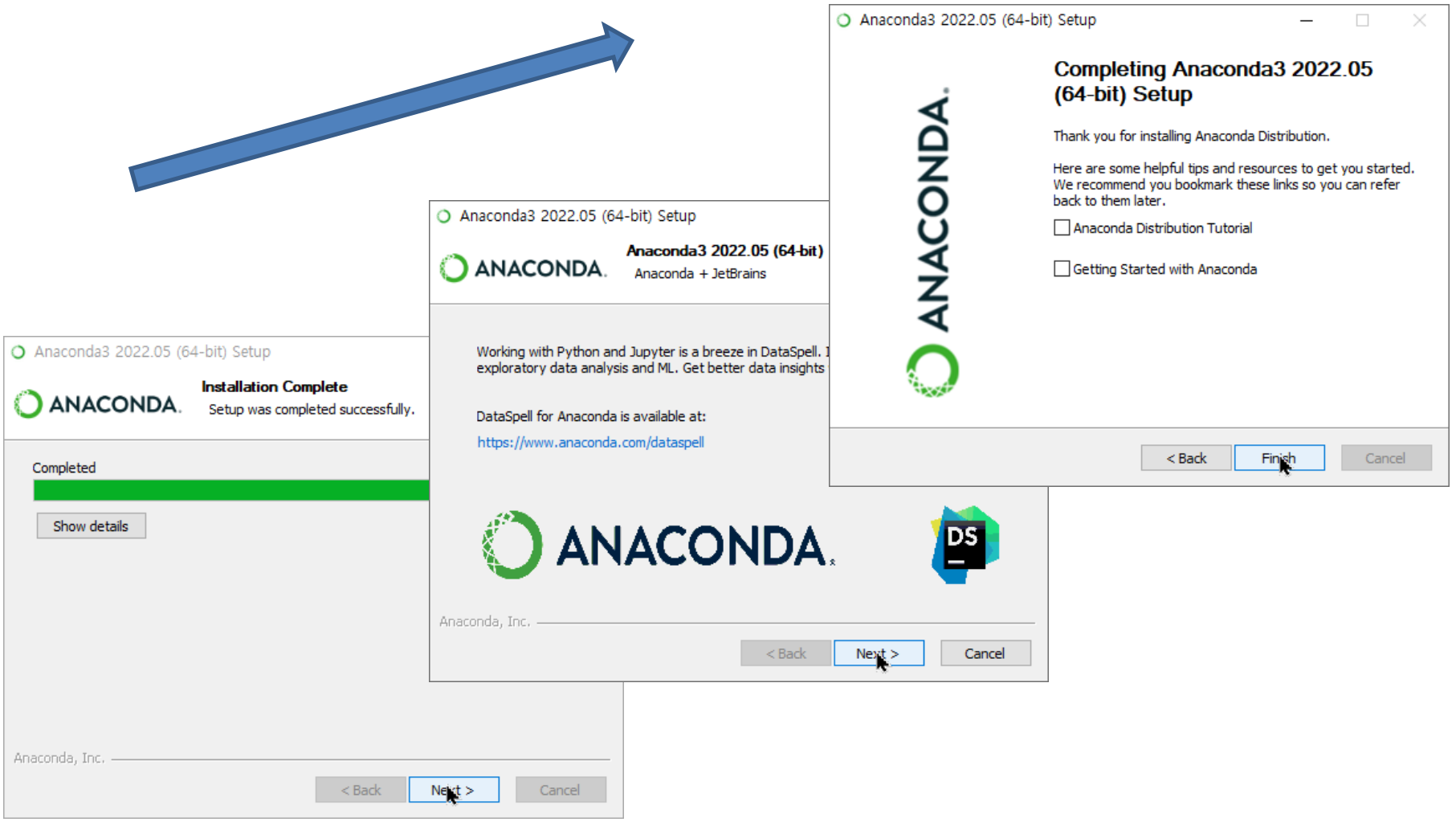
아나콘다 설치


Anaconda3 2022.05 (64-bit) Setup
Select Installation Type
Please select the type of installation you would like to perform for Anaconda3 2022.05 (64-bit).
Install for:
Just Me (recommended)
All Users (requires admin privileges)
Anaconda, Inc.
< Back
Next >
Cancel
Anaconda3 2022.05 (64-bit) Setup
License Agreement
Please review the license terms before in
2022.05 (64-bit).
Press Page Down to see the rest of the agreement.
End User License Agreement - Anaconda Distribution
Copyright 2015-2022, Anaconda, Inc.
All rights reserved under the 3-clause BSD License:
This End User License Agreement (the "Agreement") is a legal agreement between you and Anaconda, Inc. ("Anaconda") and governs your use of Anaconda Distribution (which was formerly known as Anaconda Individual Edition).
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install Anaconda3 2022.05 (64-bit).
Anaconda, Inc.
< Back
I Agree
Cancel
Anaconda3 2022.05 (64-bit) Setup
Welcome to Anaconda
(64-bit) Setup
Setup will guide you through the insta
2022.05 (64-bit).
It is recommended that you close all
before starting Setup. This will make
relevant system files without having
computer.
Click Next to continue.
Next >
Cancel

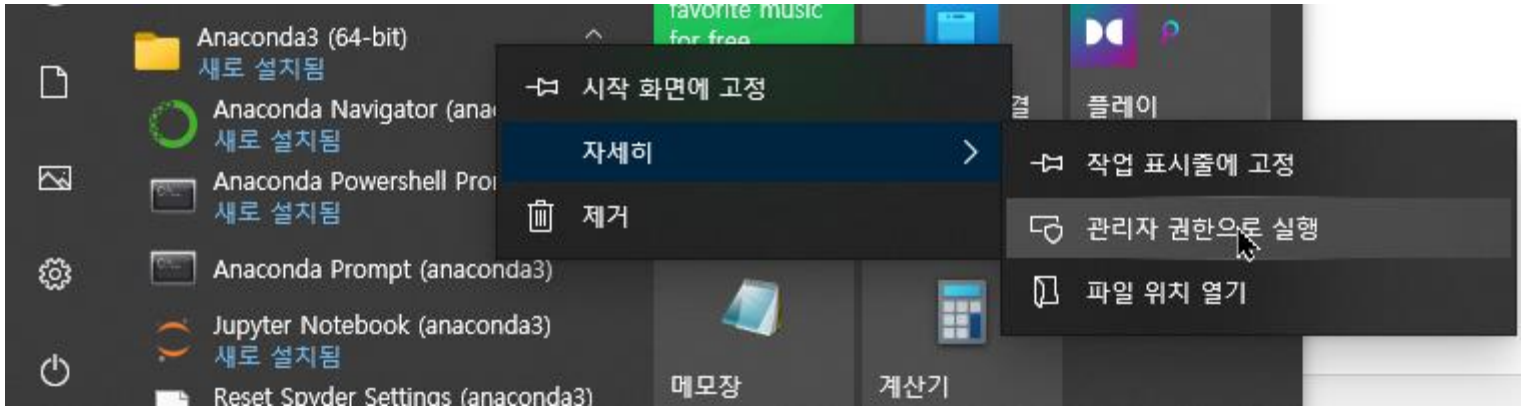
아나콘다 설치


Anaconda3 2022.05 (64-bit) Setup
ANACONDA.
Choose Install Location
Choose the folder in which to install
Setup will install Anaconda3 2022.05 (64-bit) in the following folde
folder, click Browse and select another folder. Click Next to contir
Destination Folder
C:₩Users₩tjouen-jr₩anaconda3
Space required: 3.5GB
Space available: 136.3GB
Anaconda, Inc.
< Back
Next >
Cancel
Anaconda3 2022.05 (64-bit) Setup
ANACONDA.
Advanced Installation Opt
Customize how Anaconda inte
Advanced Options
Add Anaconda3 to my PATH environment variable
Not recommended. Instead, open Anaconda3 with th
menu and select "Anaconda (64-bit)". This "add to PA
Anaconda get found before previously installed softw
cause problems requiring you to uninstall and reinstal
Register Anaconda3 as my default Python 3.9
This will allow other programs, such as Python Tools for Visual Studio
PyCharm, Wing IDE, PyDev, and MSI binary packages, to automatically
detect Anaconda as the primary Python 3.9 on the system.
Anaconda, Inc.
< Back
Install
Cancel
Anaconda3 2022.05 (64-bit) Setup
ANACONDA.
Installing
Please wait while Anaconda3 2022.05 (64-bit) is being installed.
Setting up the package cache ...
Show details
Anaconda, Inc.
< Back
Next >
Cancel

아나콘다 설치


Anaconda3 2022.05 (64-bit) Setup
Completing Anaconda3 2022.05 (64-bit) Setup
Thank you for installing Anaconda Distribution.
Here are some helpful tips and resources to get you started. We recommend you bookmark these links so you can refer back to them later.
Anaconda Distribution Tutorial
Getting Started with Anaconda
< Back
Finish
Cancel
Anaconda3 2022.05 (64-bit) Setup
ANACONDA.
Anaconda3 2022.05 (64-bit)
Anaconda + JetBrains
Working with Python and Jupyter is a breeze in DataSpell.
exploratory data analysis and ML. Get better data insights
DataSpell for Anaconda is available at:
https://www.anaconda.com/dataspell
ANACONDA.
DS
Anaconda, Inc.
< Back
Next >
Cancel
Anaconda3 2022.05 (64-bit) Setup
ANACONDA.
Installation Complete
Setup was completed successfully.
Completed
Show details
Anaconda, Inc.
< Back
Next >
Cancel

아나콘다 프롬프트 실행


Anaconda3 (64-bit)
새로 설치됨
Anaconda Navigator (ana
새로 설치됨
Anaconda Powershell Pro
새로 설치됨
Anaconda Prompt (anaconda3)
Jupyter Notebook (anaconda3)
새로 설치됨
Reset Spyder Settings (anaconda3)
시작 화면에 고정
자세히
제거
작업 표시줄에 고정
관리자 권한으로 실행
파일 위치 열기
플레이
메모장
계산기

아나콘다 프롬프트 실행


```
관리자: Anaconda Prompt (anaconda3)

(base) C:₩WINDOWS₩system32>python
Python 3.9.12 (main, Apr  4 2022, 05:22:27) [MSC v.1916 64 bit (AMD64)] :: Anaconda, Inc. on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> print("Hello World!!!")
Hello World!!!
>>> exit()

(base) C:₩WINDOWS₩system32>
```

가상 환경 구성 및 텐서플로우/conda 커널 설치

(base) C:₩Users₩user>conda update conda # conda 업데이트.

(base) C:₩Users₩user>conda --version # conda 버전확인.

(base) C:₩Users₩user>python --version # python 버전확인.

(base) C:₩Users₩user>conda list # 설치된 패키지 목록 보기.

(base) C:₩Users₩user>conda env list # 가상 환경 list 확인 명령.

(base) C:₩Users₩user>conda create –n tf_cpu python=3.x openssl
가상환경(tf_cpu) 생성하기.

(base) C:₩Users₩user>conda activate tf_cpu # 가상 환경에 접속하기.

가상 환경 구성 및 텐서플로우/conda 커널 설치

```
(tf_cpu) C:₩Users₩user>conda install numpy

(tf_cpu) C:₩Users₩user>conda install pandas

(tf_cpu) C:₩Users₩user>conda install matplotlib

(tf_cpu) C:₩Users₩user>conda install scikit-learn

(tf_cpu) C:₩Users₩user>conda install tensorflow    # 텐서플로우 설치하기.

(tf_cpu) C:₩Users₩user>conda install nb_conda     # conda 커널 설치.
```

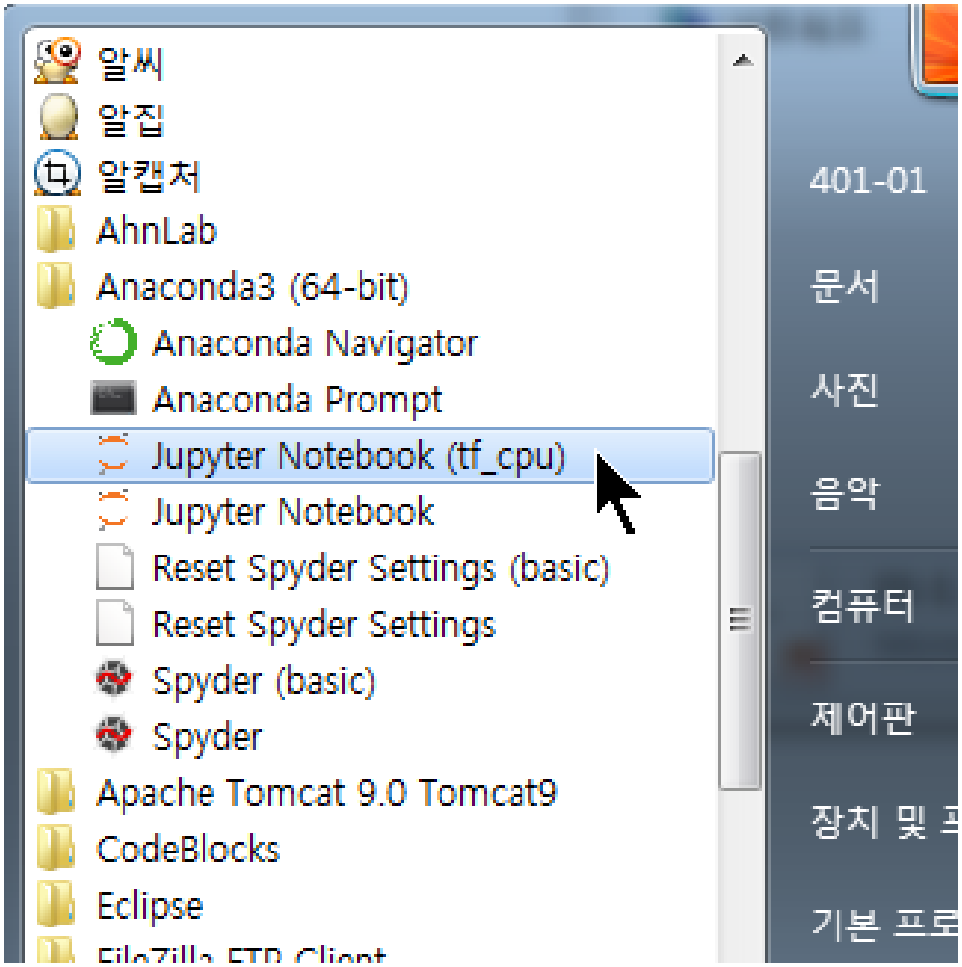
가상 환경 삭제 / 제거

(tf_cpu) C:₩Users₩user>conda remove tensorflow # 패키지 제거.

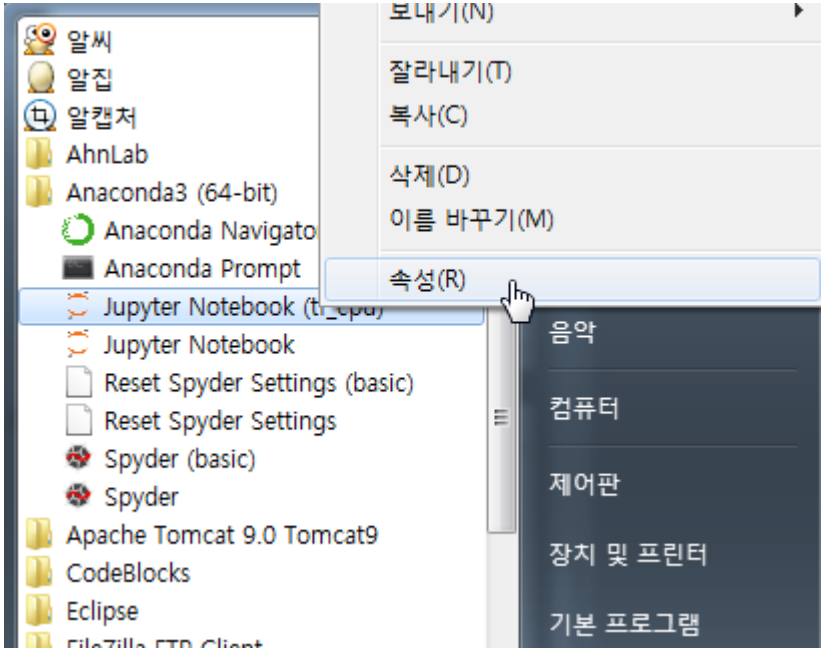
(tf_cpu) C:₩Users₩user>conda deactivate # 가상환경 접속 종료하기.

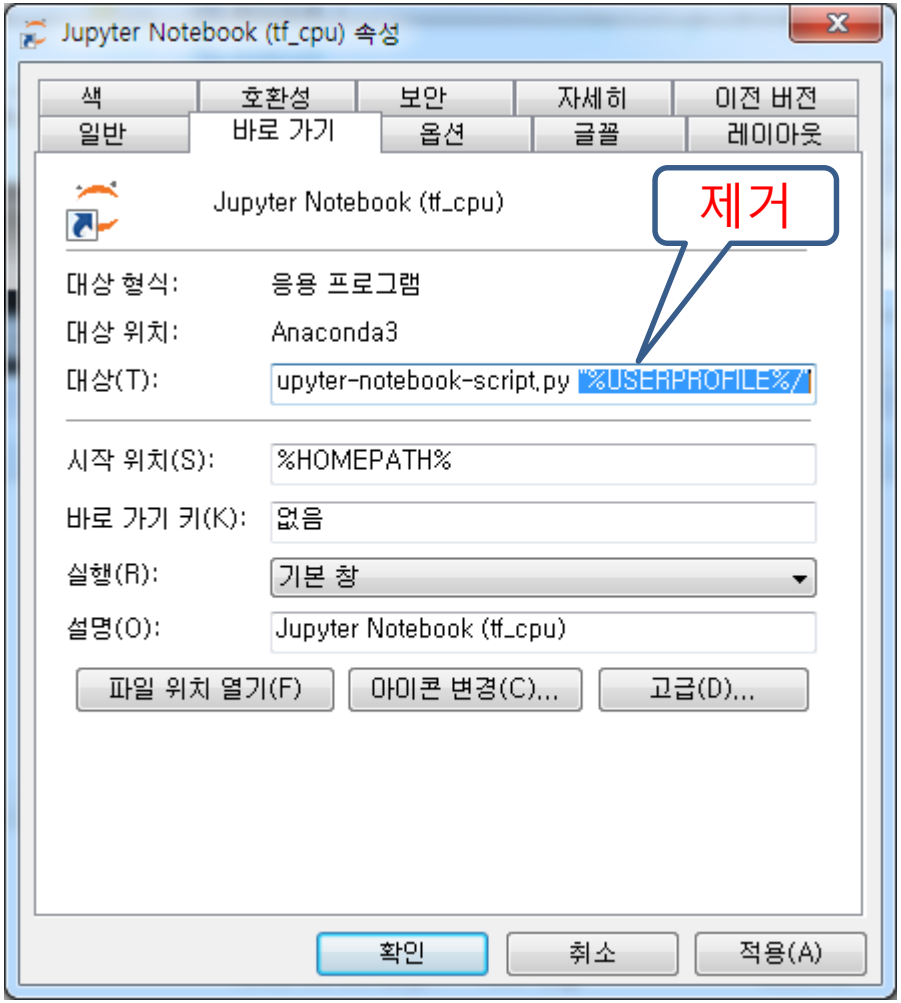
(base) C:₩Users₩user>conda env remove –n tf_cpu # 가상 환경 삭제/제거하기.

주피터 노트북 실행


알씨
알집
알캡처
AhnLab
Anaconda3 (64-bit)
Anaconda Navigator
Anaconda Prompt
Jupyter Notebook (tf_cpu)
Jupyter Notebook
Reset Spyder Settings (basic)
Reset Spyder Settings
Spyder (basic)
Spyder
Apache Tomcat 9.0 Tomcat9
CodeBlocks
Eclipse
401-01
문서
사진
음악
컴퓨터
제어판

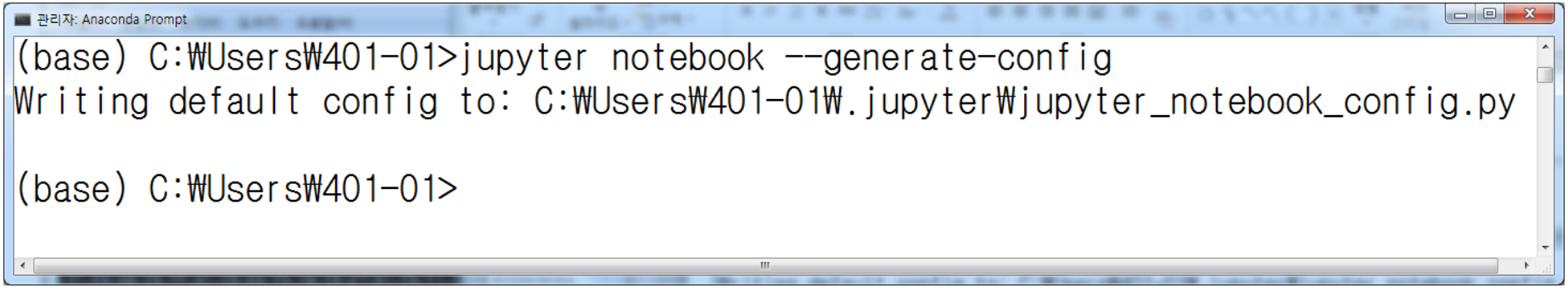
주피터 노트북 시작 디렉토리 변경 (1/3)

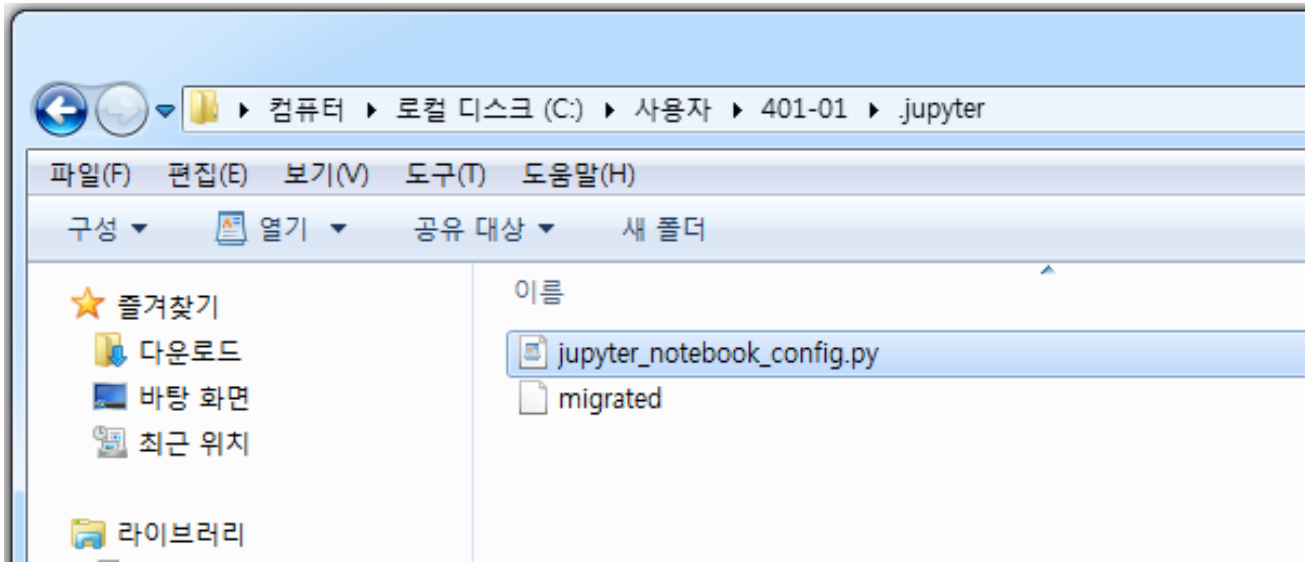




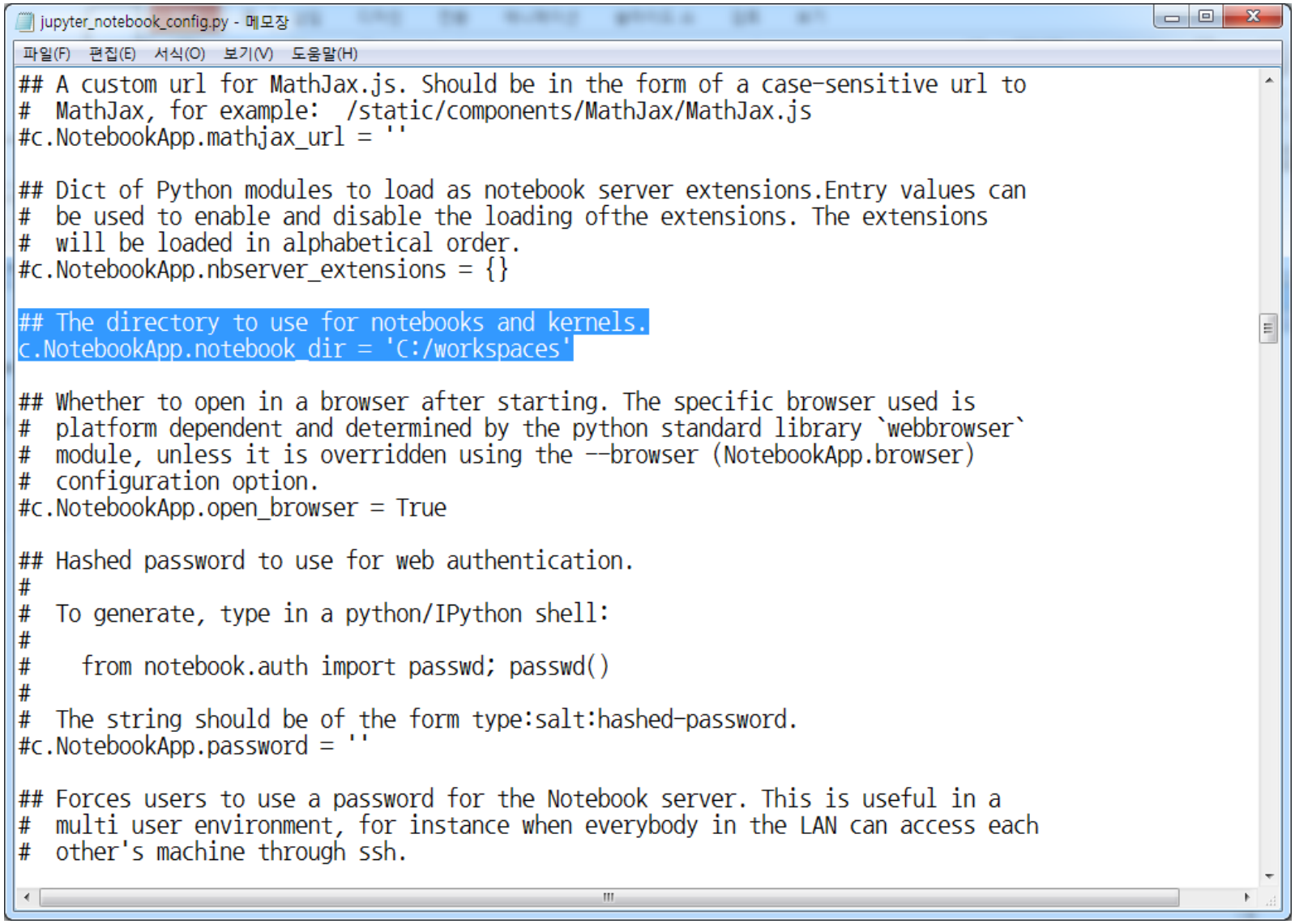
주피터 노트북 시작 디렉토리 변경 (2/3)

➢ 프롬프트 창에서 jupyter 명령어를 이용하여 config 파일을 생성





주피터 노트북 시작 디렉토리 변경 (3/3)



명령어 모음

#아나콘다 업데이트
(base) >conda update -n base conda

#모든 파이썬 패키지 업데이트
(base) >conda update --all

#파이썬 버전 확인
(base) >python --version

패키지 버전 확인
(base) >pip freeze

#가상환경 생성(경로가 아닌 프로젝트명)
(base) >conda create -n 가상환경명

#파이썬 v3.x을 사용할 환경 생성
(base) >conda create -n 가상환경명 python=3.x

#파이썬 v3.x을 사용하며, 아나콘다 모든 패키지를 가진 환경을 생성
(base) >conda create -n 가상환경명 python=3.x anaconda

명령어 모음

#가상환경 활성화 (/아나콘다 폴더/envs에 생성)
(base) >conda activate 가상환경명

#가상환경 비활성화
(base) >conda deactivate

#가상환경 삭제
(base) >conda remove --name 가상환경명 --all

#파이썬 패키지(라이브러리) 설치
(프로젝트명) >conda install tensorflow tensorflow-gpu matplotlib pillow

#아나콘다에 없으면 pip로 설치해 준다.
(프로젝트명) >pip install 패키지명.

명령어 모음

#패키지 업그레이드
>conda --upgrade 가상환경명

#파이썬 패키지 삭제
>conda remove 패키지명

#Jupyter notebook 설치
>conda install jupyter

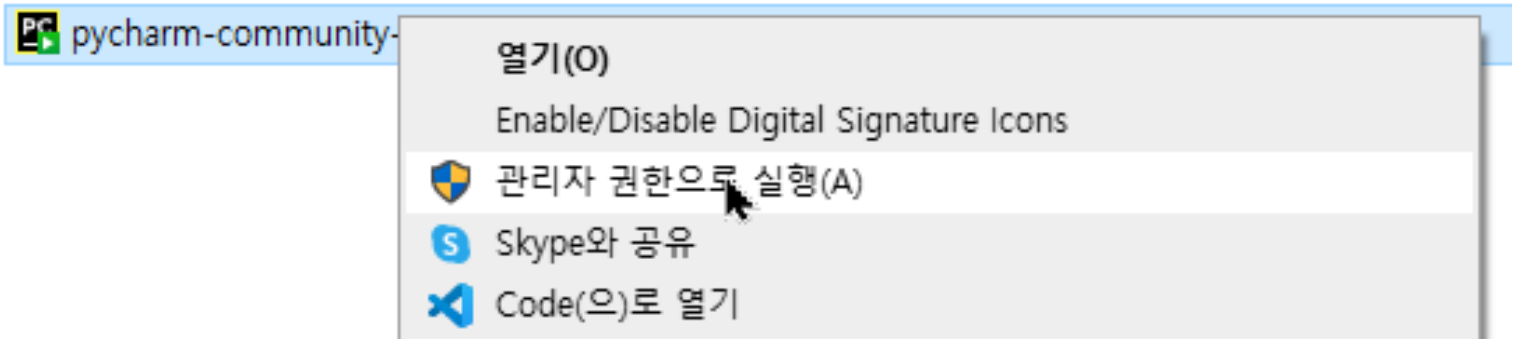
#주피터 실행
#실행 전 프로젝트를 사용할 폴더로 이동
>jupyter notebook
#웹브라우저가 열리며 notebook 사용 가능

#주피터 종료
#웹브라우저의 우측 상단 Quit 버튼 클릭
#웹브라우저의 주피터 메뉴 File > Close and Half로 종료
#또는 아나콘다 프롬프트 창에서 Ctrl+C키를 눌러 종료

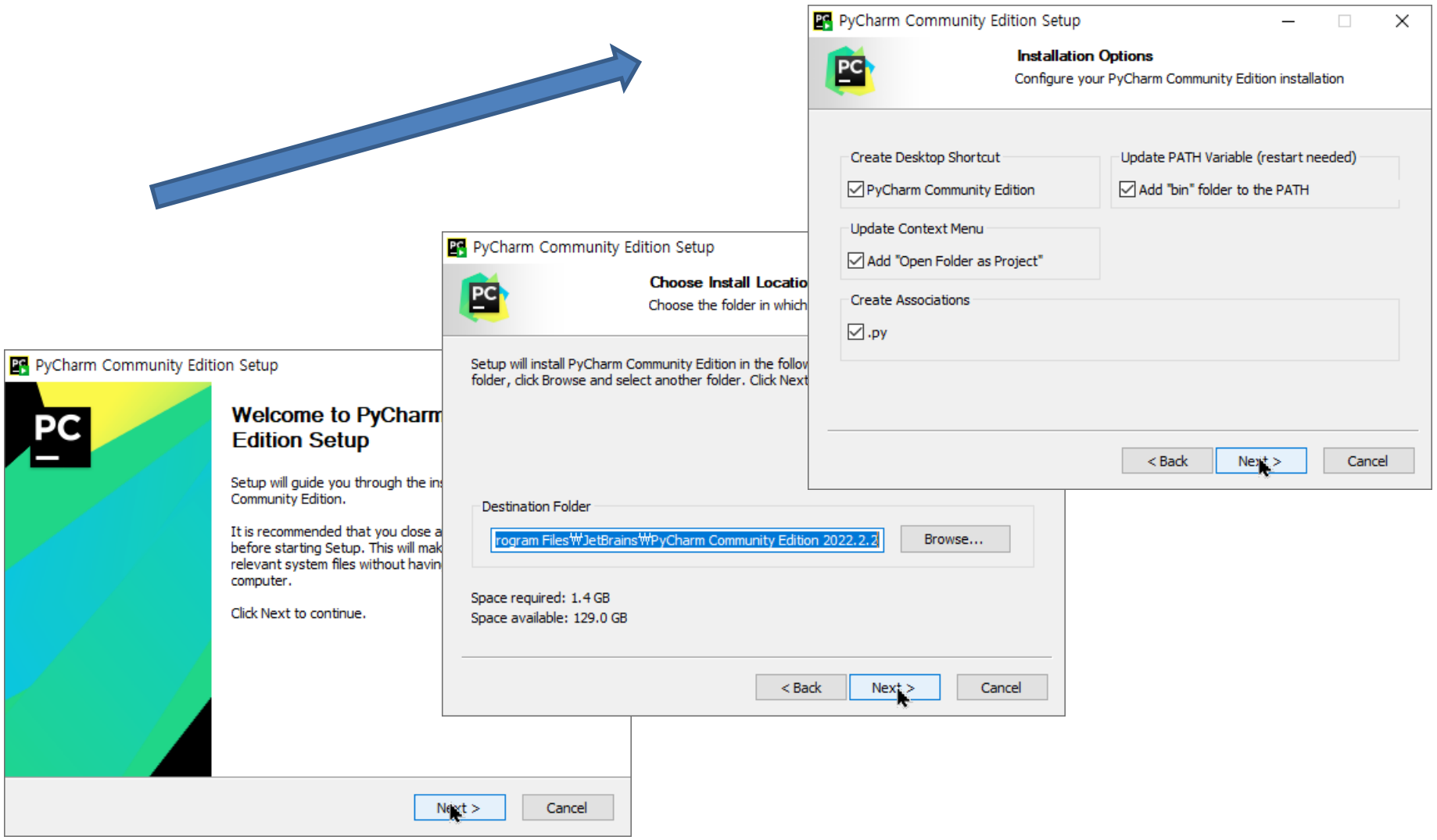
Pycharm 설치

Pycharm 설치

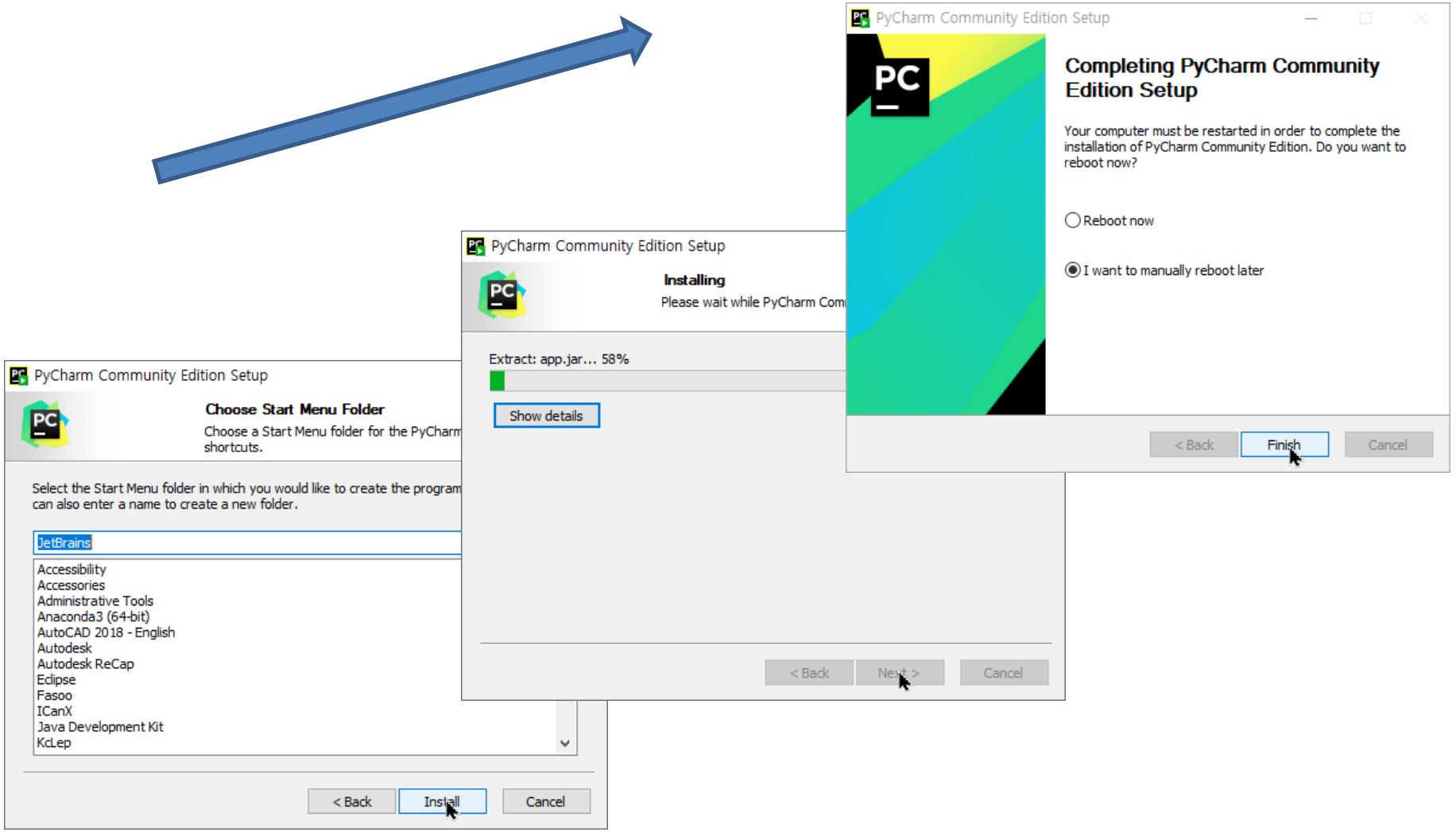
- https://www.jetbrains.com/pycharm/



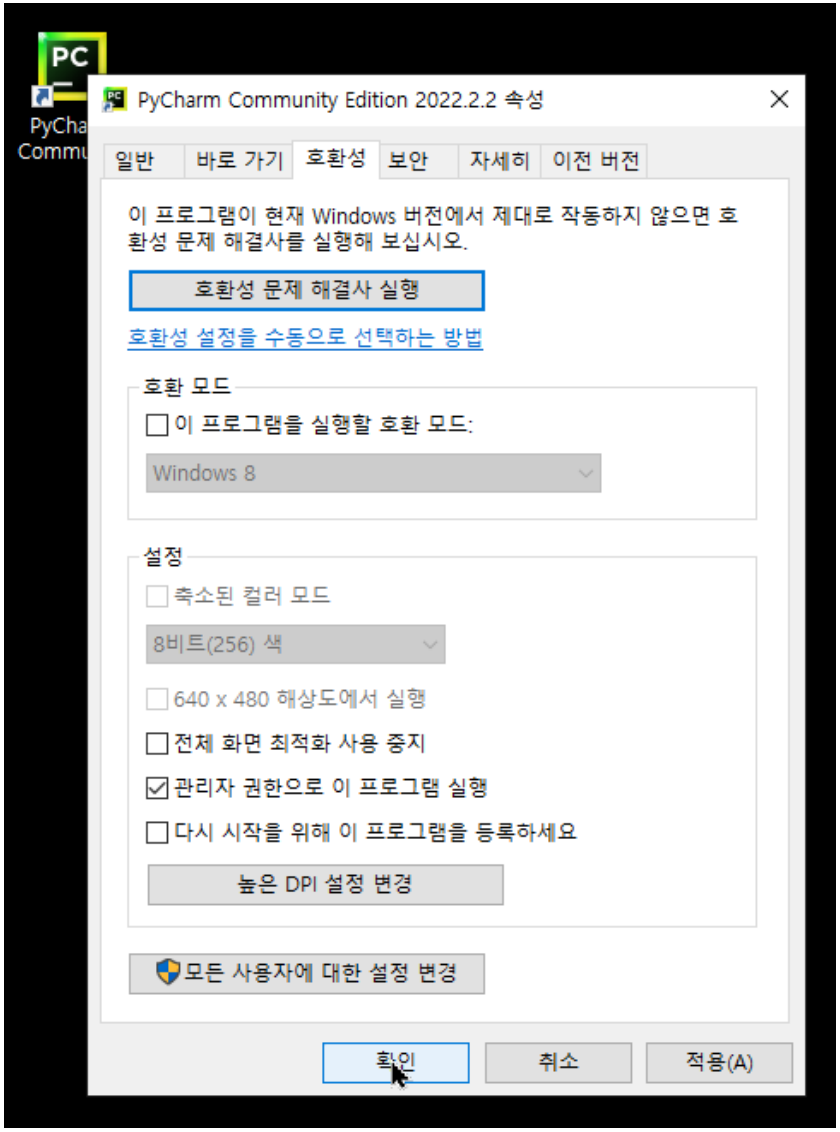
Pycharm 설치


PyCharm Community Edition Setup
Welcome to PyCharm Edition Setup
Setup will guide you through the ins
Community Edition.
It is recommended that you close a
before starting Setup. This will mak
relevant system files without havin
computer.
Click Next to continue.
Next >
Cancel
PyCharm Community Edition Setup
Choose Install Locatio
Choose the folder in which
Setup will install PyCharm Community Edition in the follo
folder, click Browse and select another folder. Click Next
Destination Folder
rogram Files₩JetBrains₩PyCharm Community Edition 2022.2.2
Browse...
Space required: 1.4 GB
Space available: 129.0 GB
< Back
Next >
Cancel
PyCharm Community Edition Setup
Installation Options
Configure your PyCharm Community Edition installation
Create Desktop Shortcut
PyCharm Community Edition
Update PATH Variable (restart needed)
Add "bin" folder to the PATH
Update Context Menu
Add "Open Folder as Project"
Create Associations
.py
< Back
Next >
Cancel

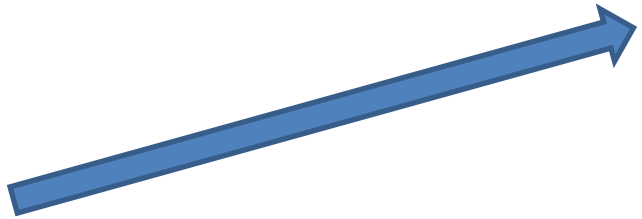
Pycharm 설치

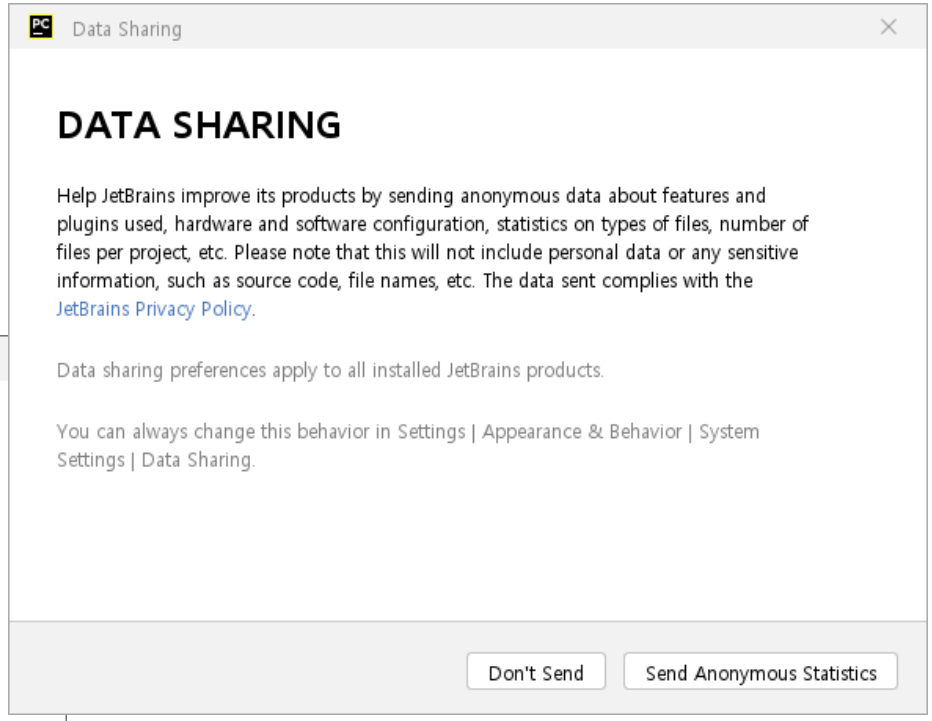

PyCharm Community Edition Setup
Choose Start Menu Folder
Choose a Start Menu folder for the PyCharm shortcuts.
Select the Start Menu folder in which you would like to create the program shortcuts. You can also enter a name to create a new folder.
JetBrains
Accessibility
Accessories
Administrative Tools
Anaconda3 (64-bit)
AutoCAD 2018 - English
Autodesk
Autodesk ReCap
Eclipse
Fasoo
ICanX
Java Development Kit
KcLep
< Back
Install
Cancel
PyCharm Community Edition Setup
Installing
Please wait while PyCharm Com
Extract: app.jar... 58%
Show details
< Back
Next >
Cancel
PyCharm Community Edition Setup
Completing PyCharm Community Edition Setup
Your computer must be restarted in order to complete the installation of PyCharm Community Edition. Do you want to reboot now?
Reboot now
I want to manually reboot later
< Back
Finish
Cancel

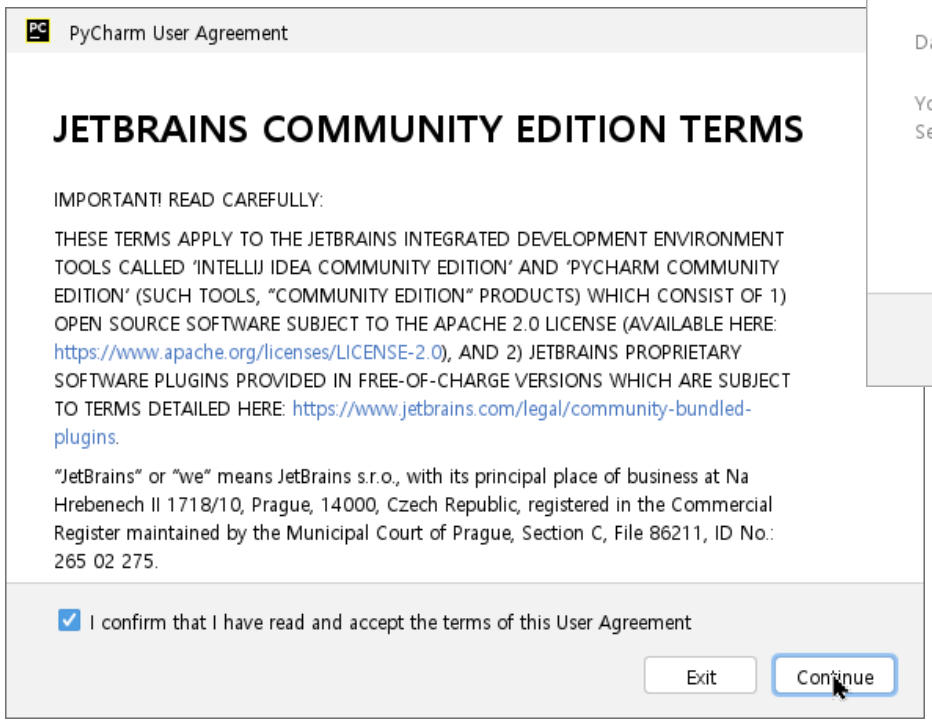
Pycharm 설치


PyCharm Community Edition 2022.2.2 속성
일반
바로 가기
호환성
보안
자세히
이전 버전
이 프로그램이 현재 Windows 버전에서 제대로 작동하지 않으면 호환성 문제 해결사를 실행해 보십시오.
호환성 문제 해결사 실행
호환성 설정을 수동으로 선택하는 방법
호환 모드
이 프로그램을 실행할 호환 모드:
Windows 8
설정
축소된 컬러 모드
8비트(256) 색
640 x 480 해상도에서 실행
전체 화면 최적화 사용 중지
관리자 권한으로 이 프로그램 실행
다시 시작을 위해 이 프로그램을 등록하세요
높은 DPI 설정 변경
모든 사용자에 대한 설정 변경
확인
취소
적용(A)

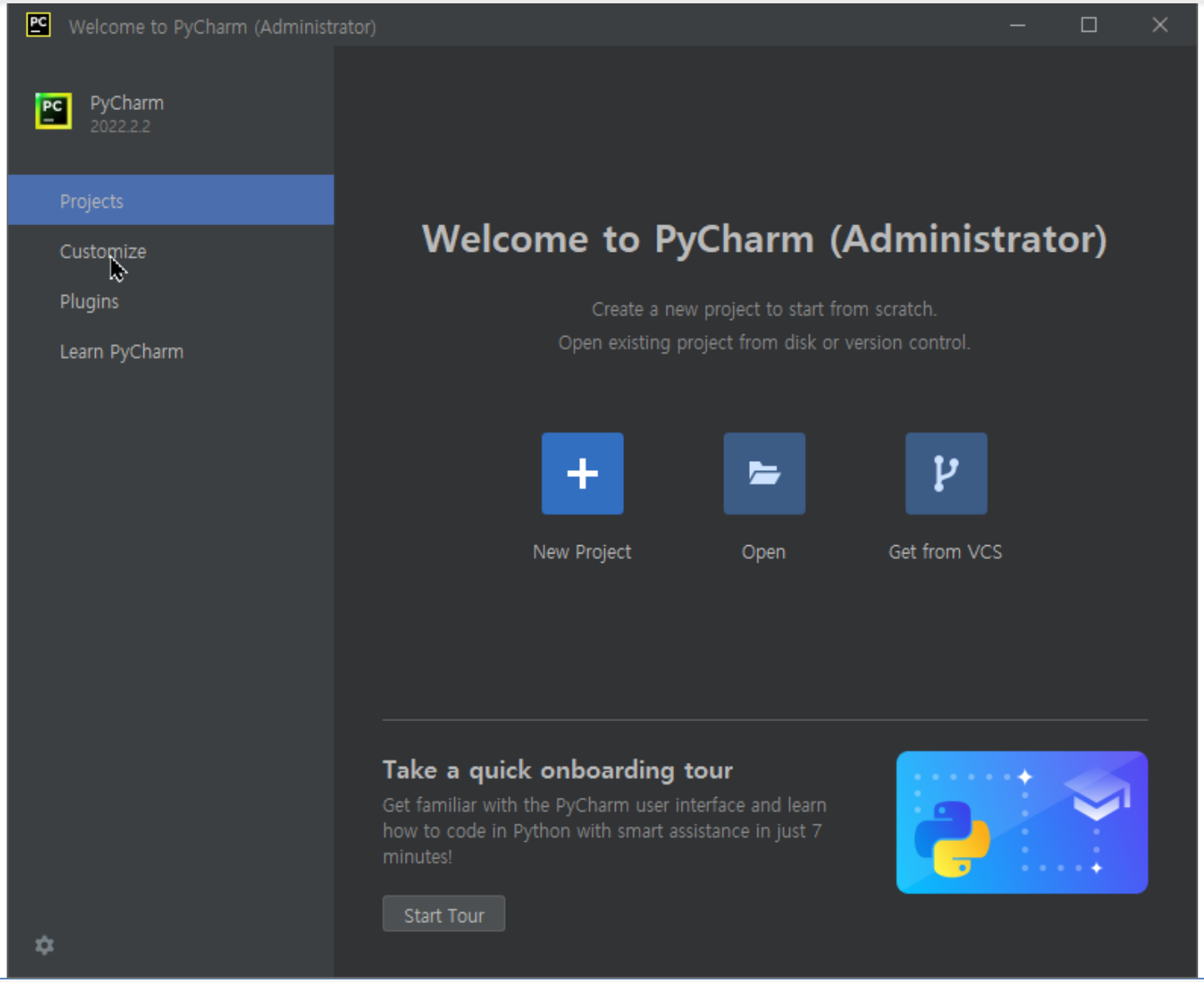
Pycharm 설치



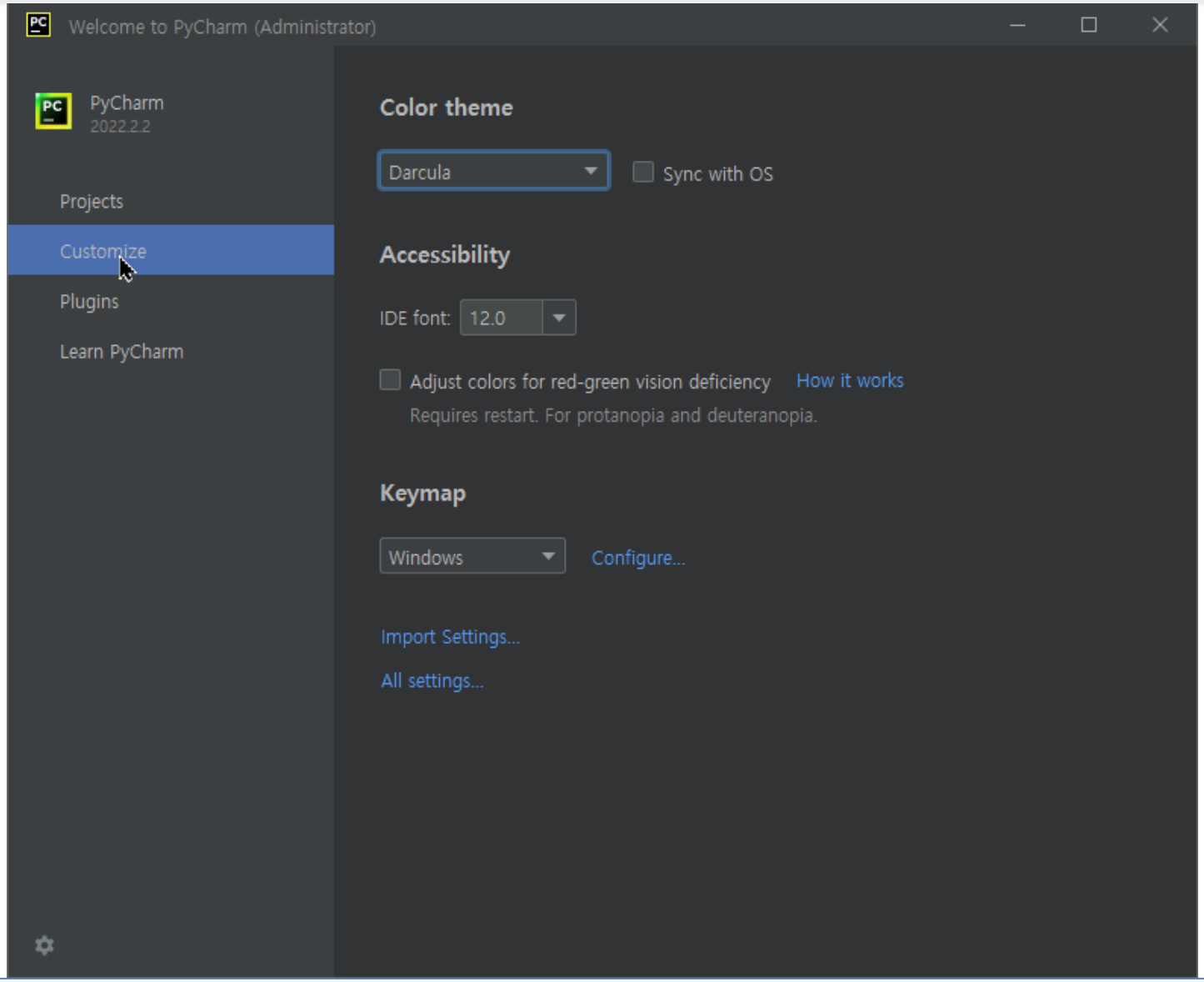

Data Sharing
DATA SHARING
Help JetBrains improve its products by sending anonymous data about features and plugins used, hardware and software configuration, statistics on types of files, number of files per project, etc. Please note that this will not include personal data or any sensitive information, such as source code, file names, etc. The data sent complies with the JetBrains Privacy Policy.
Data sharing preferences apply to all installed JetBrains products.
You can always change this behavior in Settings | Appearance & Behavior | System Settings | Data Sharing.
Don't Send
Send Anonymous Statistics


PyCharm User Agreement
JETBRAINS COMMUNITY EDITION TERMS
IMPORTANT! READ CAREFULLY:
THESE TERMS APPLY TO THE JETBRAINS INTEGRATED DEVELOPMENT ENVIRONMENT TOOLS CALLED 'INTELLIJ IDEA COMMUNITY EDITION' AND 'PYCHARM COMMUNITY EDITION' (SUCH TOOLS, "COMMUNITY EDITION" PRODUCTS) WHICH CONSIST OF 1) OPEN SOURCE SOFTWARE SUBJECT TO THE APACHE 2.0 LICENSE (AVAILABLE HERE: https://www.apache.org/licenses/LICENSE-2.0), AND 2) JETBRAINS PROPRIETARY SOFTWARE PLUGINS PROVIDED IN FREE-OF-CHARGE VERSIONS WHICH ARE SUBJECT TO TERMS DETAILED HERE: https://www.jetbrains.com/legal/community-bundled-plugins.
"JetBrains" or "we" means JetBrains s.r.o., with its principal place of business at Na Hrebenech II 1718/10, Prague, 14000, Czech Republic, registered in the Commercial Register maintained by the Municipal Court of Prague, Section C, File 86211, ID No.: 265 02 275.
I confirm that I have read and accept the terms of this User Agreement
Exit
Continue

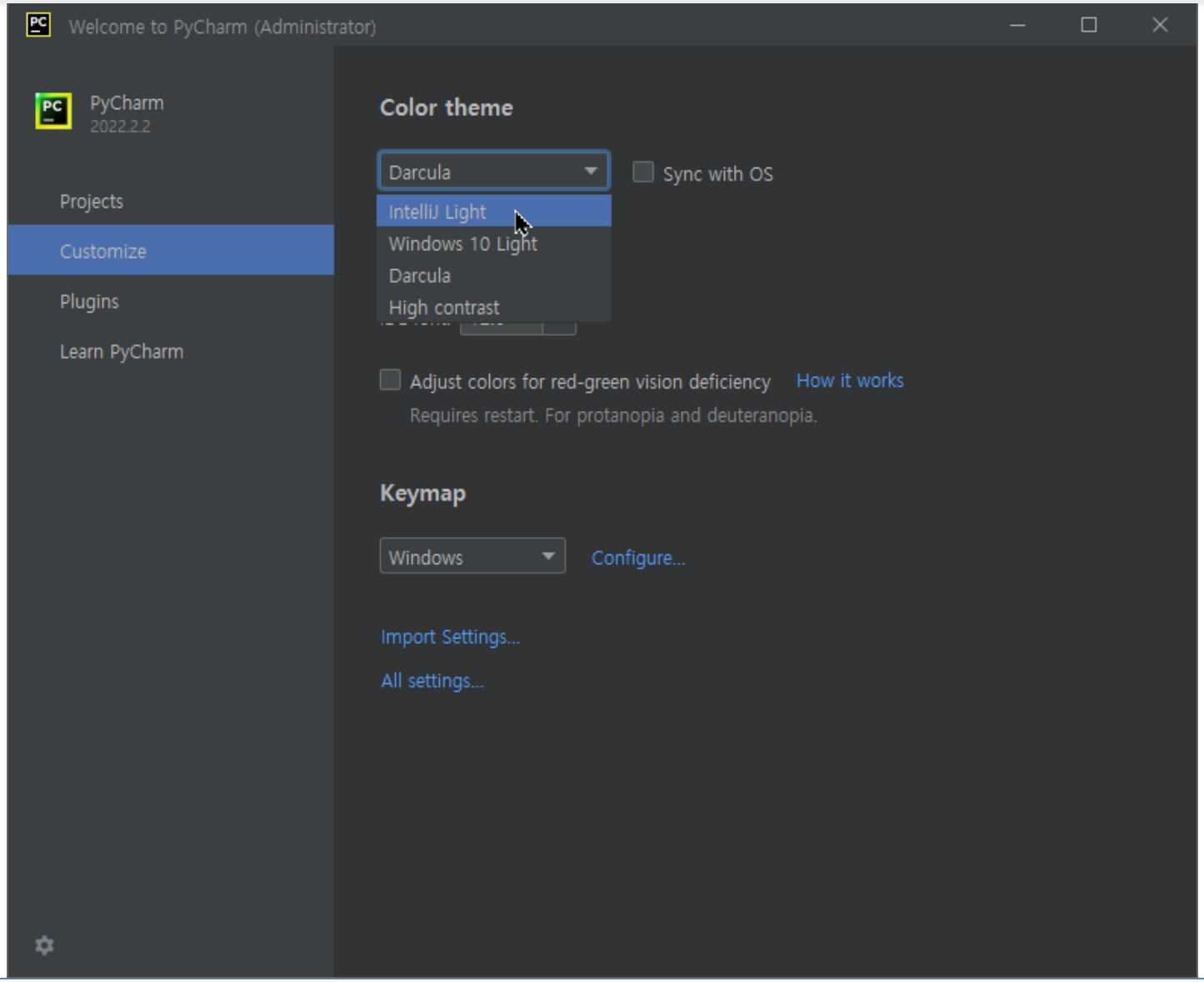
Pycharm 설치


Welcome to PyCharm (Administrator)
PyCharm
2022.2.2
Projects
Customize
Plugins
Learn PyCharm
Welcome to PyCharm (Administrator)
Create a new project to start from scratch.
Open existing project from disk or version control.
New Project
Open
Get from VCS
Take a quick onboarding tour
Get familiar with the PyCharm user interface and learn how to code in Python with smart assistance in just 7 minutes!
Start Tour

Pycharm 설치


Welcome to PyCharm (Administrator)
PyCharm
2022.2.2
Projects
Customize
Plugins
Learn PyCharm
Color theme
Darcula
Sync with OS
Accessibility
IDE font:
12.0
Adjust colors for red-green vision deficiency
How it works
Requires restart. For protanopia and deuteranopia.
Keymap
Windows
Configure...
Import Settings...
All settings...

Pycharm 설치


Welcome to PyCharm (Administrator)
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Sync with OS
IntelliJ Light
Windows 10 Light
Darcula
High contrast
Adjust colors for red-green vision deficiency
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Windows
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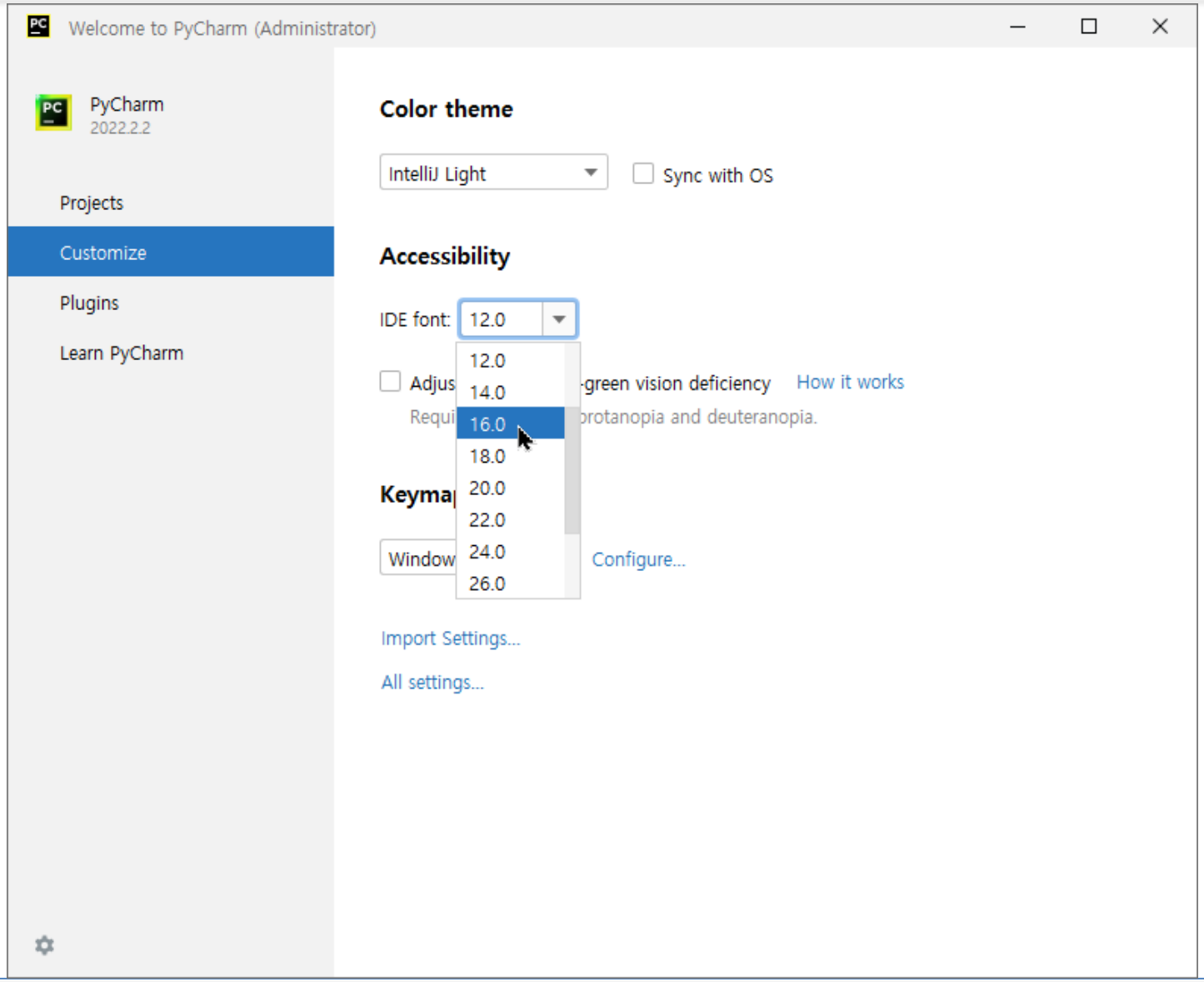
All settings...

Pycharm 설치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2022.2.2
Projects
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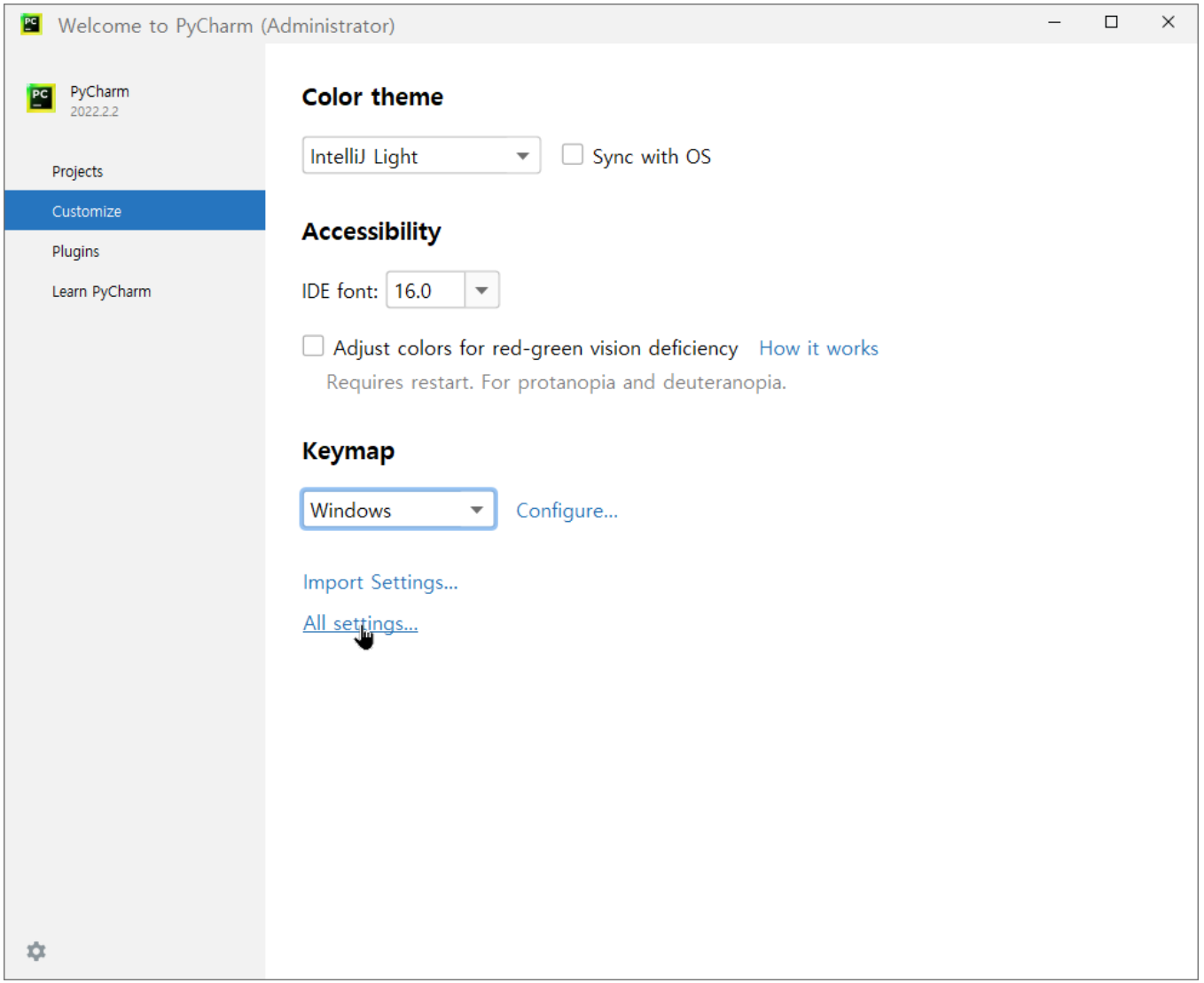
Learn PyCharm
Color theme
IntelliJ Light
Sync with OS
Accessibility
IDE font:
12.0
12.0
14.0
16.0
18.0
20.0
22.0
24.0
26.0
How it works
Configure...
Import Settings...
All settings...

Pycharm 설치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Accessibility
IDE font: 16.0
Adjust colors for red-green vision deficiency
How it works
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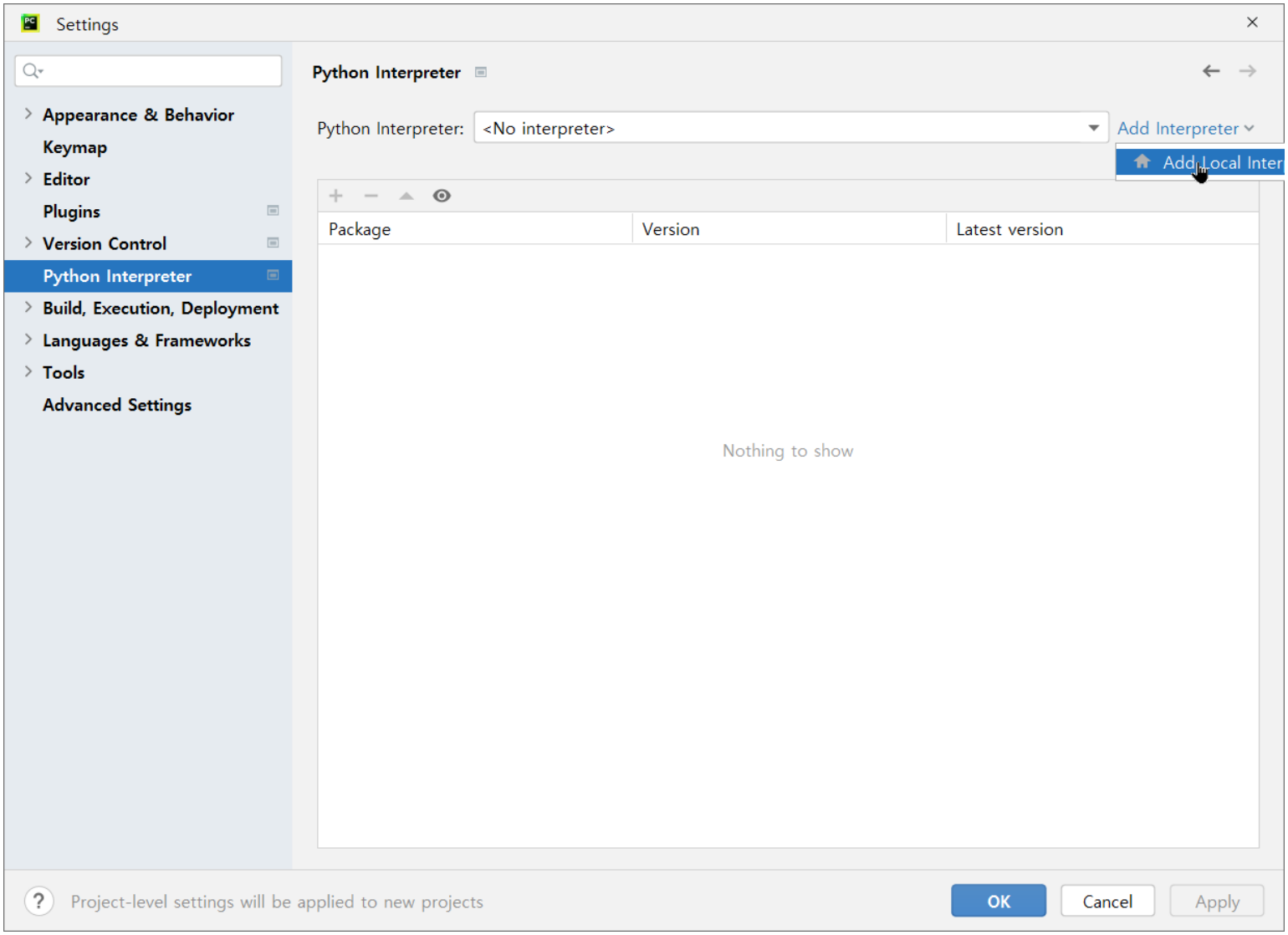
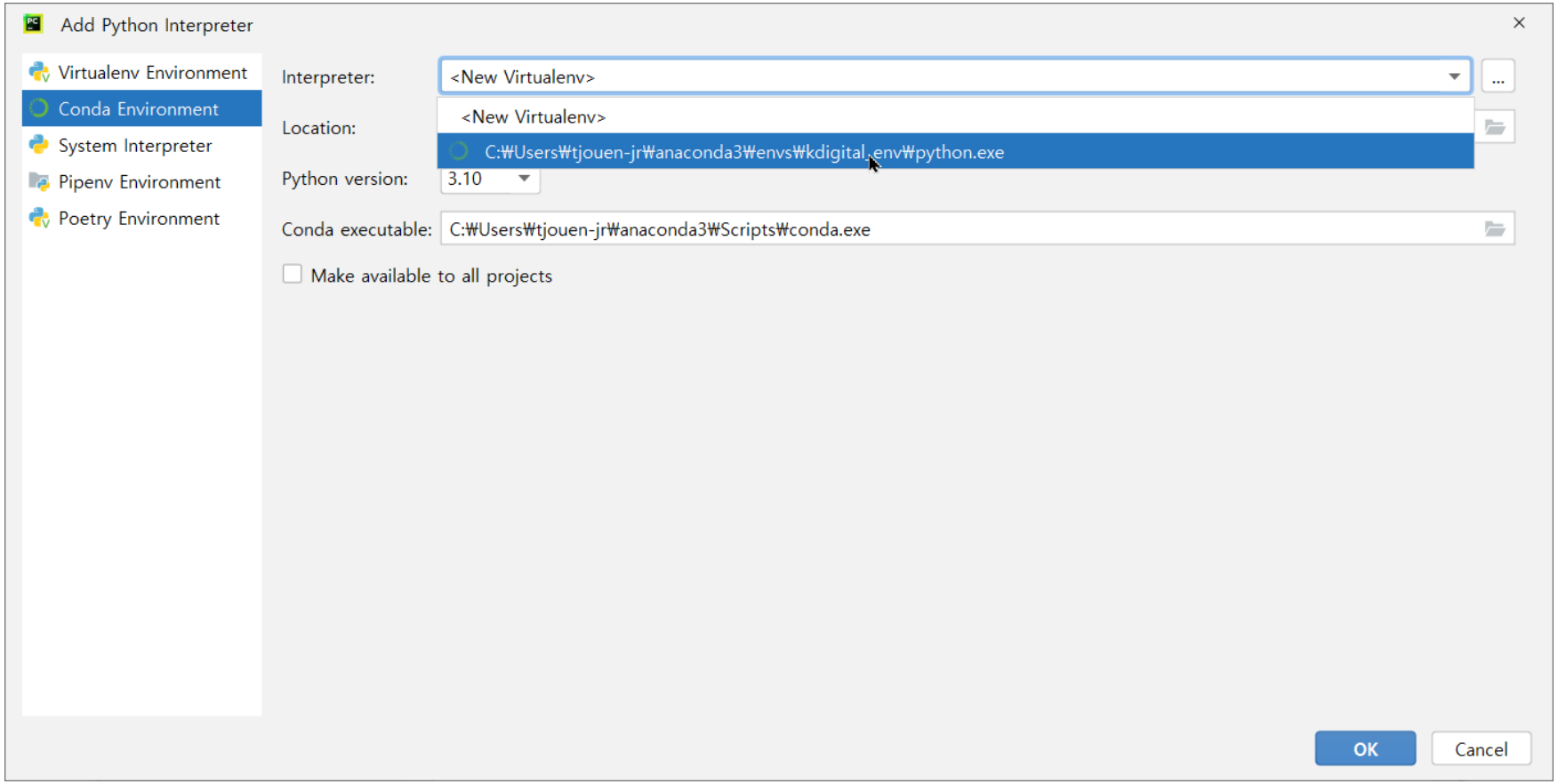
Keymap
Windows
Configure...
Import Settings...
All settings...

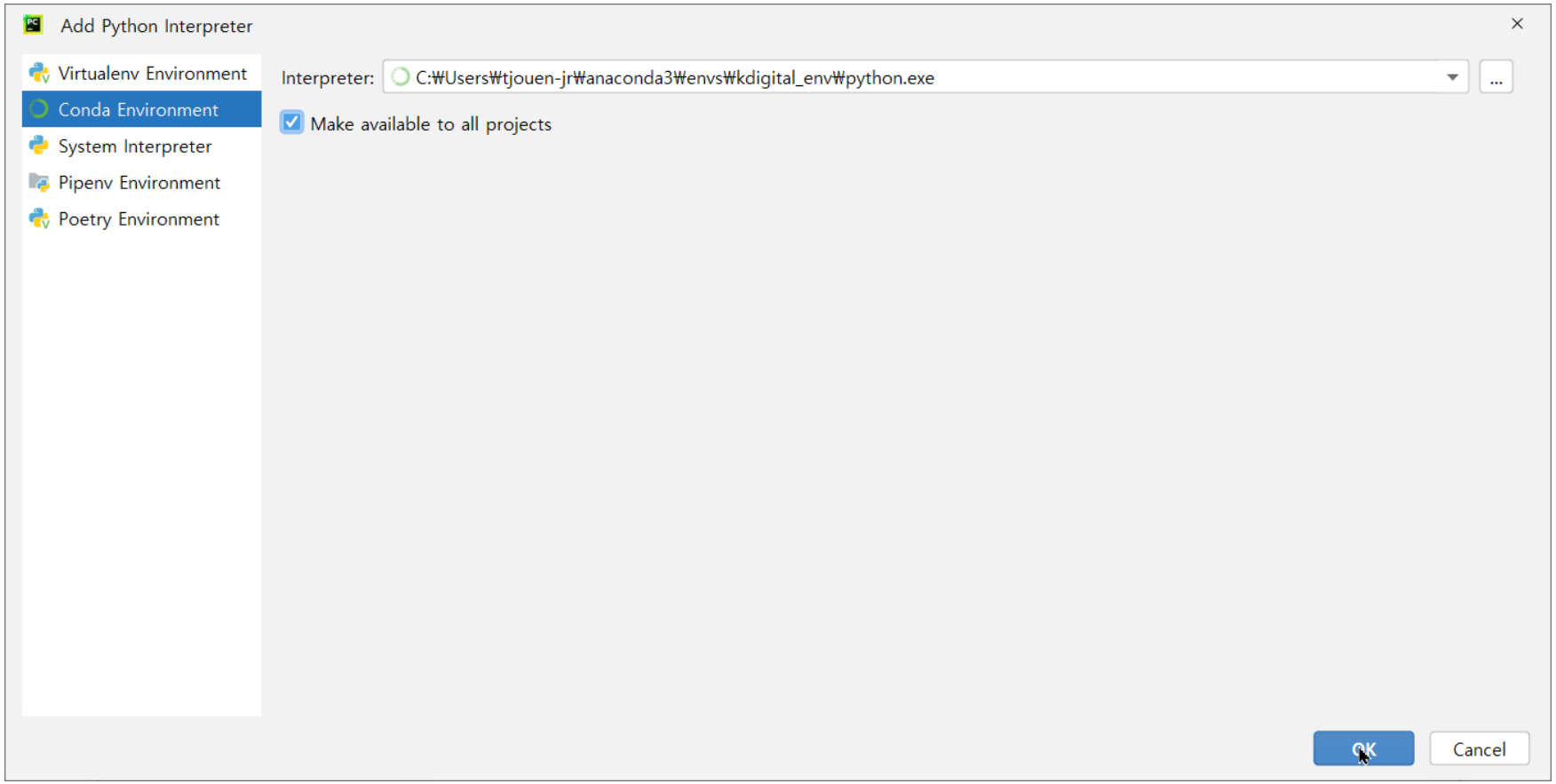
Pycharm 설치


Settings
Appearance & Behavior
Keymap
Editor
Plugins
Version Control
Python Interpreter
Build, Execution, Deployment
Languages & Frameworks
Tools
Advanced Settings
Python Interpreter
Python Interpreter: <No interpreter>
Add Interpreter
Add Local Inter
Package
Version
Latest version
Nothing to show
Project-level settings will be applied to new projects
OK
Cancel
Apply

Pycharm 설치


Add Python Interpreter
Virtualenv Environment
Conda Environment
System Interpreter
Pipenv Environment
Poetry Environment
Interpreter:
<New Virtualenv>
Location:
<New Virtualenv>
C:₩Users₩tjouen-jr₩anaconda3₩envs₩kdigital_env₩python.exe
Python version:
3.10
Conda executable:
C:₩Users₩tjouen-jr₩anaconda3₩Scripts₩conda.exe
Make available to all projects
OK
Cancel

Pycharm 설치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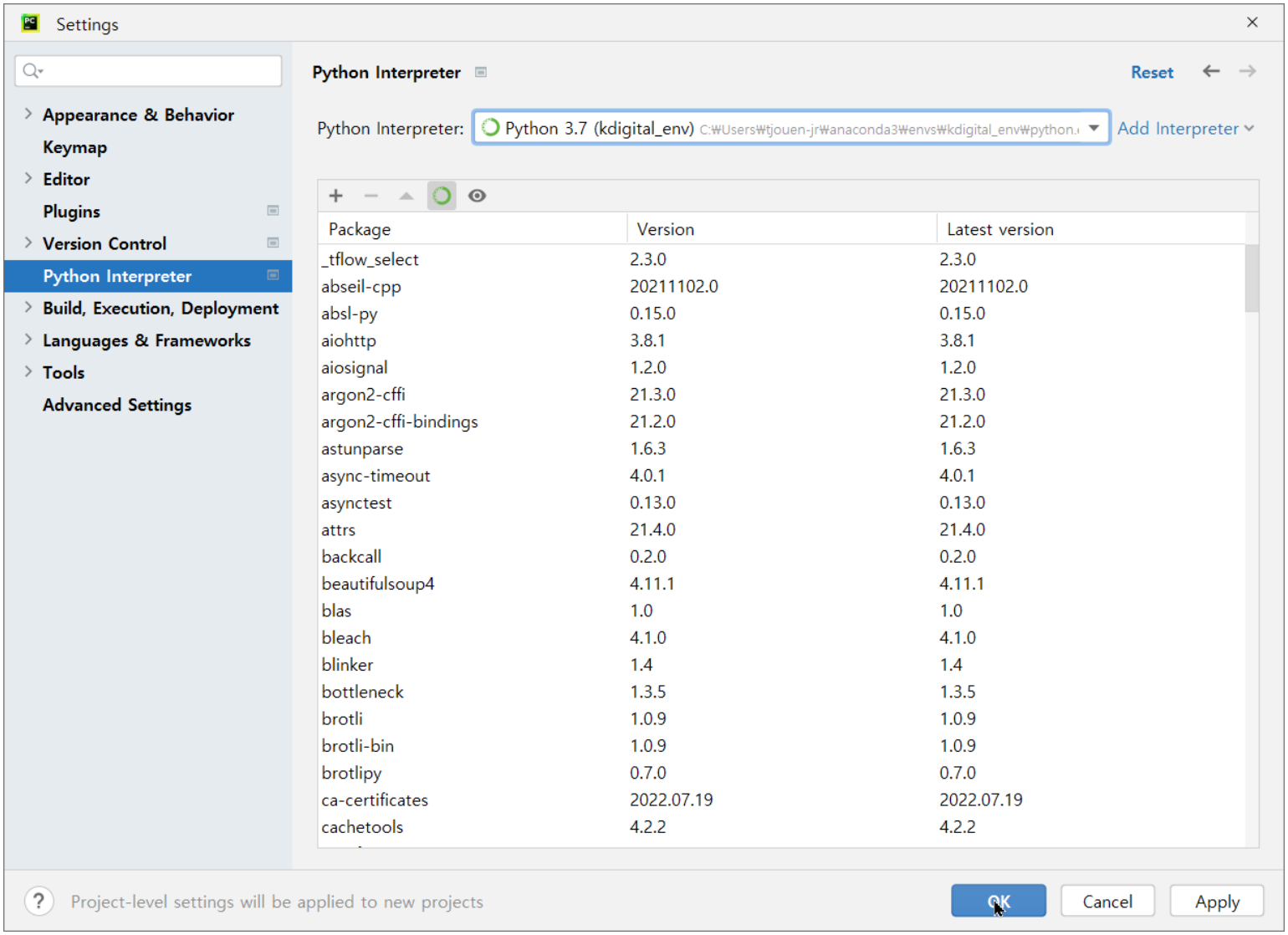
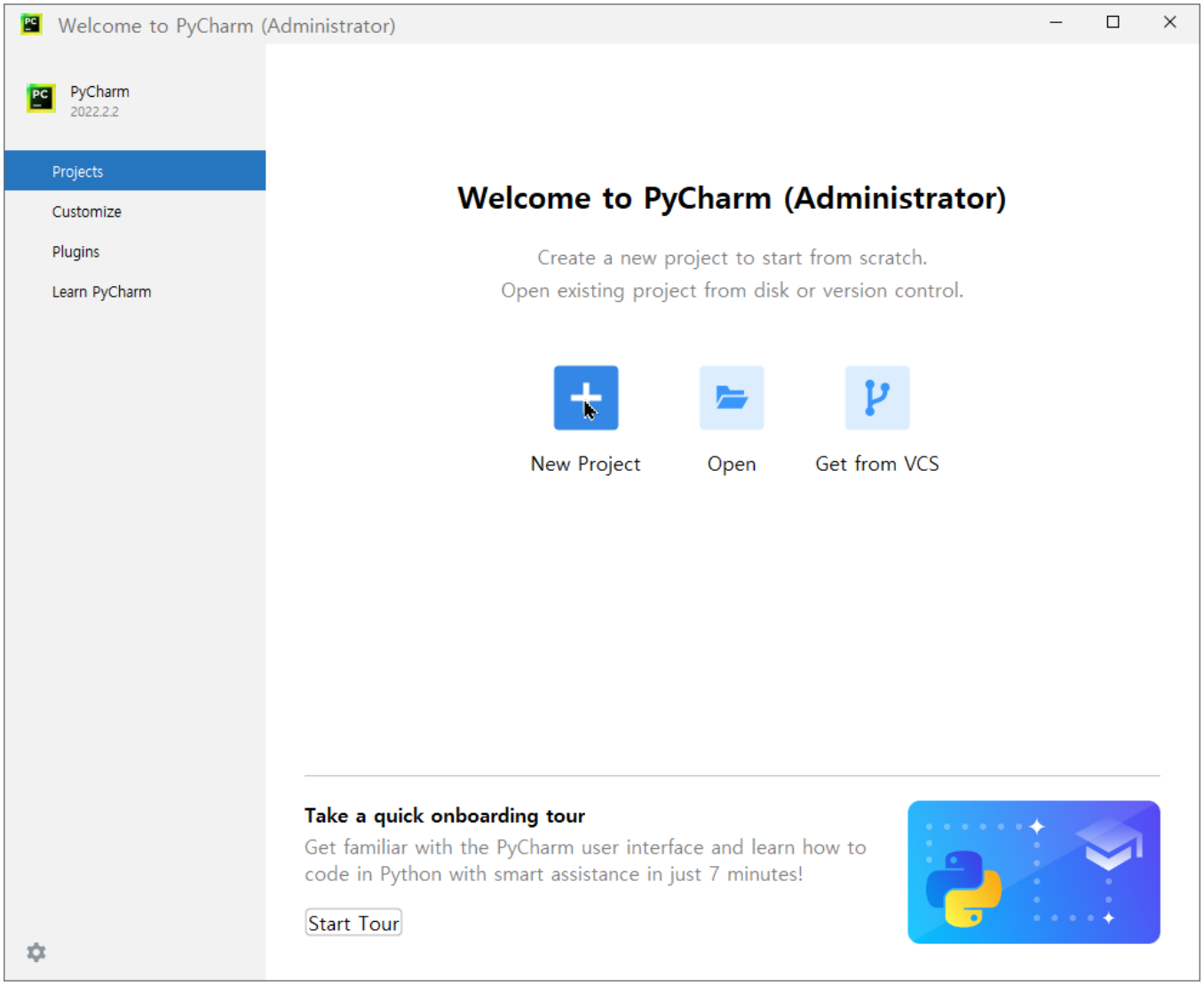
Poetry Environment
Interpreter:
C:₩Users₩tjouen-jr₩anaconda3₩envs₩kdigital_env₩python.exe
...
Make available to all projects
OK
Cancel

Pycharm 설치


Settings
Appearance & Behavior
Keymap
Editor
Plugins
Version Control
Python Interpreter
Build, Execution, Deployment
Languages & Frameworks
Tools
Advanced Settings
Python Interpreter
Reset
Python Interpreter: Python 3.7 (kdigital_env) C:₩Users₩tjouen-jr₩anaconda3₩envs₩kdigital_env₩python.
Add Interpreter
Package
Version
Latest version
_tflow_select 2.3.0 2.3.0
abseil-cpp 20211102.0 20211102.0
absl-py 0.15.0 0.15.0
aiohttp 3.8.1 3.8.1
aiosignal 1.2.0 1.2.0
argon2-cffi 21.3.0 21.3.0
argon2-cffi-bindings 21.2.0 21.2.0
astunparse 1.6.3 1.6.3
async-timeout 4.0.1 4.0.1
asynctest 0.13.0 0.13.0
attrs 21.4.0 21.4.0
backcall 0.2.0 0.2.0
beautifulsoup4 4.11.1 4.11.1
blas 1.0 1.0
bleach 4.1.0 4.1.0
blinker 1.4 1.4
bottleneck 1.3.5 1.3.5
brotli 1.0.9 1.0.9
brotli-bin 1.0.9 1.0.9
brotlipy 0.7.0 0.7.0
ca-certificates 2022.07.19 2022.07.19
cachetools 4.2.2 4.2.2
Project-level settings will be applied to new projects
OK
Cancel
Apply

Pycharm 설치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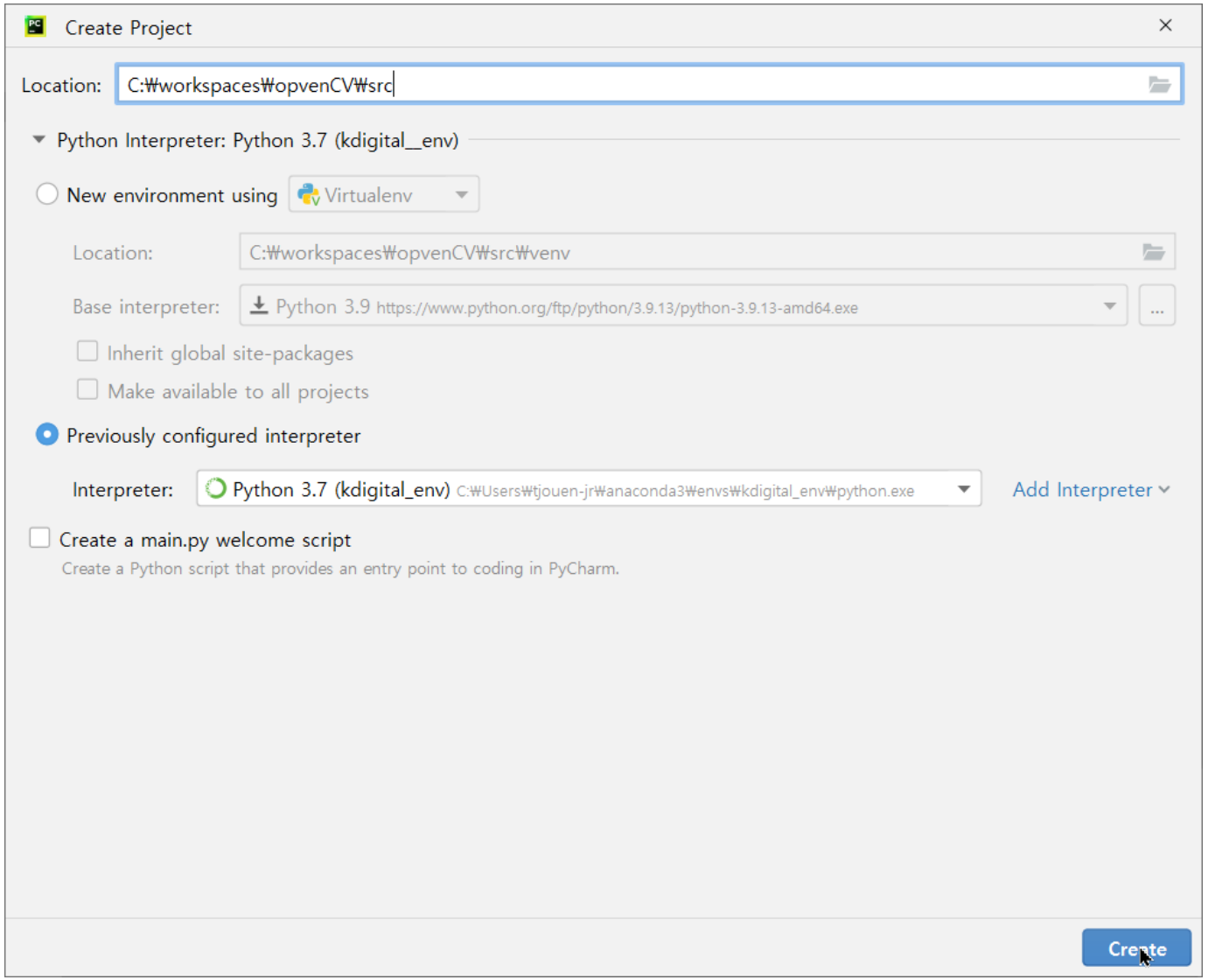
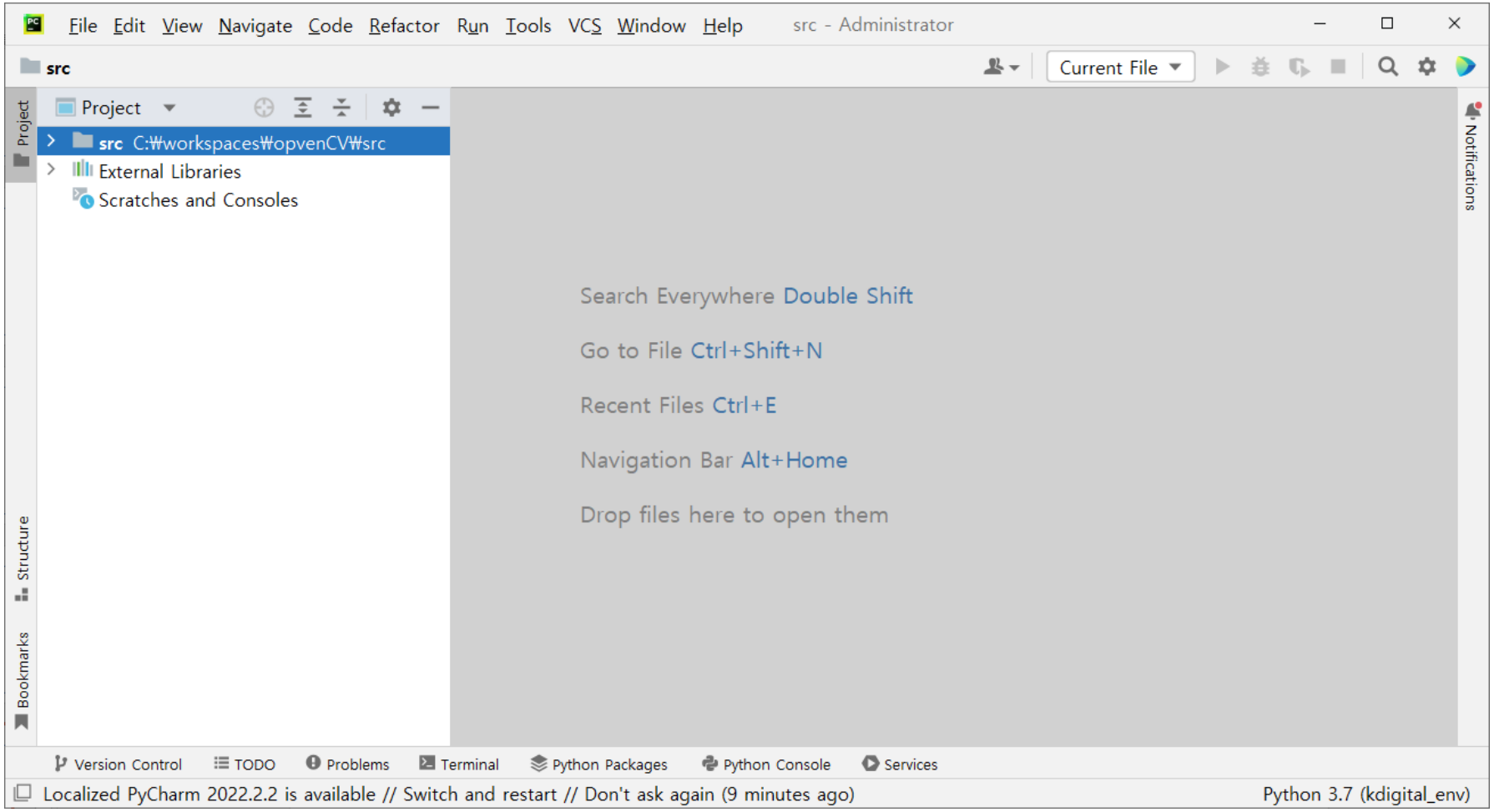

Create Project
Location: C:₩workspaces₩opvenCV₩src
Python Interpreter: Python 3.7 (kdigital_env)
New environment using Virtualenv
Location: C:₩workspaces₩opvenCV₩src₩venv
Base interpreter: Python 3.9 https://www.python.org/ftp/python/3.9.13/python-3.9.13-amd64.exe
Inherit global site-packages
Make available to all projects
Previously configured interpreter
Interpreter: Python 3.7 (kdigital_env) C:₩Users₩tjouen-jr₩anaconda3₩envs₩kdigital_env₩python.exe
Add Interpreter
Create a main.py welcome script
Create a Python script that provides an entry point to coding in PyCharm.
Create

Pycharm 설치


File Edit View Navigate Code Refactor Run Tools VCS Window Help
src - Administrator
src
Current File
Project
src C:₩workspaces₩opvenCV₩src
External Libraries
Scratches and Consoles
Search Everywhere Double Shift
Go to File Ctrl+Shift+N
Recent Files Ctrl+E
Navigation Bar Alt+Home
Drop files here to open them
Notifications
Structure
Bookmarks
Version Control
TODO
Problems
Terminal
Python Packages
Python Console
Services
Localized PyCharm 2022.2.2 is available // Switch and restart // Don't ask again (9 minutes ago)
Python 3.7 (kdigital_env)