

인공지능프로그래밍

게임콘텐츠학과 박경수

<https://github.com/ggorr/Machine-Learning/tree/master/Python>

목표

- ▶ 파이썬을 활용하여 인공지능 프로그래밍을 학습한다.

실행 환경

- ▶ Python 3.7.7
- ▶ PyCharm IDE
- ▶ Tensorflow – Keras

Python 설치

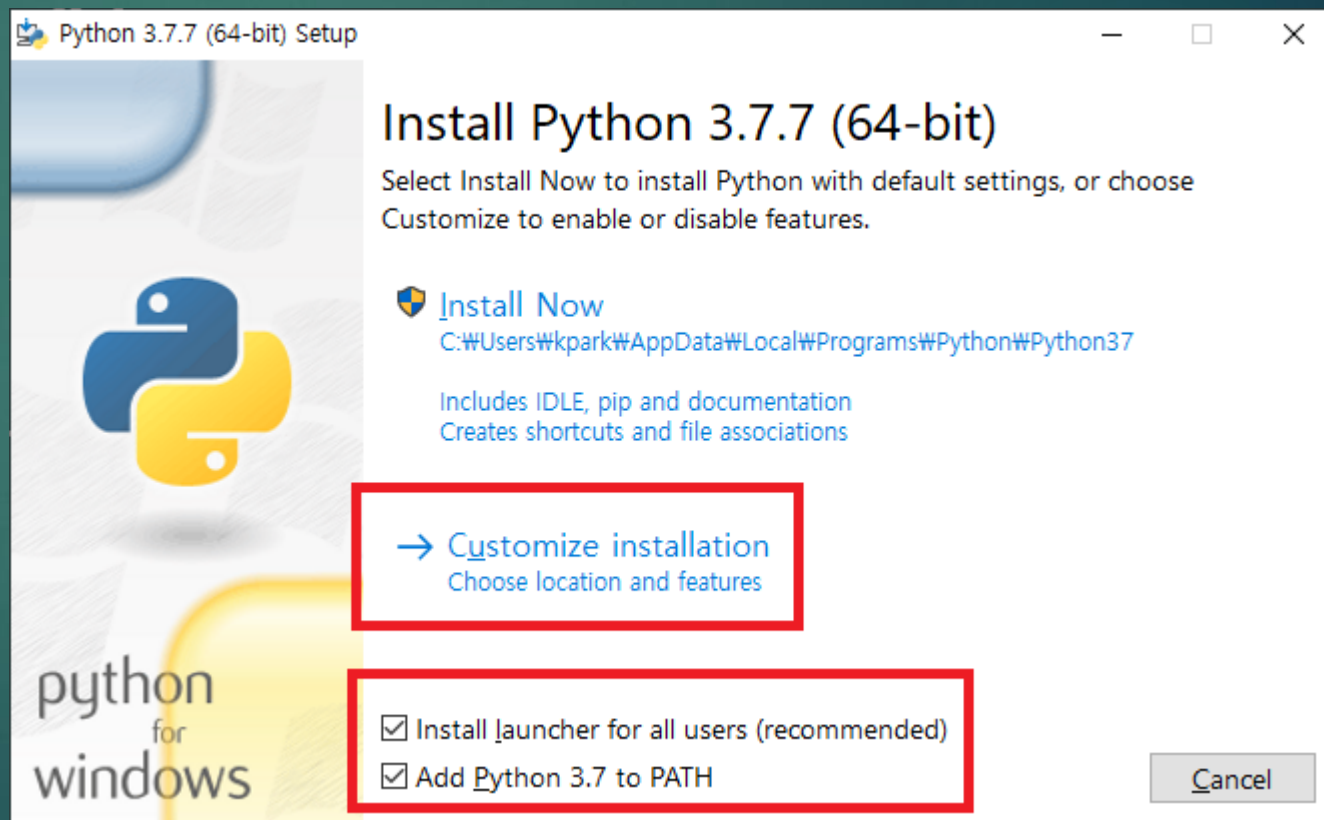
- ▶ <https://www.python.org/downloads/>
 - ▶ Python 3.7.x
 - ▶ Tensorflow 지원

Files

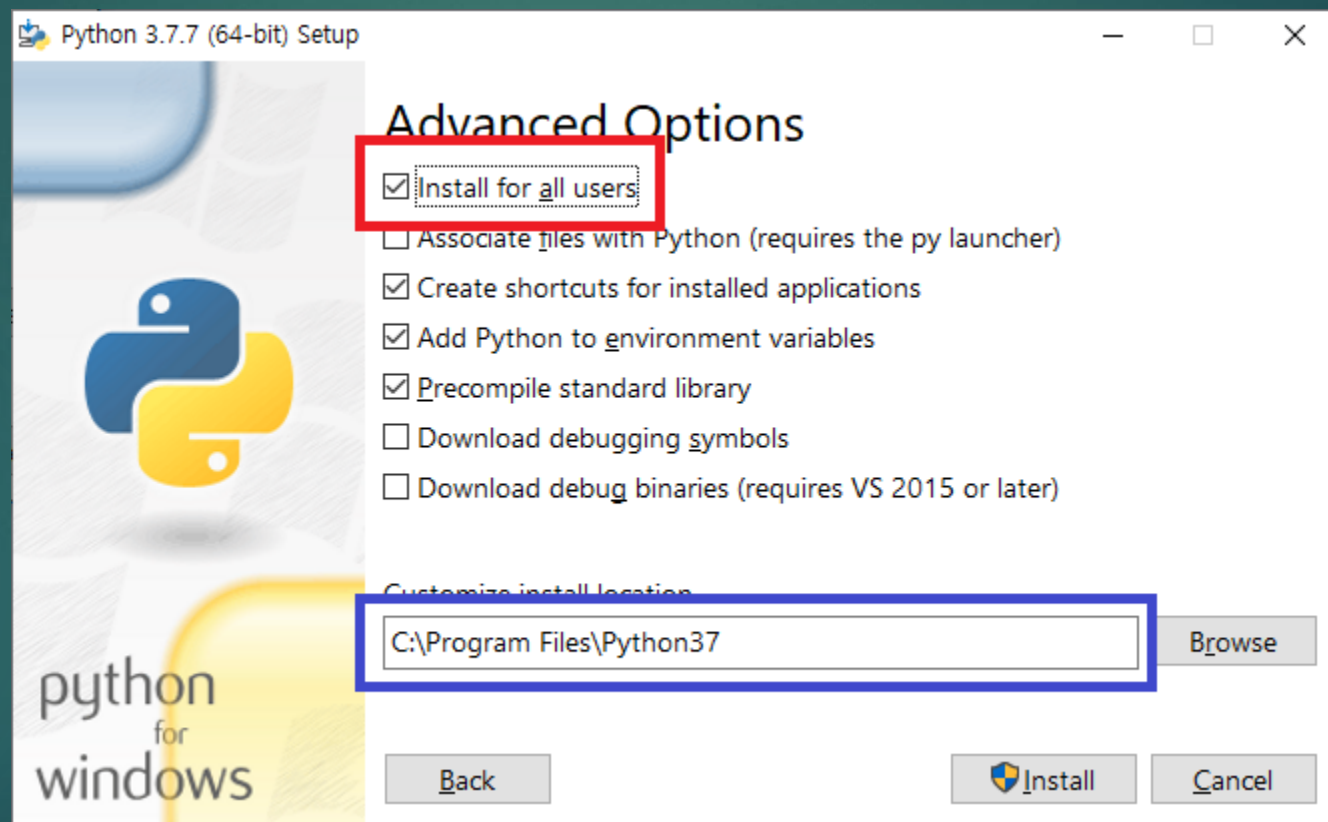
Version	Operating System	Description
Gzipped source tarball	Source release	
XZ compressed source tarball	Source release	
macOS 64-bit installer	Mac OS X	for OS X 10.9 and later
Windows help file	Windows	
Windows x86-64 embeddable zip file	Windows	for AMD64/EM64T/x64
Windows x86-64 executable installer	Windows	for AMD64/EM64T/x64
Windows x86-64 web-based installer	Windows	for AMD64/EM64T/x64
Windows x86 embeddable zip file	Windows	

Python 설치

- ▶ 다운로드한 파일
 - ▶ python-3.7.7-amd64



Python 설치



PyCharm IDE 설치

▶ <https://www.jetbrains.com/ko-kr/pycharm/>



다운로드 PyCharm

[Windows](#) [Mac](#) [Linux](#)

Professional

과학 및 웹 Python 개발용. HTML, JS, SQL 지원.

[다운로드](#)

무료 평가판

Community

순수 Python 개발용

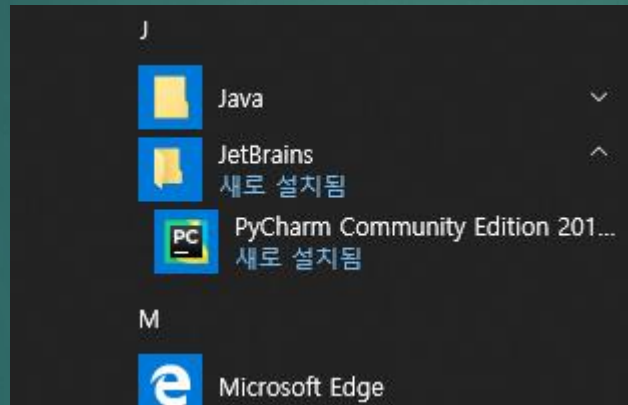
[다운로드](#)

무료, 오픈 소스

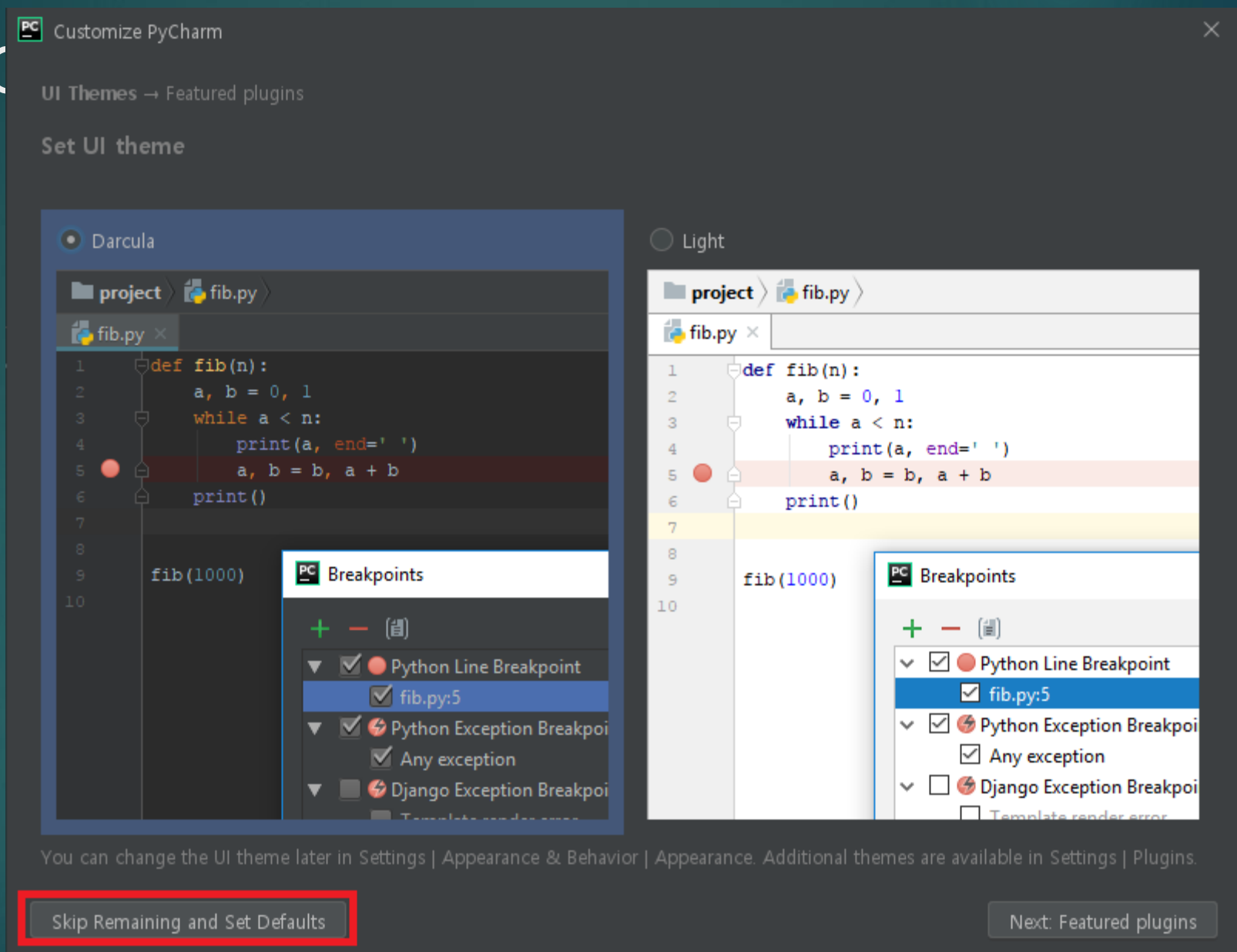
PyCharm IDE 설치

- ▶ 다운로드된 파일
 - ▶ `pycharm-community-2019.3.4`
- ▶ 설치

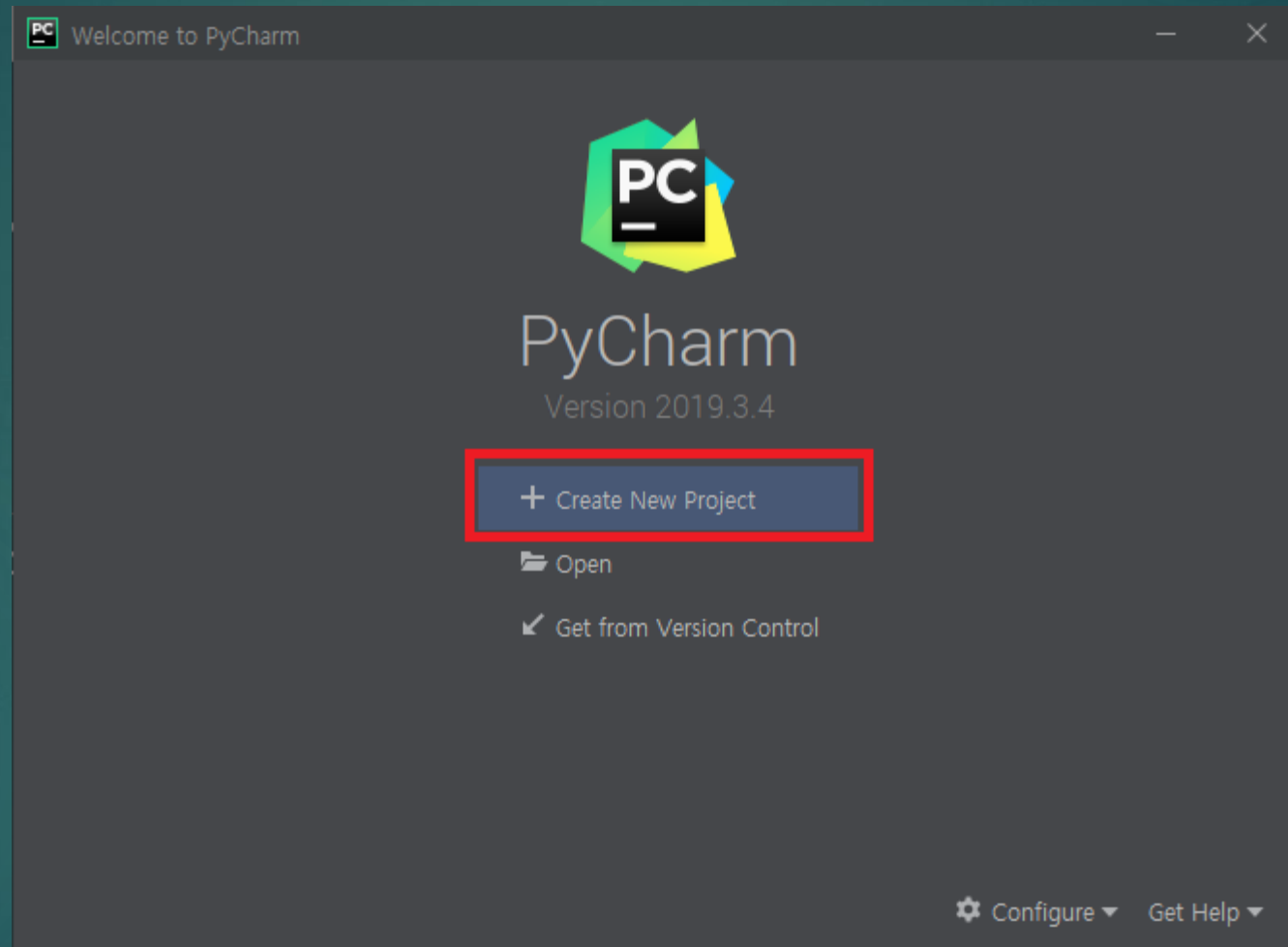
PyCharm 실행



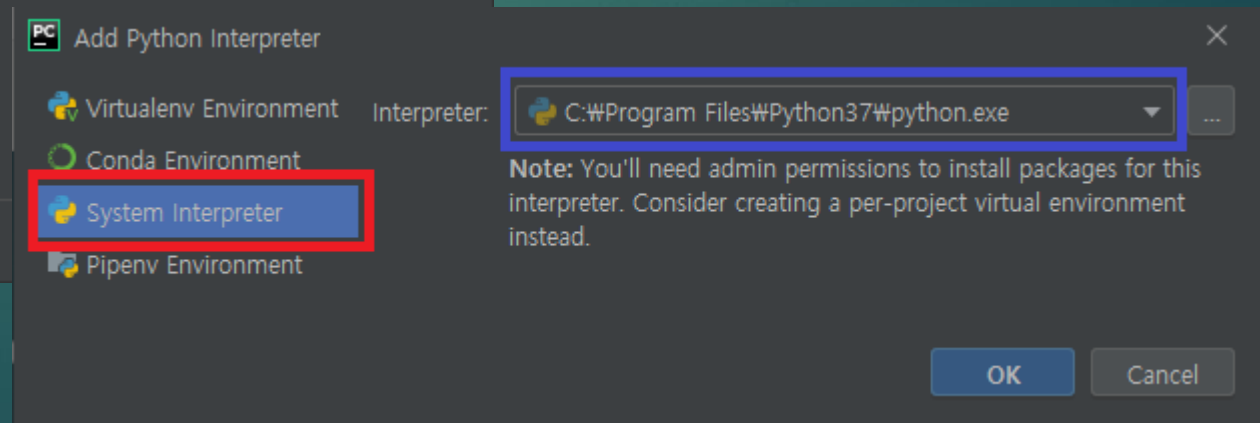
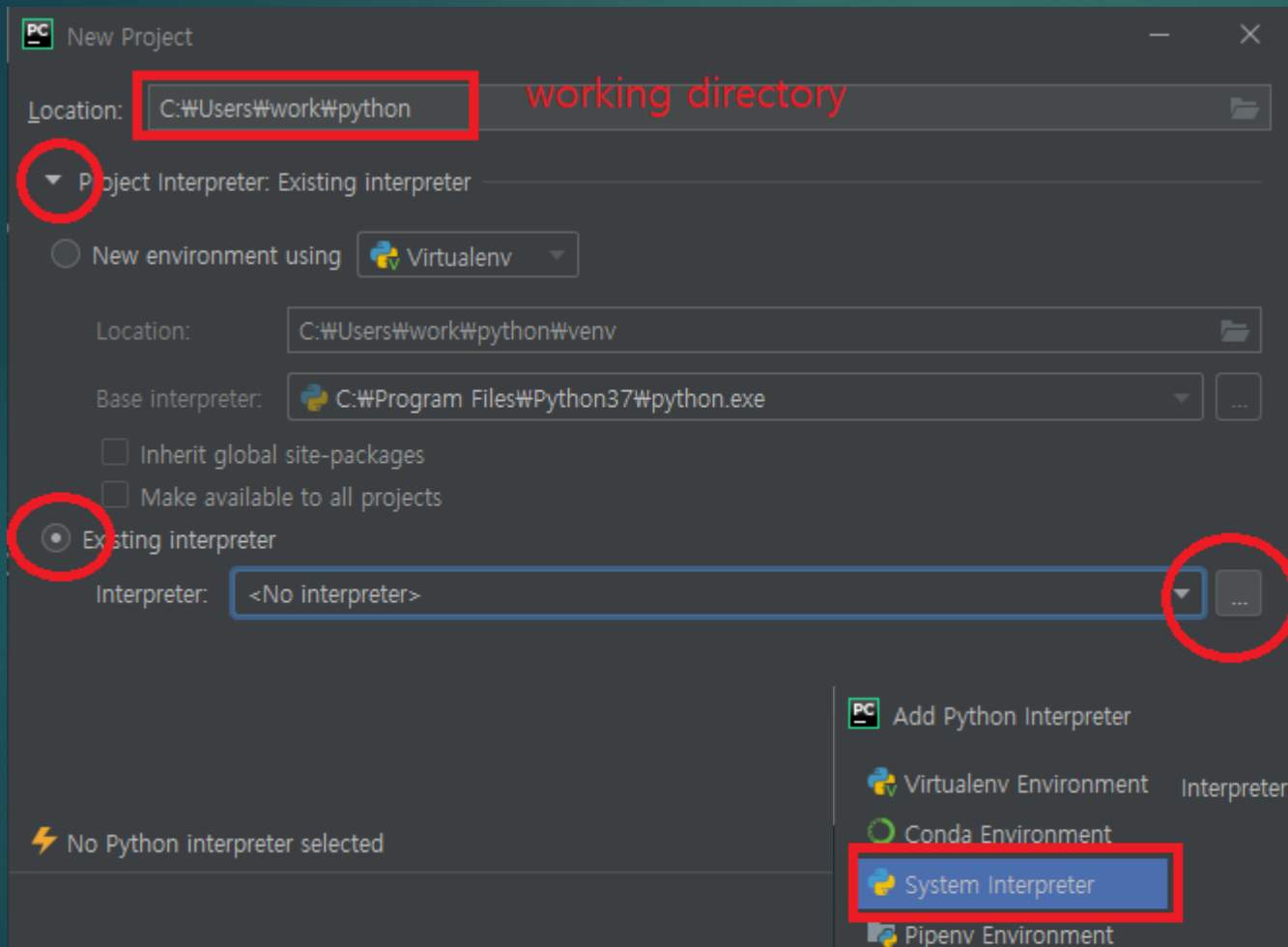
PyCharm



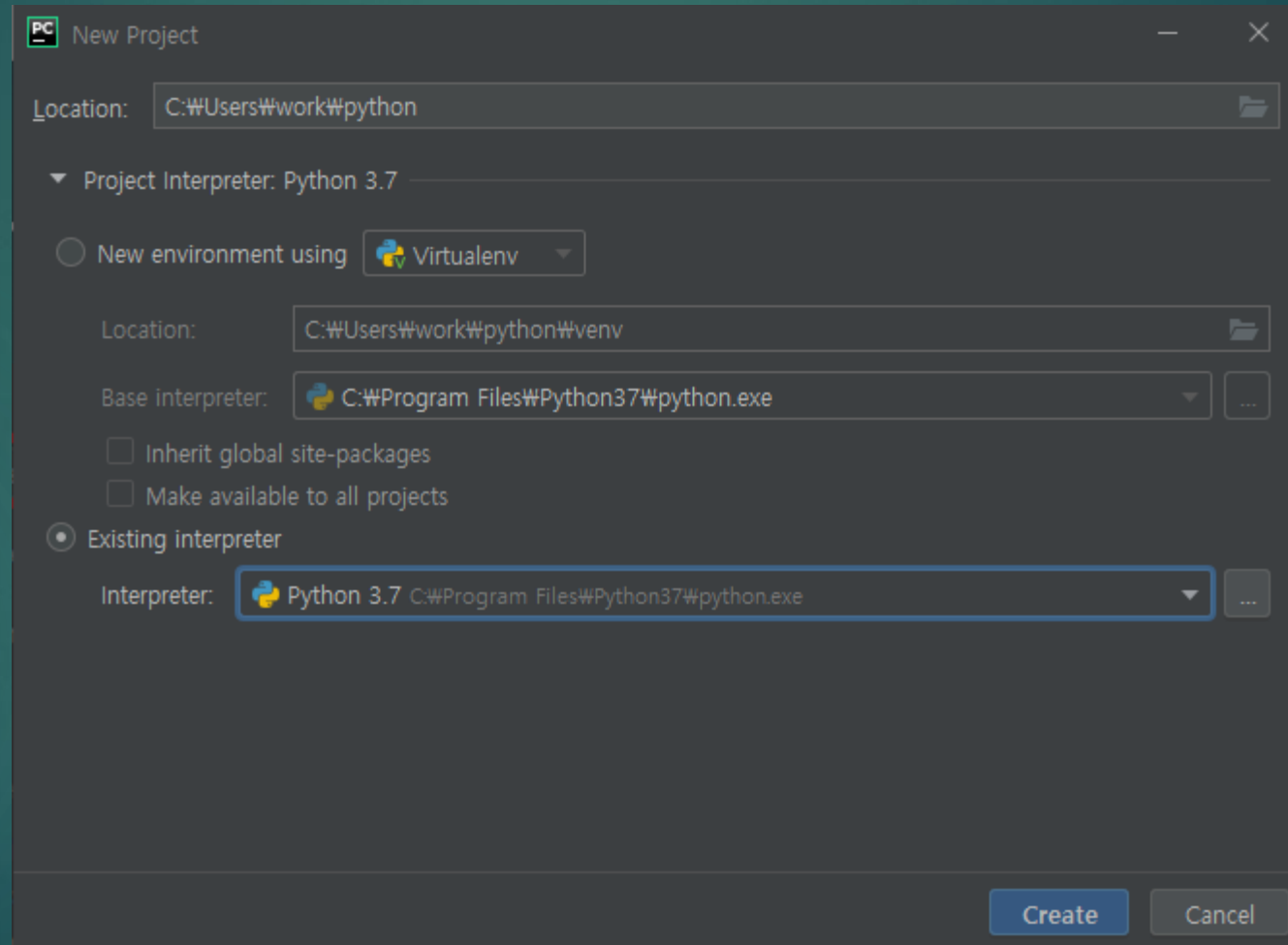
PyCharm 실행



PyCharm 실행

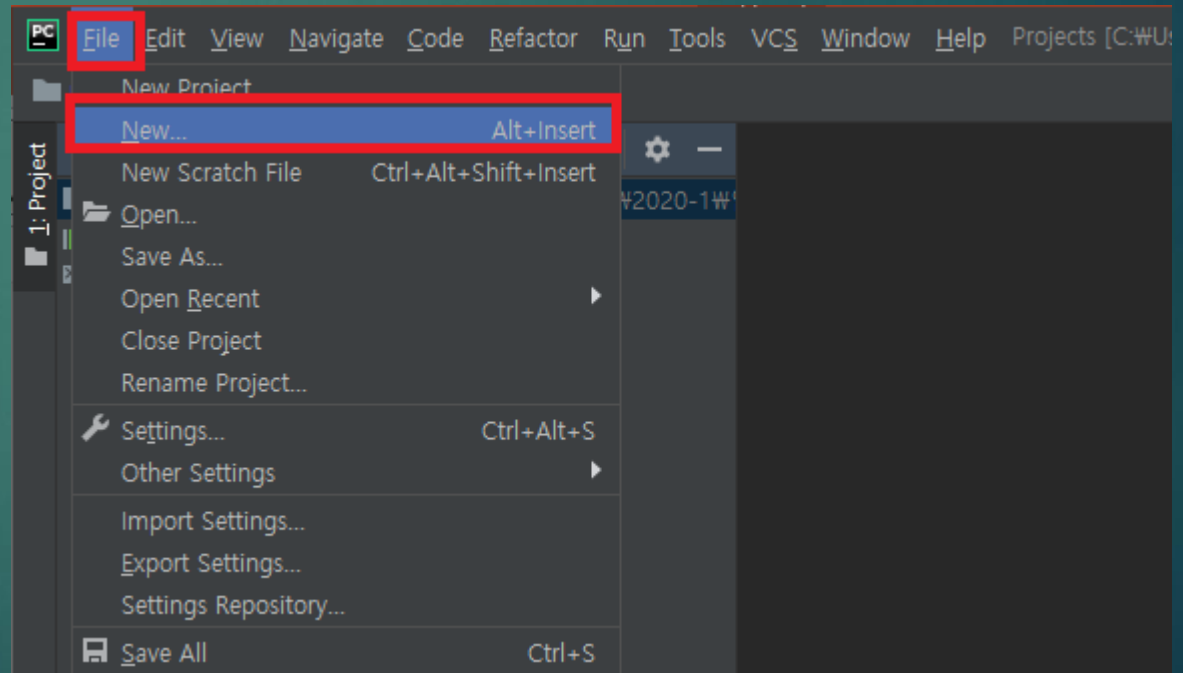
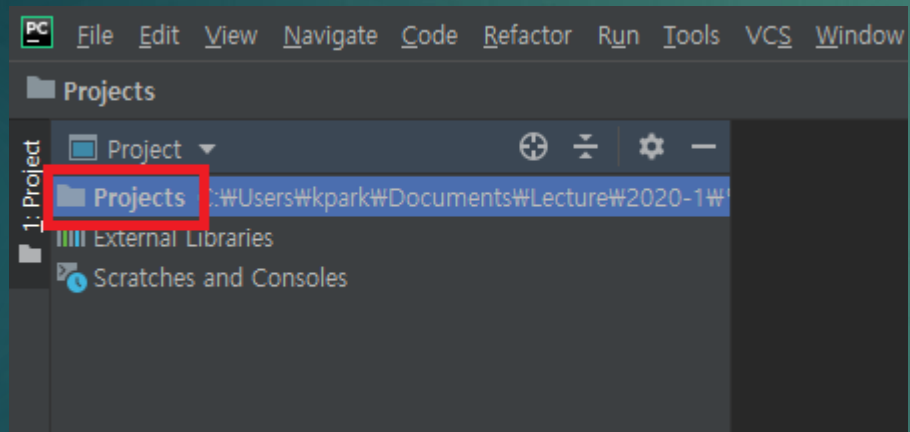


PyCharm 실행



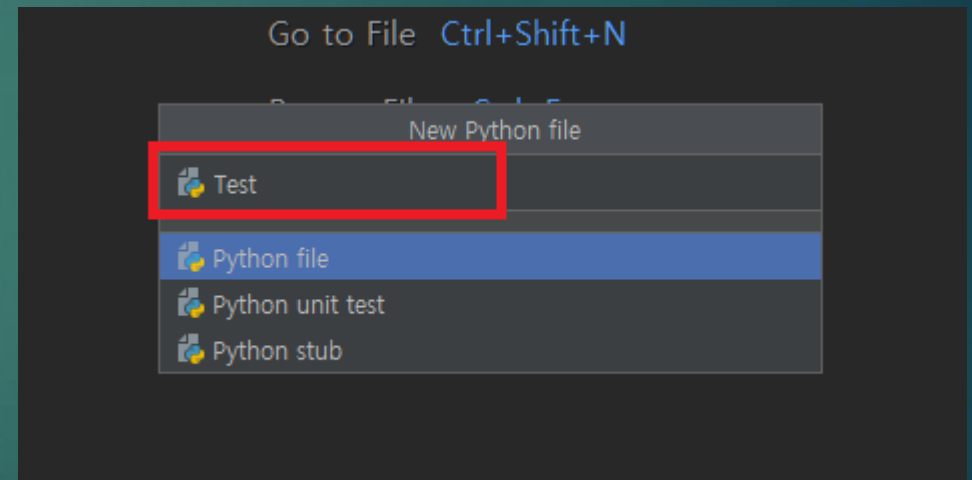
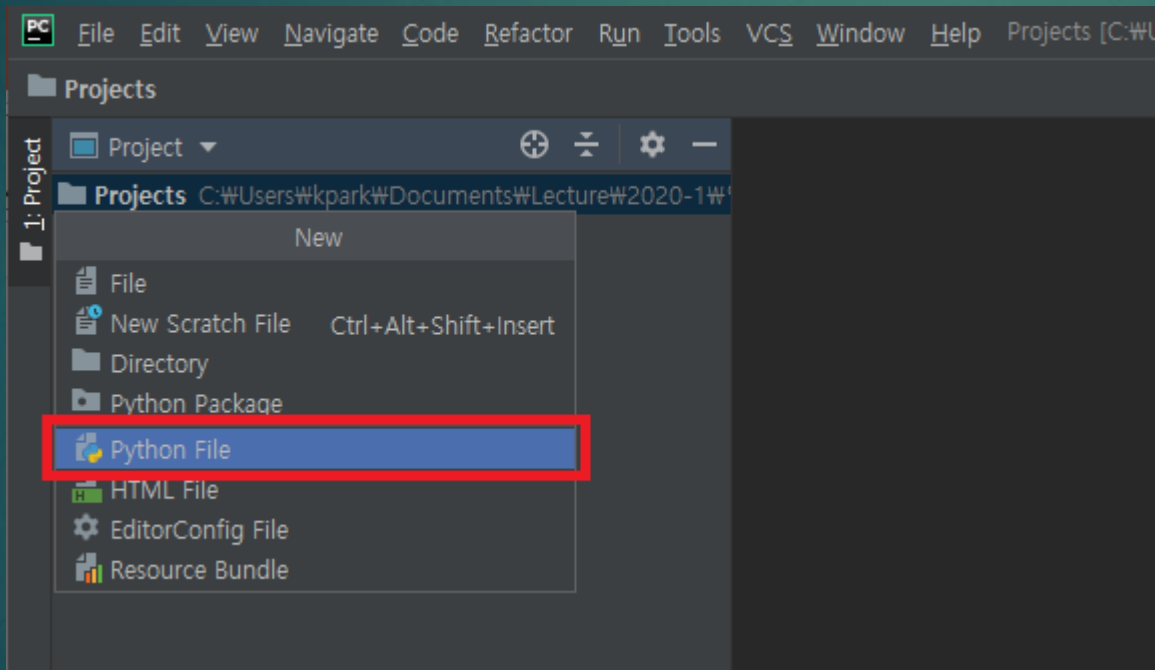
PyCharm 실행

▶ 파일 만들기



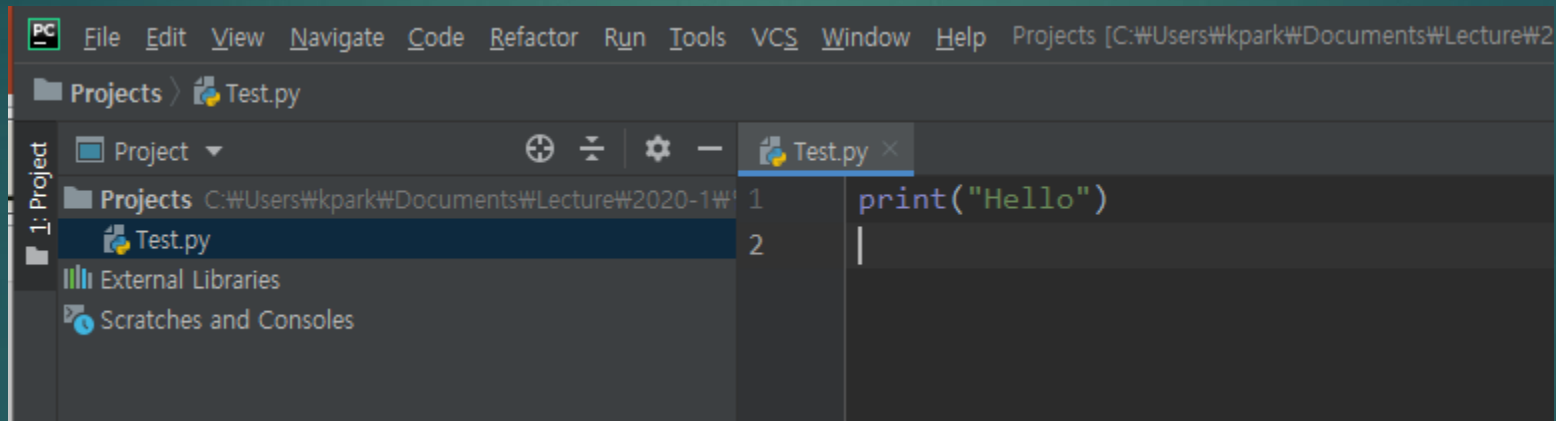
PyCharm 실행

- ▶ 파일 이름 Test.py

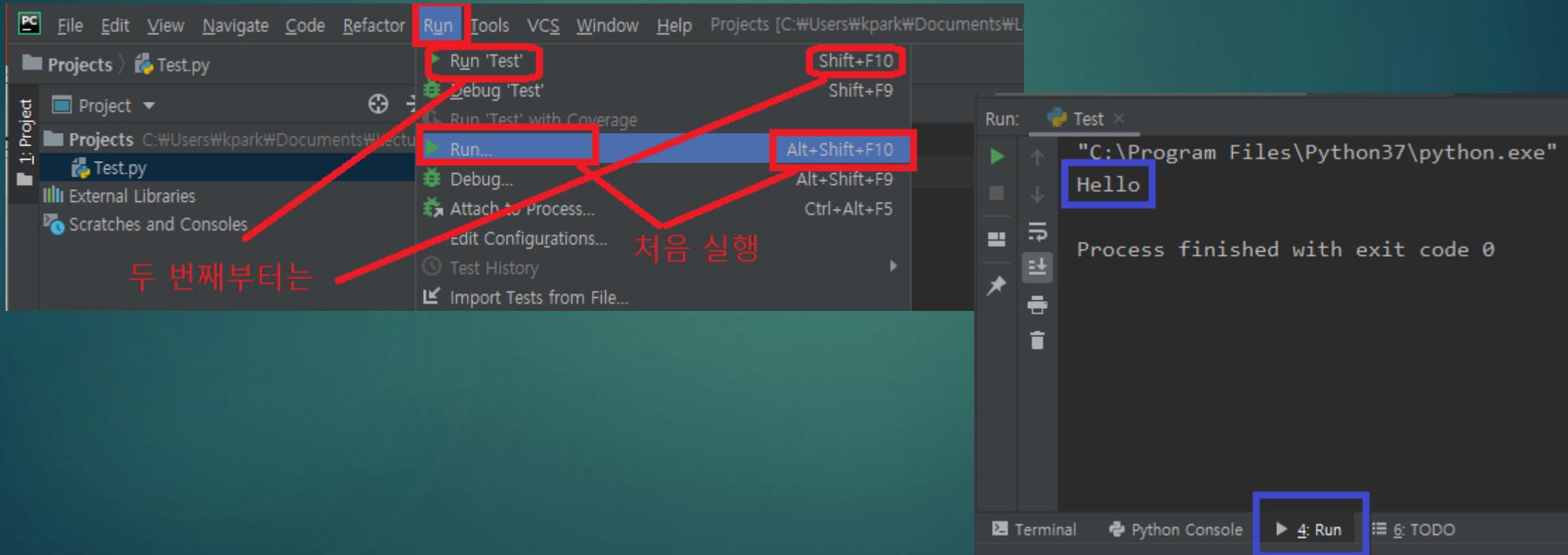


프로그램 실행

▶ 코드 작성

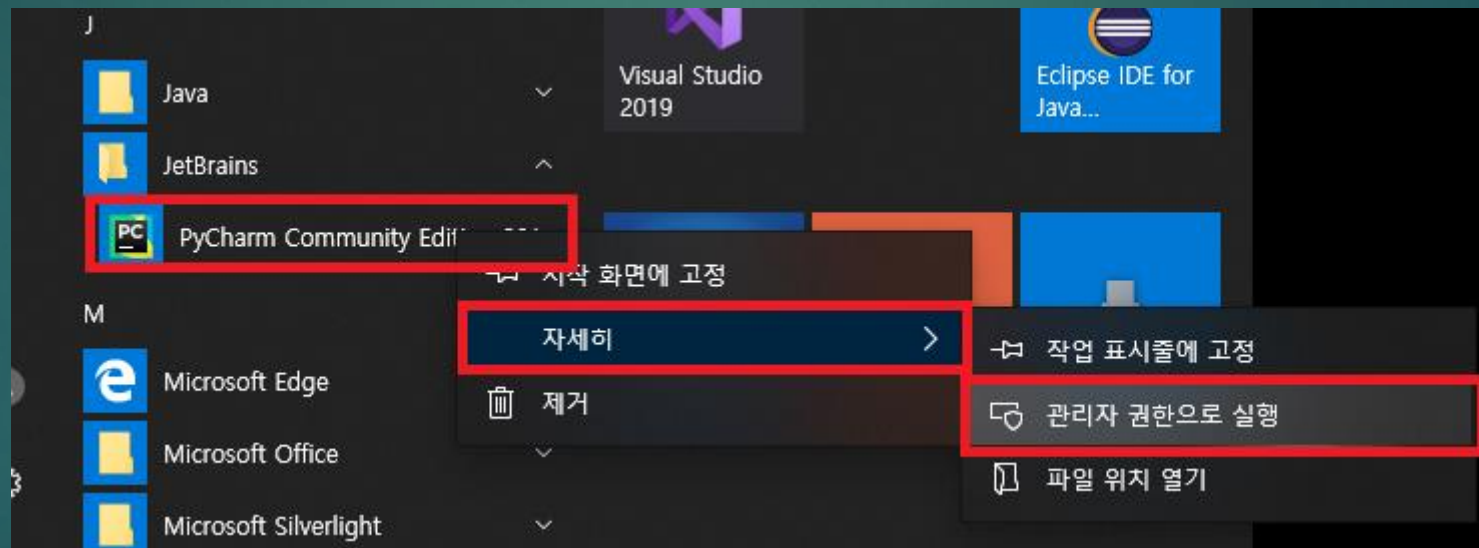


프로그램 실행



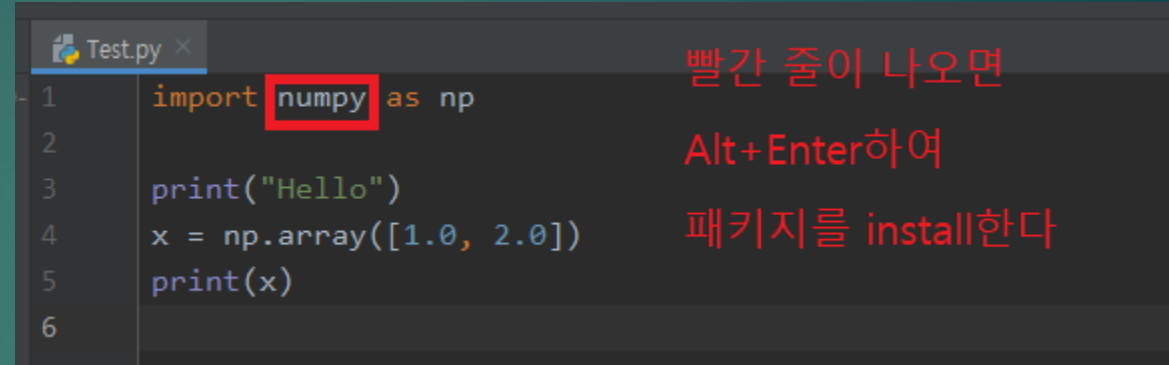
패키지 설치 - PyCharm

- ▶ 관리자 권한으로 실행



패키지 설치 - PyCharm

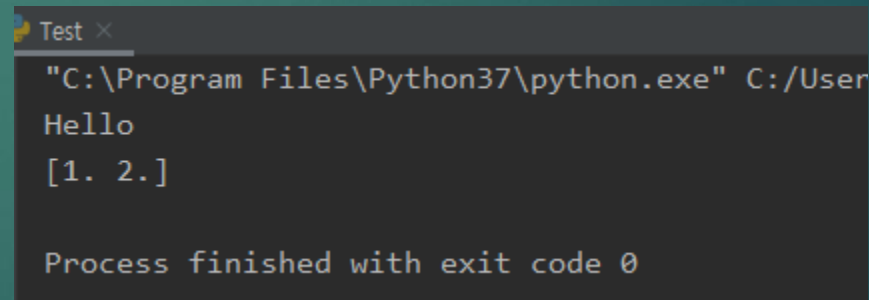
- ▶ 패키지 install
 - ▶ 빨간 줄이 나오면 Alt+Enter
 - ▶ 잘 읽어보고 패키지 install



```
Test.py x
1 import numpy as np
2
3 print("Hello")
4 x = np.array([1.0, 2.0])
5 print(x)
6
```

빨간 줄이 나오면
Alt+Enter하여
패키지를 install한다

- ▶ 실행 결과가 오른쪽과 같으면
- ▶ 패키지 numpy가 제대로 설치된 것



```
Test x
"C:\Program Files\Python37\python.exe" C:/User
Hello
[1. 2.]

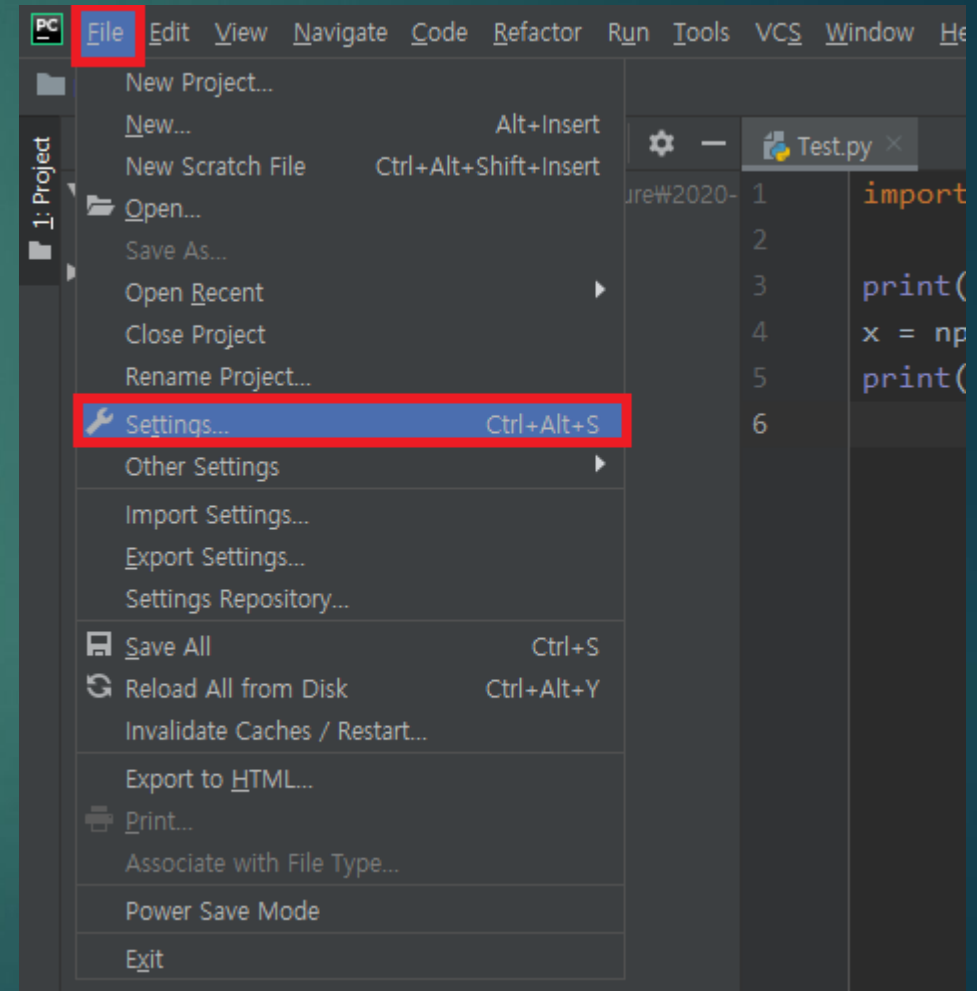
Process finished with exit code 0
```

패키지 설치 - PyCharm

- ▶ 패키지를 install하려면 관리자 권한으로 실행
 - ▶ python을 C:\Program Files에 설치했기 때문
 - ▶ python을 개인용으로 설치했다면 필요 없을 것임
- ▶ Alt+Enter 활용

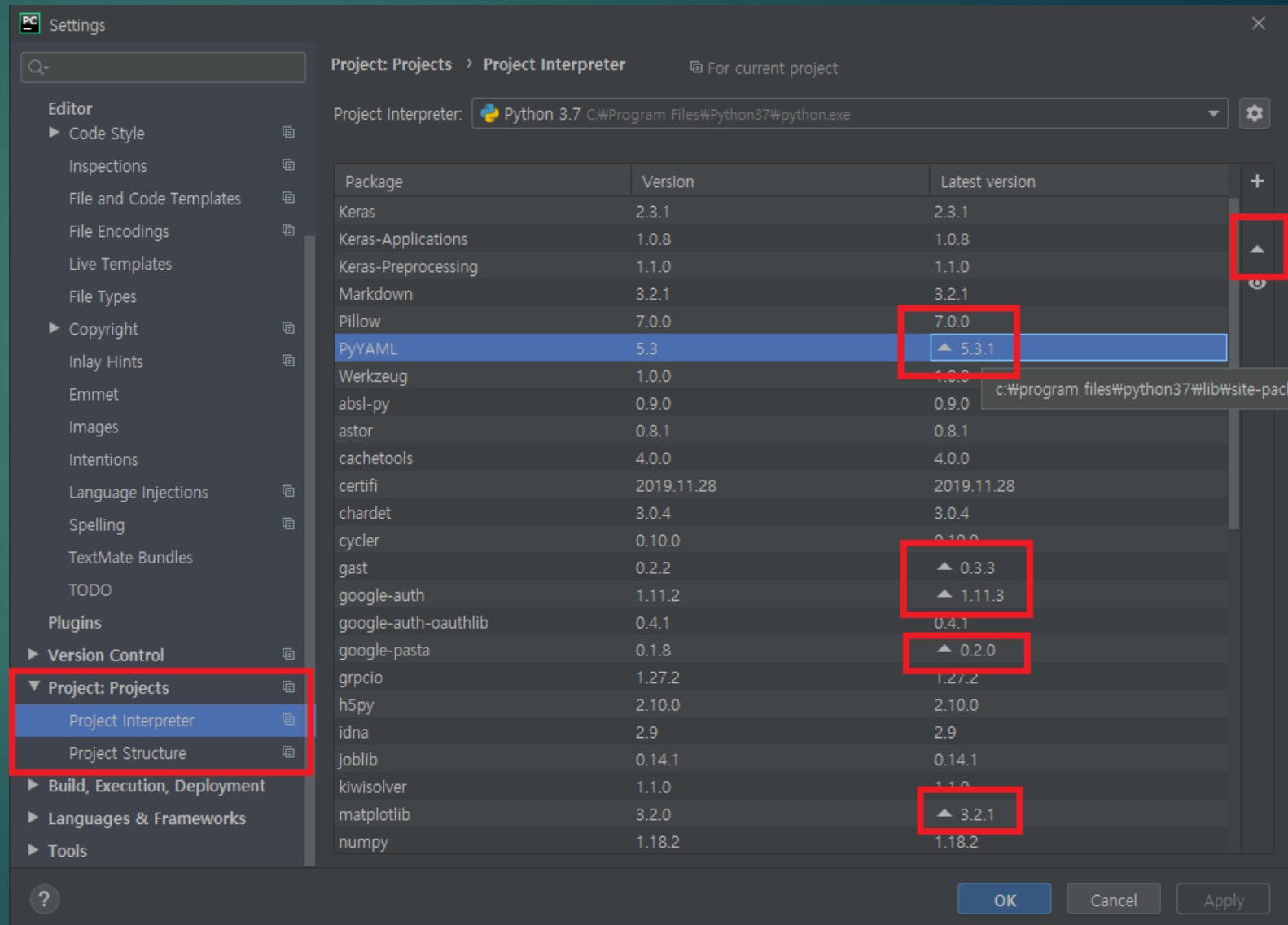
패키지 설치 - PyCharm

- ▶ 패키지 upgrade
- ▶ PyCharm 관리자 권한으로 실행
- ▶ 메뉴에서
 - ▶ File -> Settings



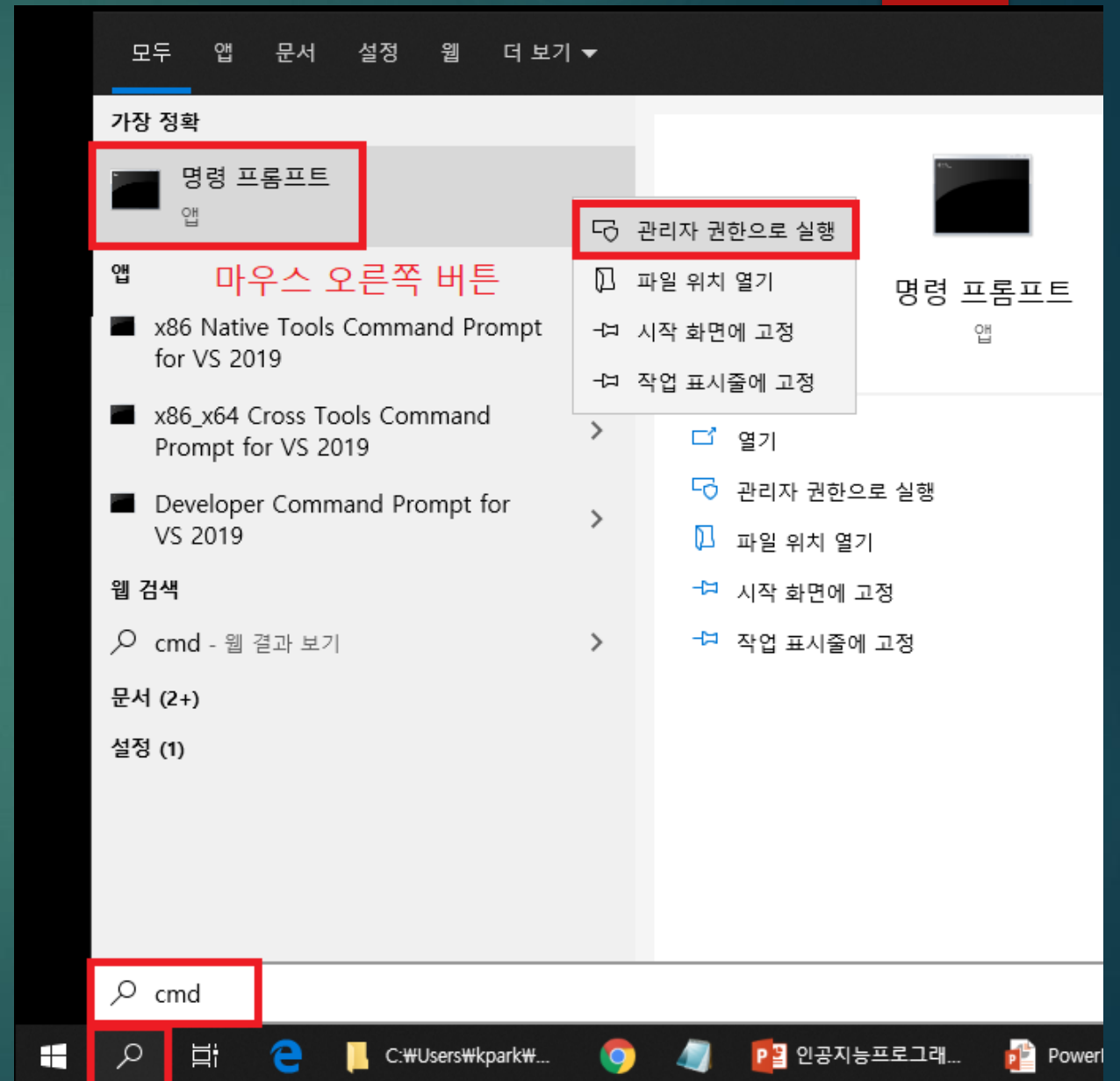
패키지 설치 - PyCharm

▶ 패키지 upgrade



패키지 설치 - cmd

- ▶ 관리자 권한으로 cmd 실행



- [illegible]