

# TensorFlow 환경설치

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변영철 교수

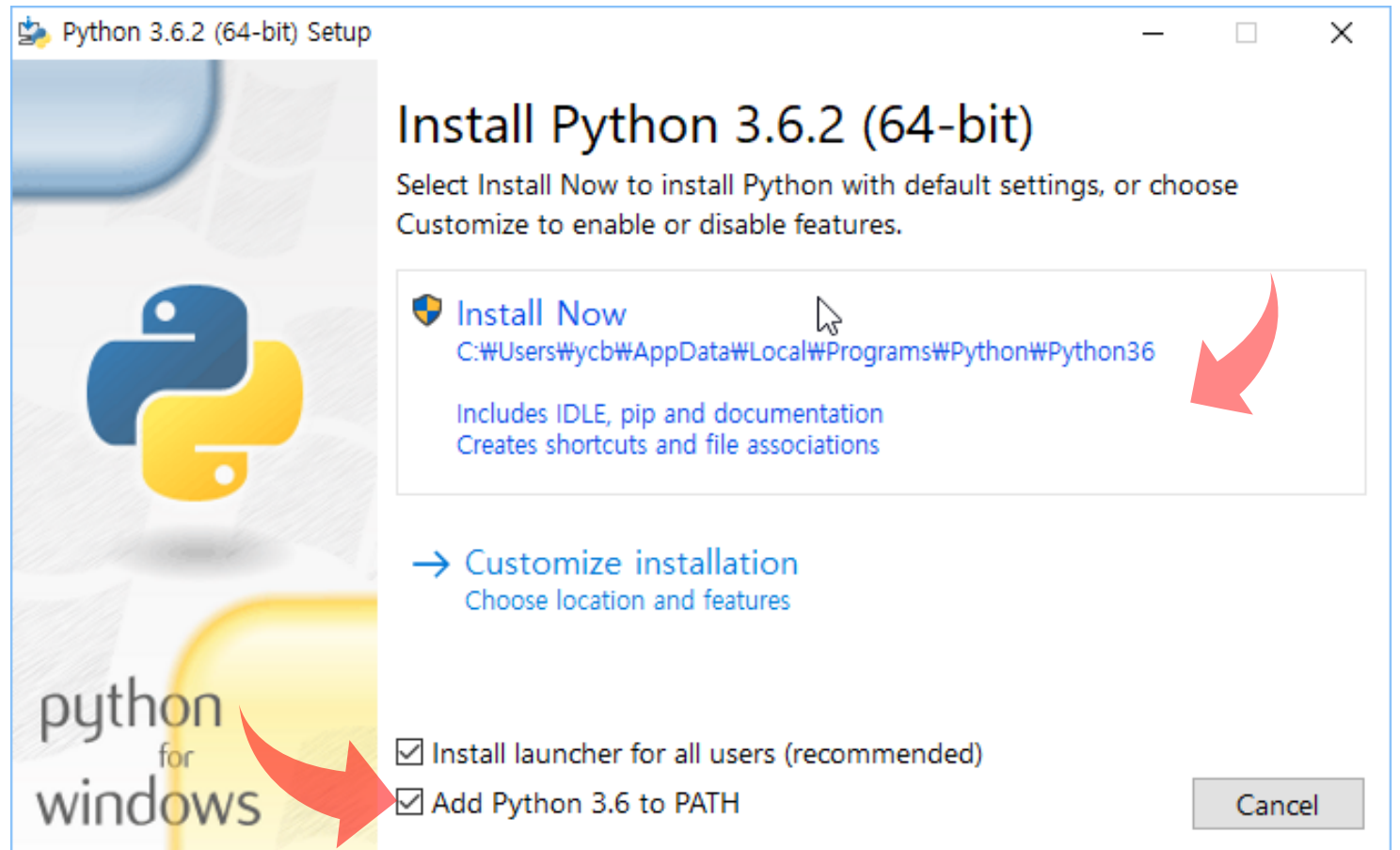
[ycb@jejunu.ac.kr](mailto:ycb@jejunu.ac.kr)

# 공부할 내용

- Python 설치
- TensorFlow 설치
- PyCharm 설치
- PyCharm을 이용한 Python/TensorFlow 프로그래밍
- 단축키 설정

# (1) Python 설치

- <https://www.python.org/downloads/>
- 최신버전 설치(64bit)



# (1) Python 설치

⚙️ 홈

설정 찾기 🔍

앱








☰ 앱 및 기능


📁 기본 앱

🗺️ 오프라인 지도

🌐 웹 사이트용 앱

## 앱 및 기능

	OneNote Microsoft Corporation	16.0KB 2017-08-26
	Paint Shop Pro 7 Jasc Software Inc	48.0MB 2017-05-02
	photoWORKS 사용할 수 없음	2017-05-02
	Python 3.6.2 (64-bit) Python Software Foundation	91.1MB 2017-09-01
	Python Launcher Python Software Foundation	1.73MB 2017-09-01
	Samsung_MonSetup Samsung	4.88MB 2017-07-19
	Skype Skype	32.0KB 2017-08-23



## (2) TensorFlow 설치

Python을 설치하면 pip도 설치됨.

### 1. pip 업그레이드

> `pip install --upgrade pip`  
(이미 최신 버전이 설치되어있음)

### 2. pip로 TensorFlow 설치

> `pip install tensorflow`



```
cmd 명령 프롬프트
C:\Users\mycb>pip install tensorflow
Collecting tensorflow
  Using cached tensorflow-1.3.0-cp36-cp36m-win_amd64.whl
Collecting tensorflow-tensorboard<0.2.0,>=0.1.0 (from tensorflow)
  Using cached tensorflow_tensorboard-0.1.5-py3-none-any.whl
Collecting wheel>=0.26 (from tensorflow)
  Downloading wheel-0.29.0-py2.py3-none-any.whl (66kB)
    100% |#####| 71kB 688kB/s
Collecting numpy>=1.11.0 (from tensorflow)
  Using cached numpy-1.13.1-cp36-none-win_amd64.whl
Collecting six>=1.10.0 (from tensorflow)
  Using cached six-1.10.0-py2.py3-none-any.whl
Collecting protobuf>=3.3.0 (from tensorflow)
  Using cached protobuf-3.4.0-py2.py3-none-any.whl
Collecting bleach==1.5.0 (from tensorflow-tensorboard<0.2.0,>=0.1.0->tensorflow)
  Using cached bleach-1.5.0-py2.py3-none-any.whl
Collecting html5lib==0.9999999 (from tensorflow-tensorboard<0.2.0,>=0.1.0->tensorflow)
Collecting markdown>=2.6.8 (from tensorflow-tensorboard<0.2.0,>=0.1.0->tensorflow)
Collecting werkzeug>=0.11.10 (from tensorflow-tensorboard<0.2.0,>=0.1.0->tensorflow)
  Using cached Werkzeug-0.12.2-py2.py3-none-any.whl
Requirement already satisfied: setuptools in c:\Users\mycb\AppData\Local\Programs\Python\Python36\lib\site-packages (from protobuf>=3.3.0->tensorflow)
Installing collected packages: six, html5lib, bleach, protobuf, markdown, werkzeug,
```

# (3) Python & TensorFlow 테스트

- 도스 창에서 Python과 TensorFlow 테스트

```
>python
```

```
>>> import tensorflow as tf
```

```
>>> hello = tf.constant('Hello,World!')
```

```
>>> sess = tf.Session()
```

```
>>> print(sess.run(hello))
```

```
Hello,World!
```

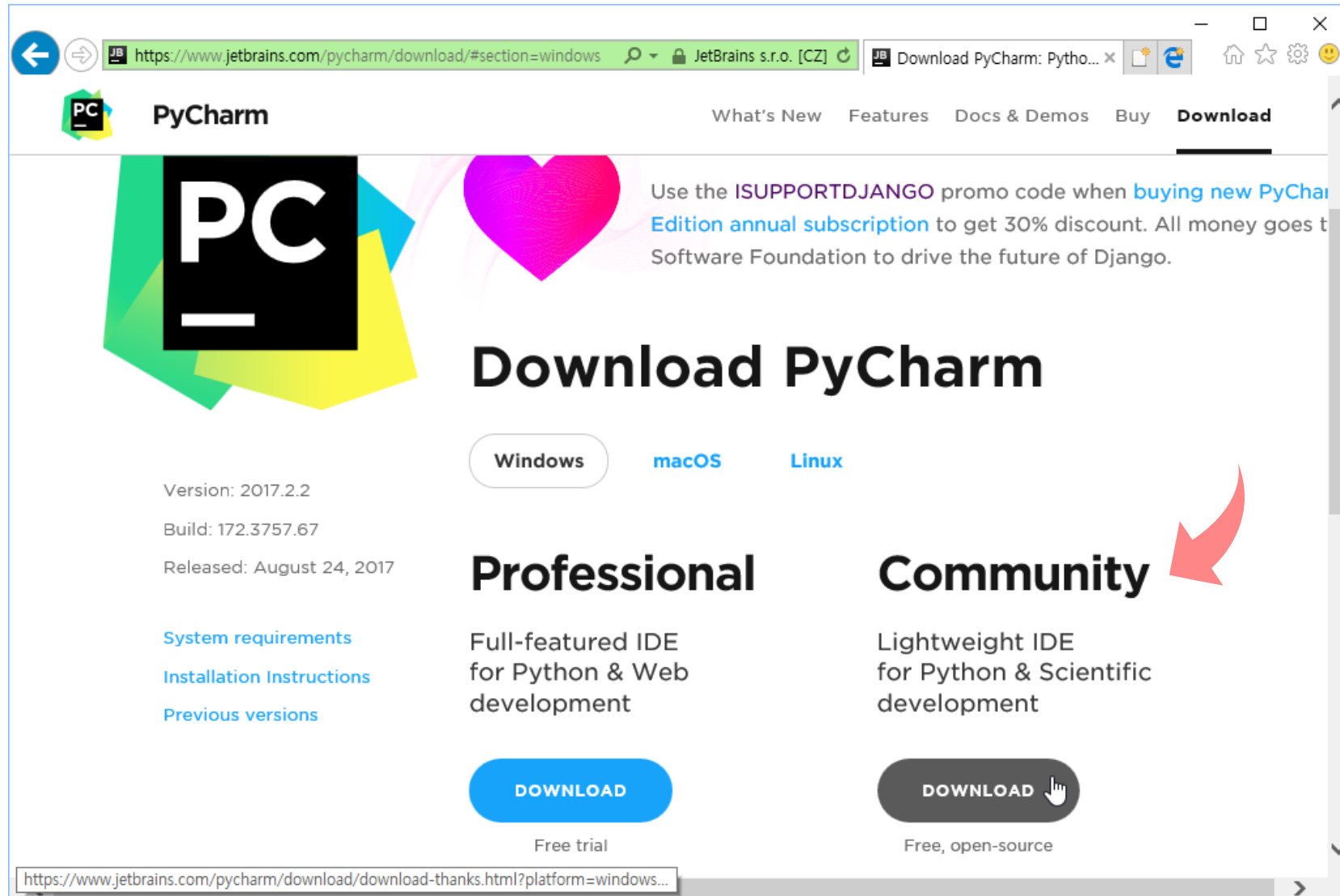
```
>>> a = tf.constant(2)
```

```
>>> b = tf.constant(3)
```

```
>>> print (sess.run(a + b))
```

```
5
```

## (4) PyCharm 설치



PyCharm

What's New Features Docs & Demos Buy **Download**

Use the [ISUPPORTDJANGO](#) promo code when [buying new PyCharm Edition annual subscription](#) to get 30% discount. All money goes to Software Foundation to drive the future of Django.

# Download PyCharm

Version: 2017.2.2  
Build: 172.3757.67  
Released: August 24, 2017

[System requirements](#)  
[Installation Instructions](#)  
[Previous versions](#)

**Windows** macOS Linux

## Professional

Full-featured IDE for Python & Web development

**DOWNLOAD**

Free trial

## Community

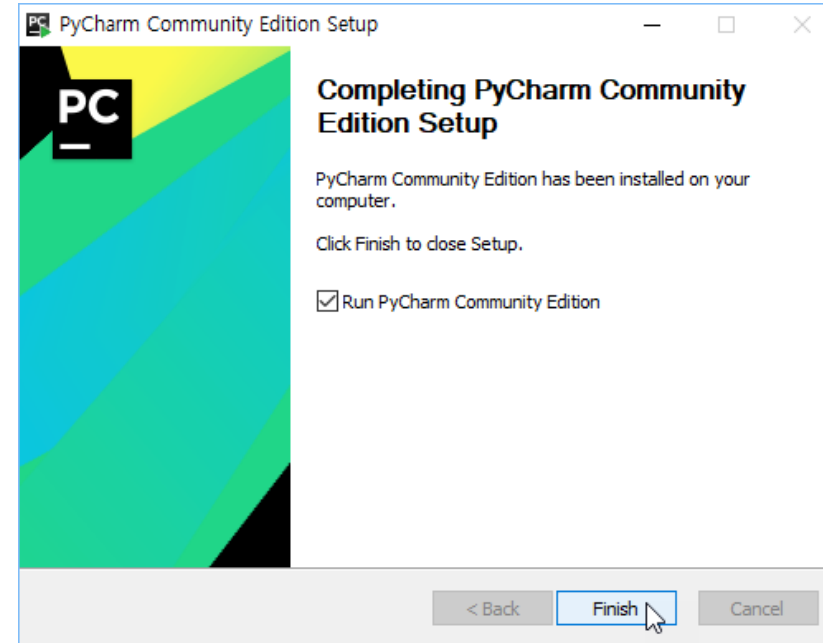
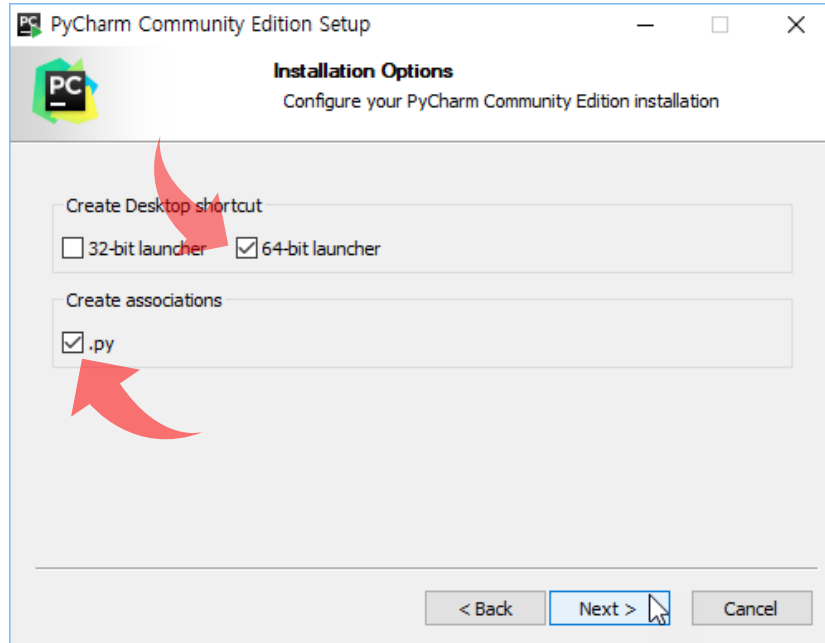
Lightweight IDE for Python & Scientific development

**DOWNLOAD**

Free, open-source

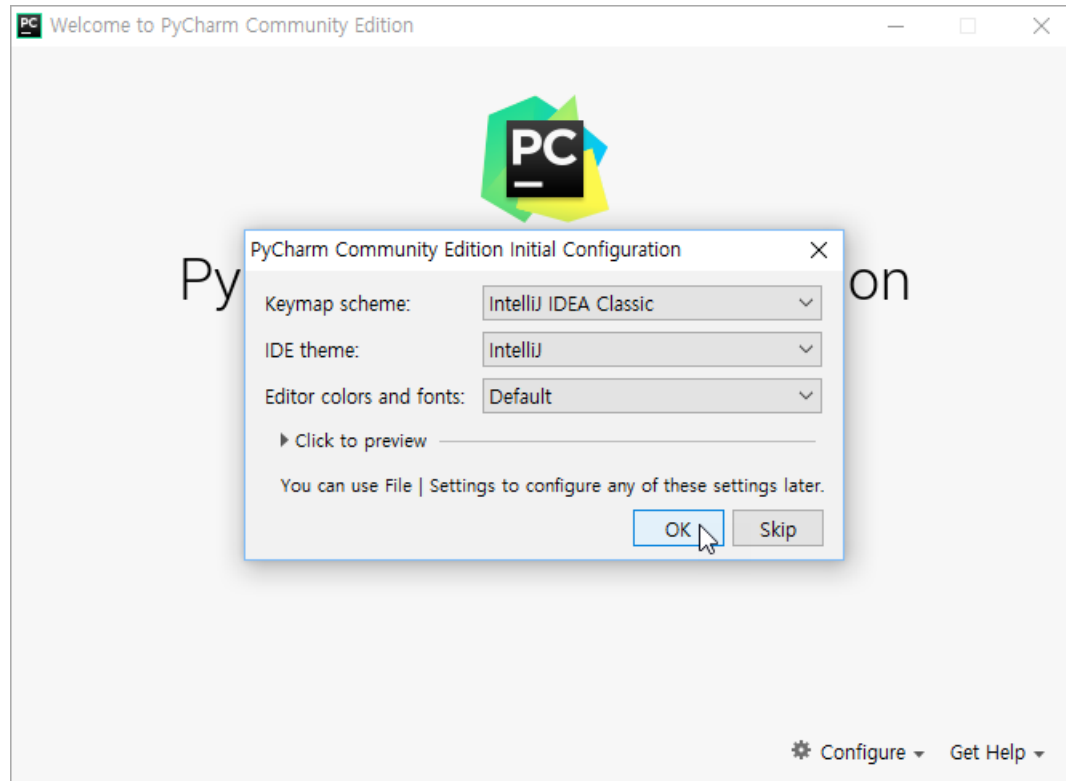
<https://www.jetbrains.com/pycharm/download/download-thanks.html?platform=windows...>

## (4) PyCharm 설치

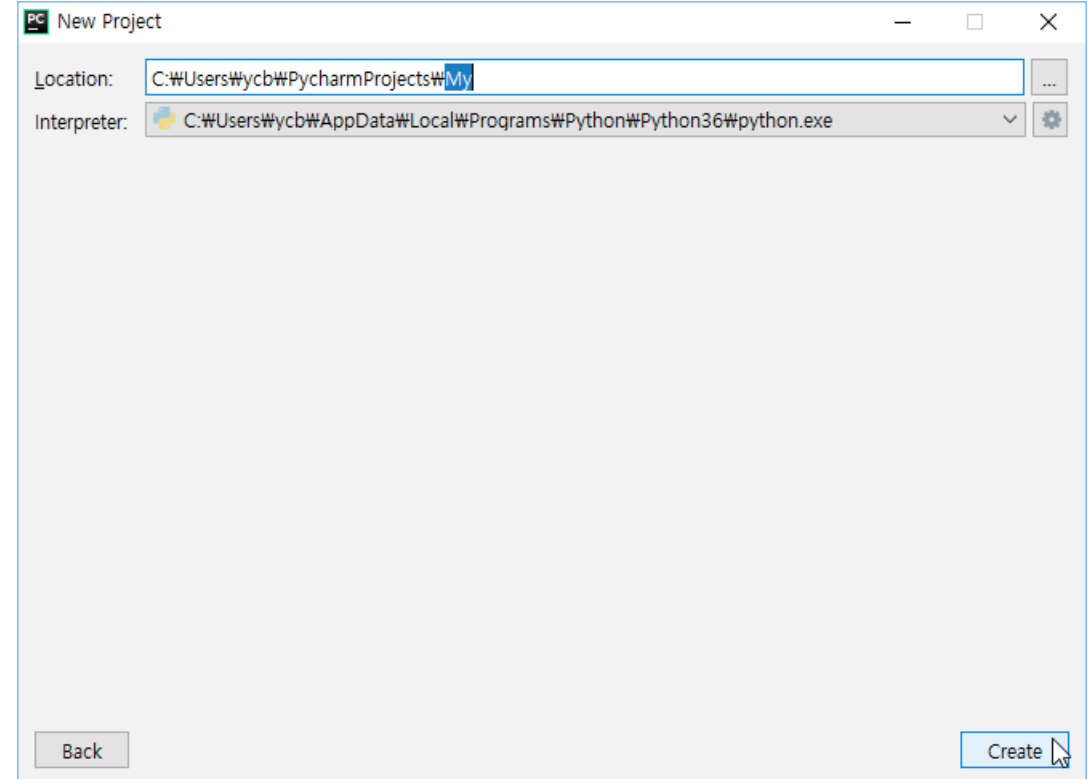
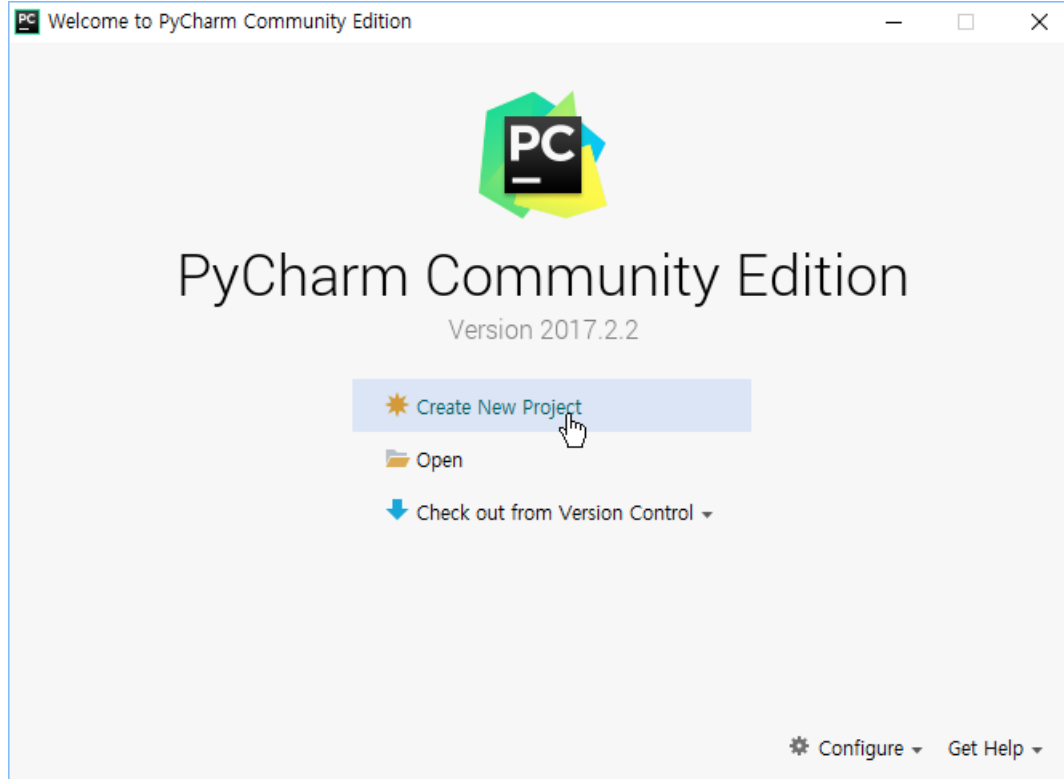




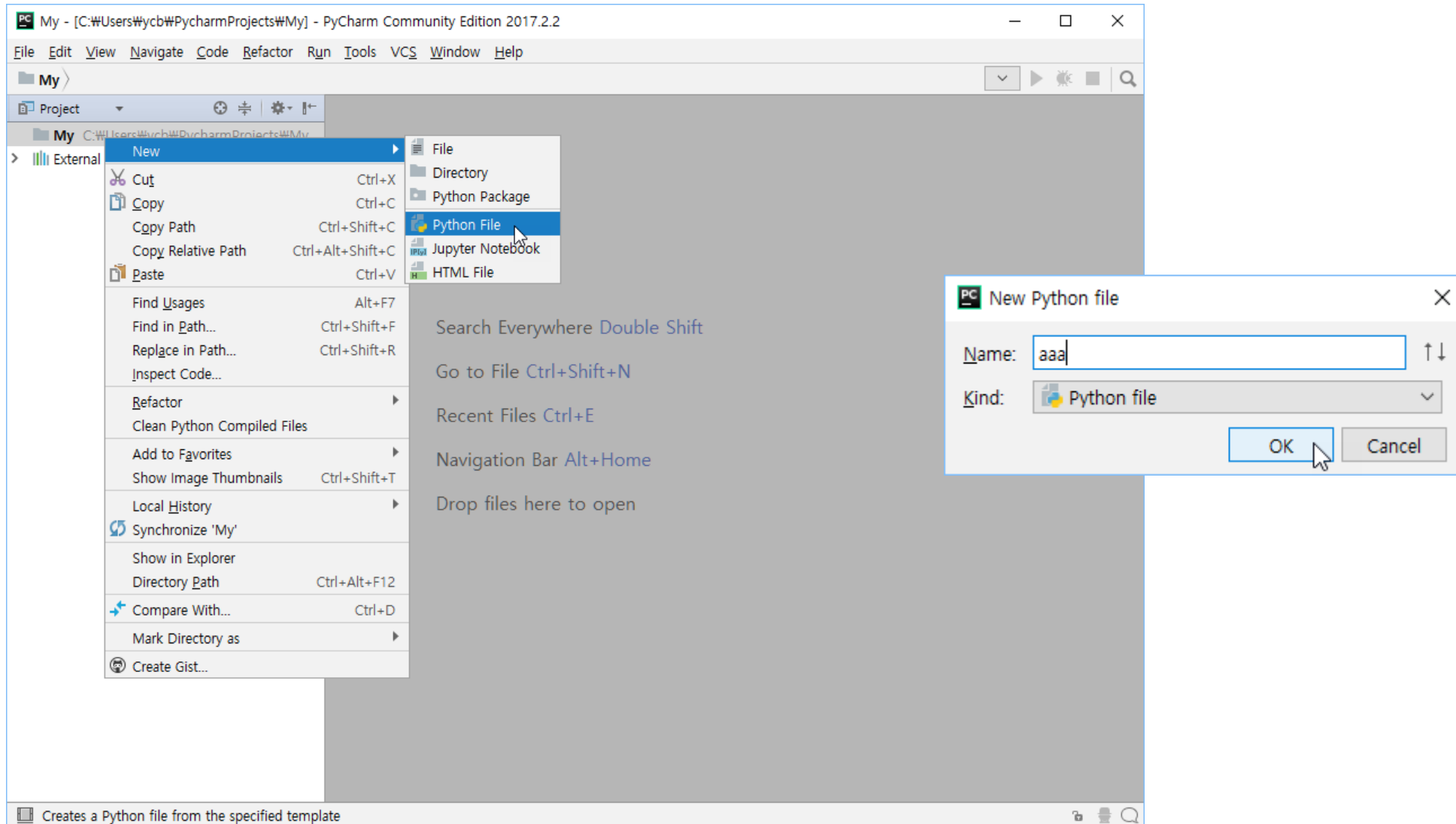
# (4) PyCharm 설치



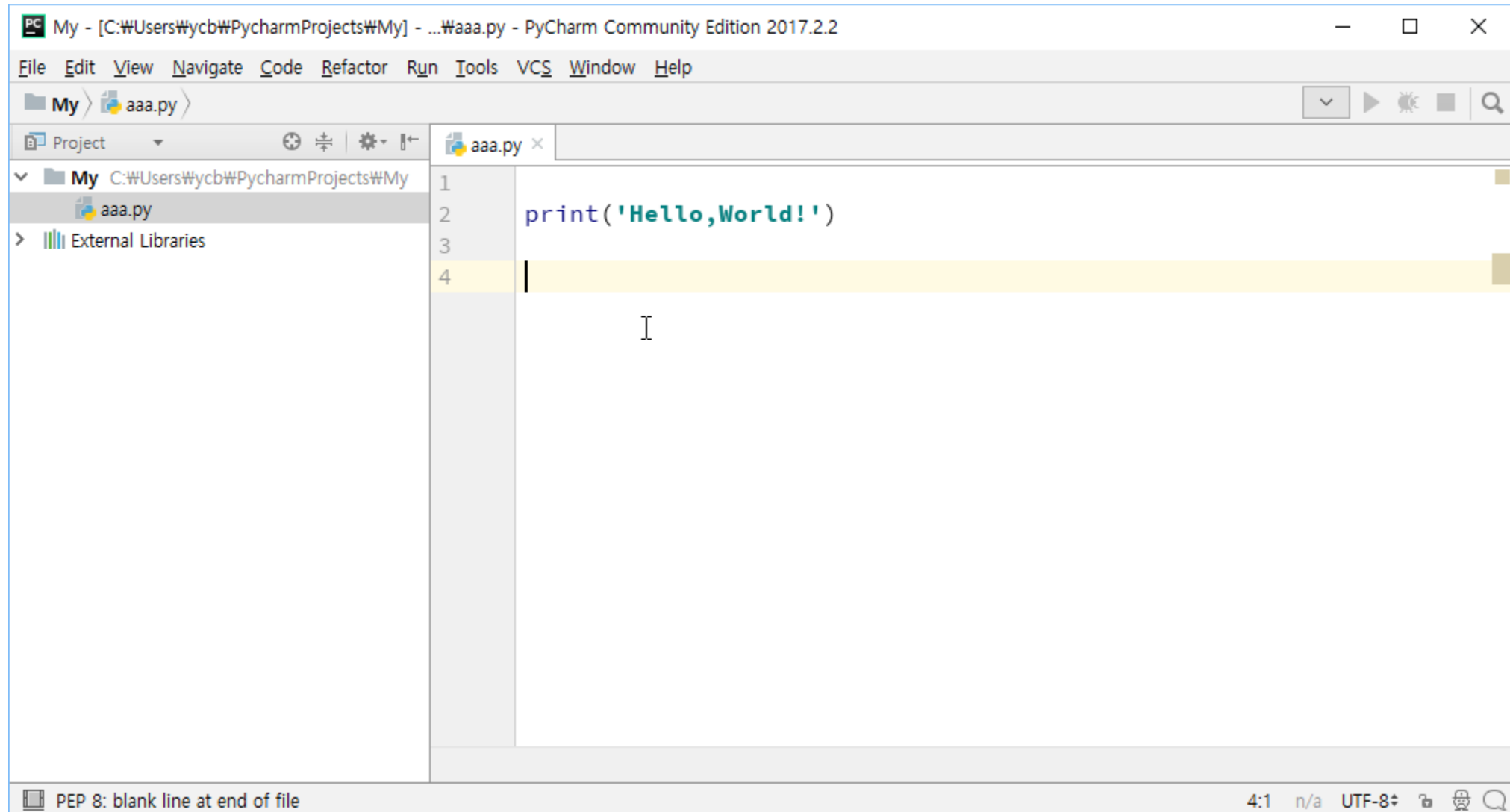
## (5) PyCharm을 이용한 프로그래밍



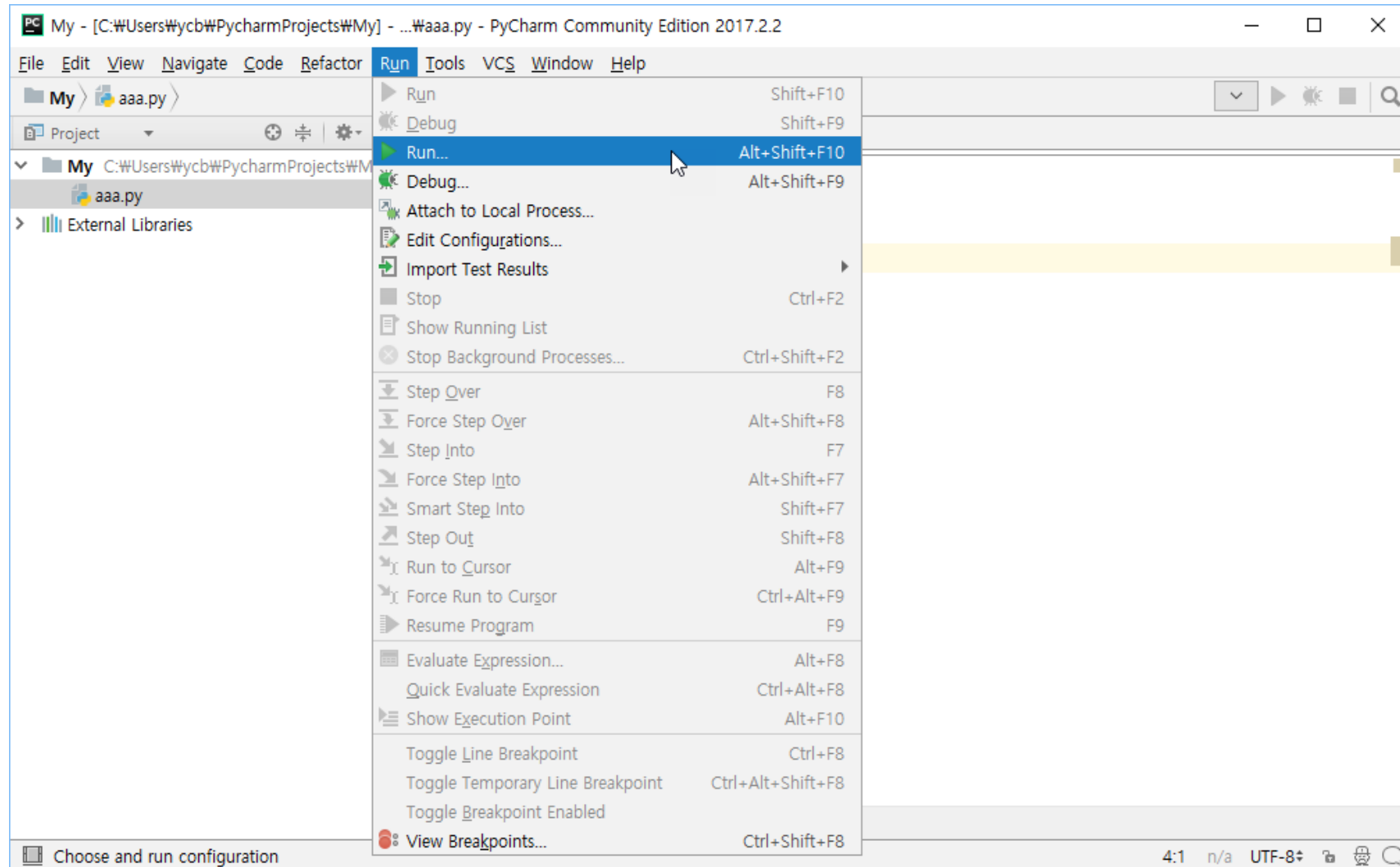
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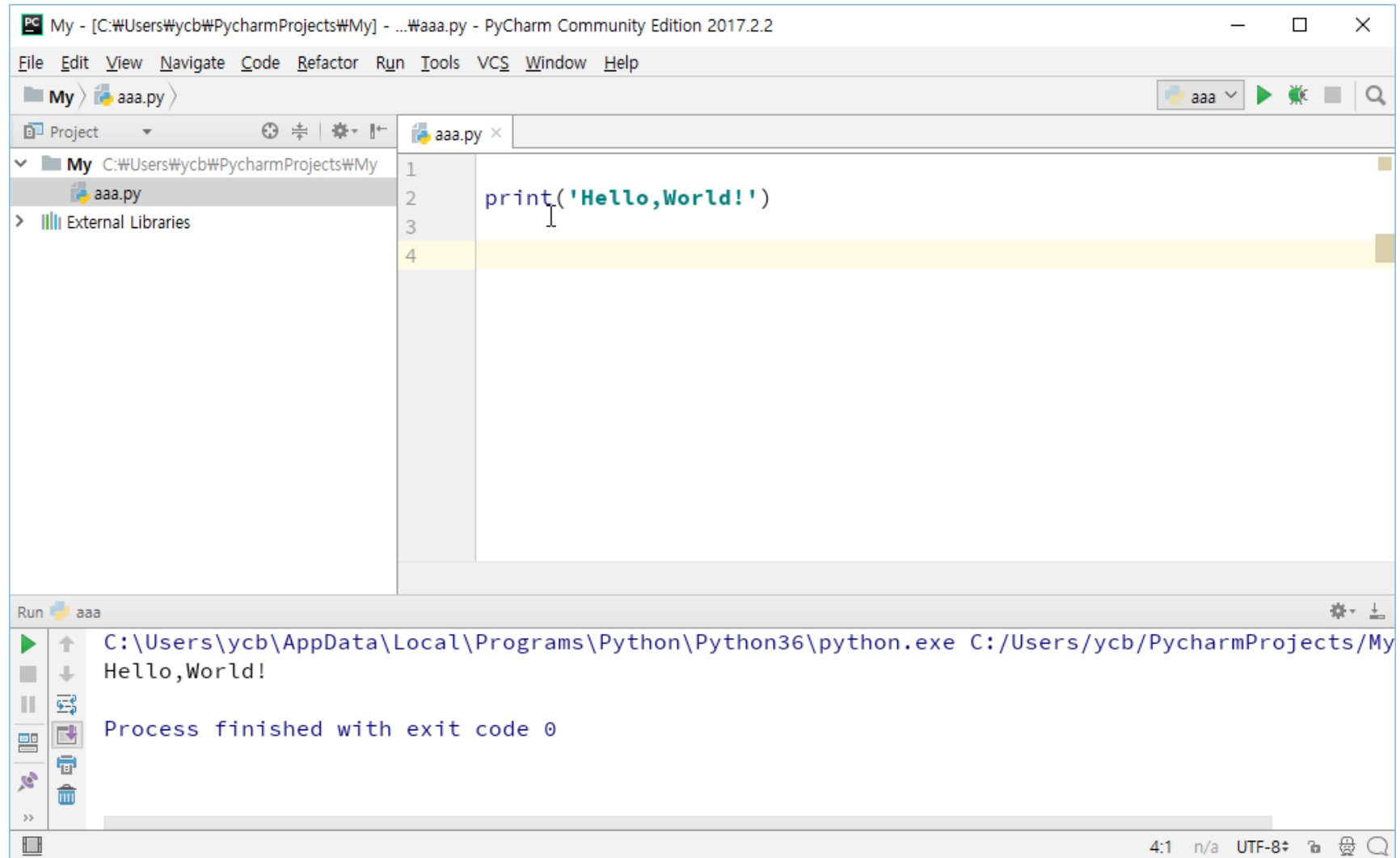
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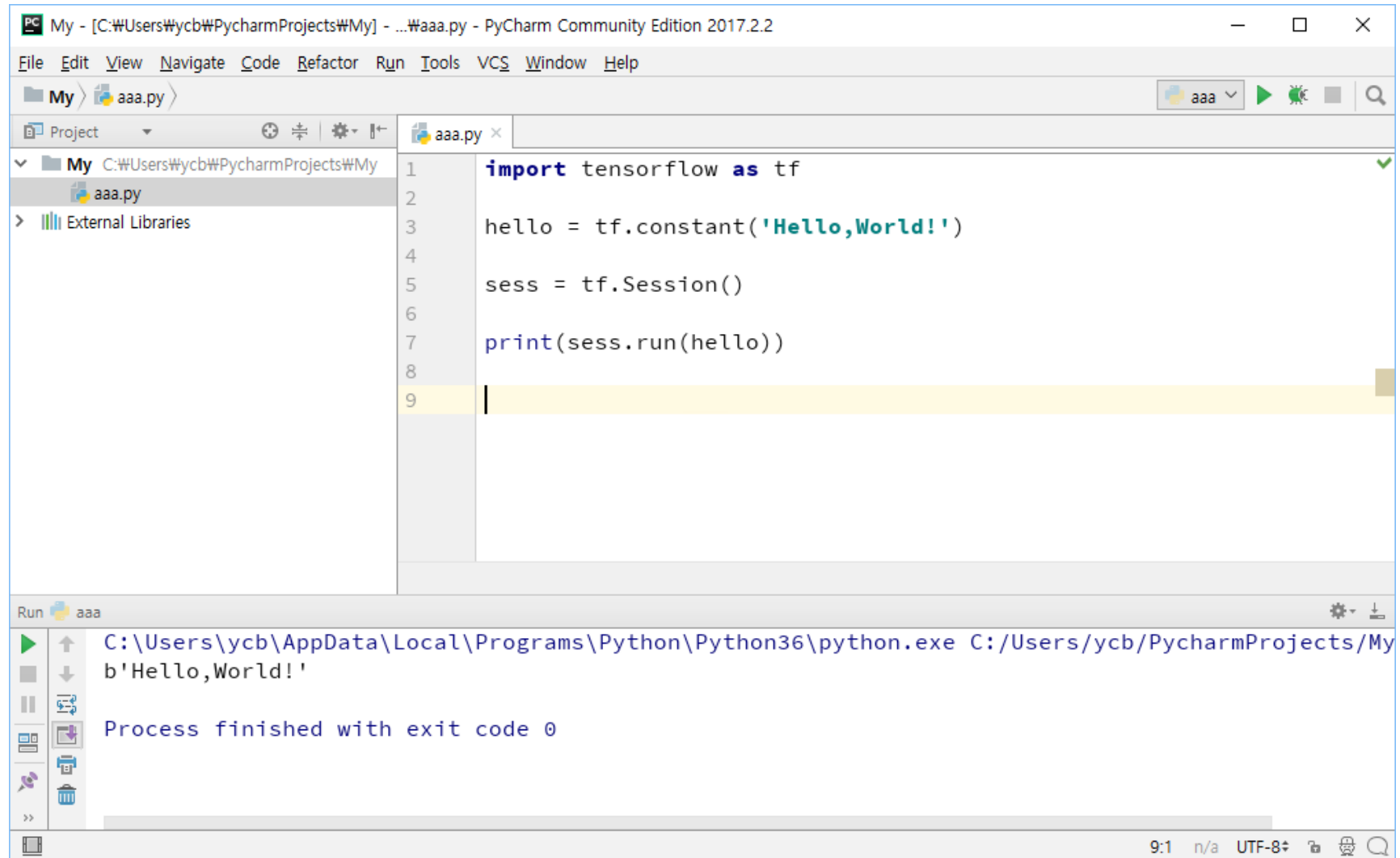
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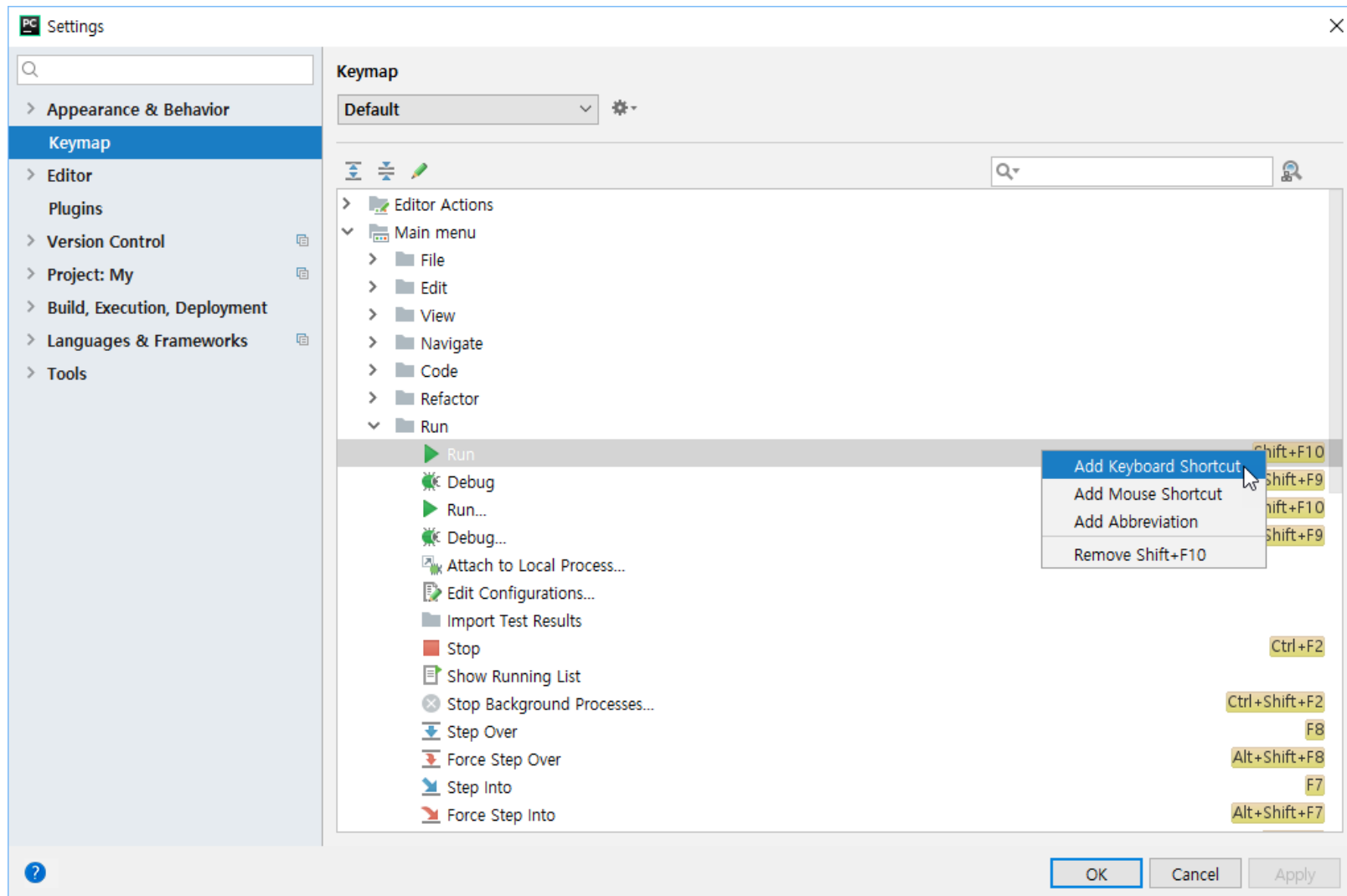
## (5) PyCharm을 이용한 프로그래밍



## (5) PyCharm을 이용한 프로그래밍



## (6) 단축키 설정





## (7) PyCharm 기본 단축키

- 이전 혹은 다음 작업 하던 곳으로 빠르게 이동
  - Alt + ←, Alt + →
- 선언/정의 부분으로 빠르게 가기
  - Ctrl + B
- 변수/함수 이름 일괄적으로 바꾸기
  - Shift + F6

# 요 약

- Python과 TensorFlow 설치
- PyCharm IDE 설치 및 프로그래밍