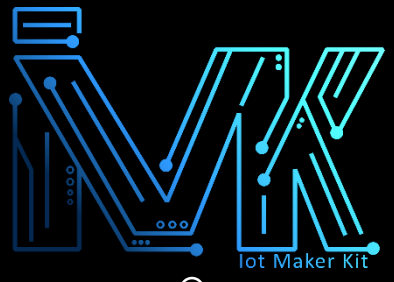

AI스피커를 이용한 LoRa모듈제어

[GitHub Link]

2019. 01. 26 토요일

박형준 (khuphj@gmail.com)

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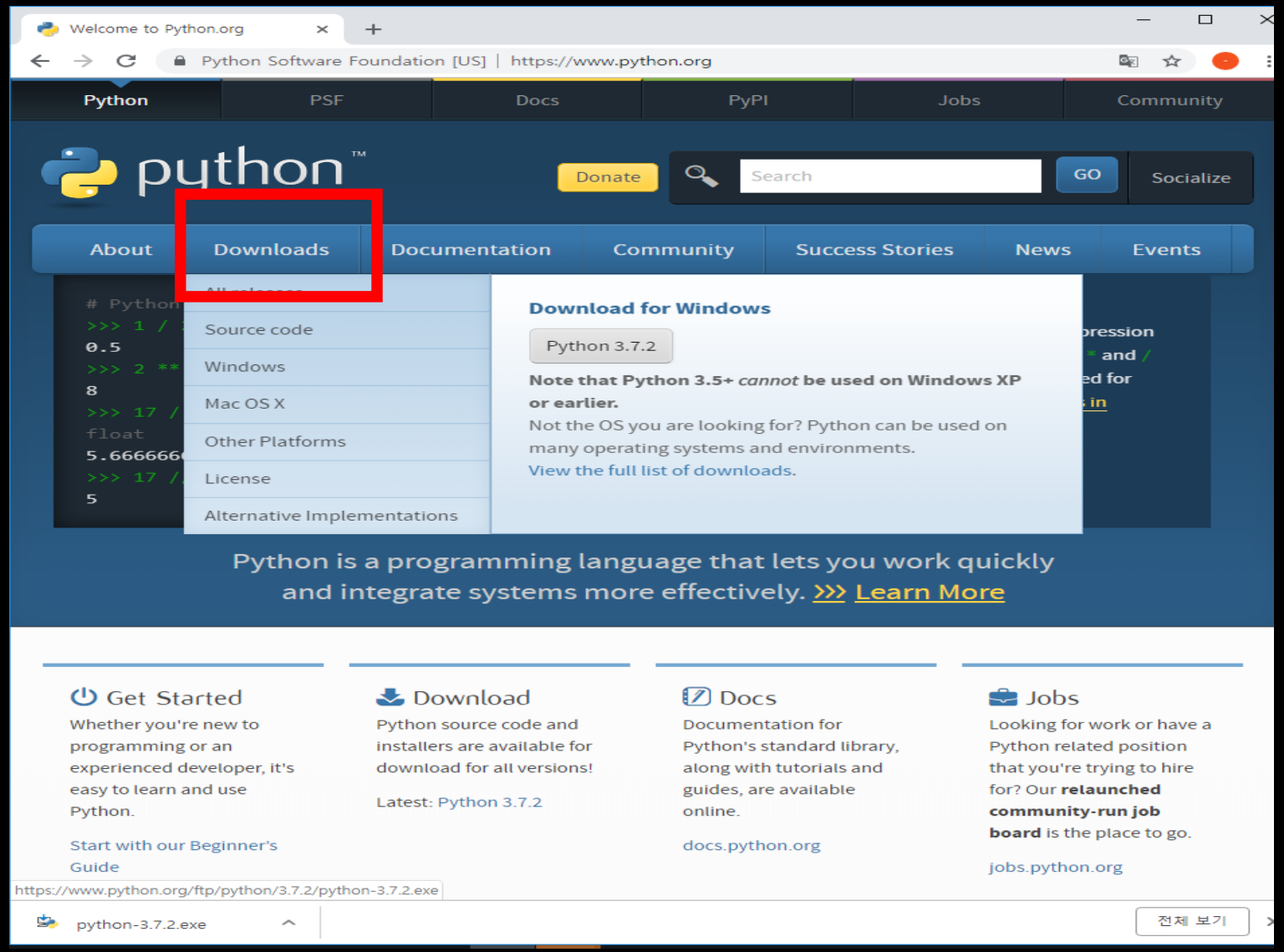
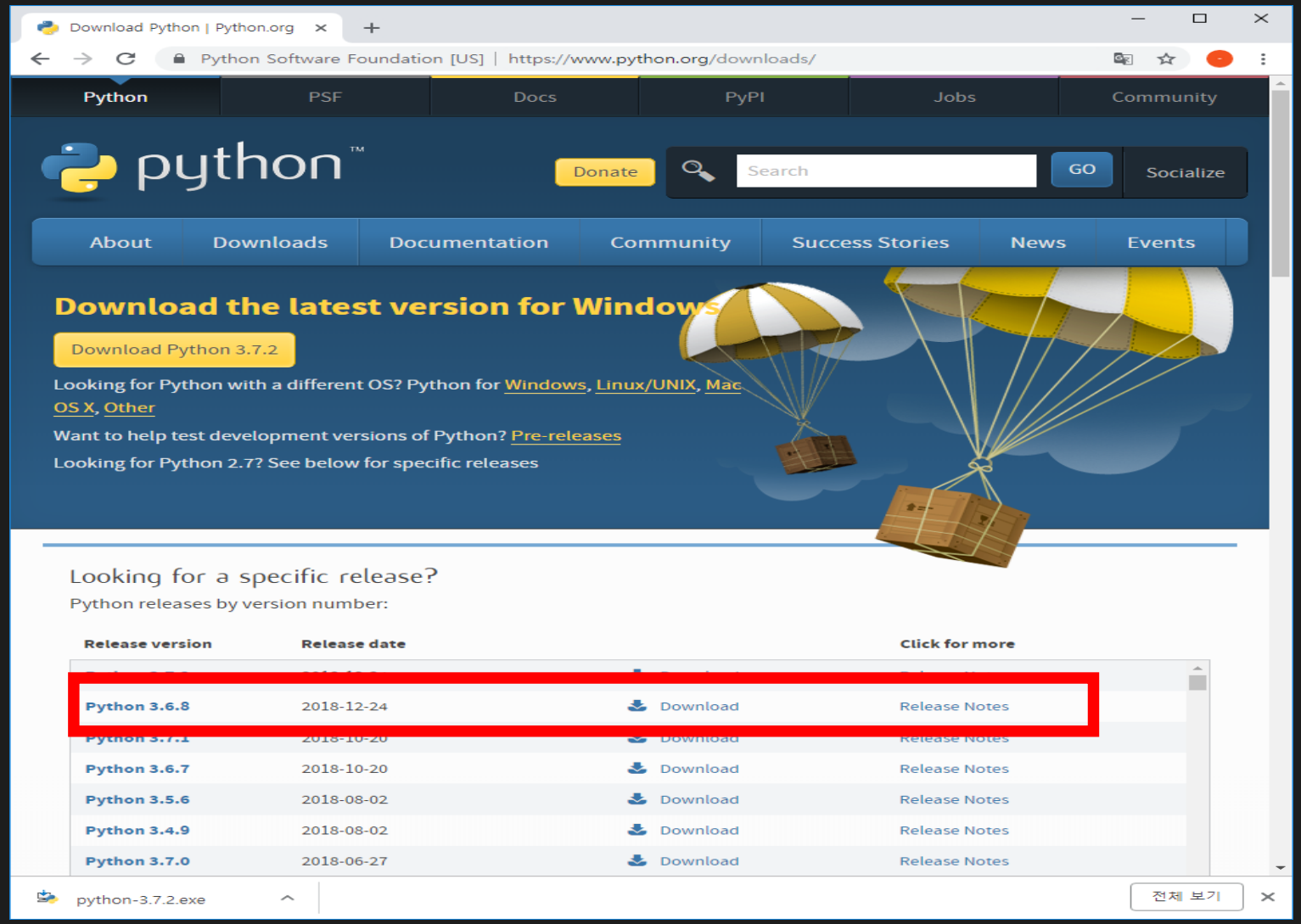
01. python 설치



https://www.python.org/

01. python 설치


Download Python | Python.org
Python Software Foundation [US] | https://www.python.org/downloads/
Python
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Release version
Release date
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Python 3.6.8 2018-12-24 Download Release Notes
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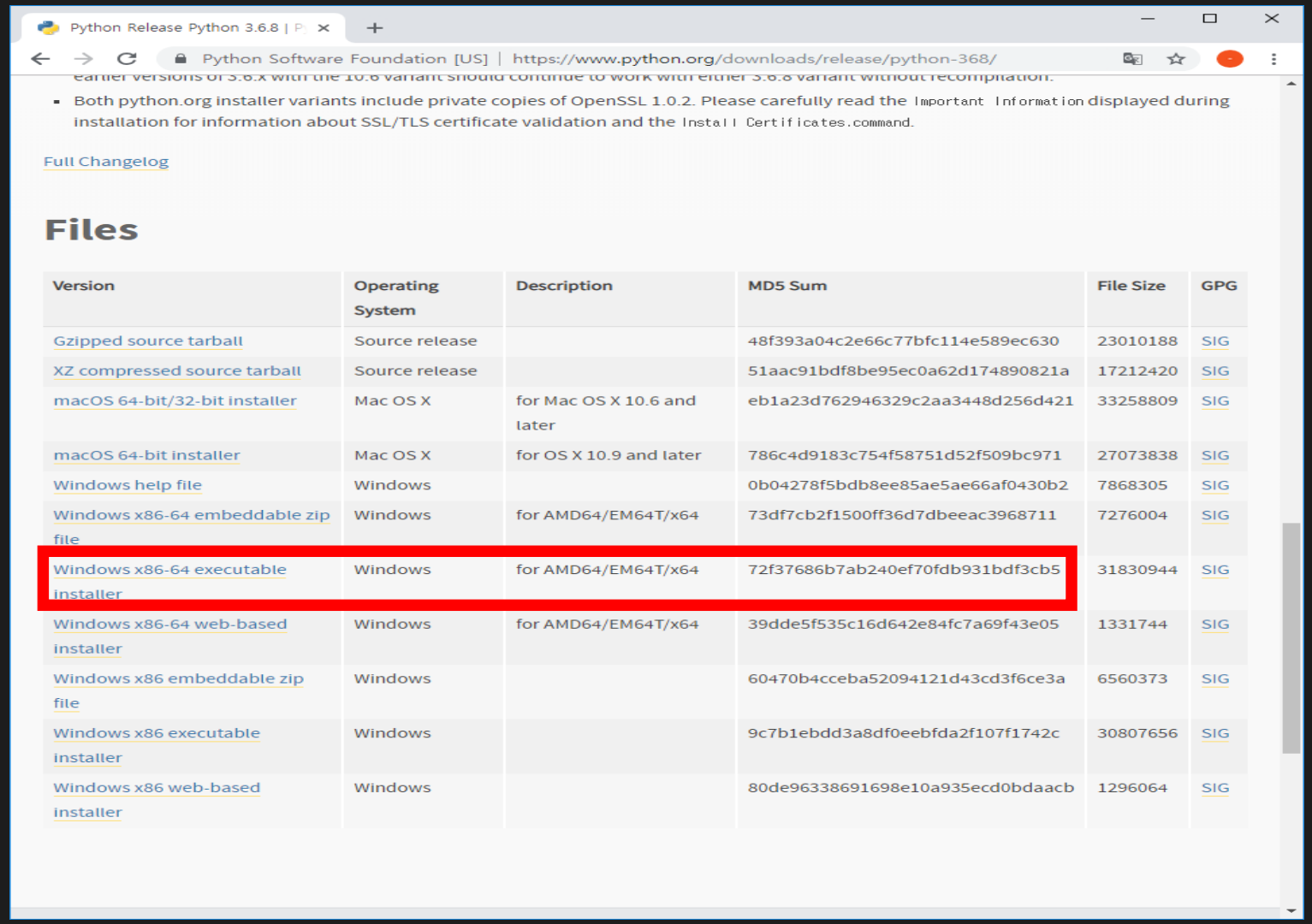
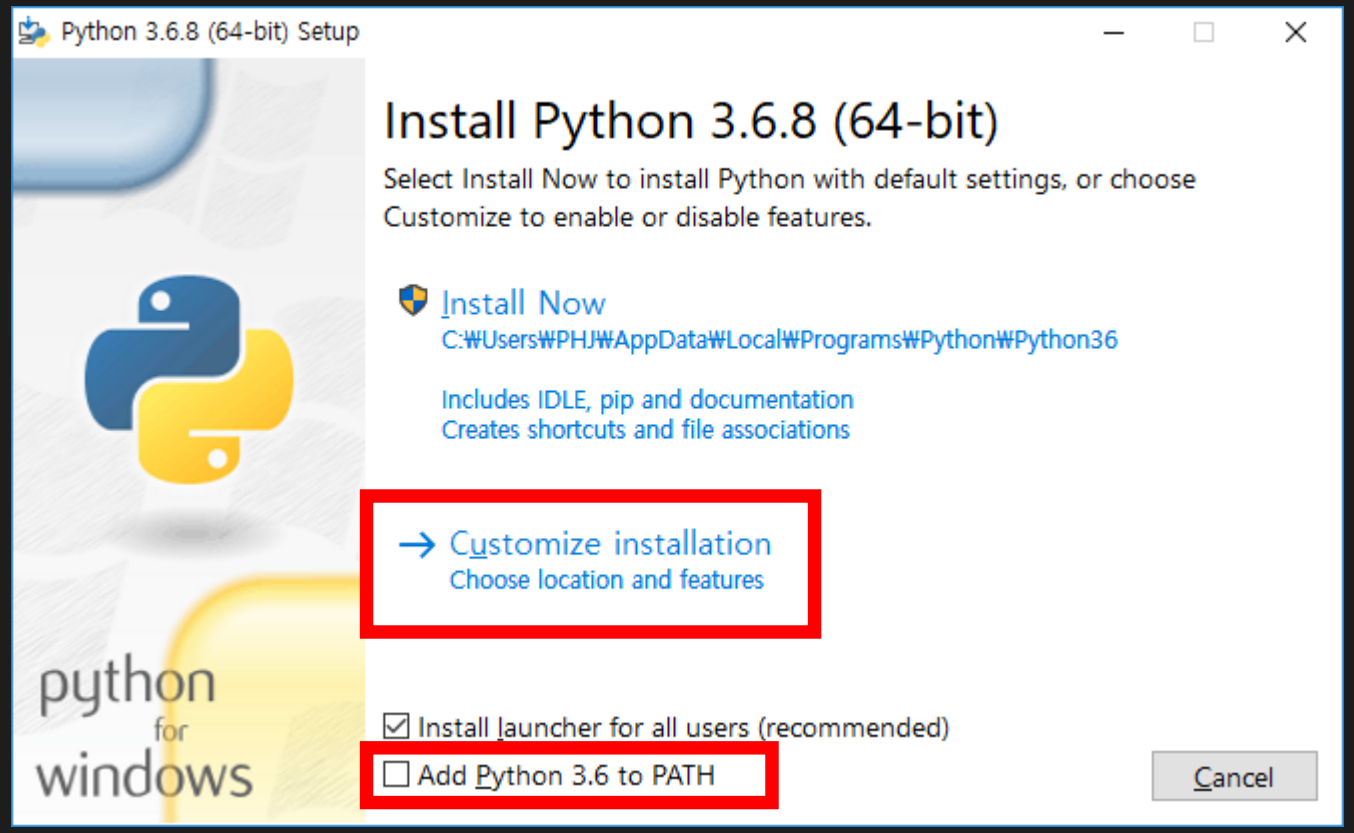
Python 3.5.6 2018-08-02 Download Release Notes
Python 3.4.9 2018-08-02 Download Release Notes
Python 3.7.0 2018-06-27 Download Release Notes
python-3.7.2.exe
전체 보기

01. python 설치

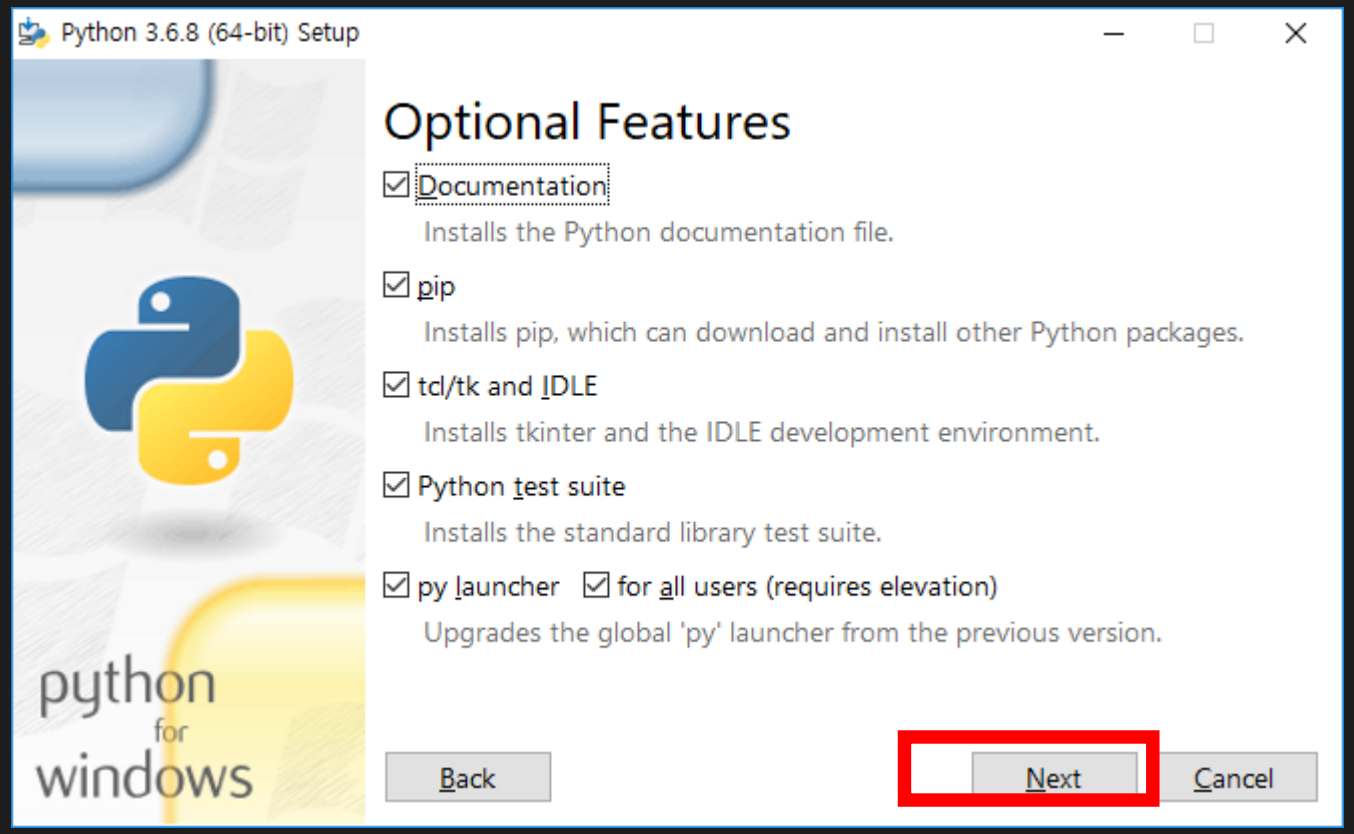

Python Release Python 3.6.8
Python Software Foundation [US] | https://www.python.org/downloads/release/python-368/
Both python.org installer variants include private copies of OpenSSL 1.0.2. Please carefully read the Important Information displayed during installation for information about SSL/TLS certificate validation and the Install Certificates.command.
Full Changelog
Files
Version | Operating System | Description | MD5 Sum | File Size | GPG
Gzipped source tarball | Source release | | 48f393a04c2e66c77bfc114e589ec630 | 23010188 | SIG
XZ compressed source tarball | Source release | | 51aac91bdf8be95ec0a62d174890821a | 17212420 | SIG
macOS 64-bit/32-bit installer | Mac OS X | for Mac OS X 10.6 and later | eb1a23d762946329c2aa3448d256d421 | 33258809 | SIG
macOS 64-bit installer | Mac OS X | for OS X 10.9 and later | 786c4d9183c754f58751d52f509bc971 | 27073838 | SIG
Windows help file | Windows | | 0b04278f5bdb8ee85ae5ae66af0430b2 | 7868305 | SIG
Windows x86-64 embeddable zip file | Windows | for AMD64/EM64T/x64 | 73df7cb2f1500ff36d7dbeeac3968711 | 7276004 | SIG
Windows x86-64 executable installer | Windows | for AMD64/EM64T/x64 | 72f37686b7ab240ef70fdb931bdf3cb5 | 31830944 | SIG
Windows x86-64 web-based installer | Windows | for AMD64/EM64T/x64 | 39dde5f535c16d642e84fc7a69f43e05 | 1331744 | SIG
Windows x86 embeddable zip file | Windows | | 60470b4cceba52094121d43cd3f6ce3a | 6560373 | SIG
Windows x86 executable installer | Windows | | 9c7b1ebdd3a8df0eebfda2f107f1742c | 30807656 | SIG
Windows x86 web-based installer | Windows | | 80de96338691698e10a935ecd0bdaacb | 1296064 | SIG

01. python 설치

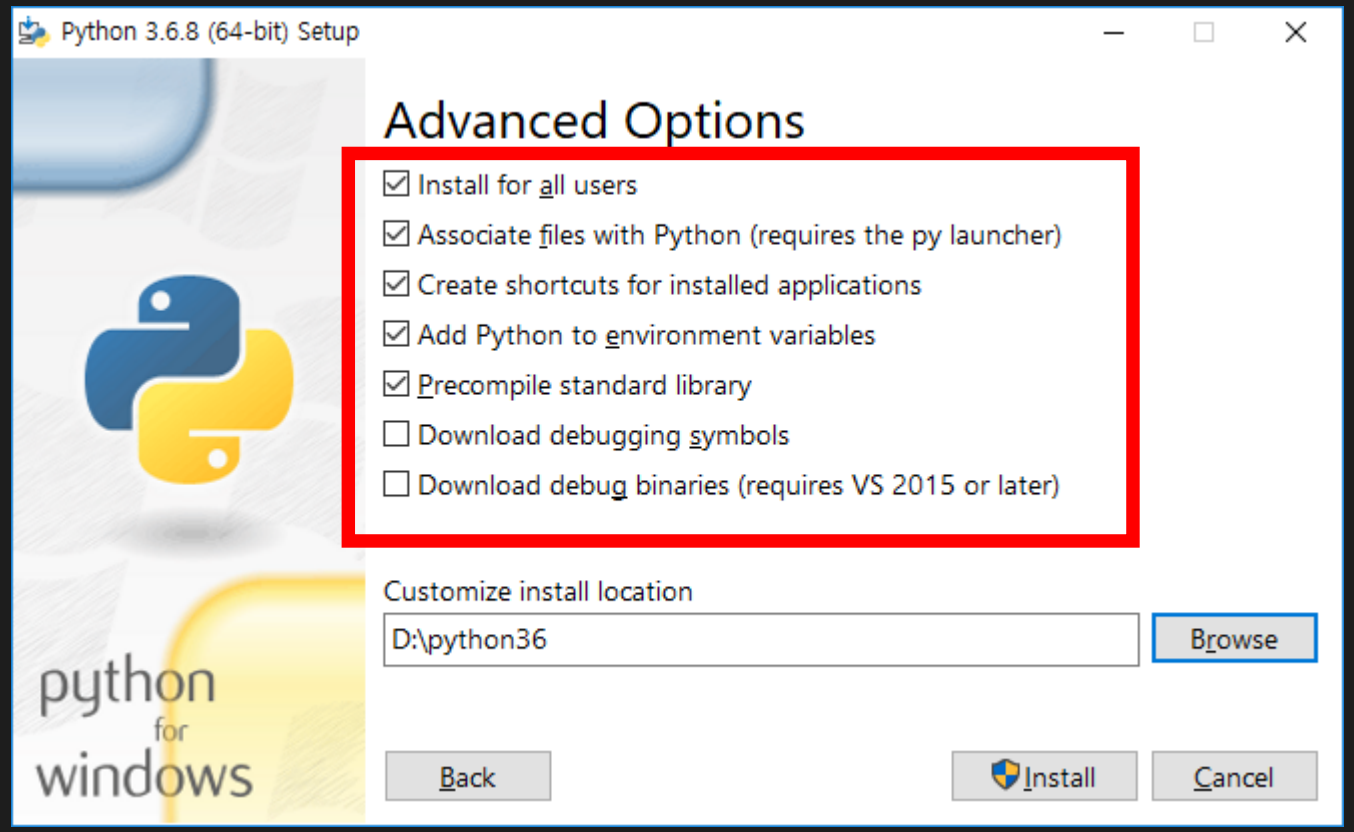


체크후 넘어갑니다.

01. python 설치

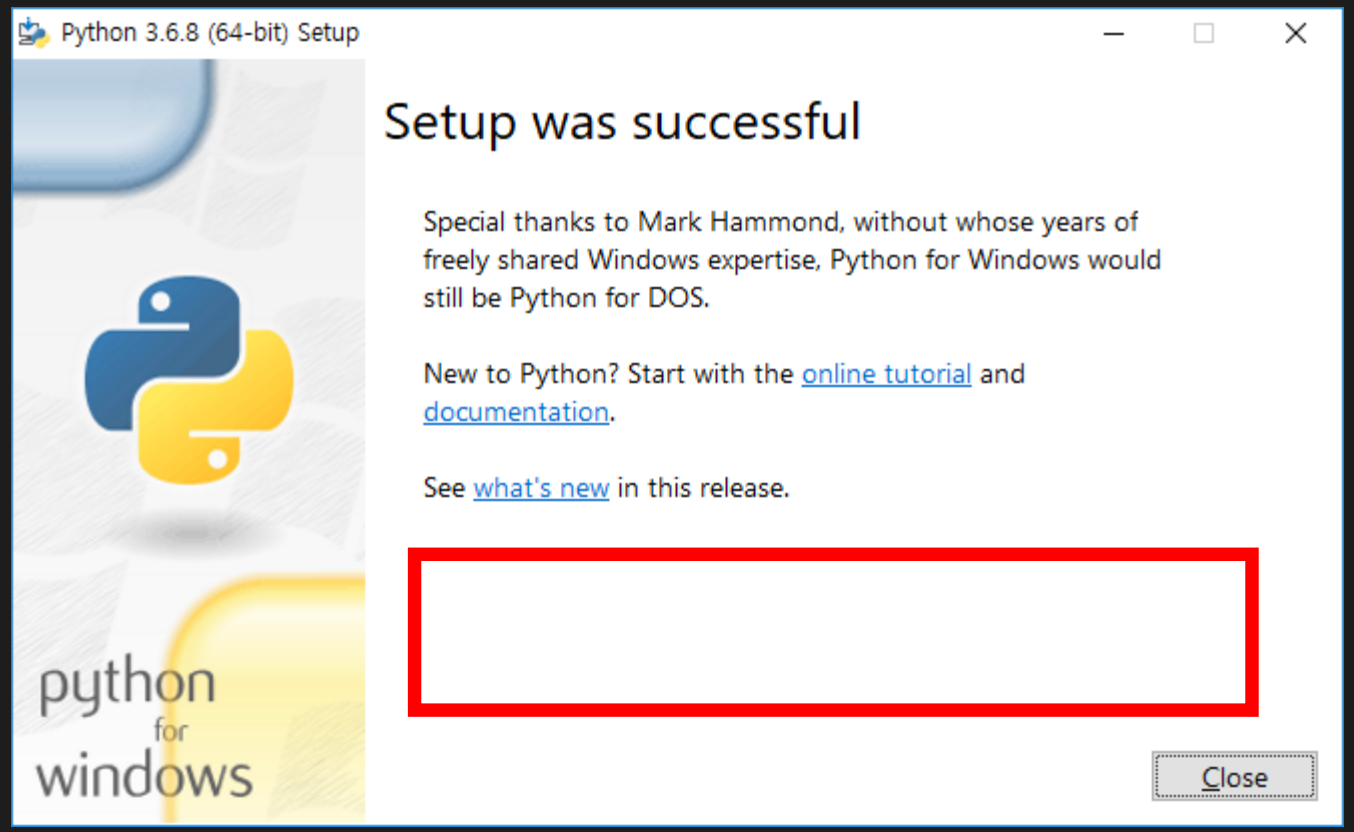

Python 3.6.8 (64-bit) Setup
Optional Features
Documentation
Installs the Python documentation file.
pip
Installs pip, which can download and install other Python packages.
tcl/tk and IDLE
Installs tkinter and the IDLE development environment.
Python test suite
Installs the standard library test suite.
py launcher
for all users (requires elevation)
Upgrades the global 'py' launcher from the previous version.
python
for
windows
Back
Next
Cancel

01. python 설치



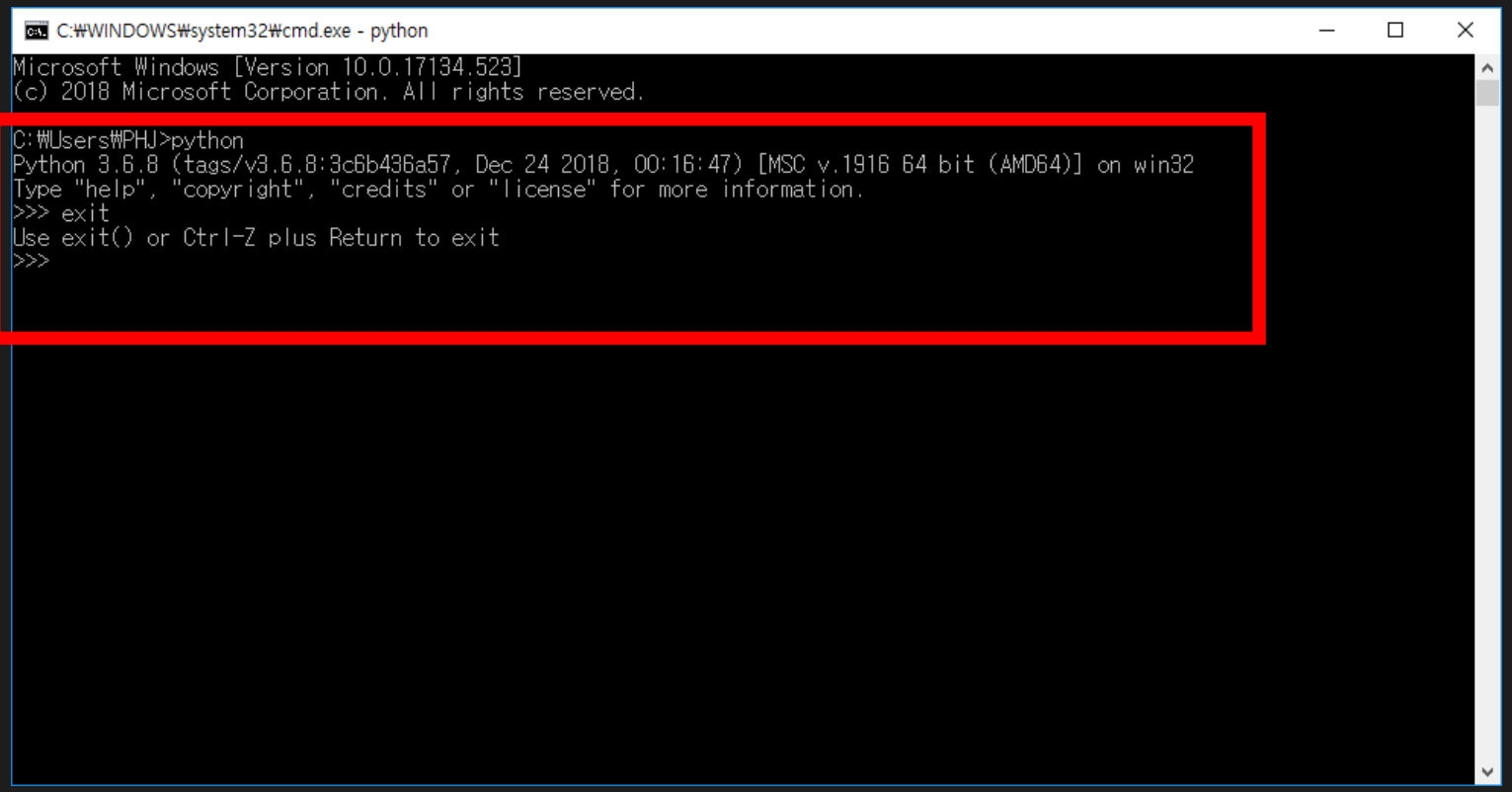
Environment var 나 install for all user
잘 확인후 다음

01. python 설치



네모칸에 disable limit 뜨면 클릭

01. python 설치

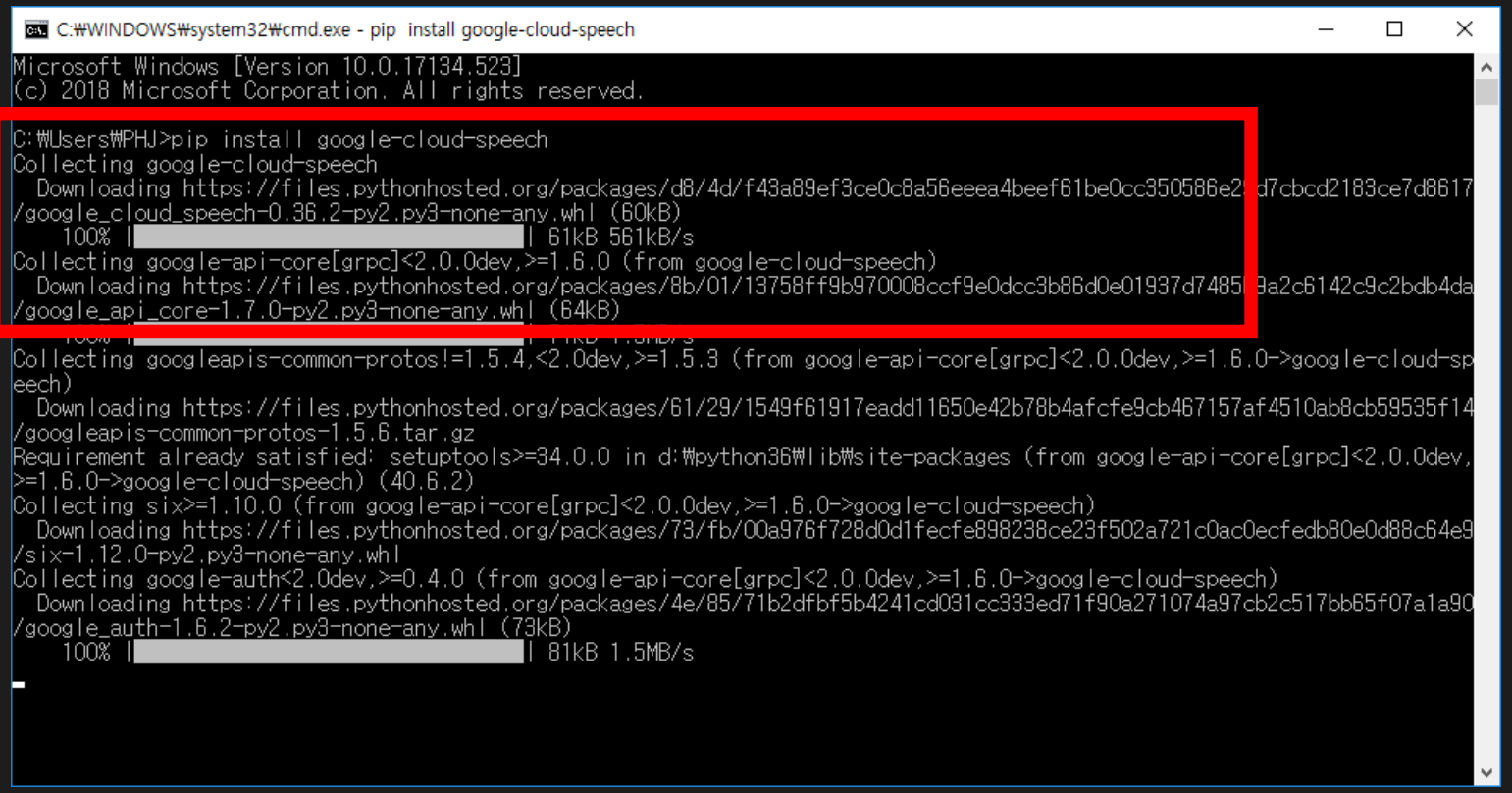


- Python

명령어를 입력하여 인터프리터로 잘변하면

성공

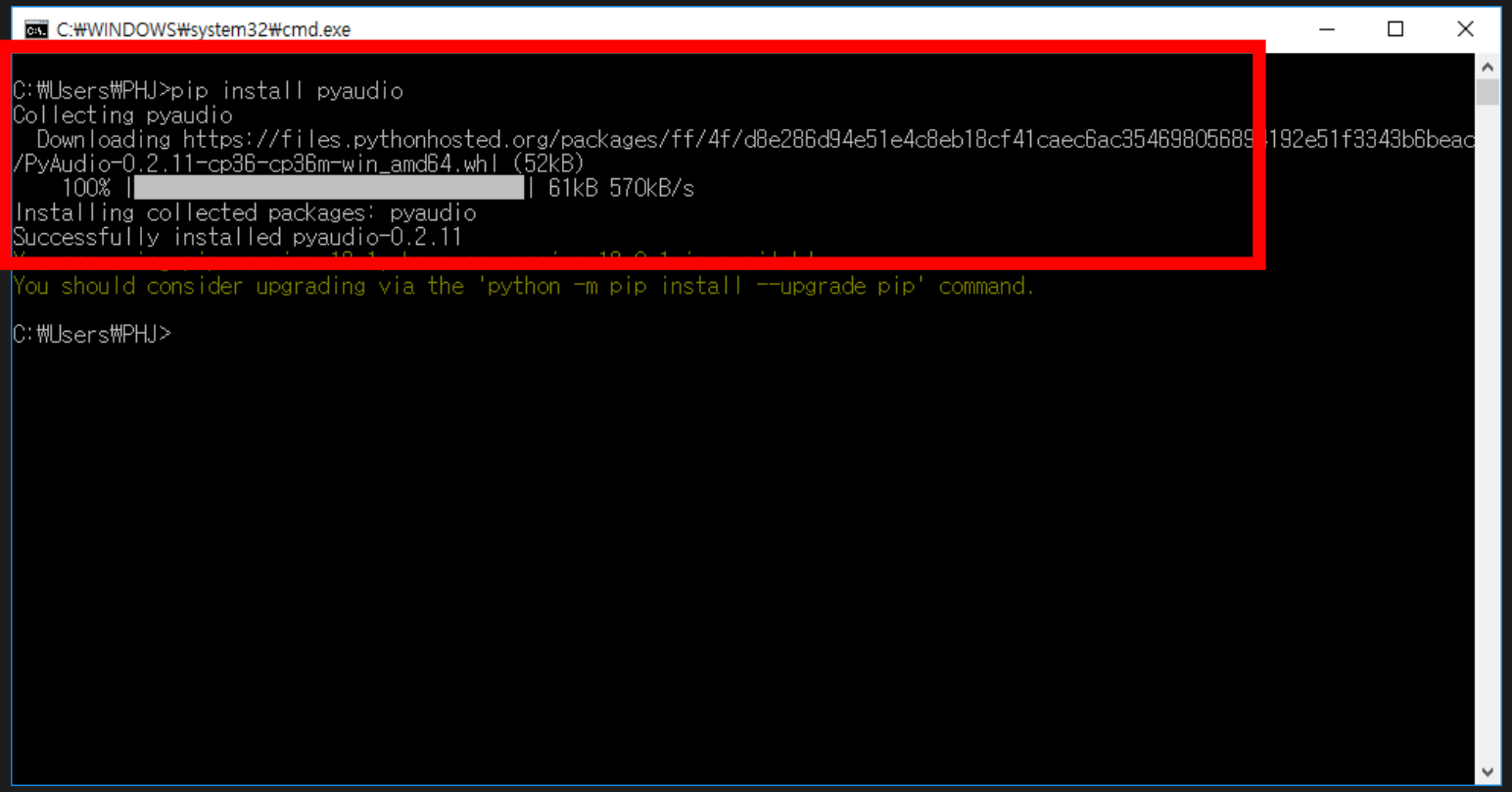
02. 패키지 설치



패키지 설치

pip install google-cloud-speech

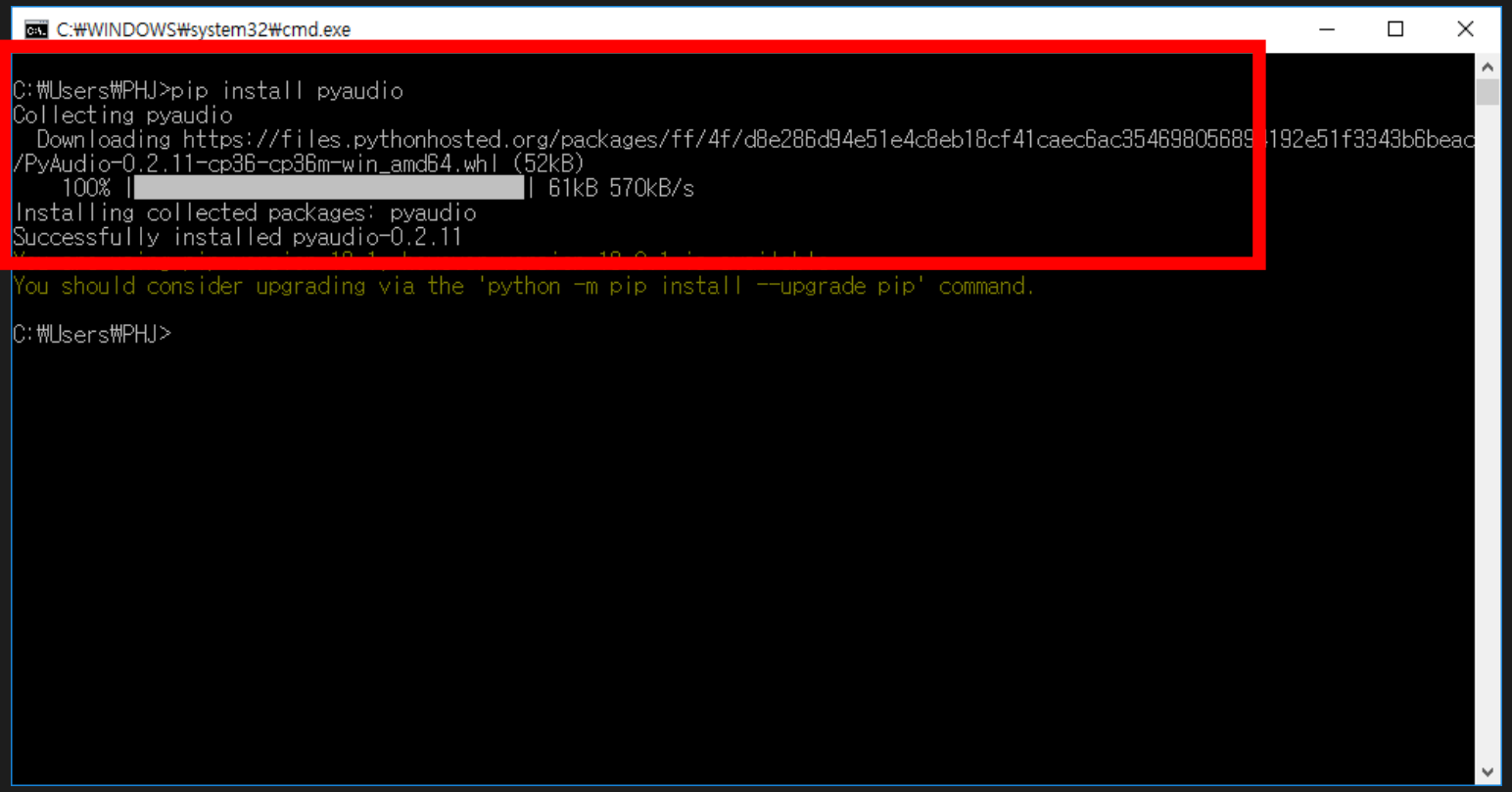
02. 패키지 설치



패키지 설치

pip install pyaudio

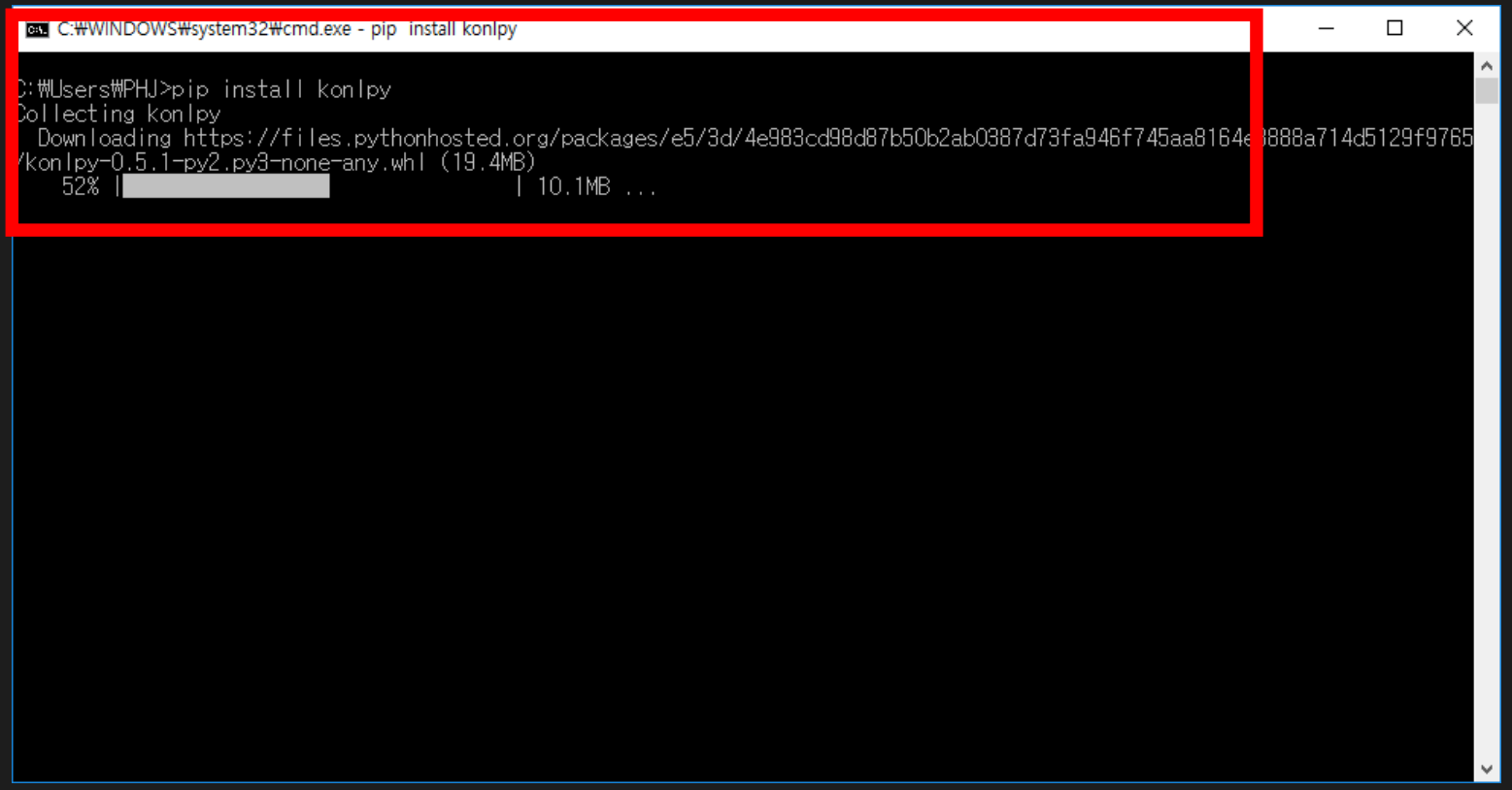
02. 패키지 설치



패키지 설치

pip install pyaudio

02. 패키지 설치

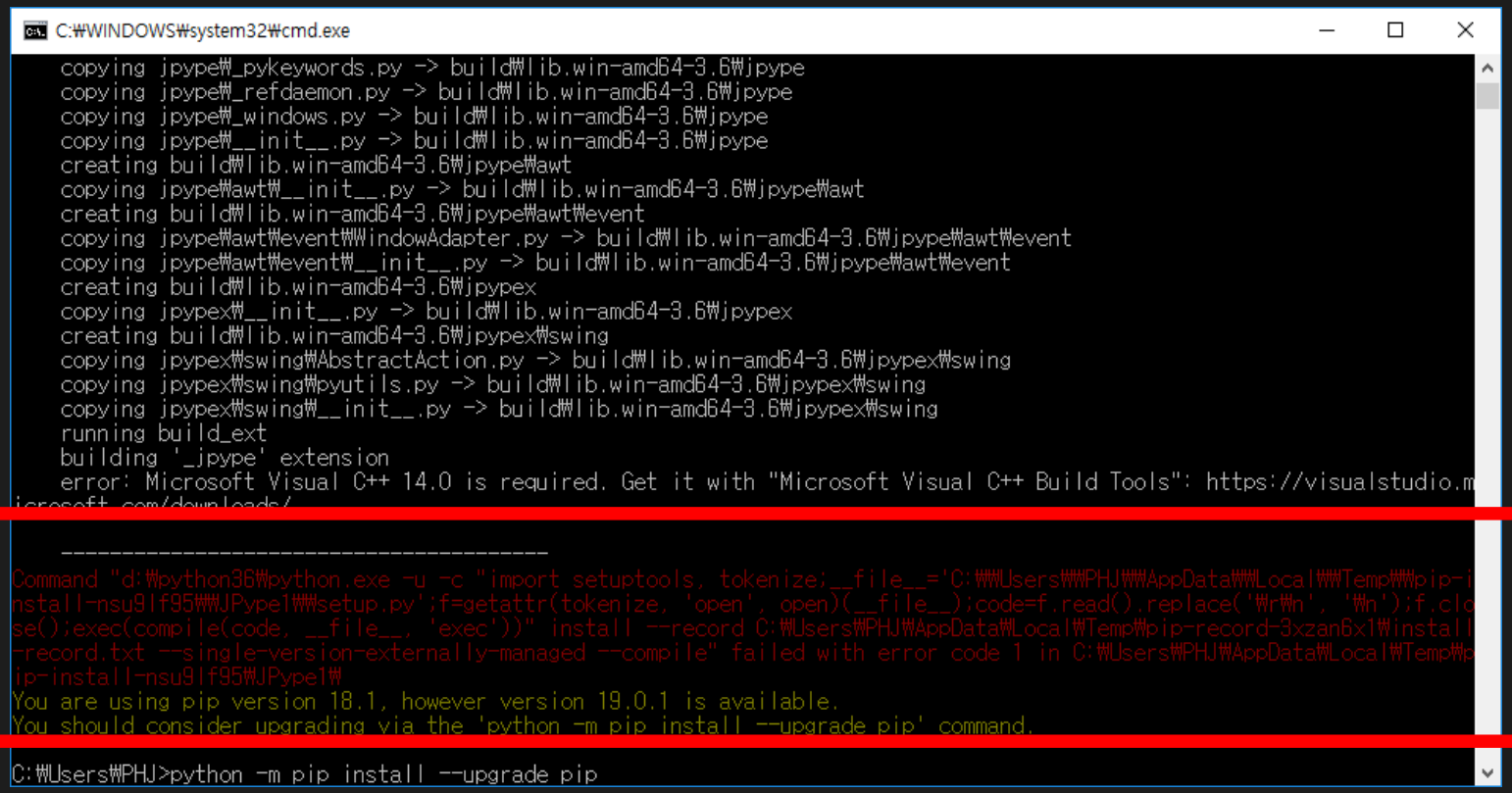


패키지 설치

pip install konlpy

http://konlpy.org/en/latest/install/#id2

02. 패키지 설치

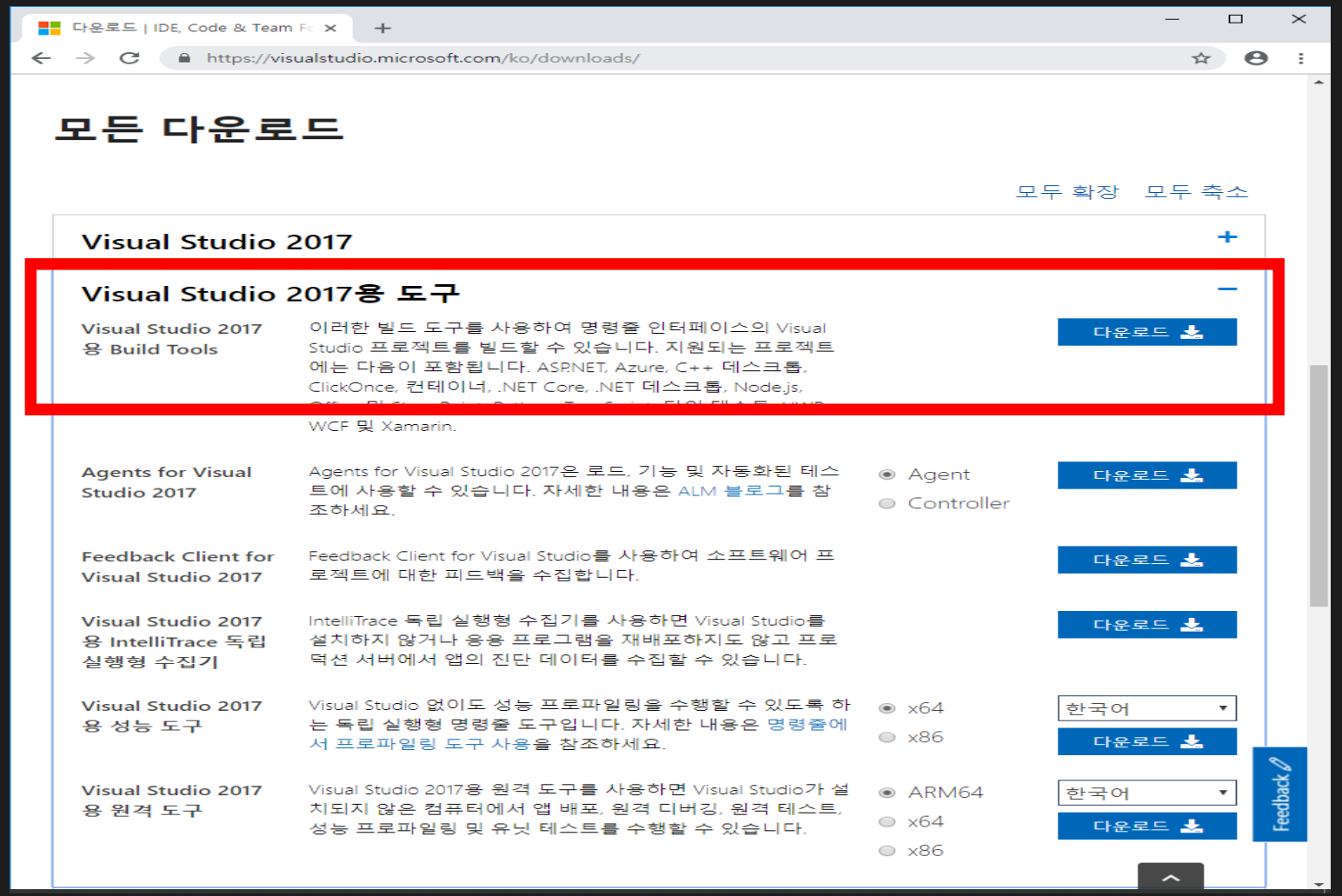


C++ SDK 오류시

https://visualstudio.microsoft.com/ko/downloads/

설치

02. 패키지 설치

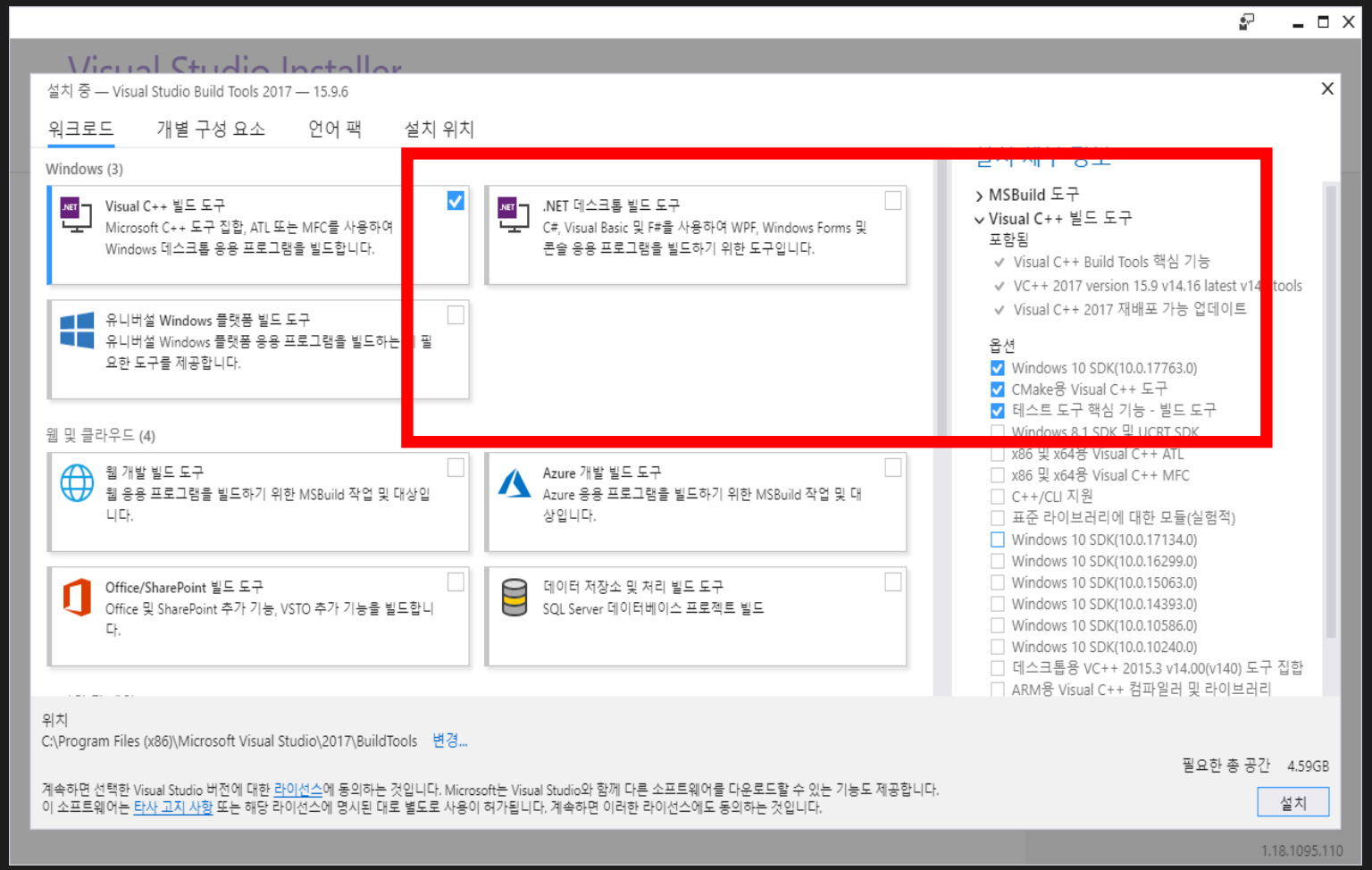


C++ SDK 오류시

https://visualstudio.microsoft.com/ko/downloads/

설치

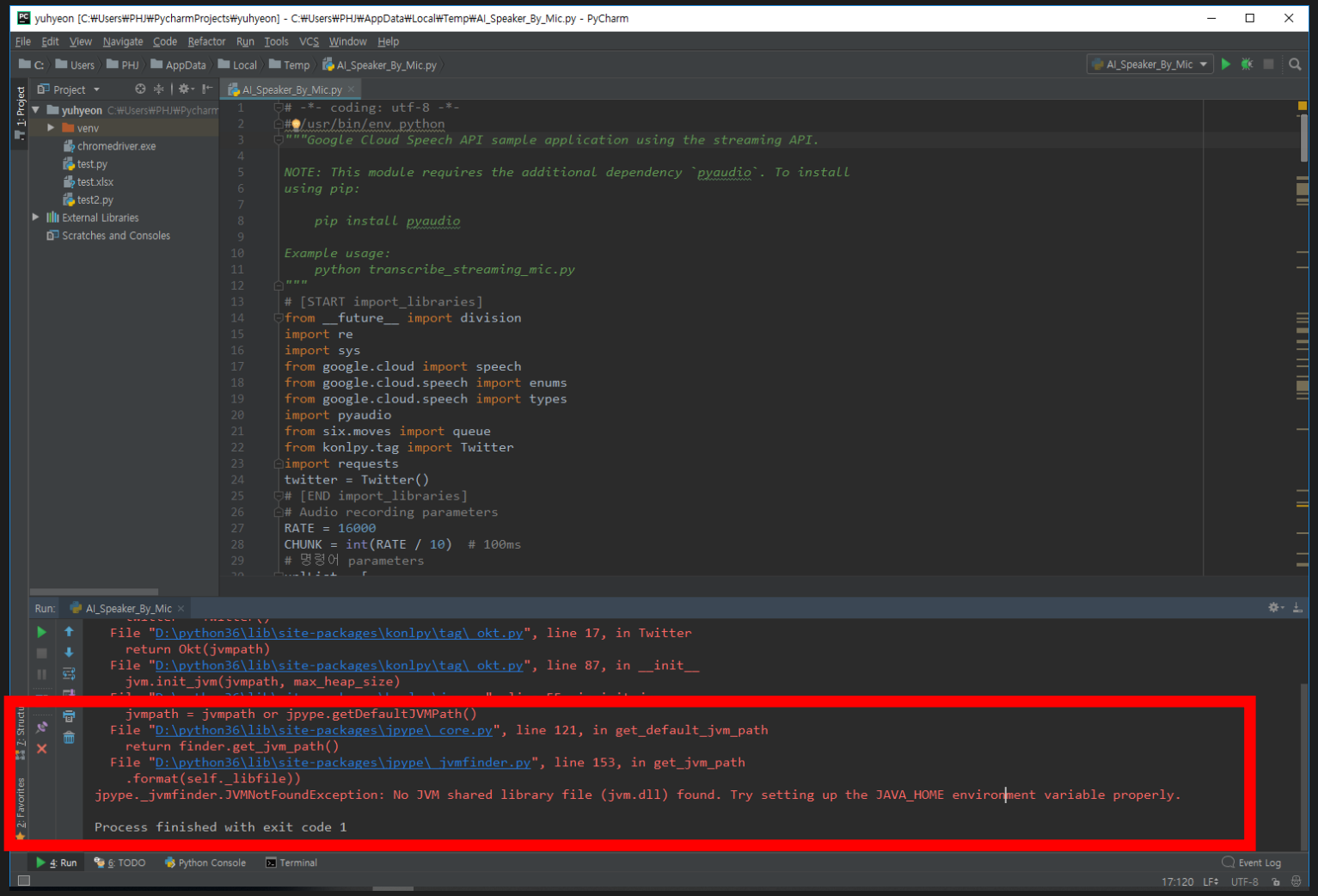
02. 패키지 설치



설치시 네모칸 SDK 체크확인

C++ 빌드 도구 설치

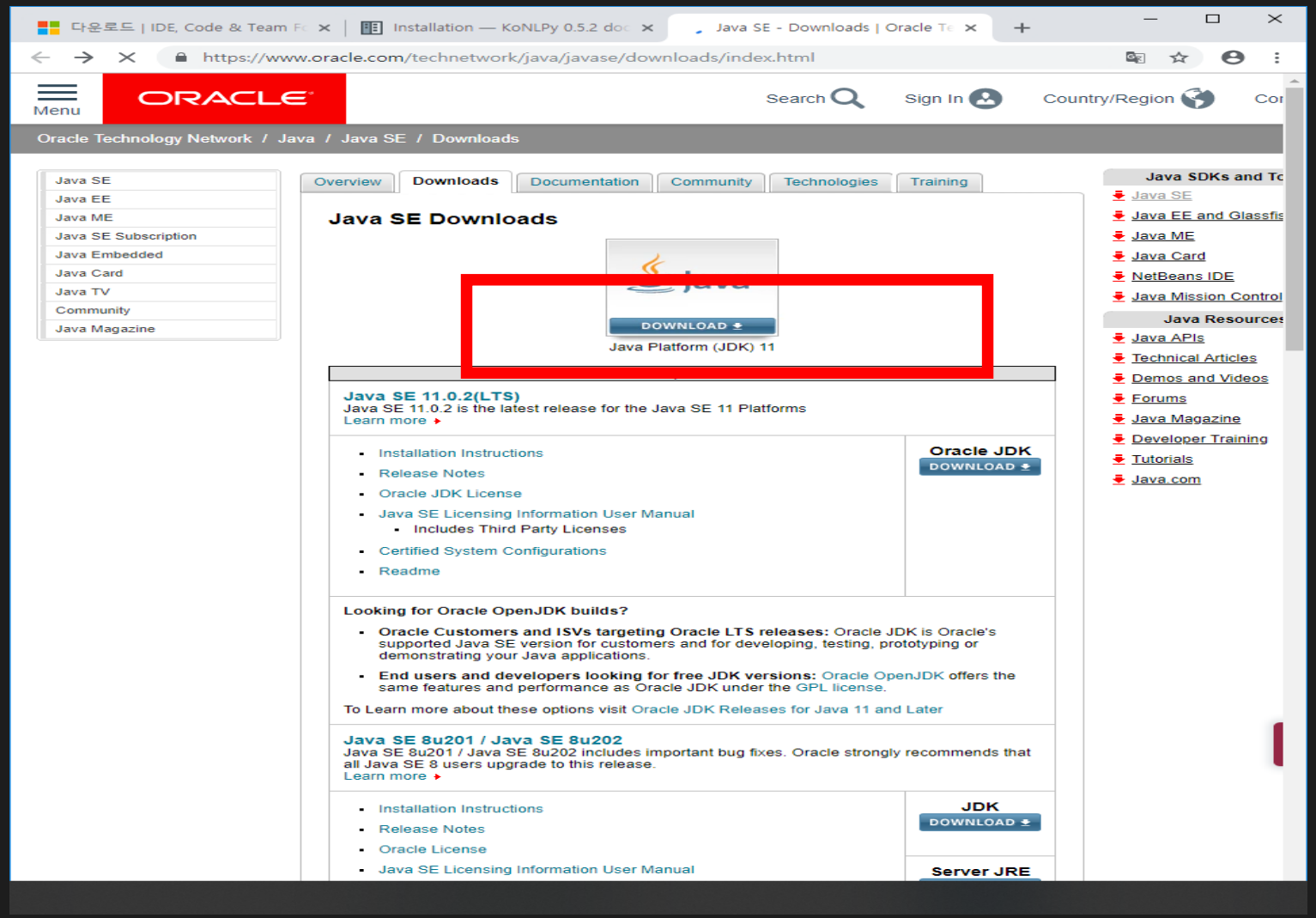
02. 패키지 설치



코드 실행해보기

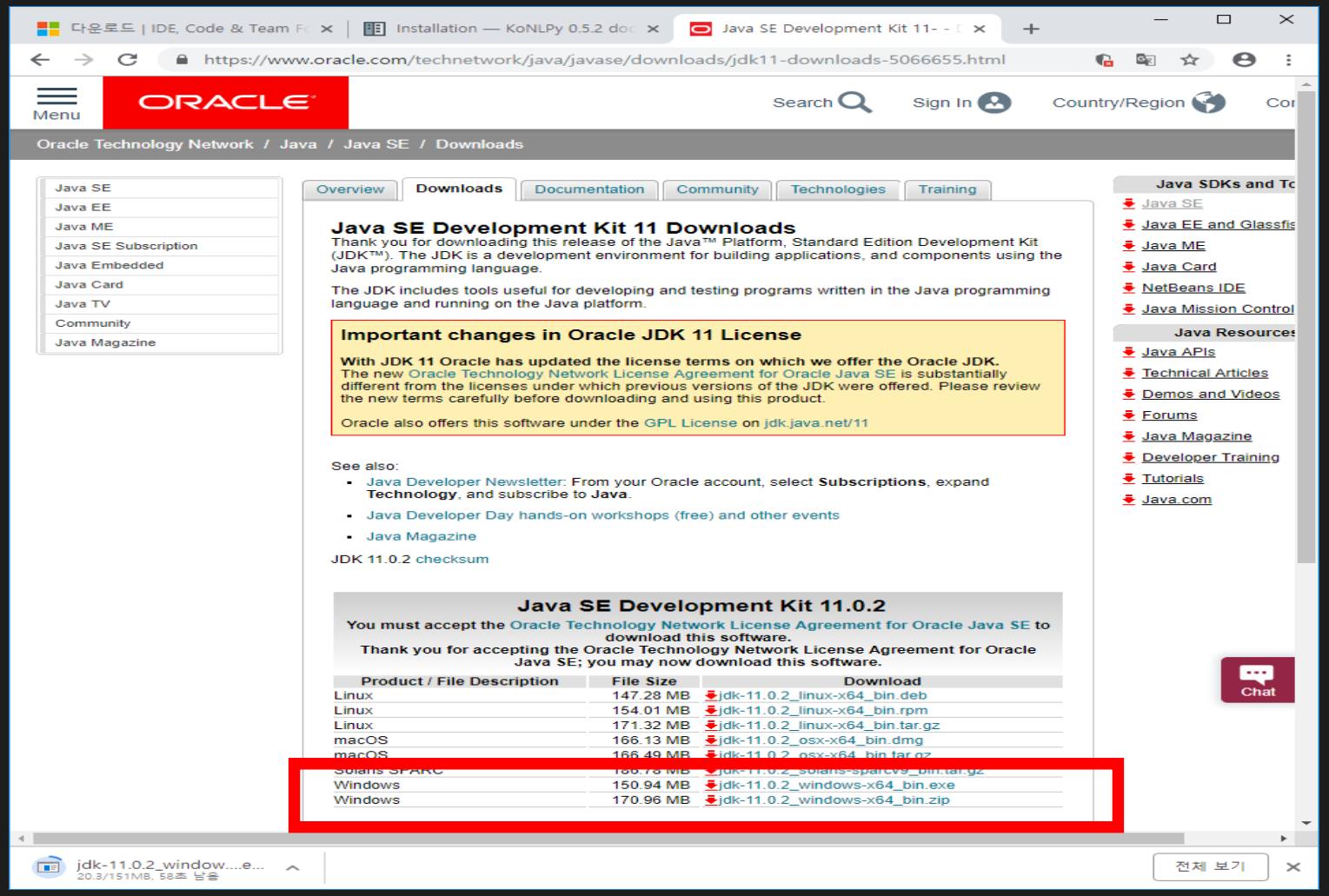
If JVM 오류시

02. 패키지 설치



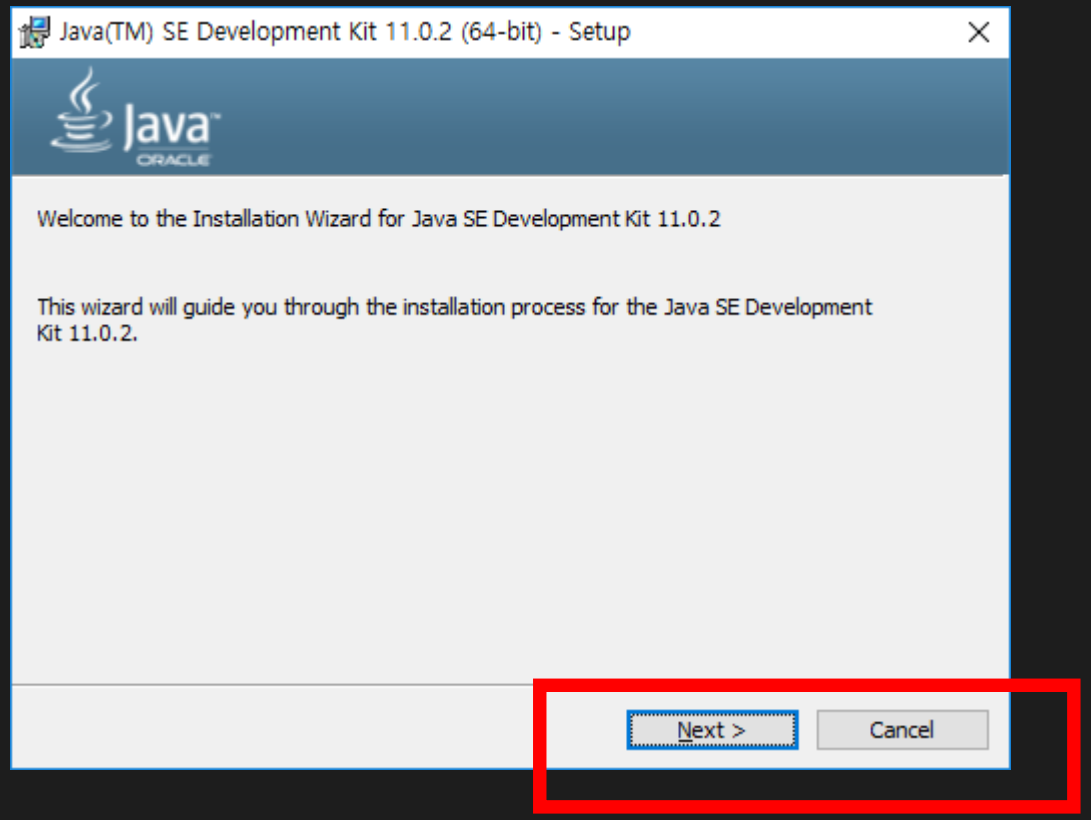
JDK 설치
https://www.oracle.com/technetwork/java/javase/downloads/index.html

02. 패키지 설치

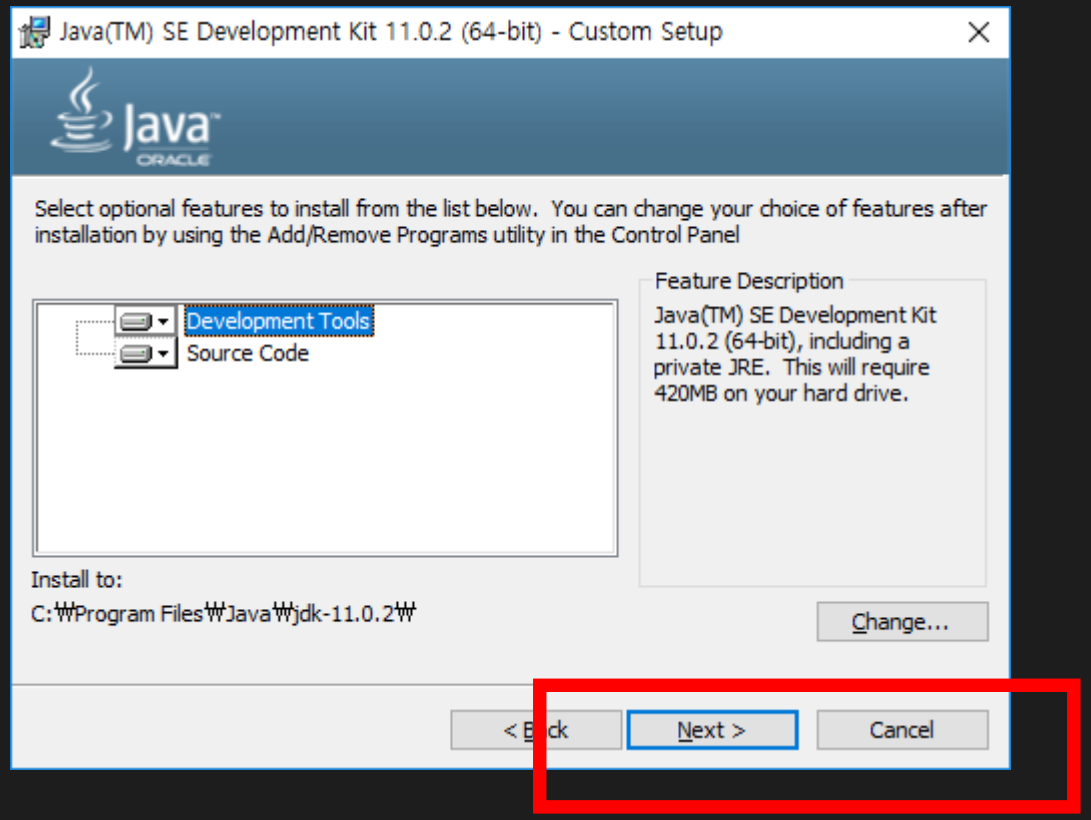


Accept 라디오버튼 누른후
Exe파일 다운로드

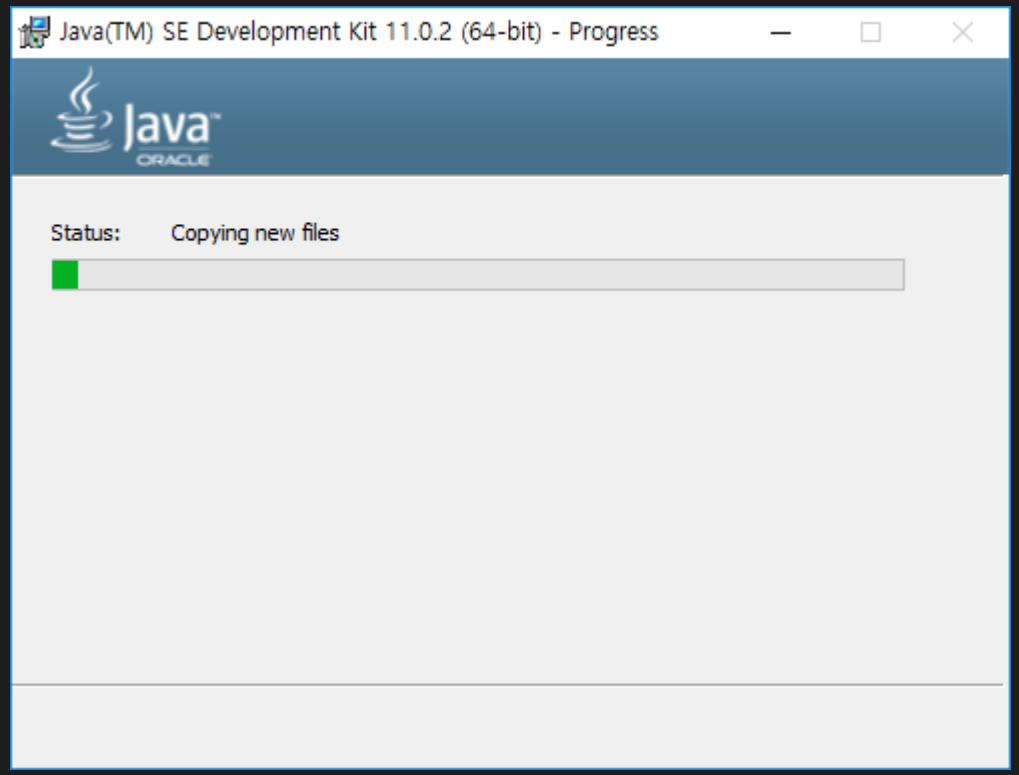
02. 패키지 설치


Java(TM) SE Development Kit 11.0.2 (64-bit) - Setup
Java
ORACLE
Welcome to the Installation Wizard for Java SE Development Kit 11.0.2
This wizard will guide you through the installation process for the Java SE Development Kit 11.0.2.
Next >
Cancel

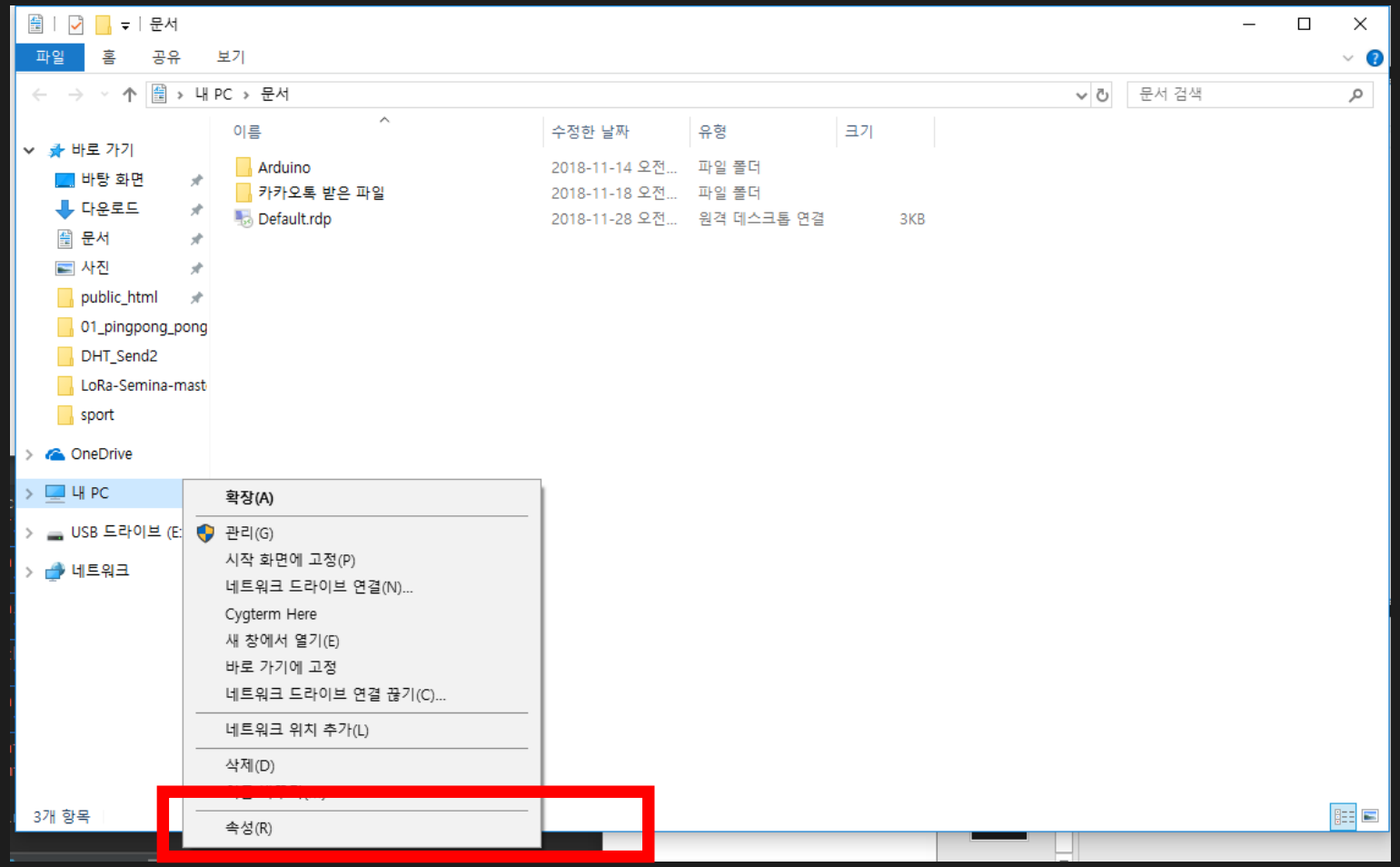
02. 패키지 설치


Java(TM) SE Development Kit 11.0.2 (64-bit) - Custom Setup
Java
ORACLE
Select optional features to install from the list below. You can change your choice of features after installation by using the Add/Remove Programs utility in the Control Panel
Development Tools
Source Code
Feature Description
Java(TM) SE Development Kit 11.0.2 (64-bit), including a private JRE. This will require 420MB on your hard drive.
Install to:
C:₩Program Files₩Java₩jdk-11.0.2₩
Change...
< Back
Next >
Cancel

02. 패키지 설치

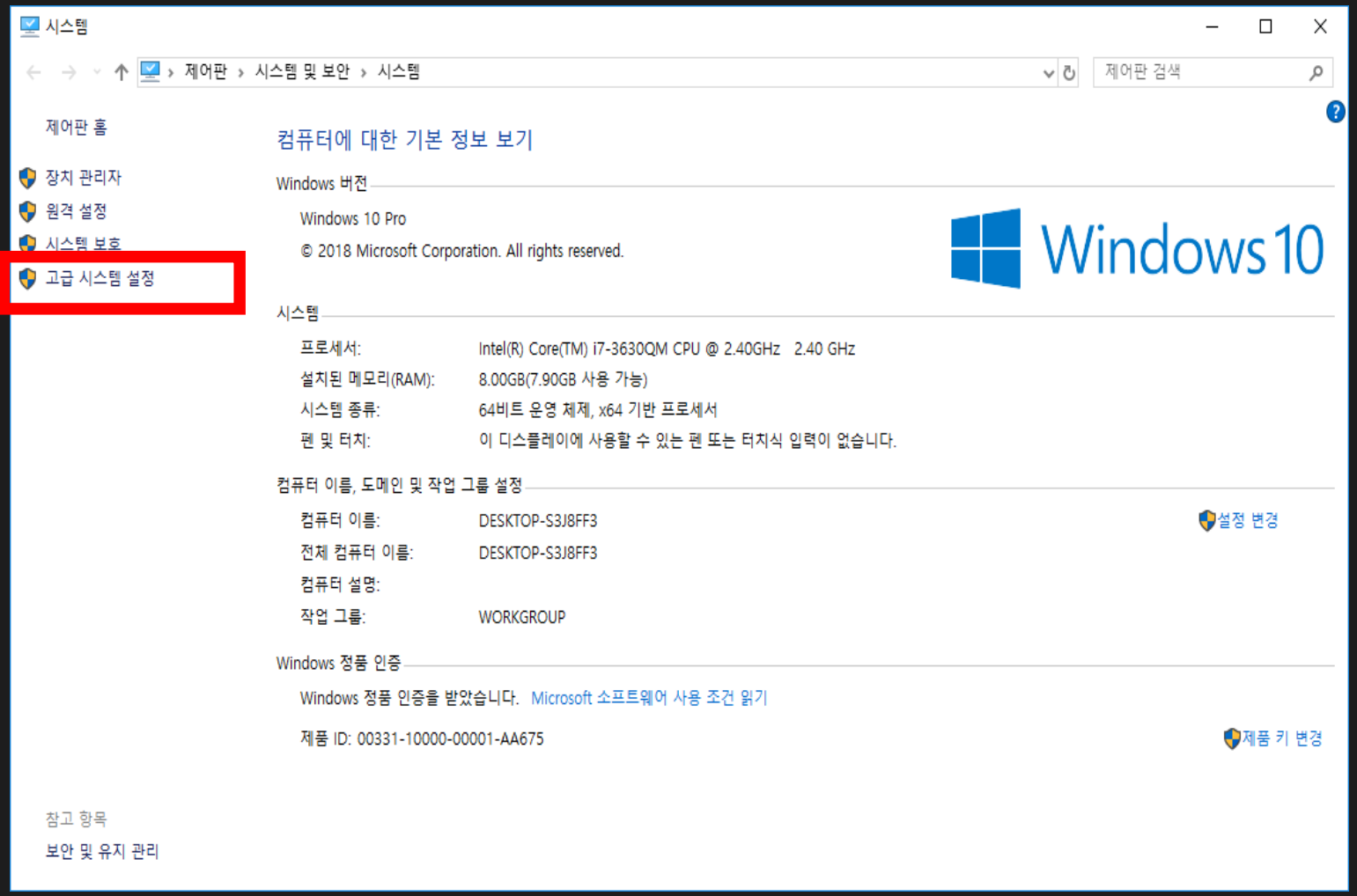

Java(TM) SE Development Kit 11.0.2 (64-bit) - Progress
Java
ORACLE
Status:
Copying new files

02. 패키지 설치



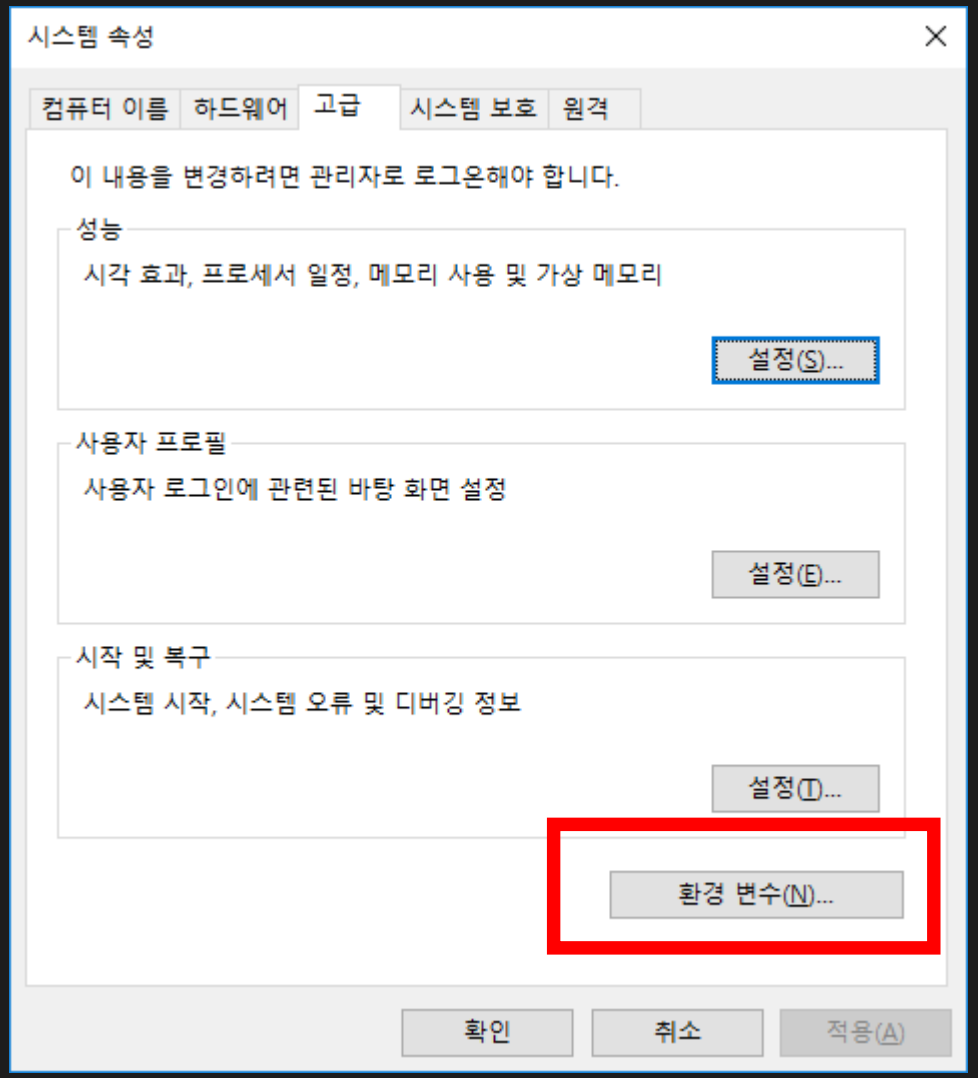
환경변수 추가

02. 패키지 설치

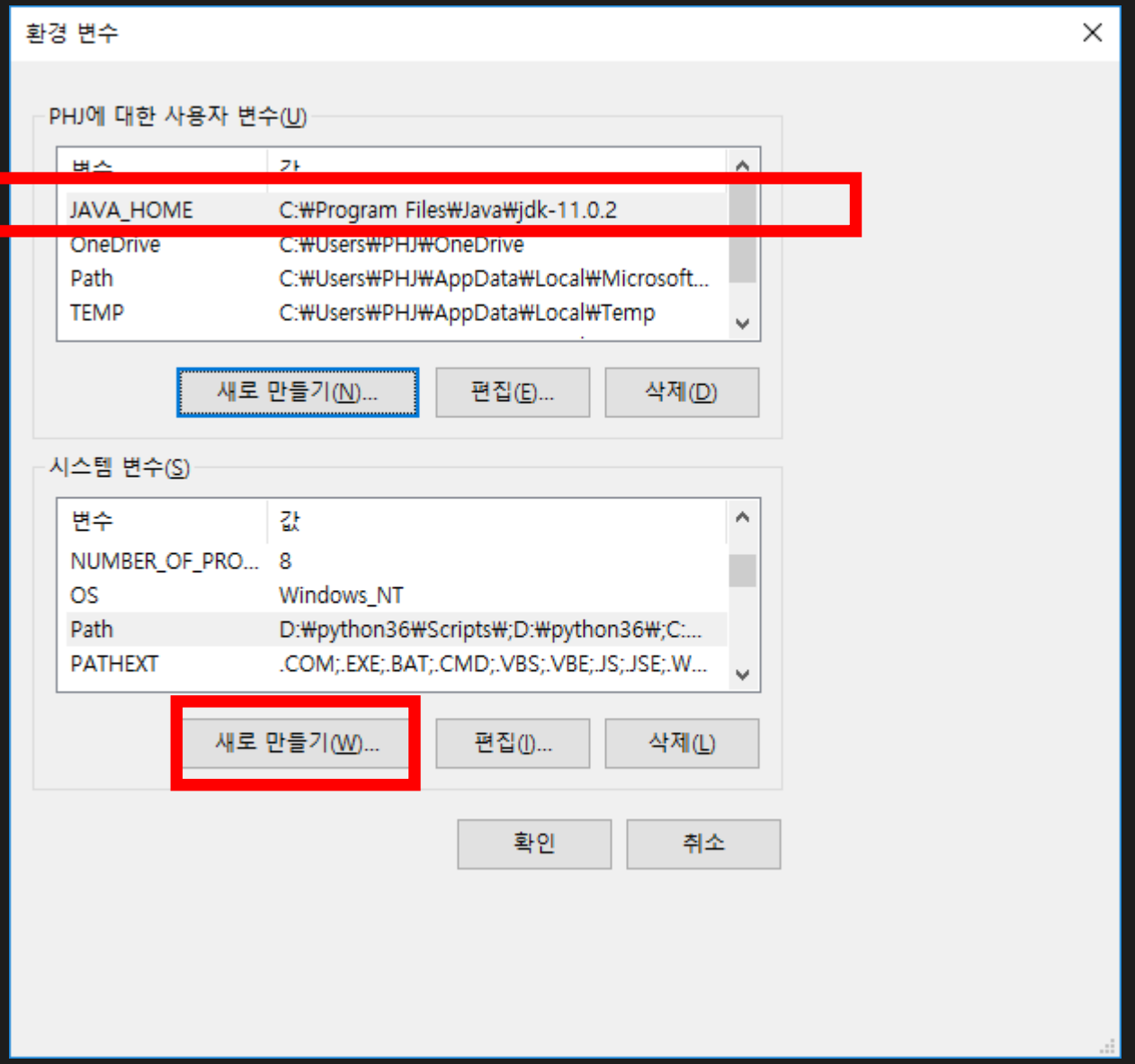


환경변수 추가

02. 패키지 설치


시스템 속성
컴퓨터 이름
하드웨어
고급
시스템 보호
원격
이 내용을 변경하려면 관리자로 로그온해야 합니다.
성능
시각 효과, 프로세서 일정, 메모리 사용 및 가상 메모리
설정(S)...
사용자 프로필
사용자 로그인에 관련된 바탕 화면 설정
설정(E)...
시작 및 복구
시스템 시작, 시스템 오류 및 디버깅 정보
설정(T)...
환경 변수(N)...
확인
취소
적용(A)

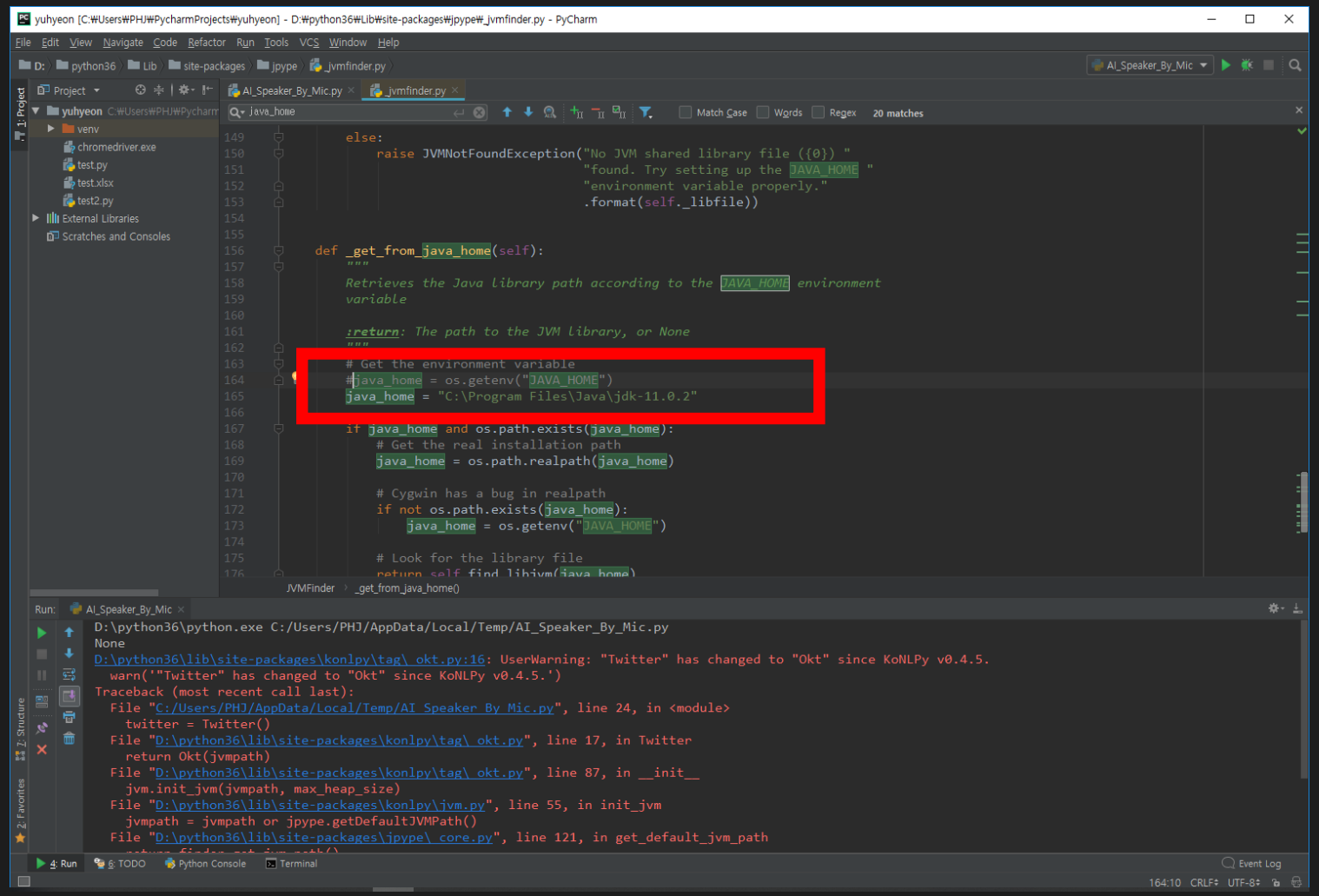
02. 패키지 설치



환경변수 추가

아래 시스템 변수에도 동일하게

02. 패키지 설치

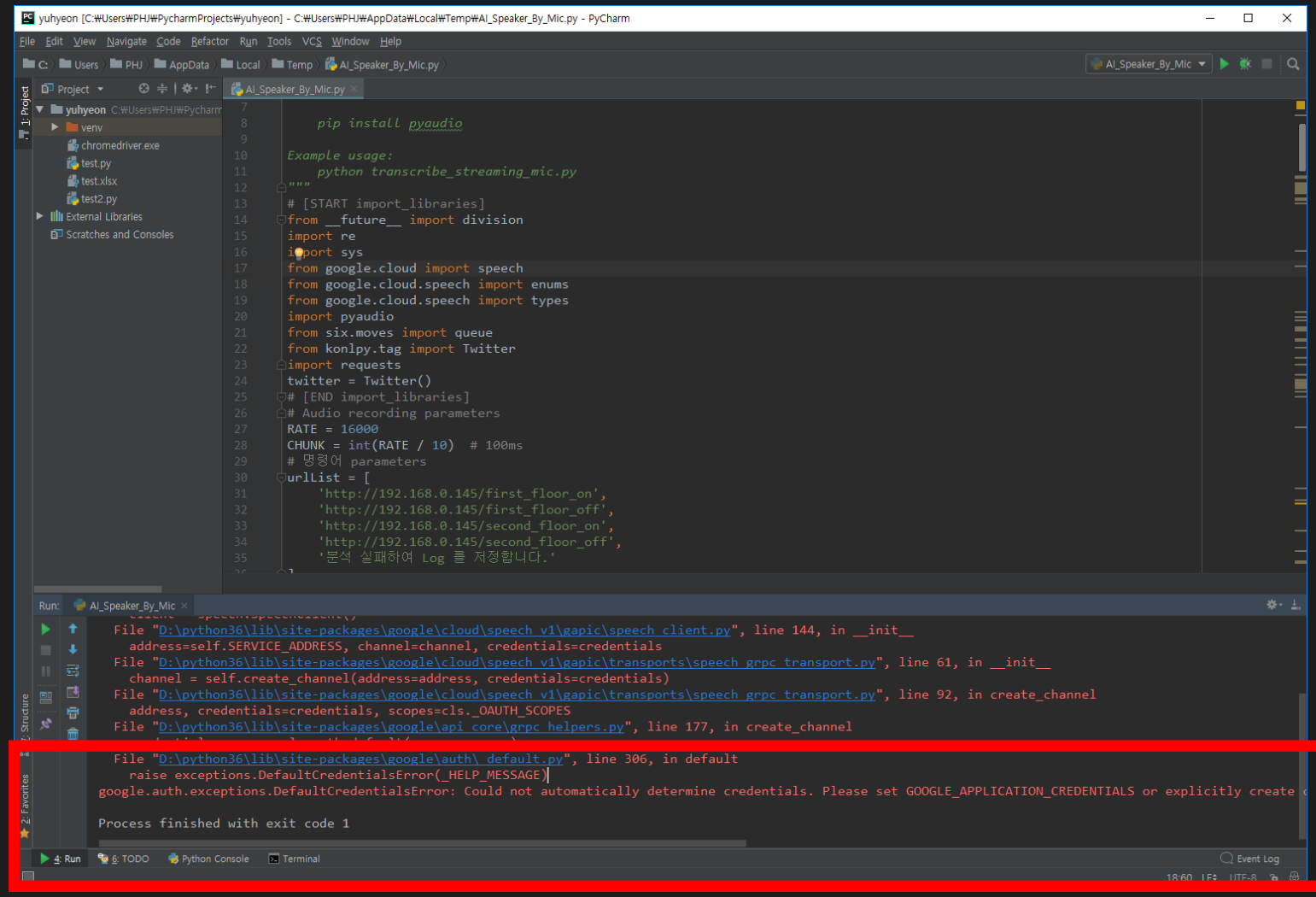


그래도 안되면 ?

Jpype/_jvmfinder.py 에
164번줄에

직접 경로추가

03. 구글 SDK 설치

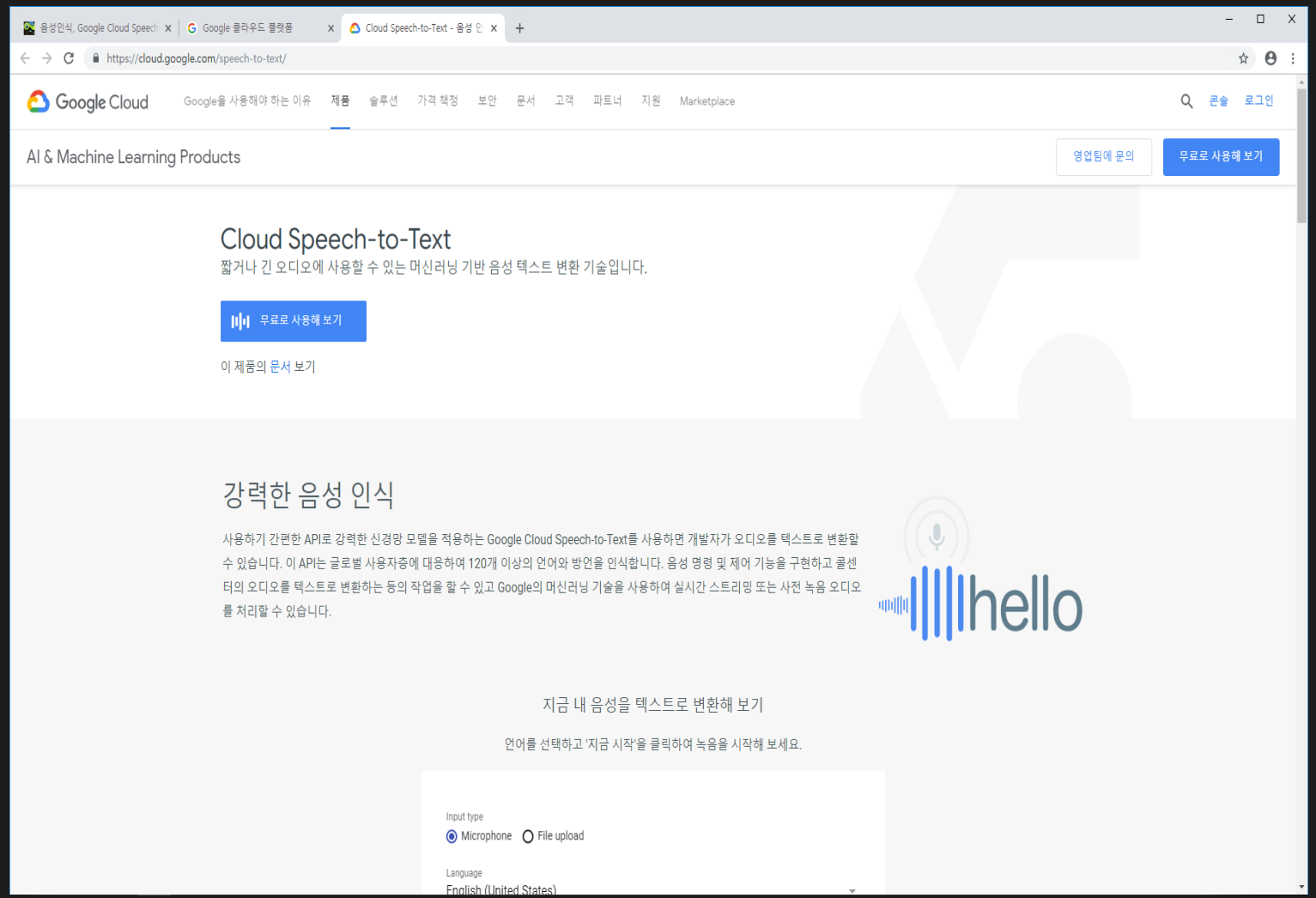


실행해봐서

If Google auth error :

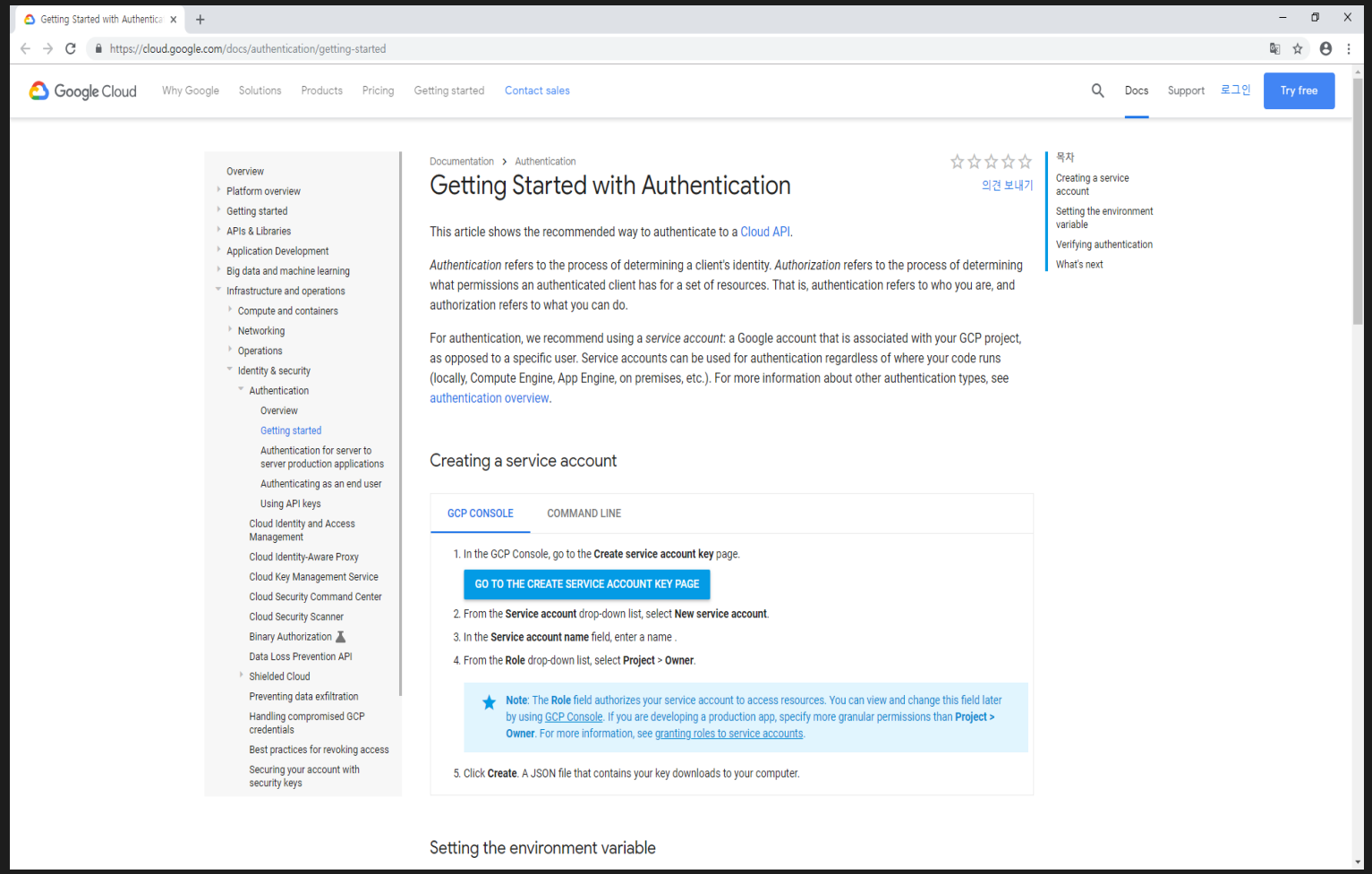
https://cloud.google.com/docs/authentication/getting-started

03. 구글 SDK 설치



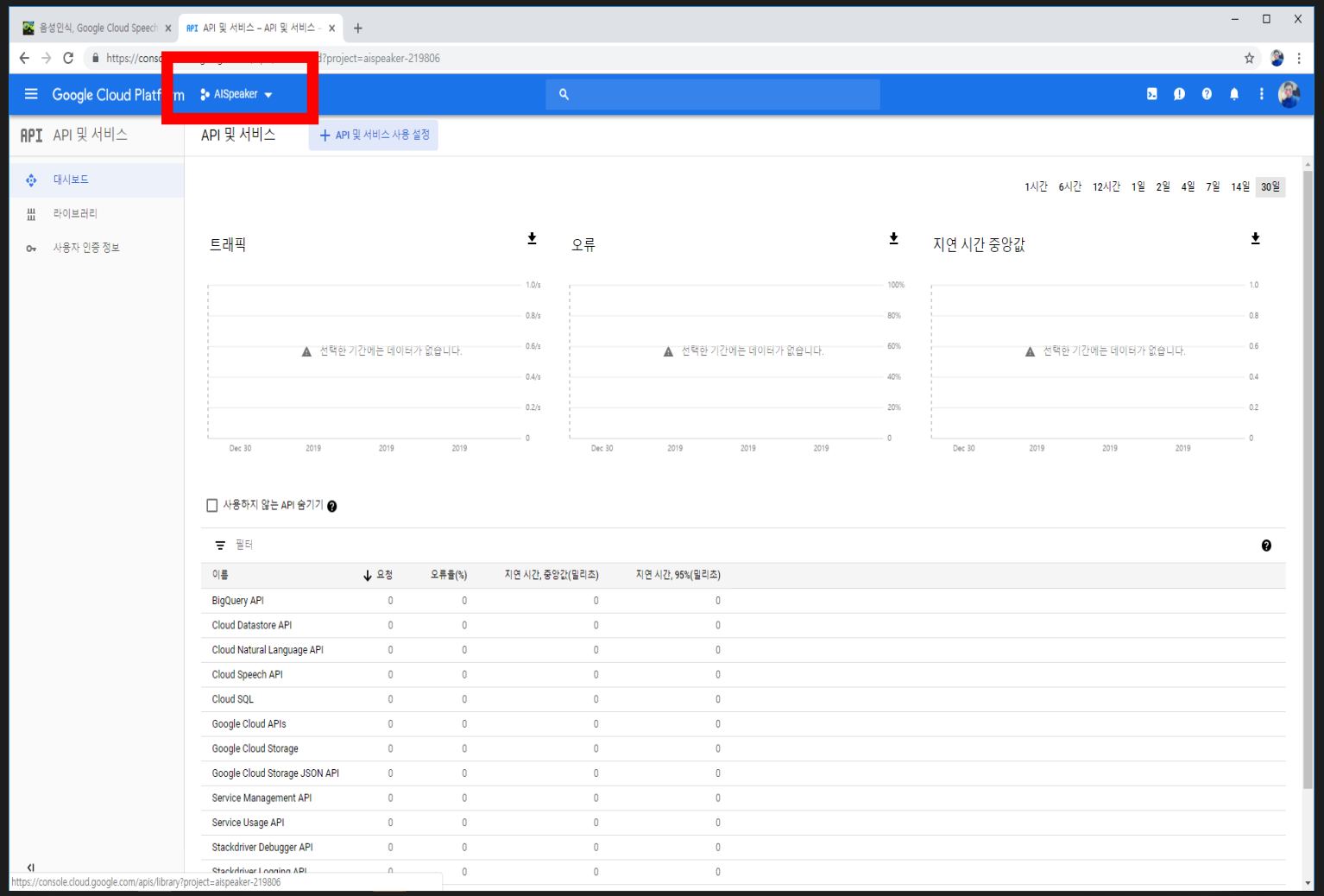
가이드 문서 접속

03. 구글 SDK 설치



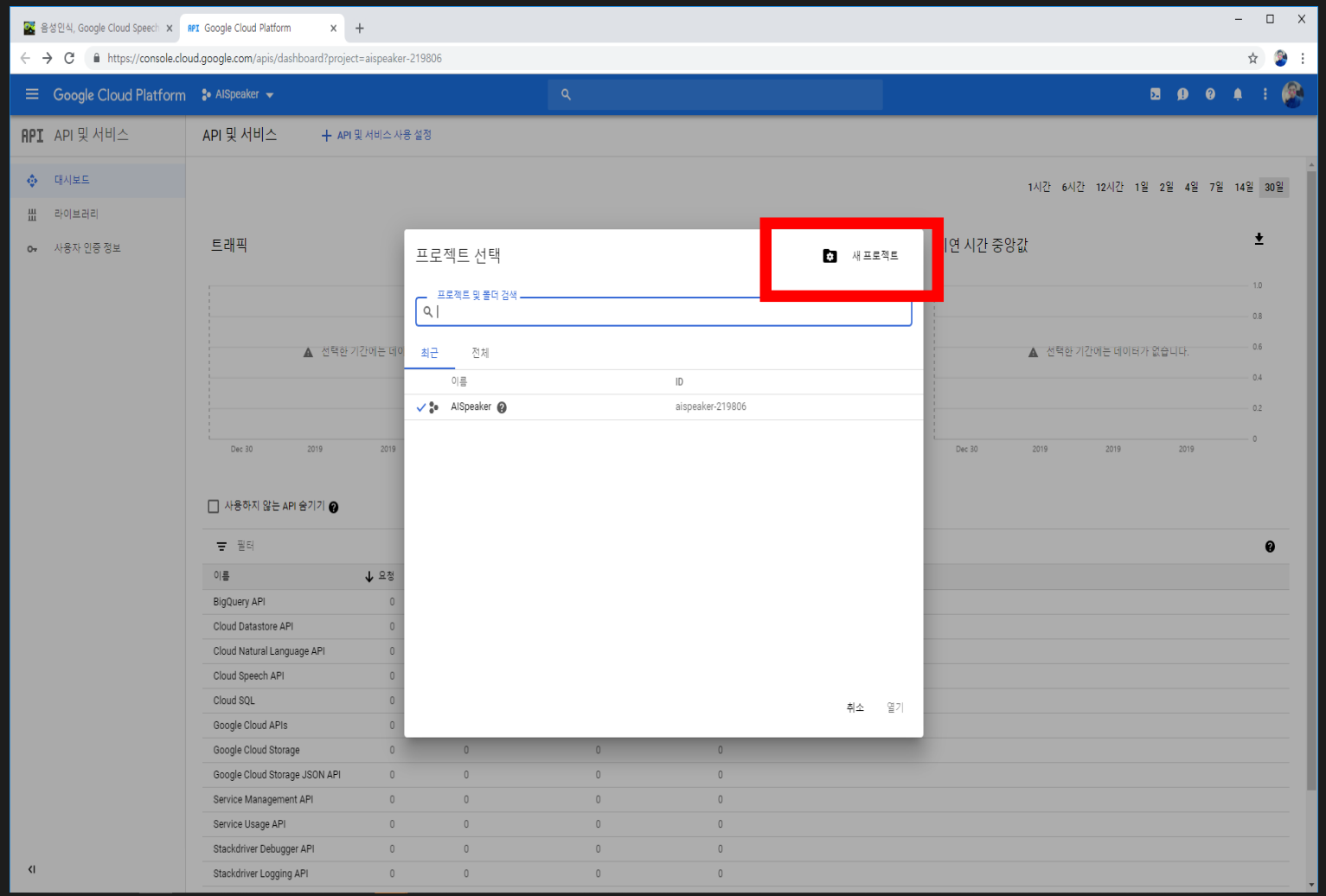
Getting started 문서 참조

03. 구글 SDK 설치



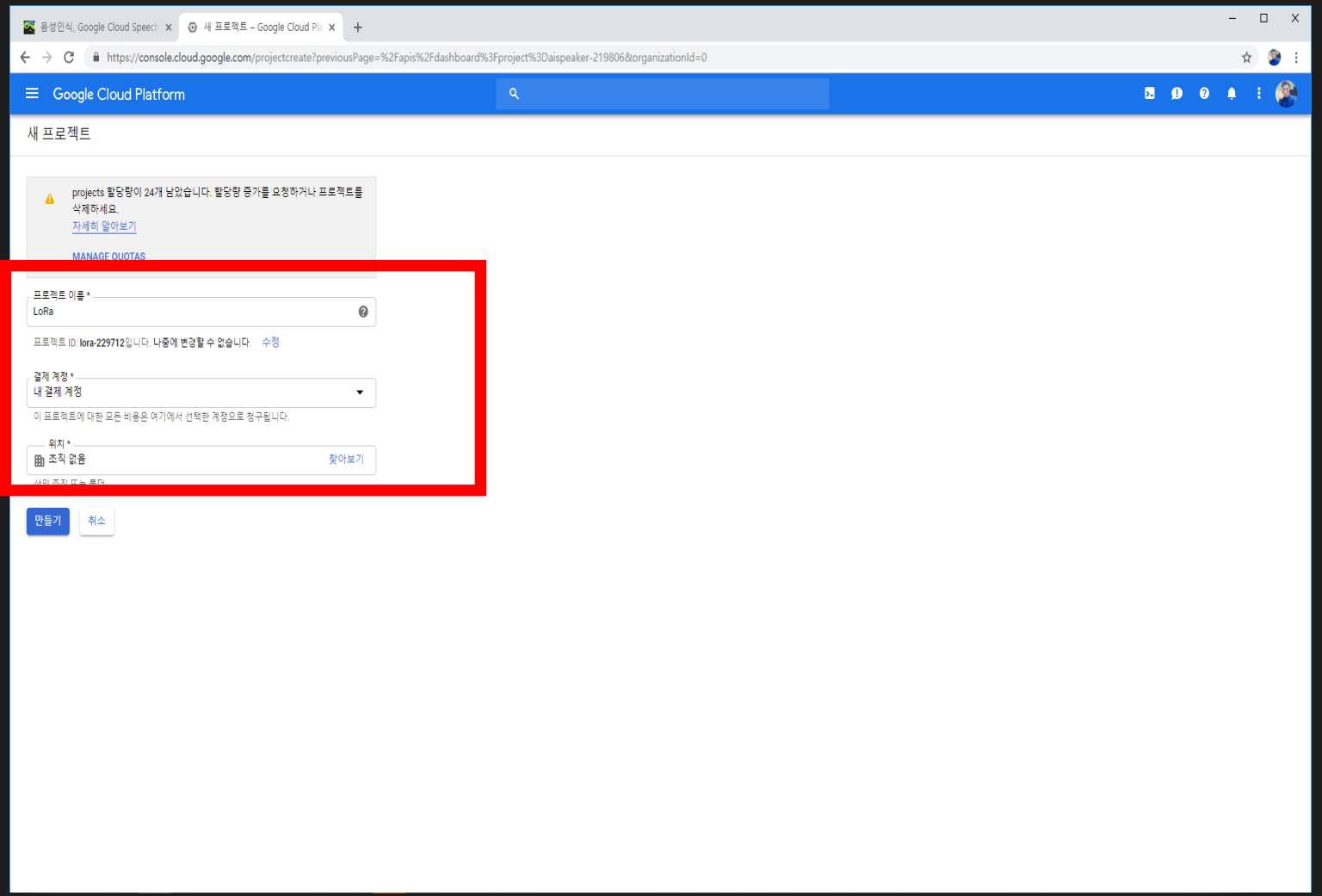
클릭후 프로젝트 탭으로

03. 구글 SDK 설치



새프로젝트 만들기

03. 구글 SDK 설치

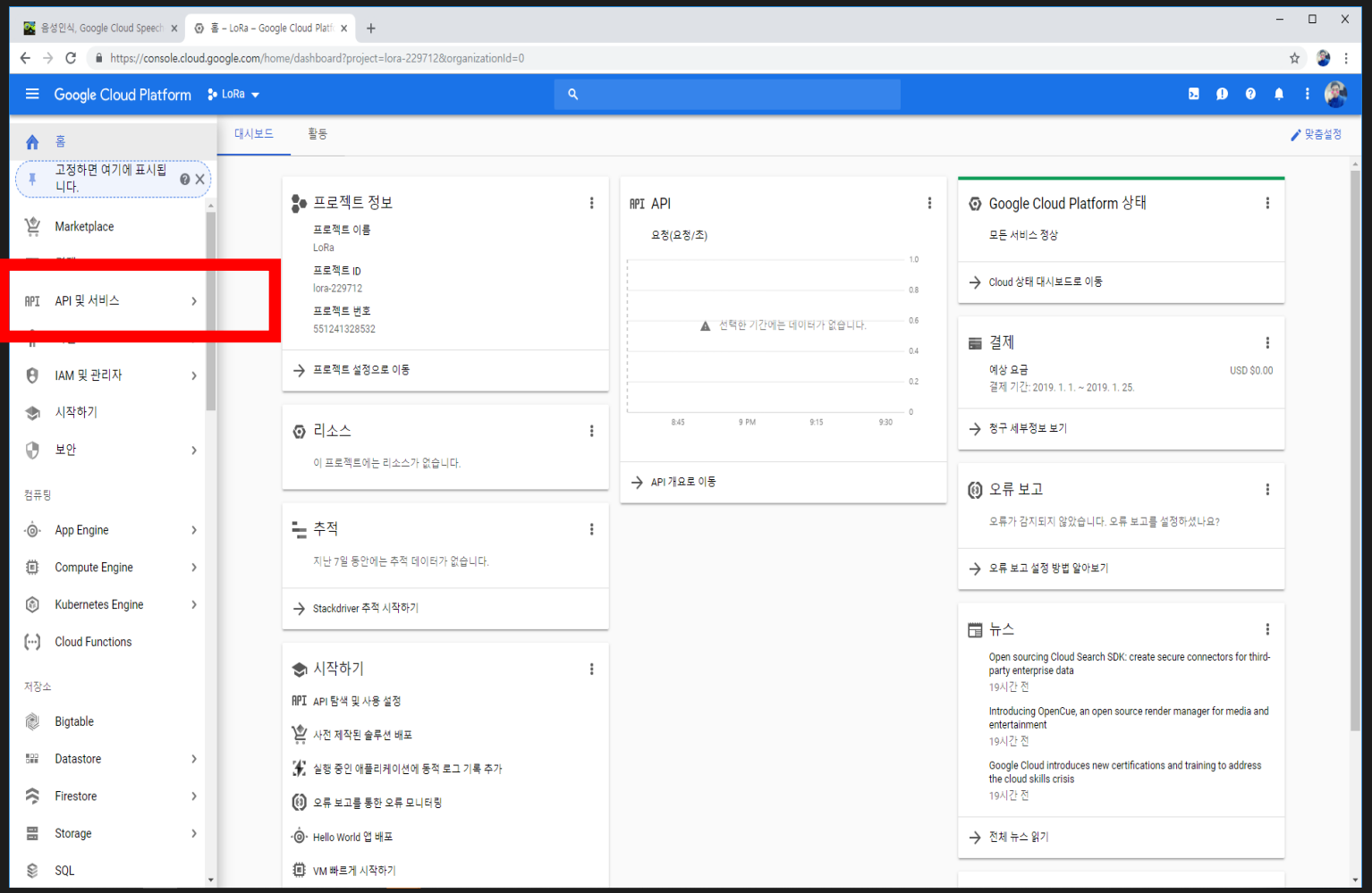


항목대로 기입

만약 결제계정입력필요시

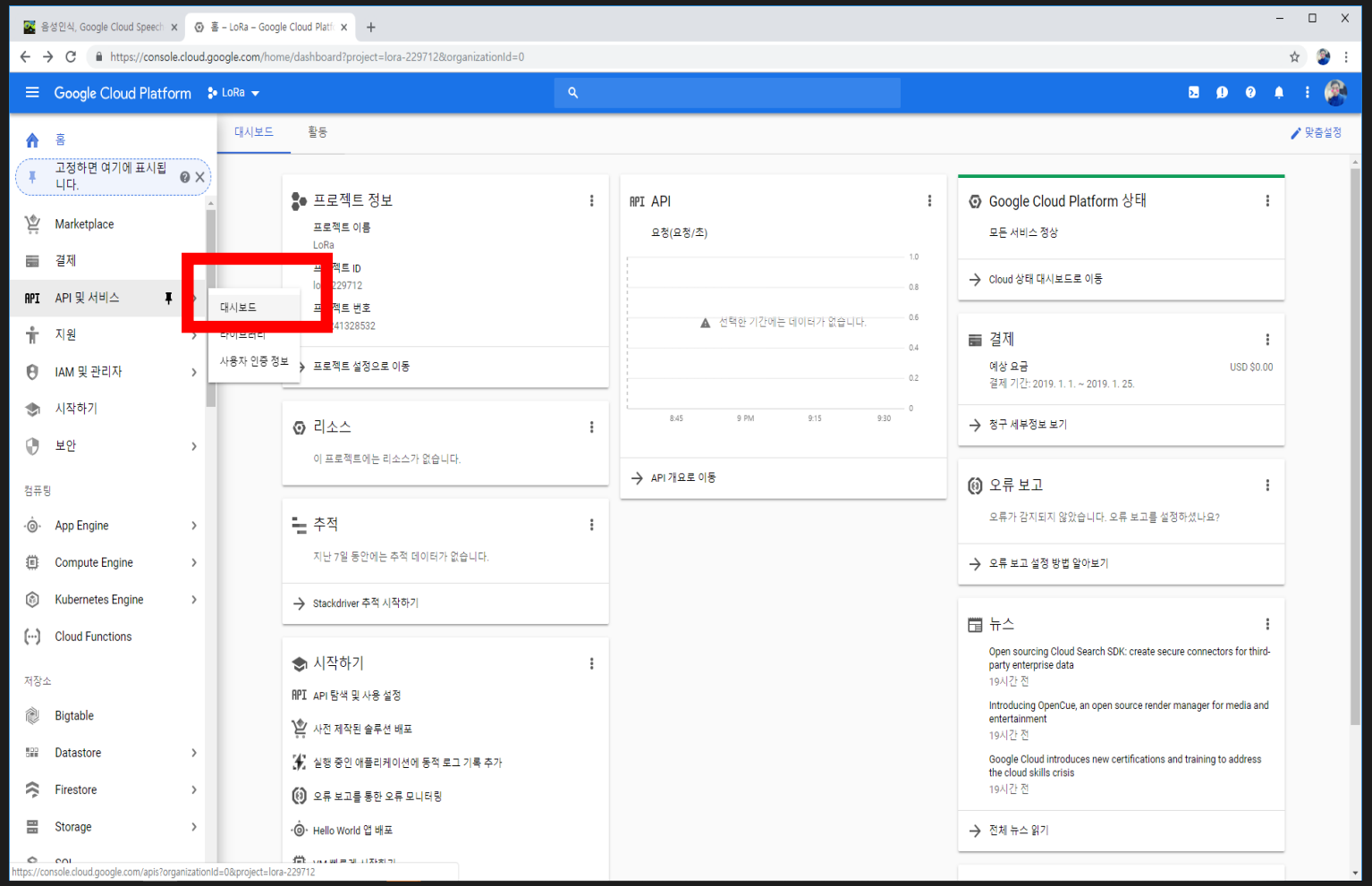
입력필요

03. 구글 SDK 설치



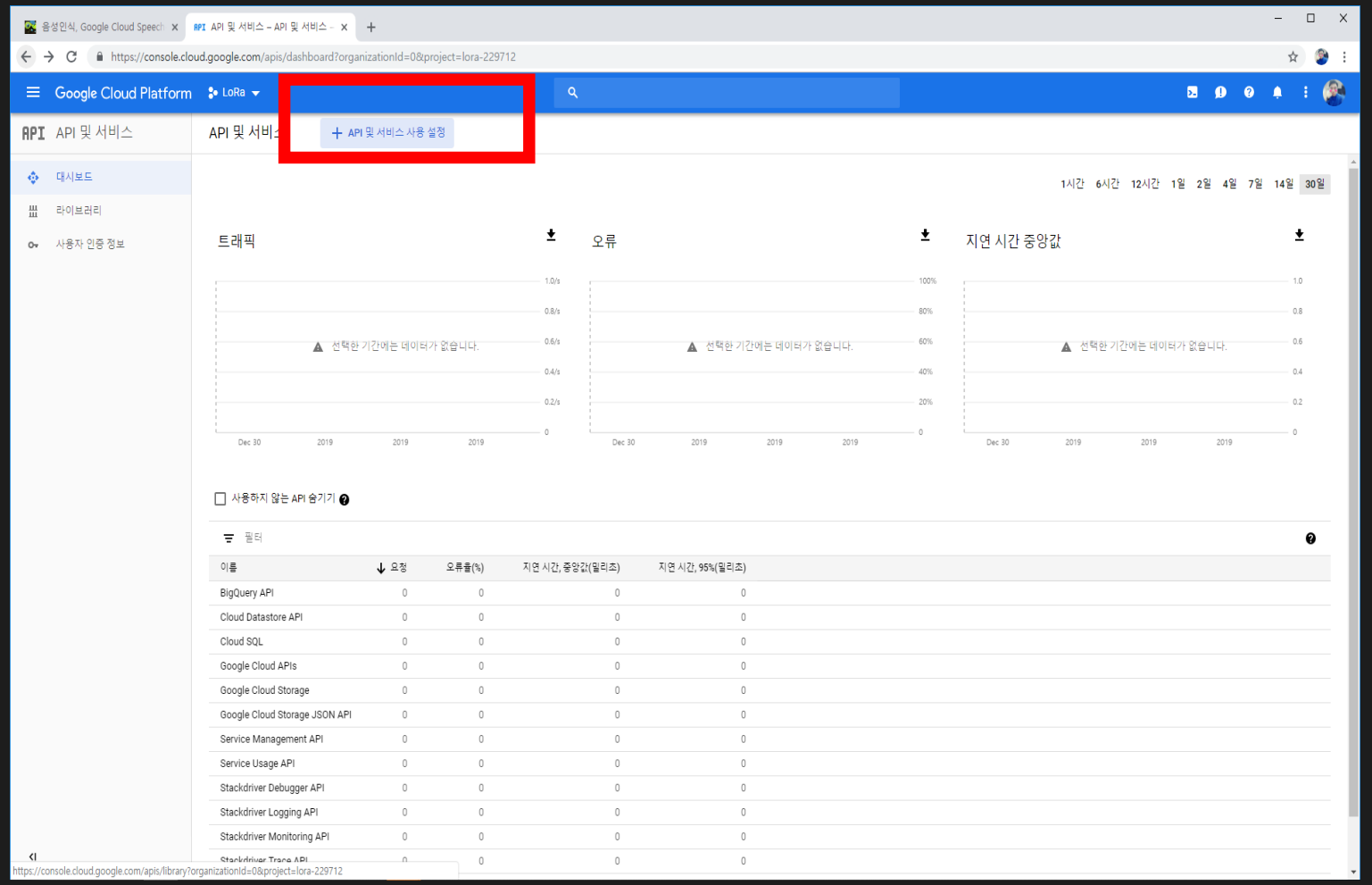
클릭

03. 구글 SDK 설치



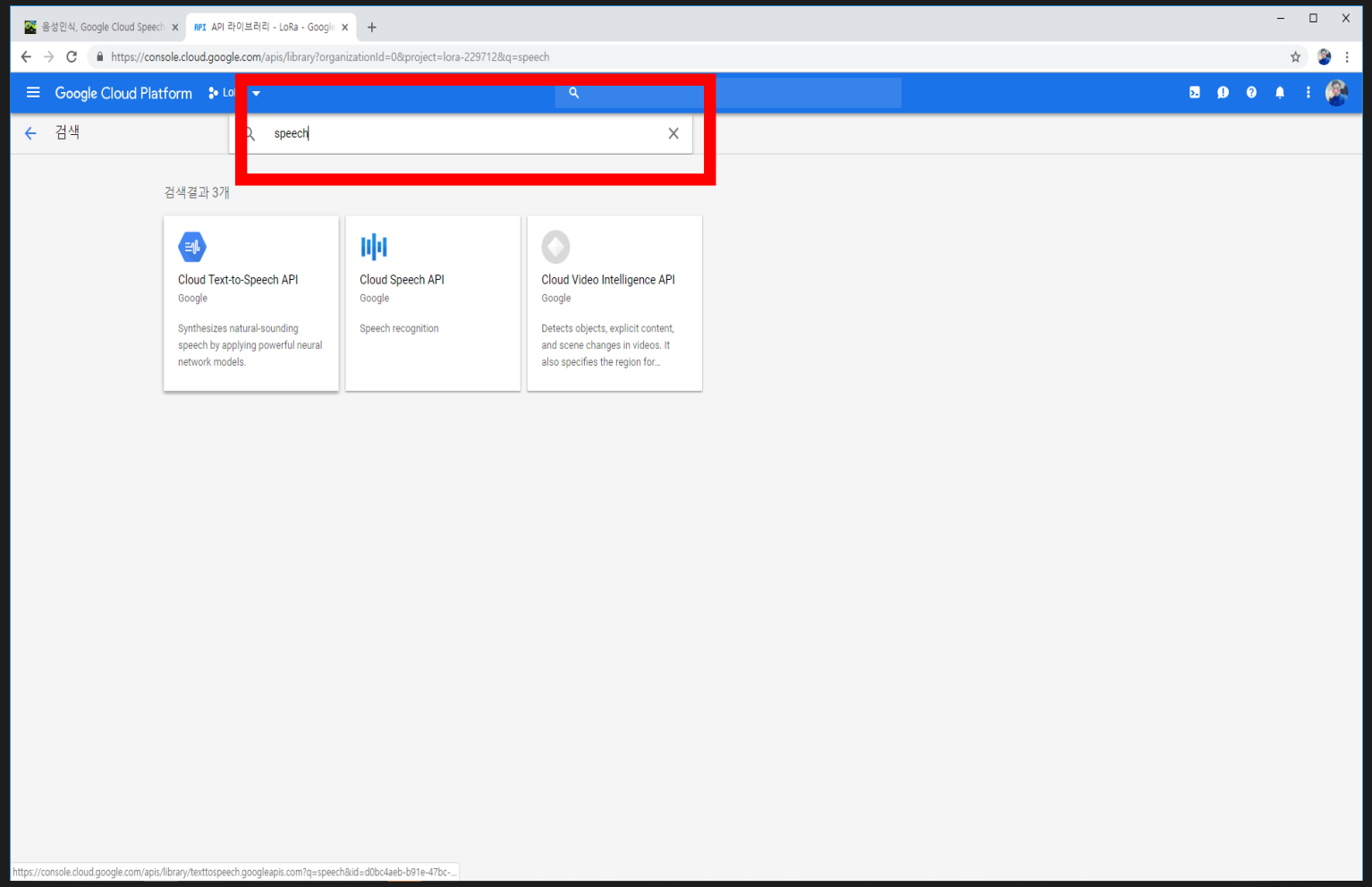
클릭

03. 구글 SDK 설치



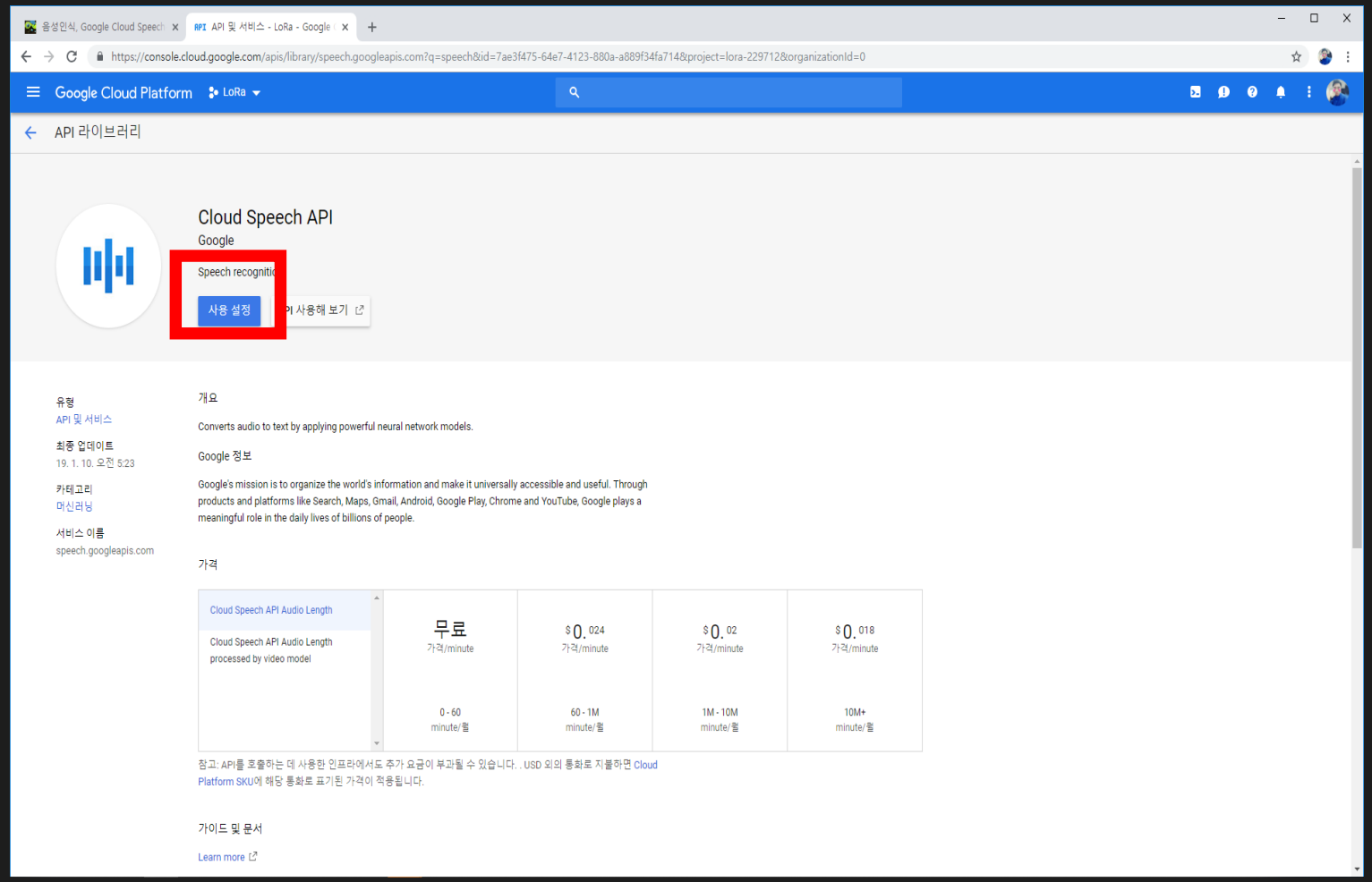
클릭

03. 구글 SDK 설치



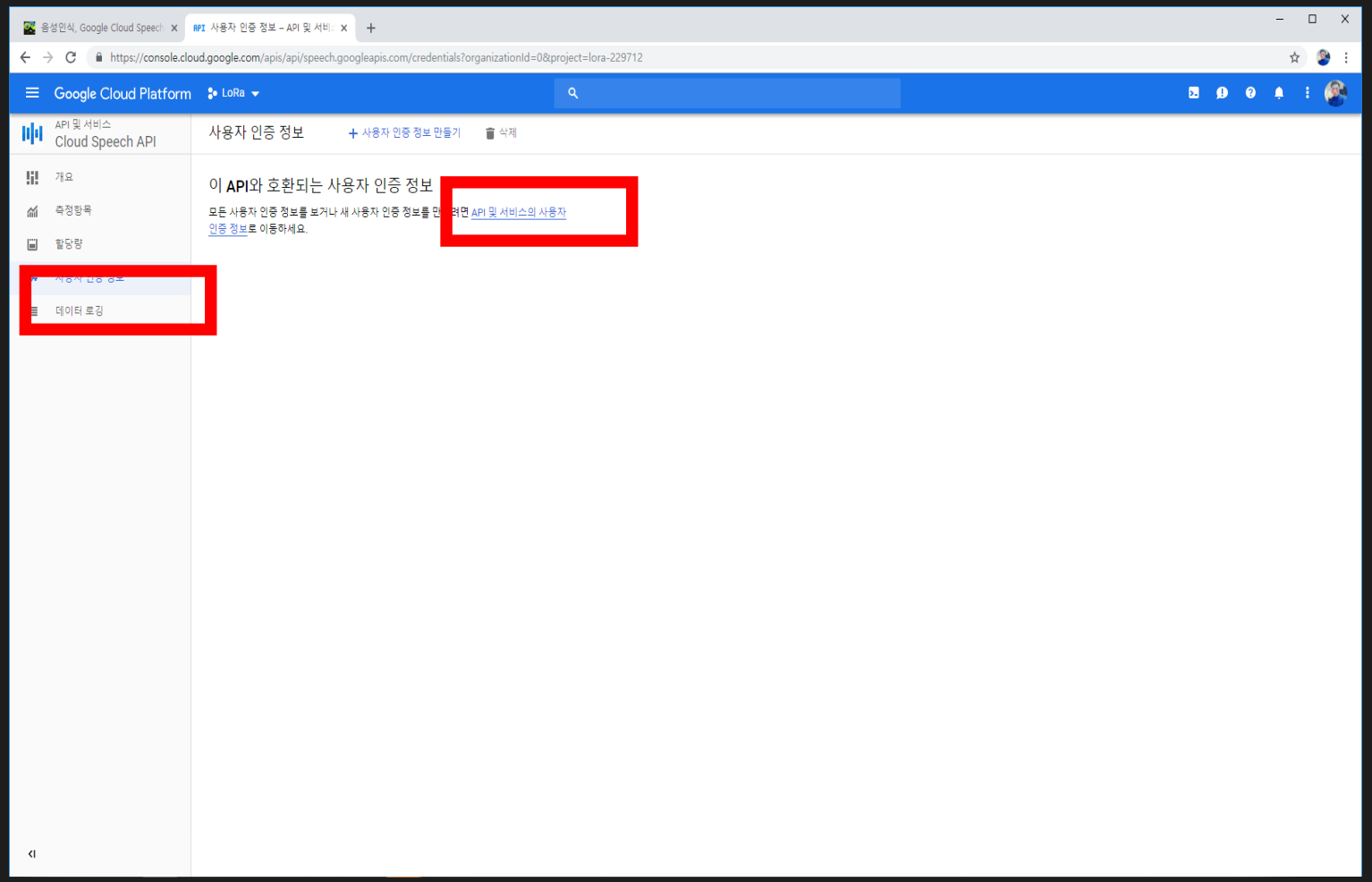
Speech 검색

03. 구글 SDK 설치



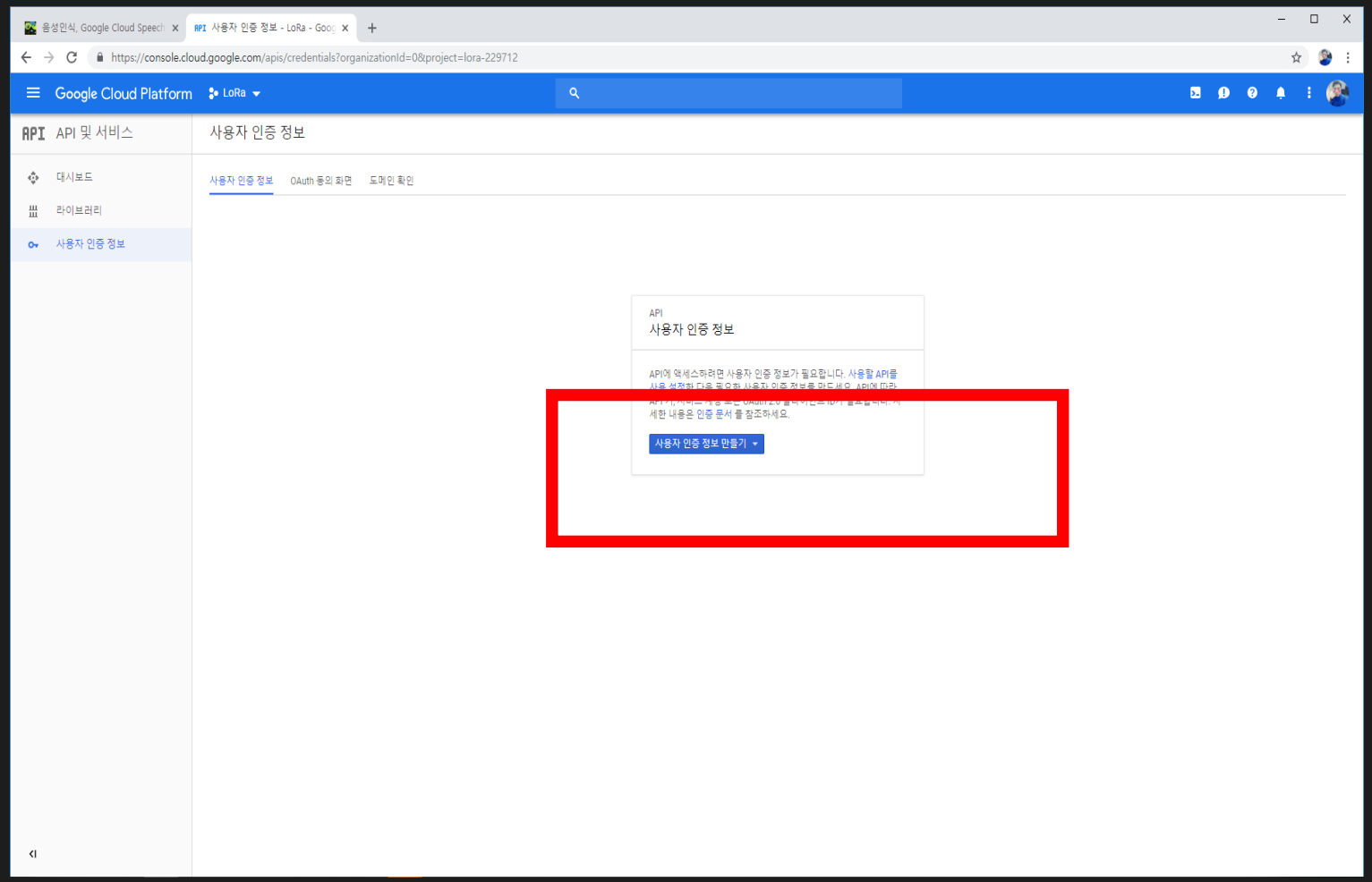
클릭

03. 구글 SDK 설치



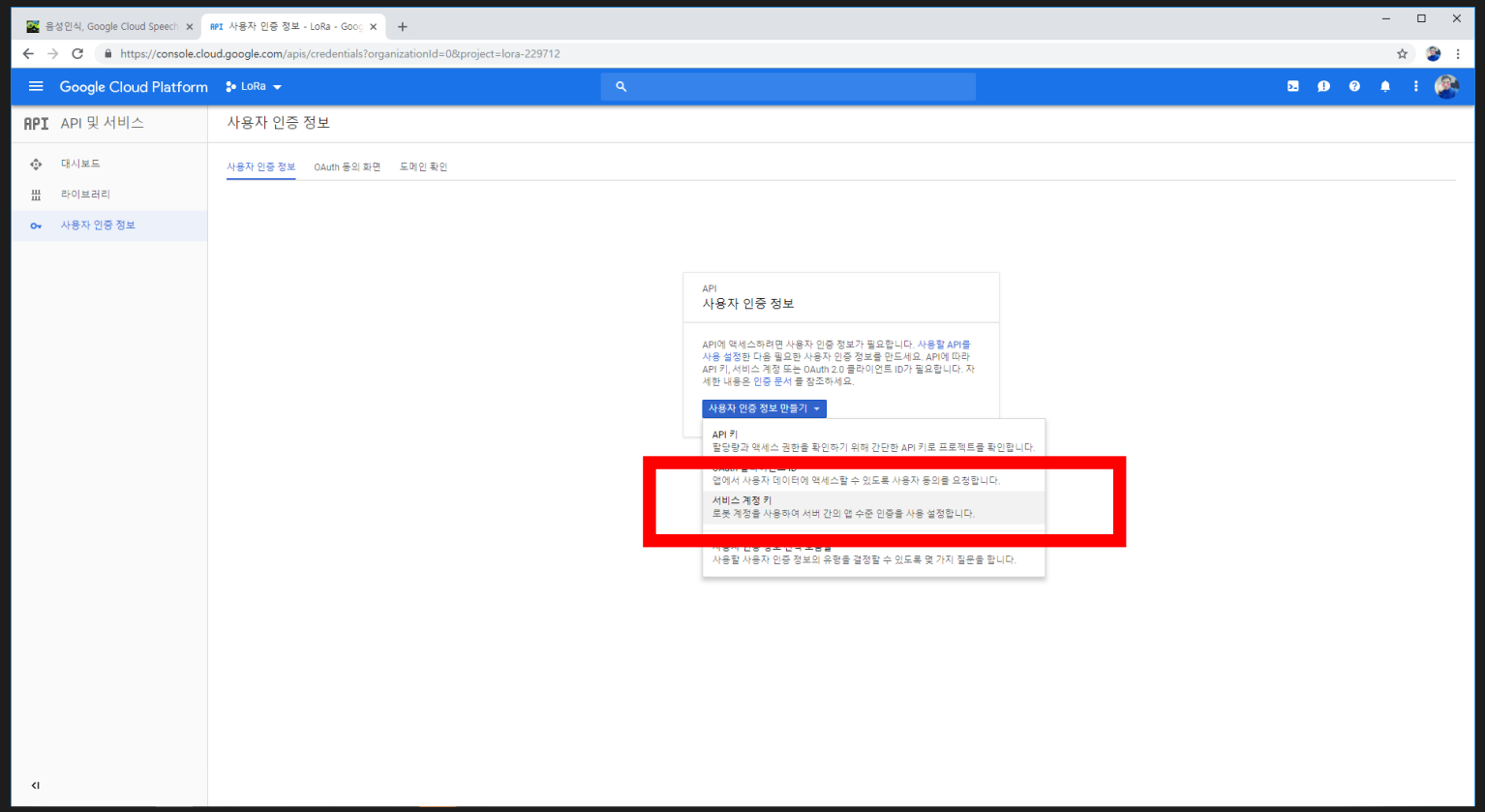
사용자 인증 정보로

03. 구글 SDK 설치



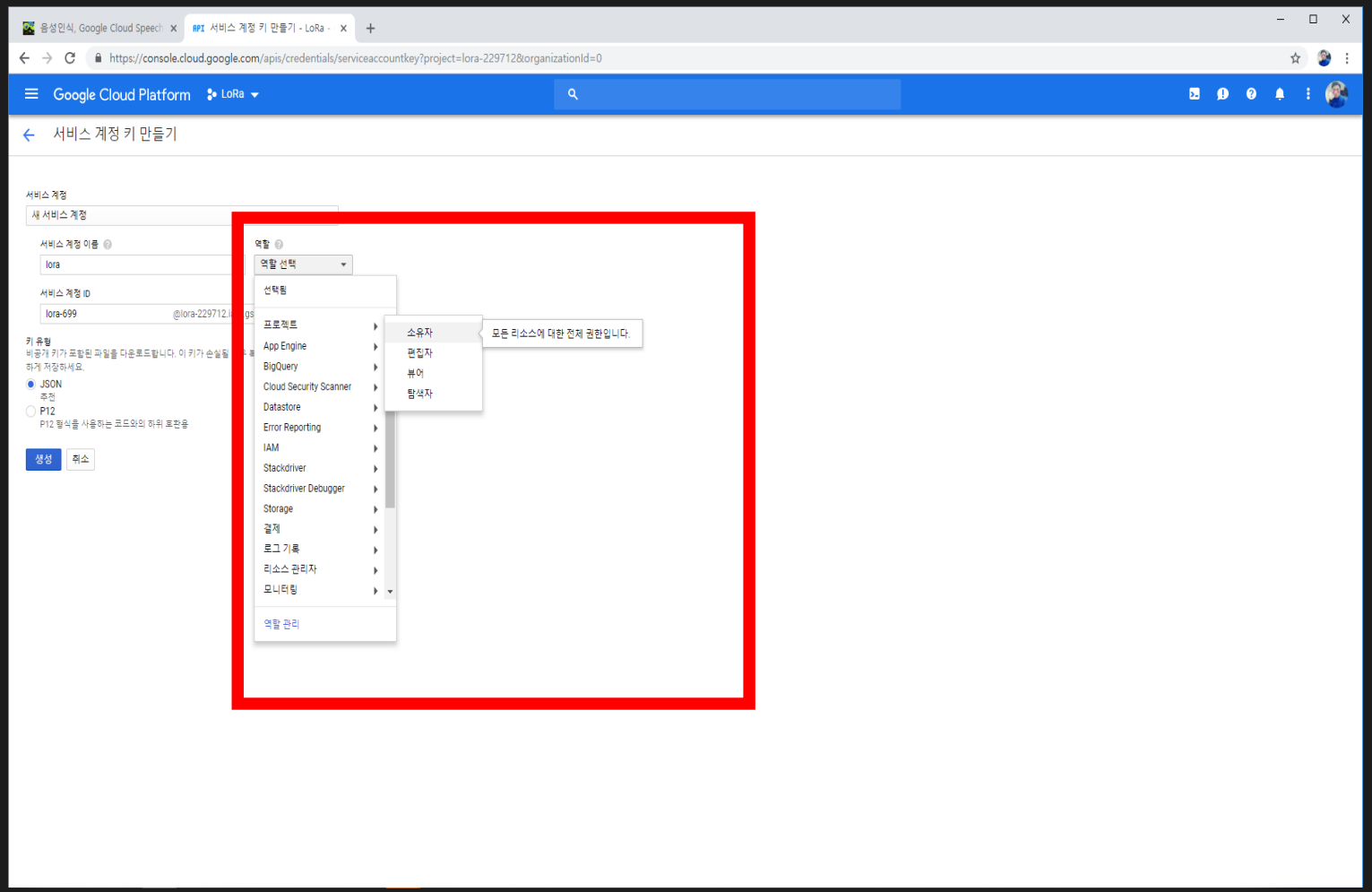
새로 키 만들기 클릭

03. 구글 SDK 설치



서비스 계정 키 옵션 클릭

03. 구글 SDK 설치

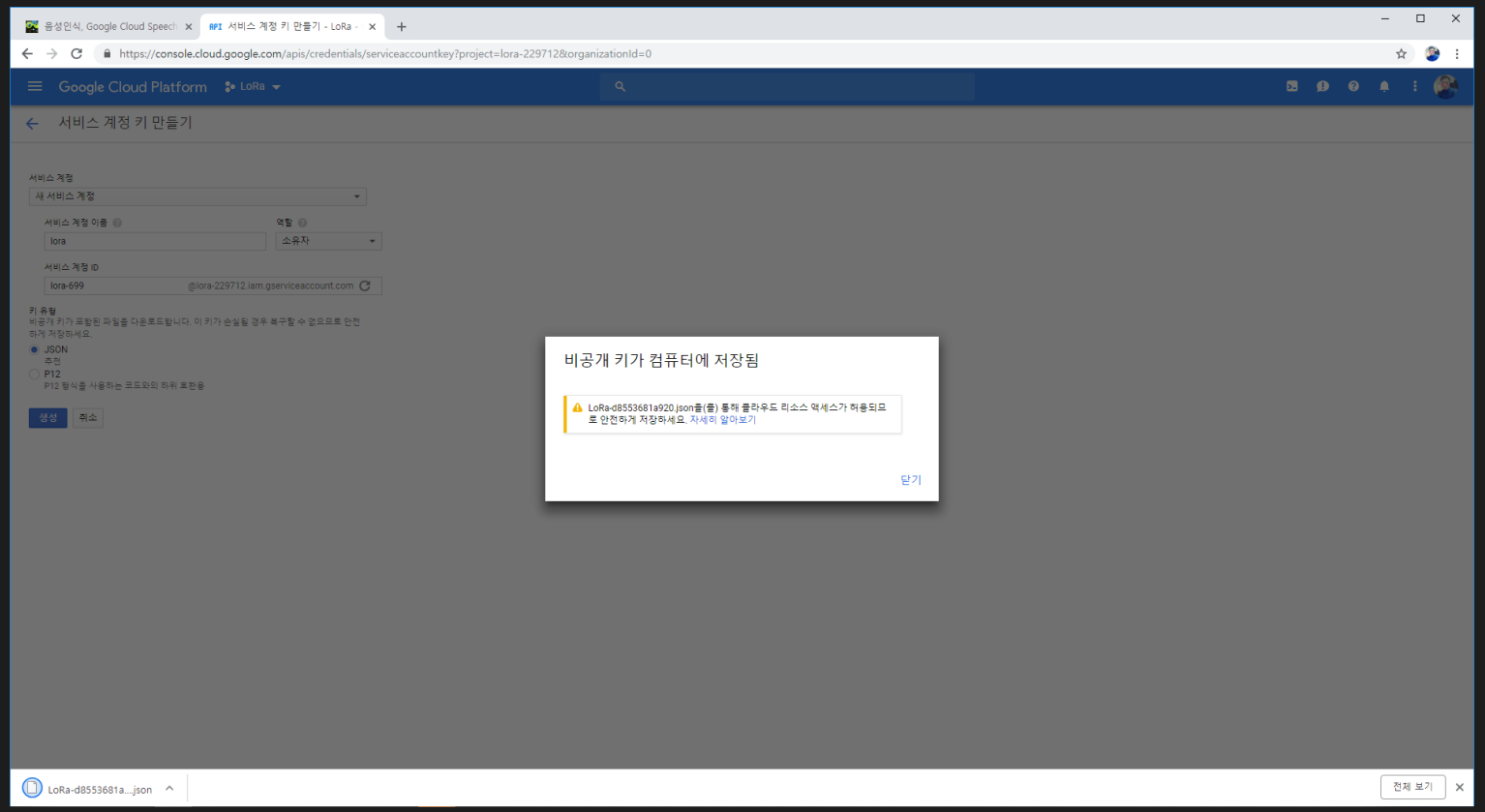


역할을

프로젝트 - 소유자로 선택 후

Json 으로 발급

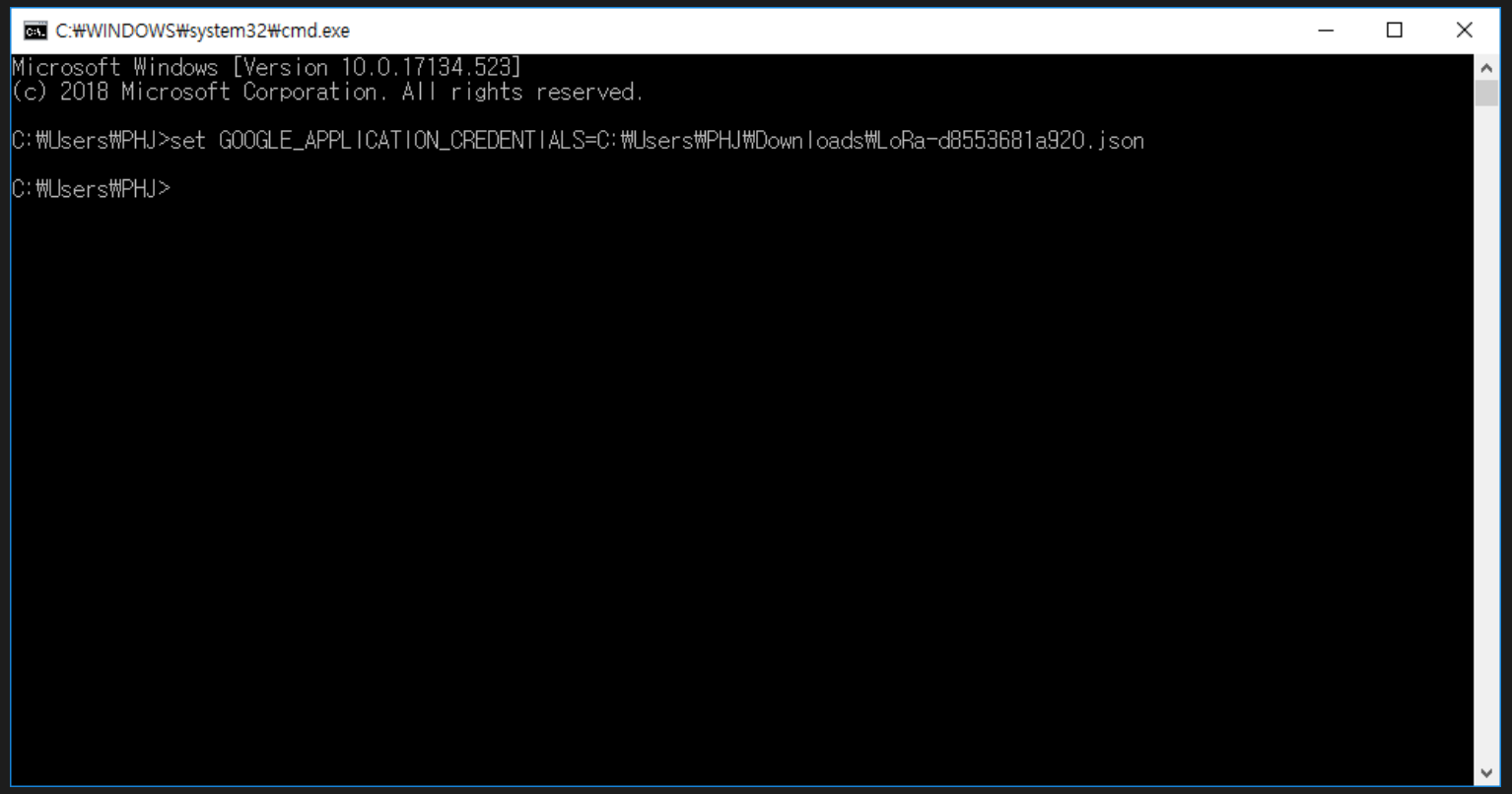
03. 구글 SDK 설치



컴퓨터에 저장되지니

경로 기억해두기 !

03. 구글 SDK 설치



커맨드에

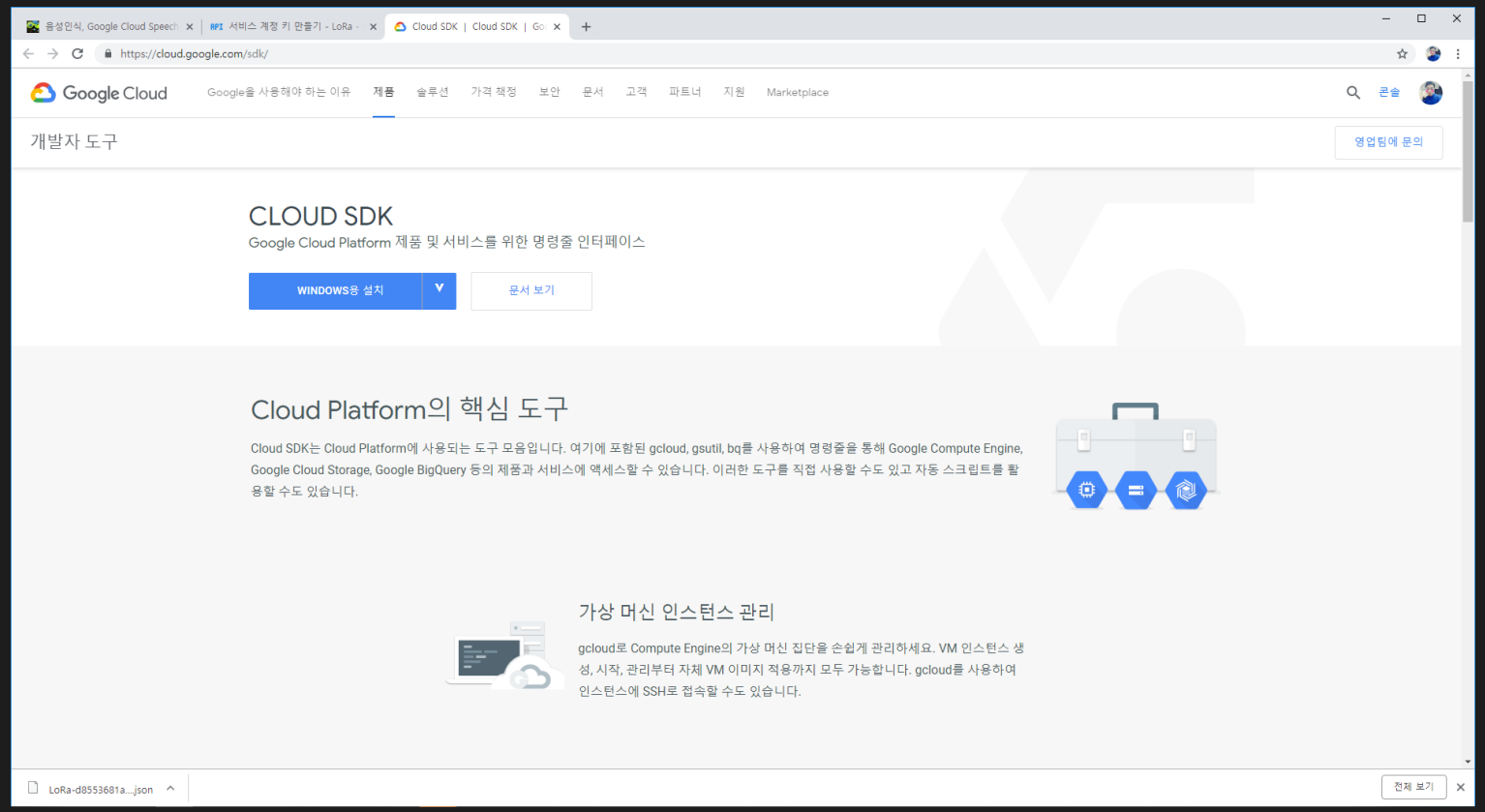
set GOOGLE_APPLICATION_CREDENTIALS=C:₩Users₩PHJ₩Downloads₩LoRa-d8553681a920.json

명령어 입력

또는

환경변수 추가 !

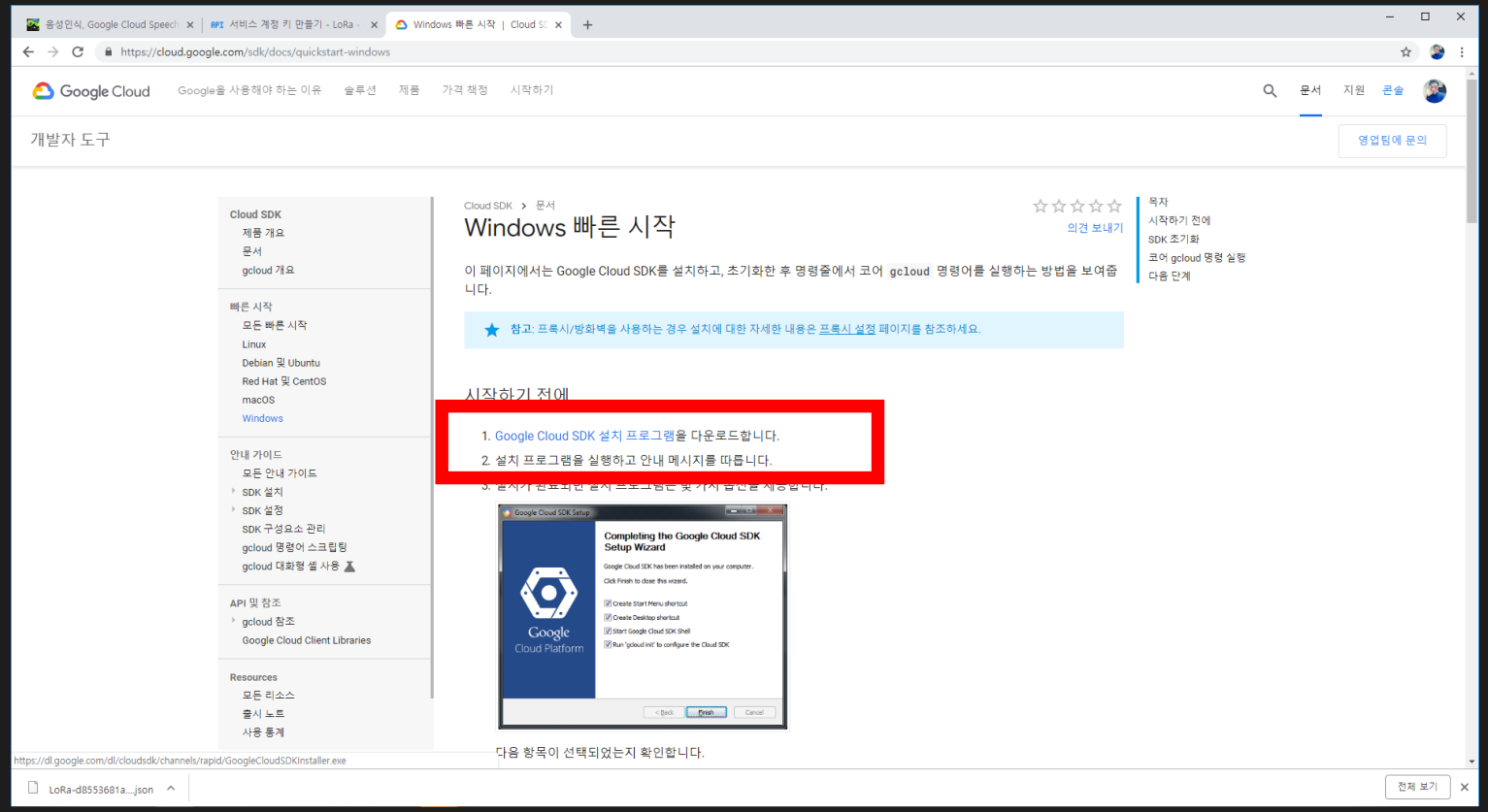
03. 구글 SDK 설치



구글 SDK 설치

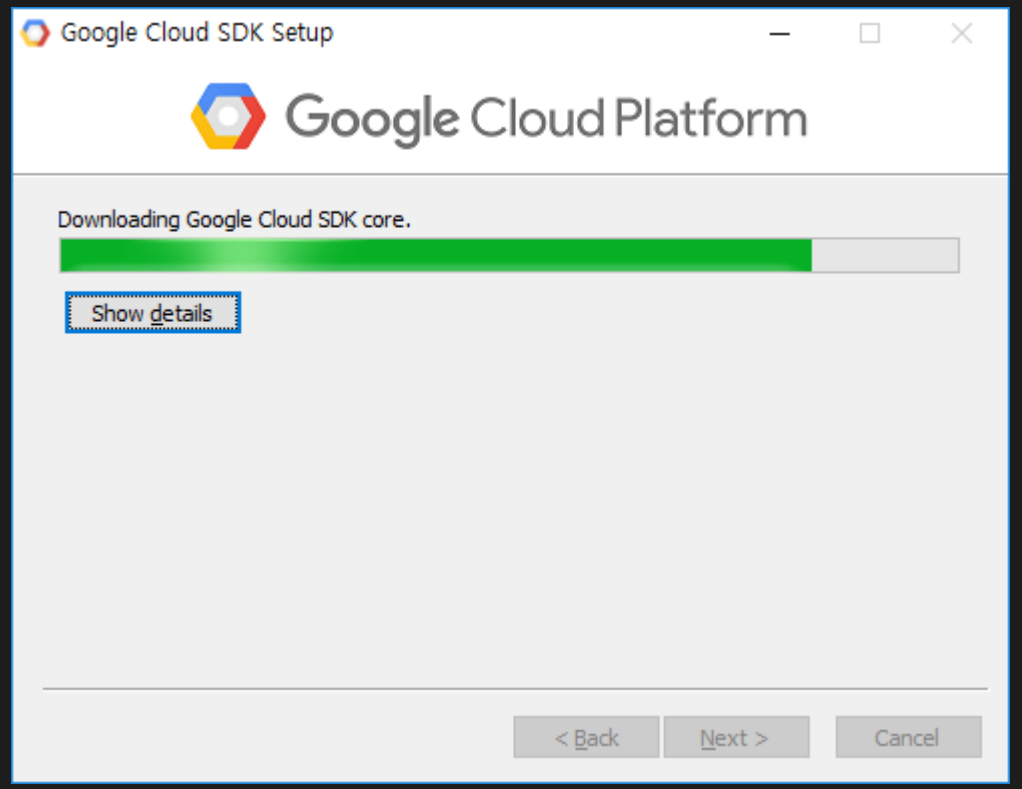
https://cloud.google.com/sdk/

03. 구글 SDK 설치



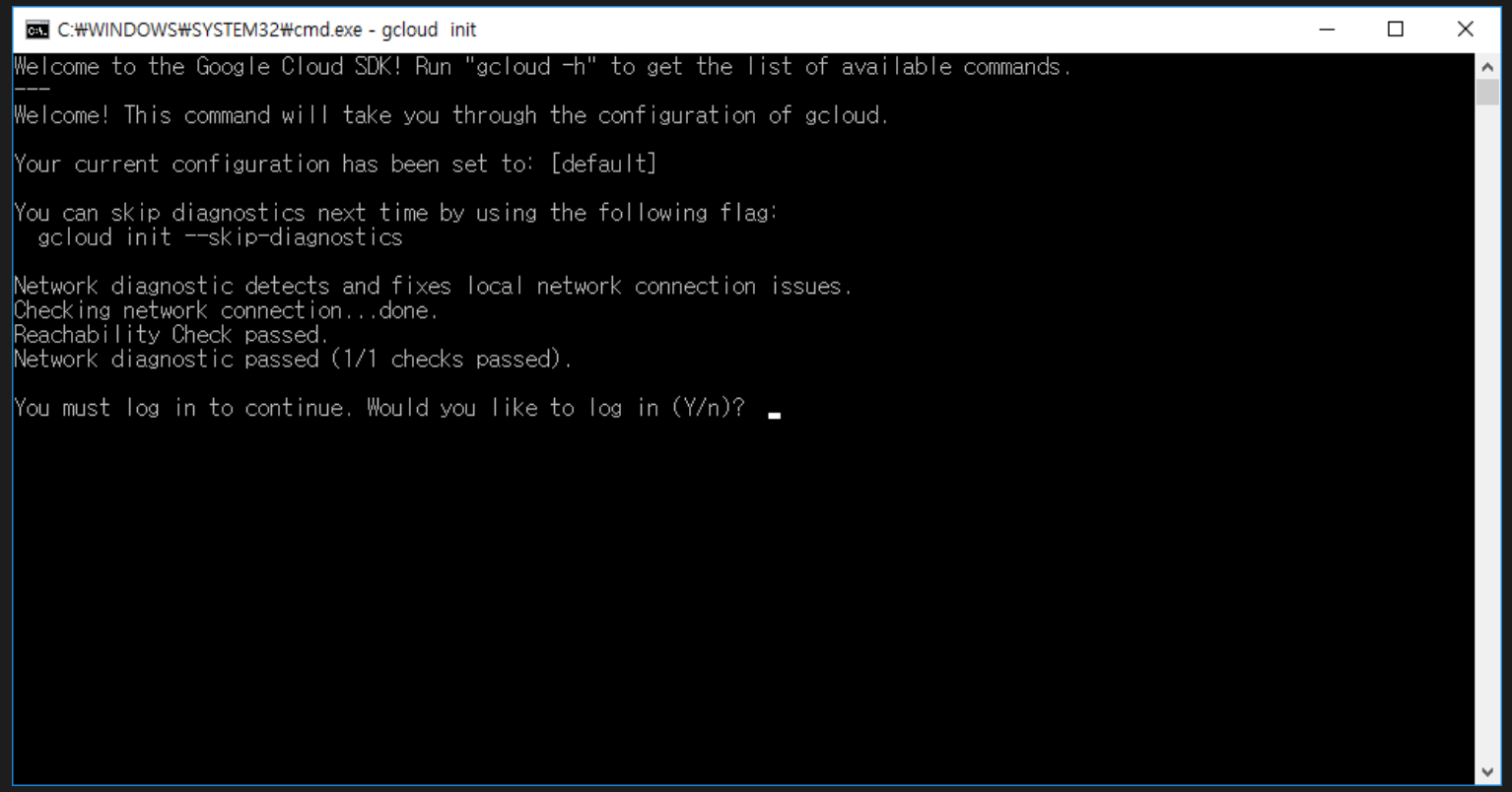
클릭해서 다운로드

03. 구글 SDK 설치



계속 Next 후 기본 옵션으로 설치

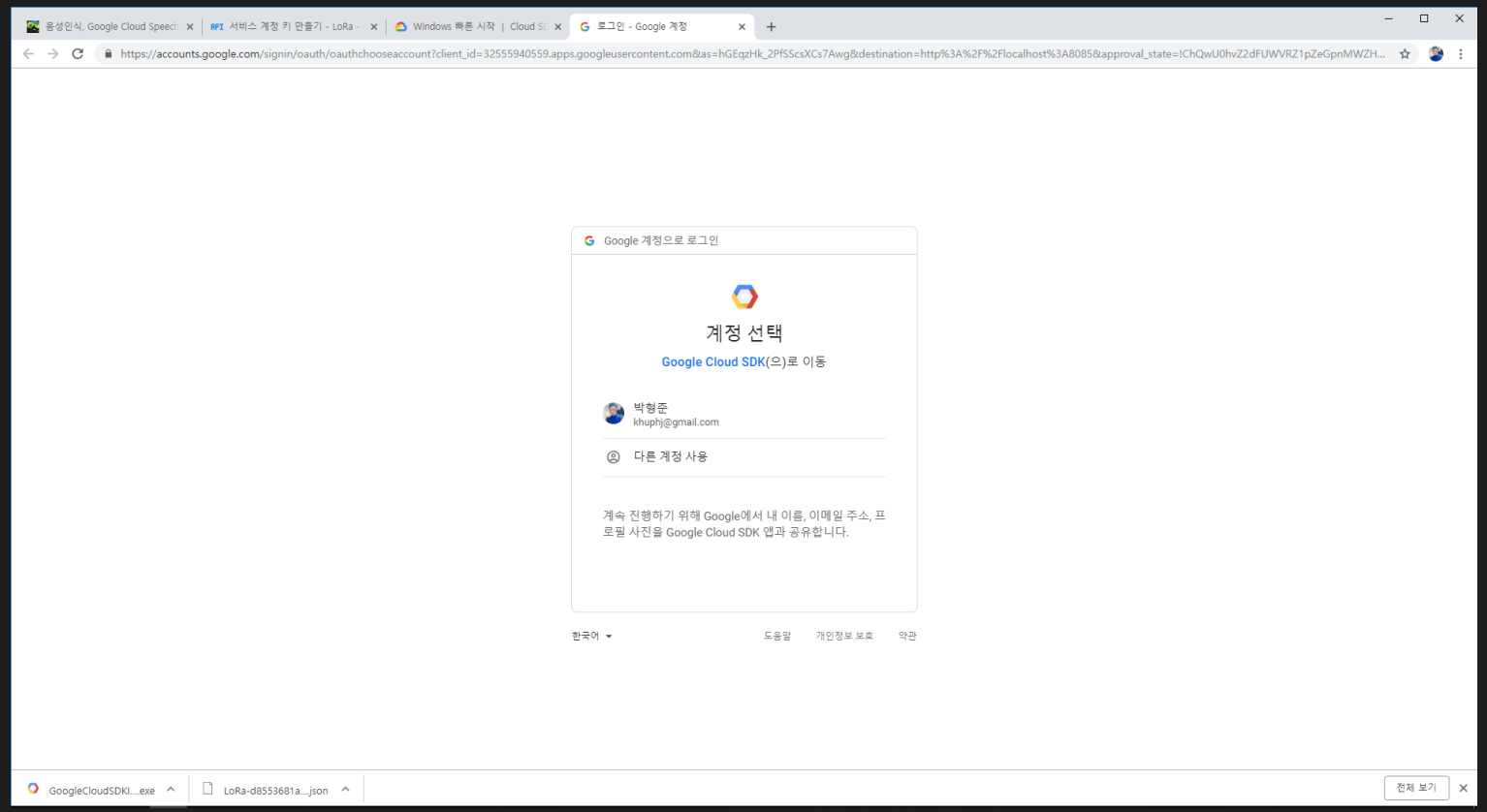
03. 구글 SDK 설치



끝나면 자동 실행되거나 안되면

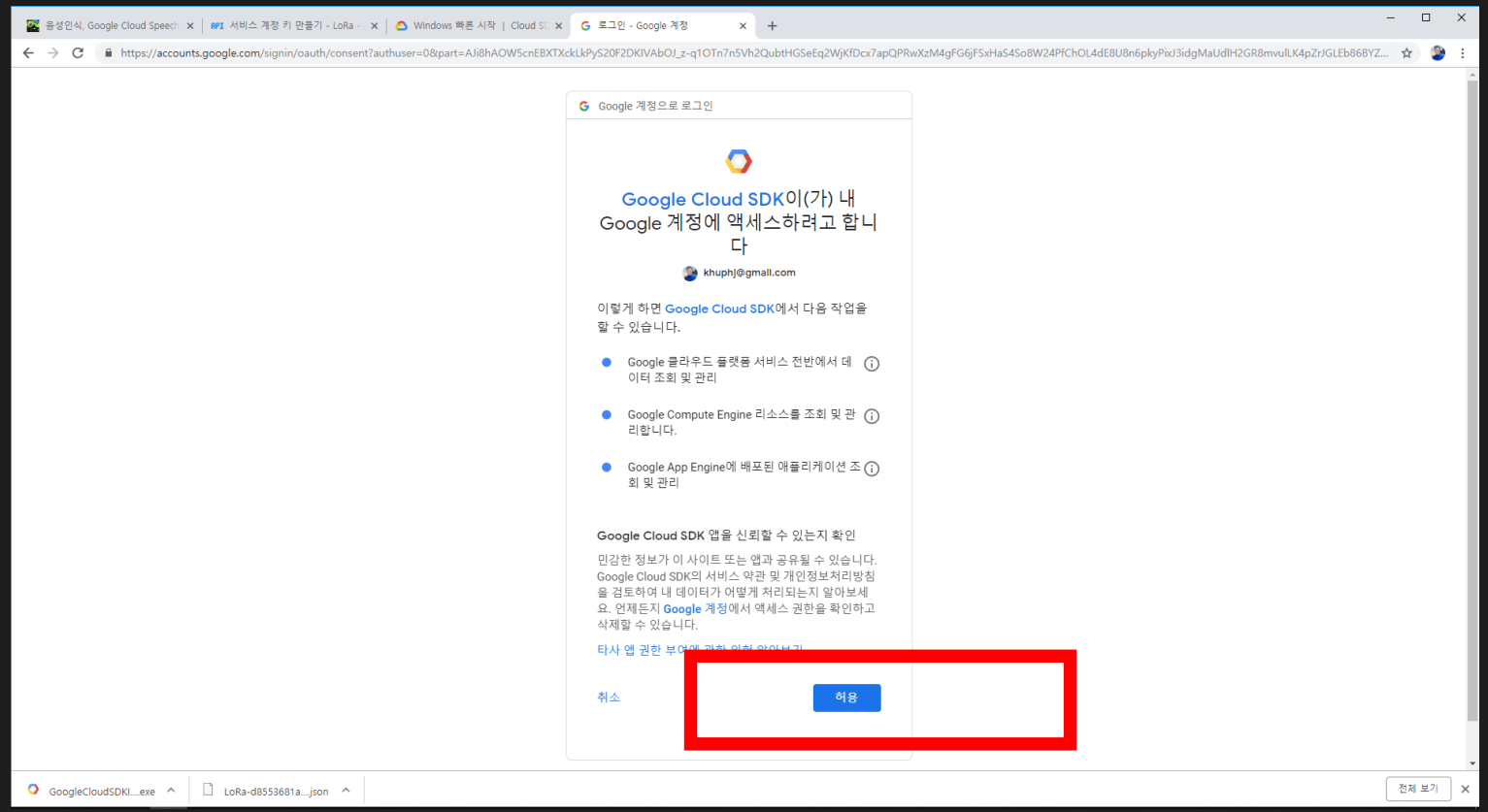
gcloud init 입력

03. 구글 SDK 설치



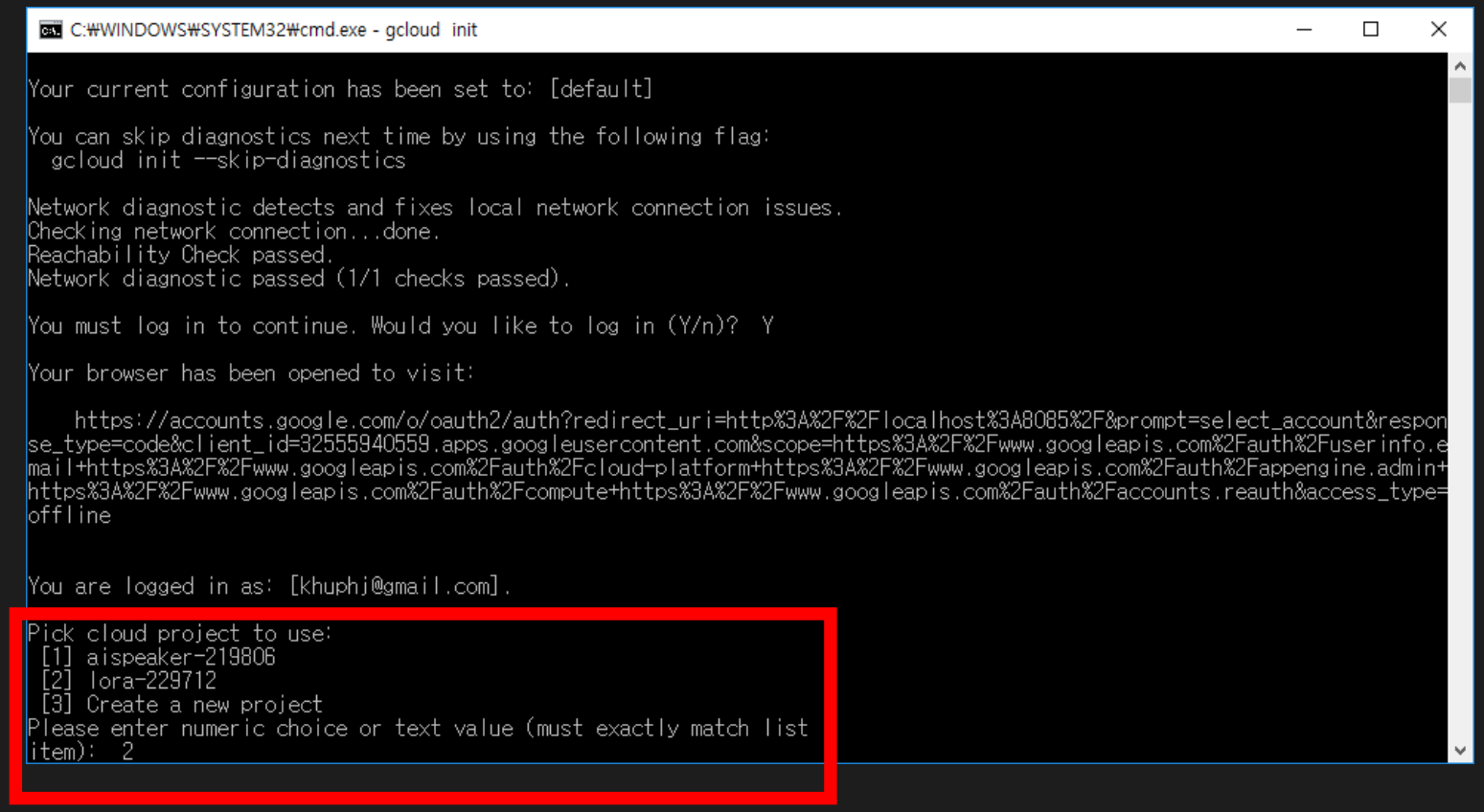
Y 를 누르면
구글계정을 로그인하라고 함

03. 구글 SDK 설치



허용버튼 클릭

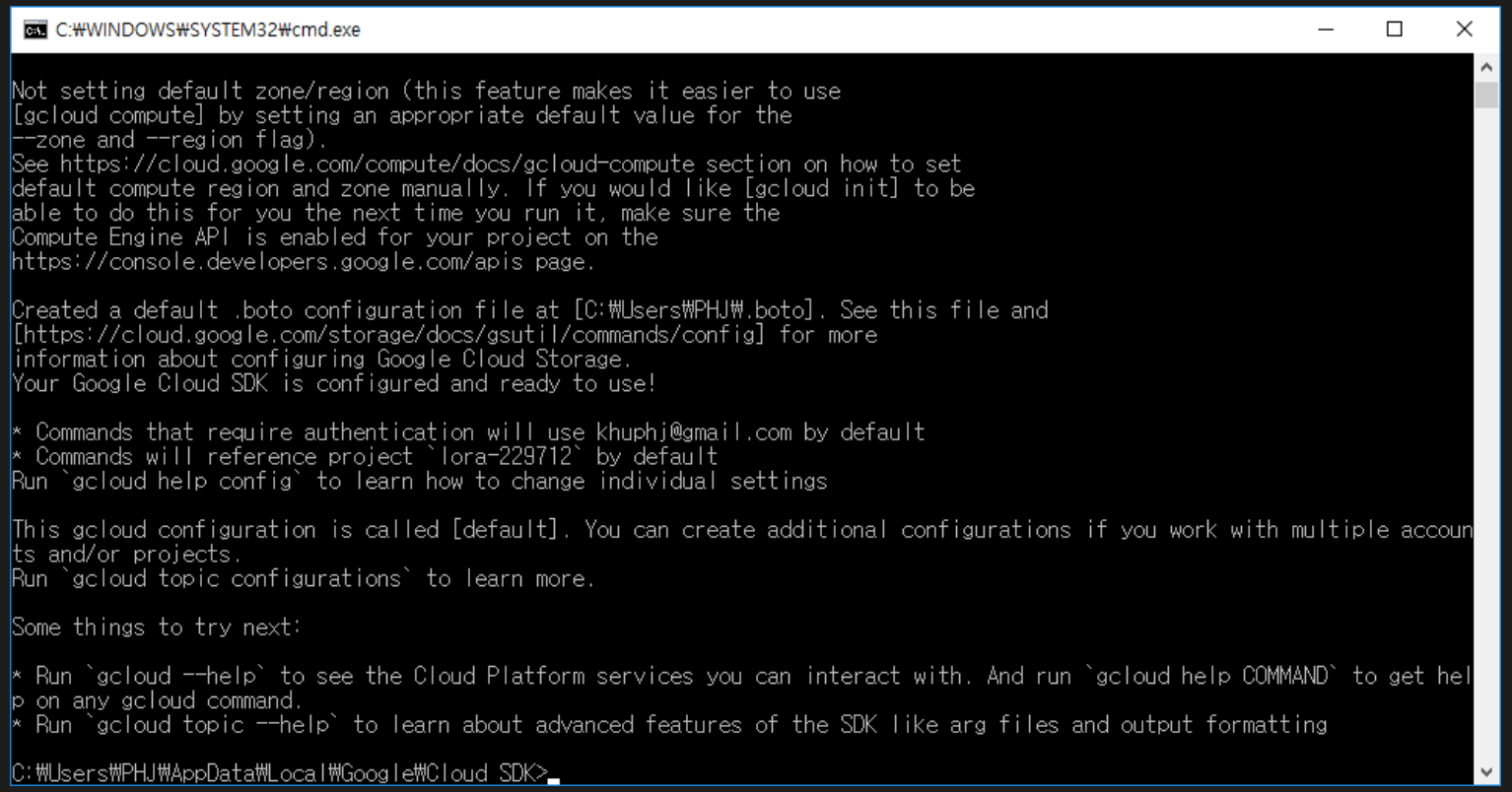
03. 구글 SDK 설치



그후 커맨드창에

방금만든 프로젝트 선택

03. 구글 SDK 설치

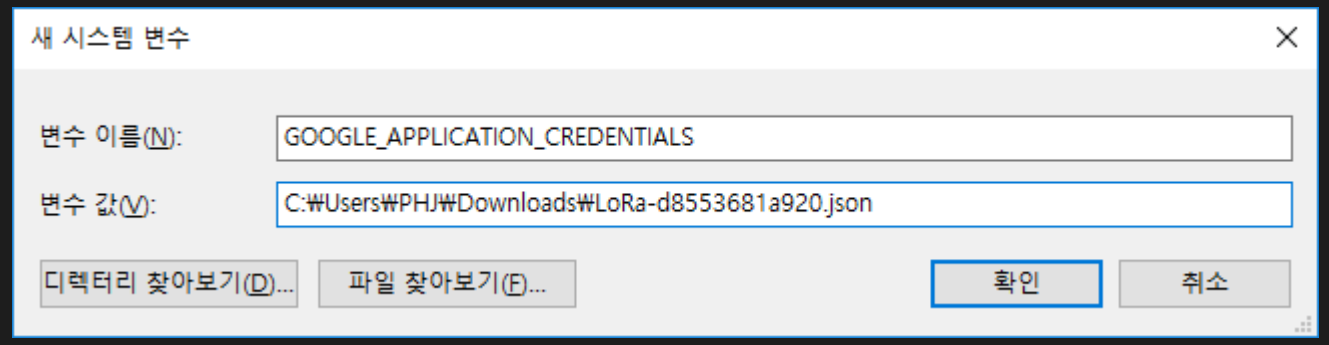


준비 끝

03. 구글 SDK 설치

만약 안되면

gcloud auth activate-service-account --key-file="C:₩Users₩PHJ₩Downloads₩LoRa-d8553681a920.json“
또는

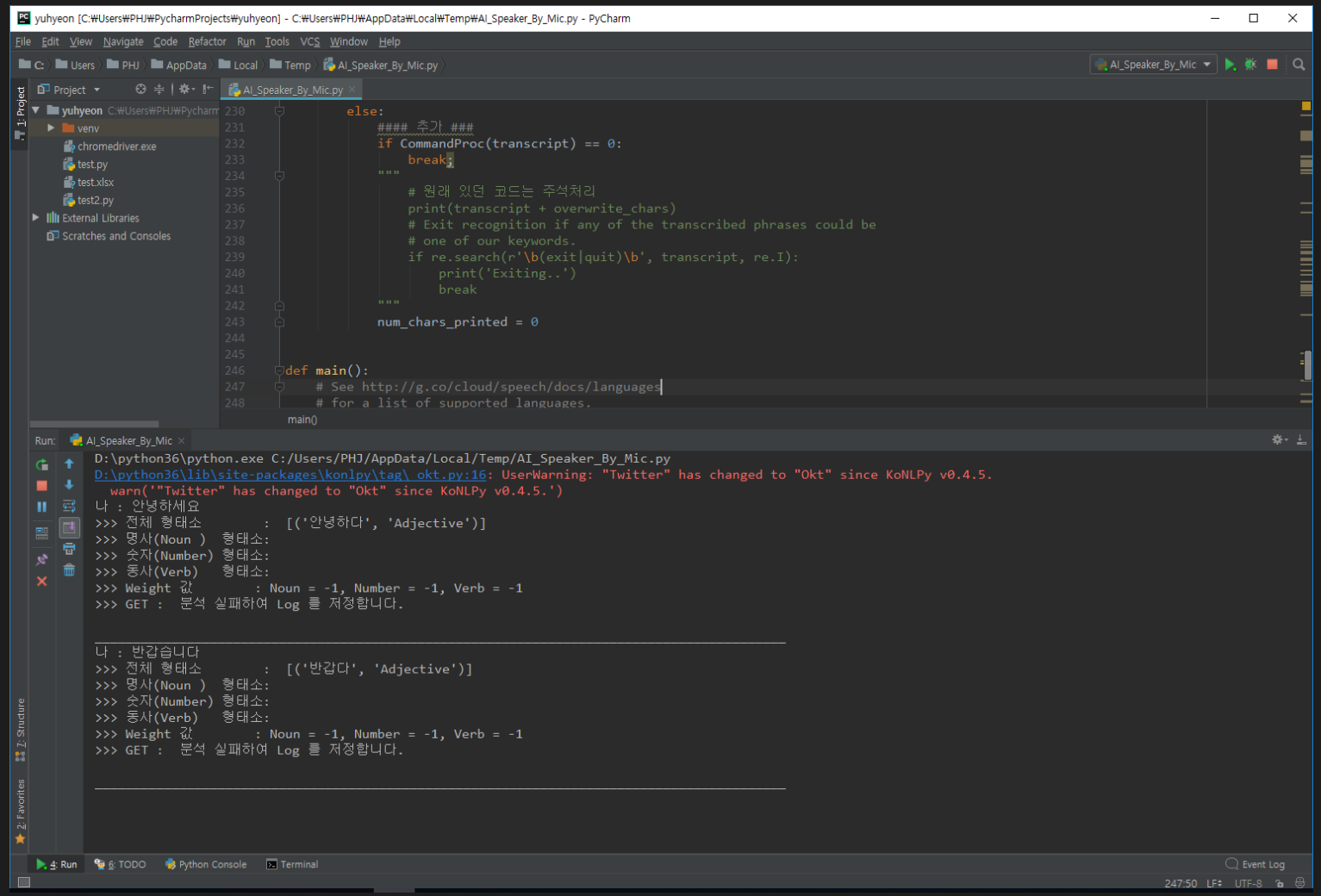


또는

import os
os.environ['GOOGLE_APPLICATION_CREDENTIALS'] = "C:₩₩Users₩₩PHJ₩₩Downloads₩₩LoRa-d8553681a920.json“

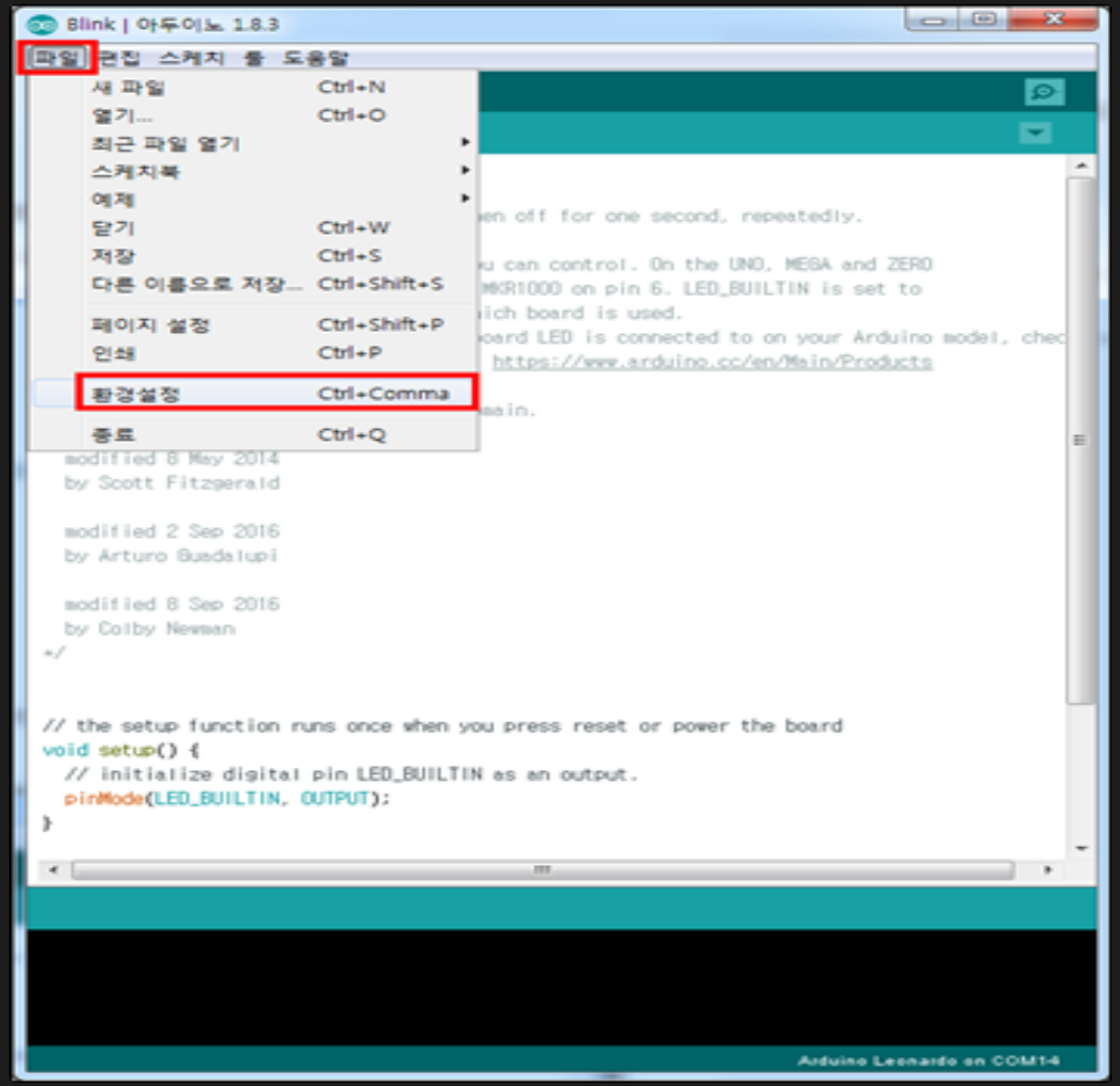
입력

03. 구글 SDK 설치



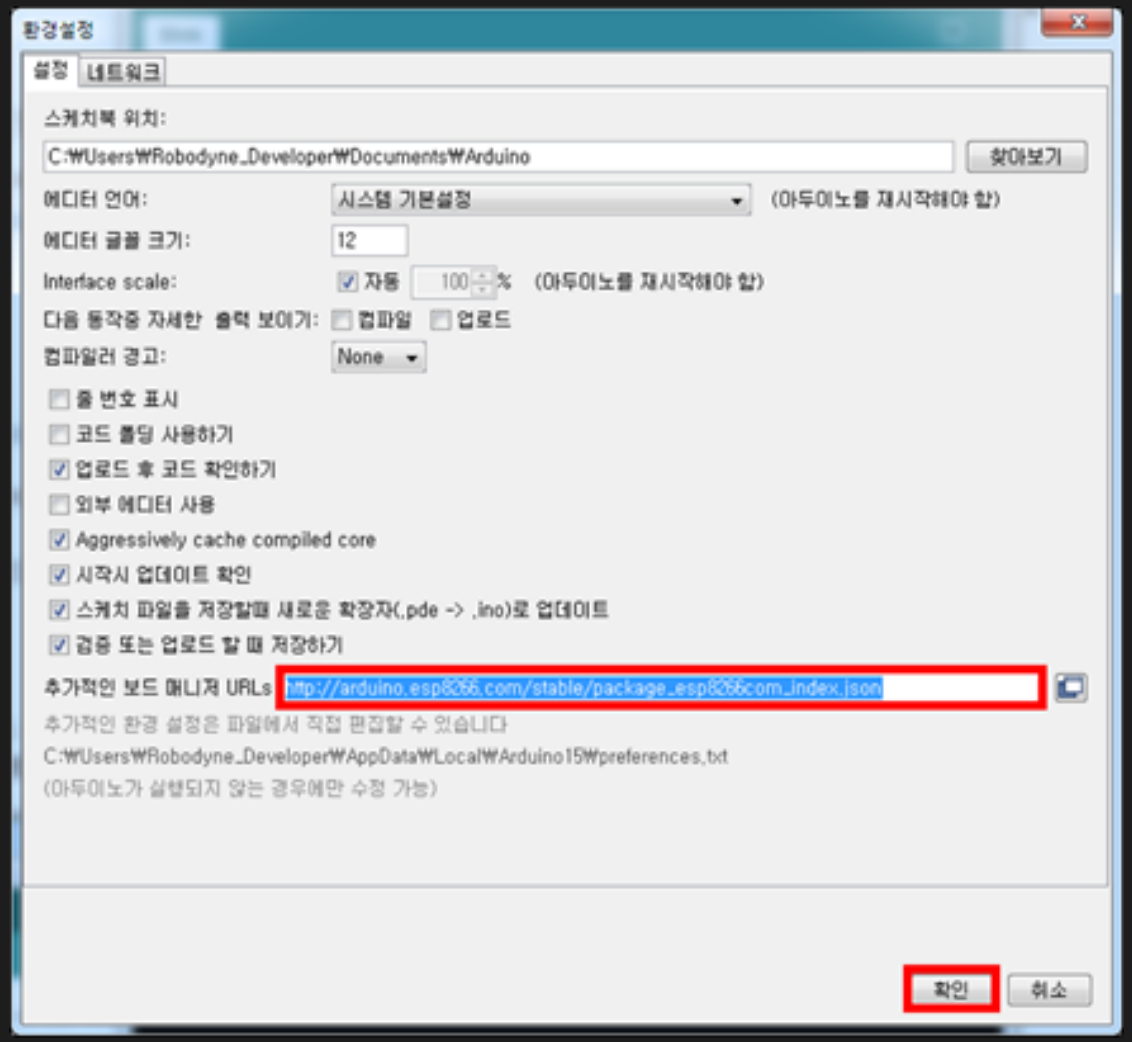
실행해보기

04. Wemos D1 보드 셋팅



아두이노 IDE를 열고 파일 - 환경설정을 클릭합니다.

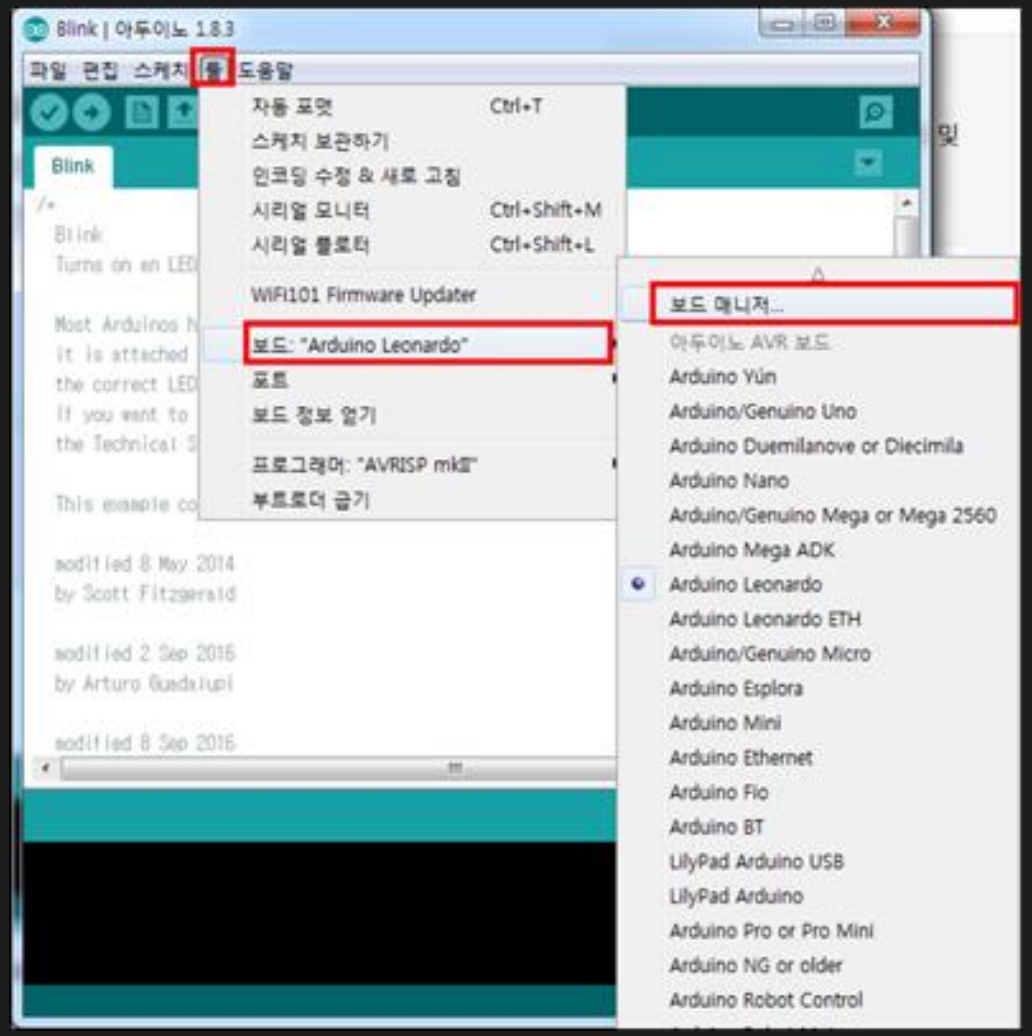
04. Wemos D1 보드 셋팅



위 사진에서
빨간색 표시가 되어있는 '추가적인 보드 매니저' 항목에
아래 url을 복사하여 붙여넣습니다.

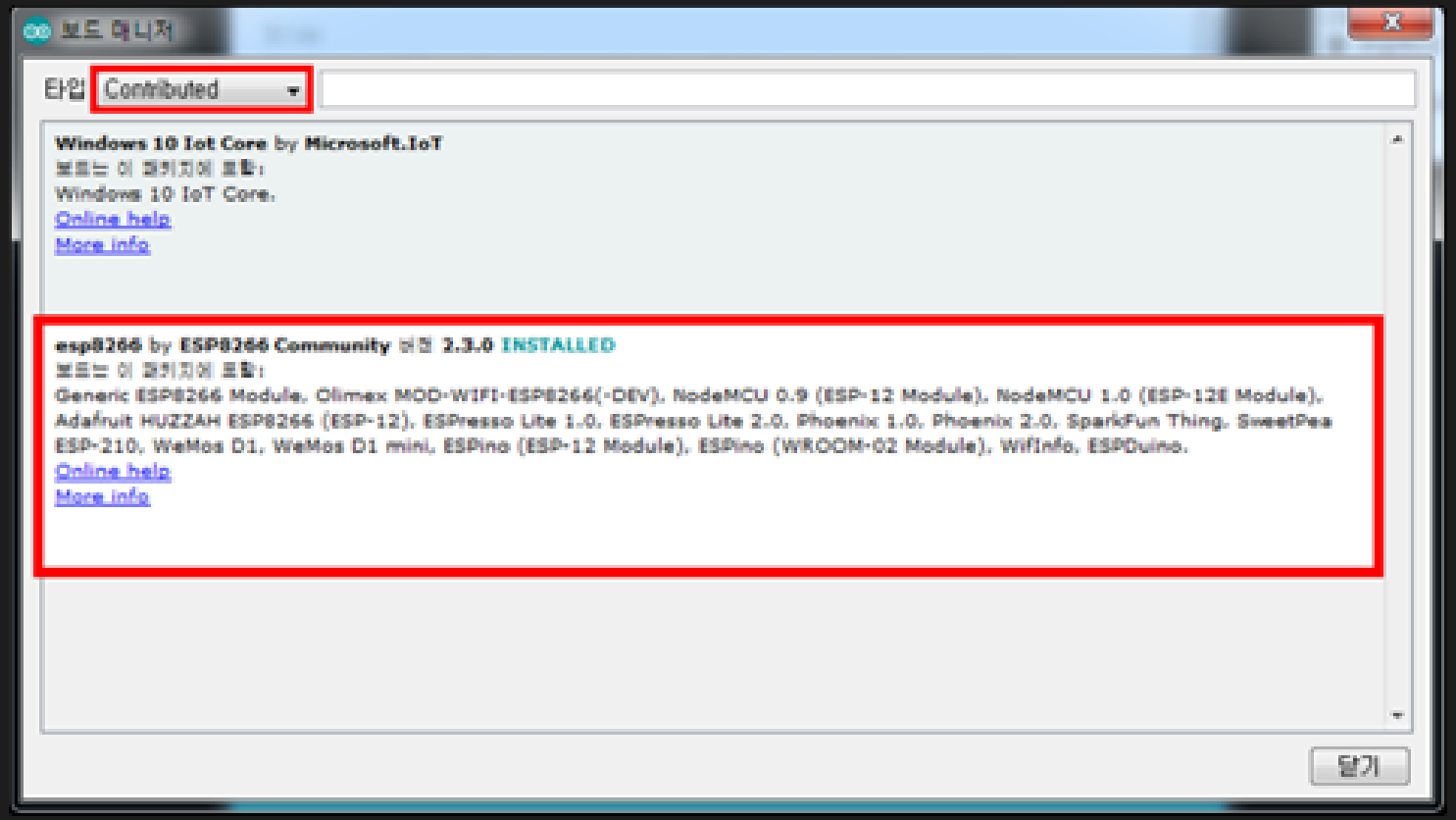
http://arduino.esp8266.com/stable/package_esp8266com_index.json

04. Wemos D1 보드 셋팅



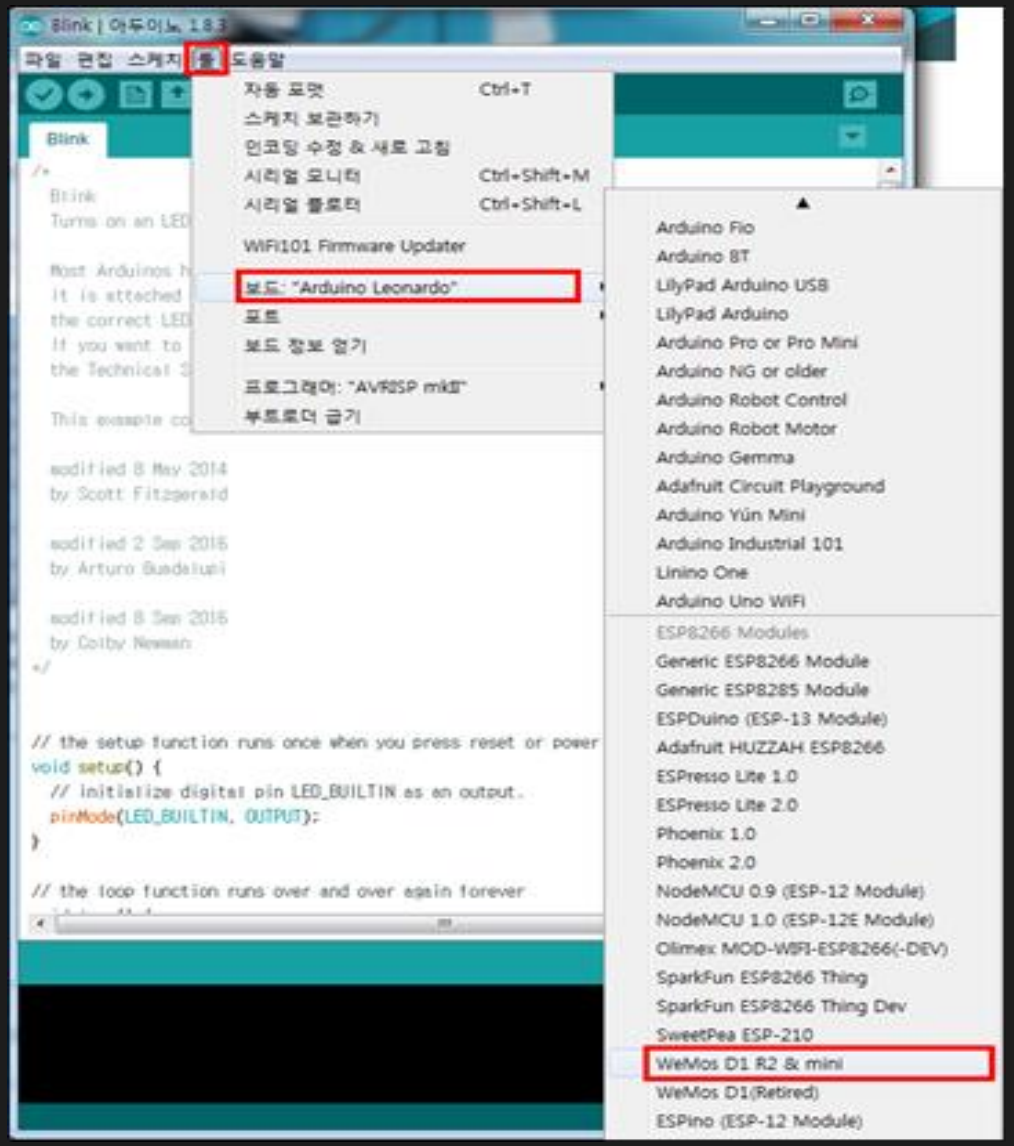
실행해보기

04. Wemos D1 보드 셋팅



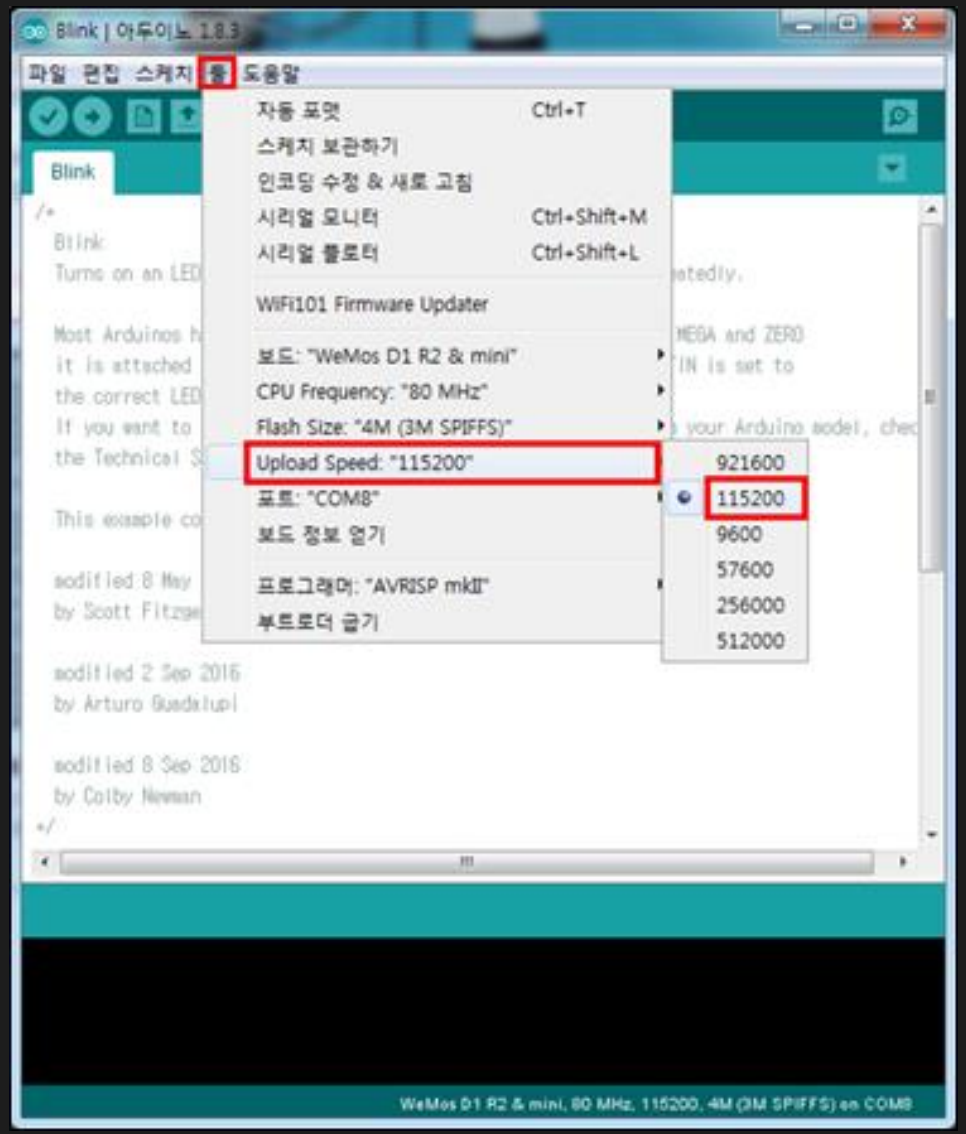
보드 매니저에서 타입 - Contributed로 설정후 esp8266을 검색합니다.
ESP8266 Community를 클릭하여 설치합니다.

04. Wemos D1 보드 셋팅



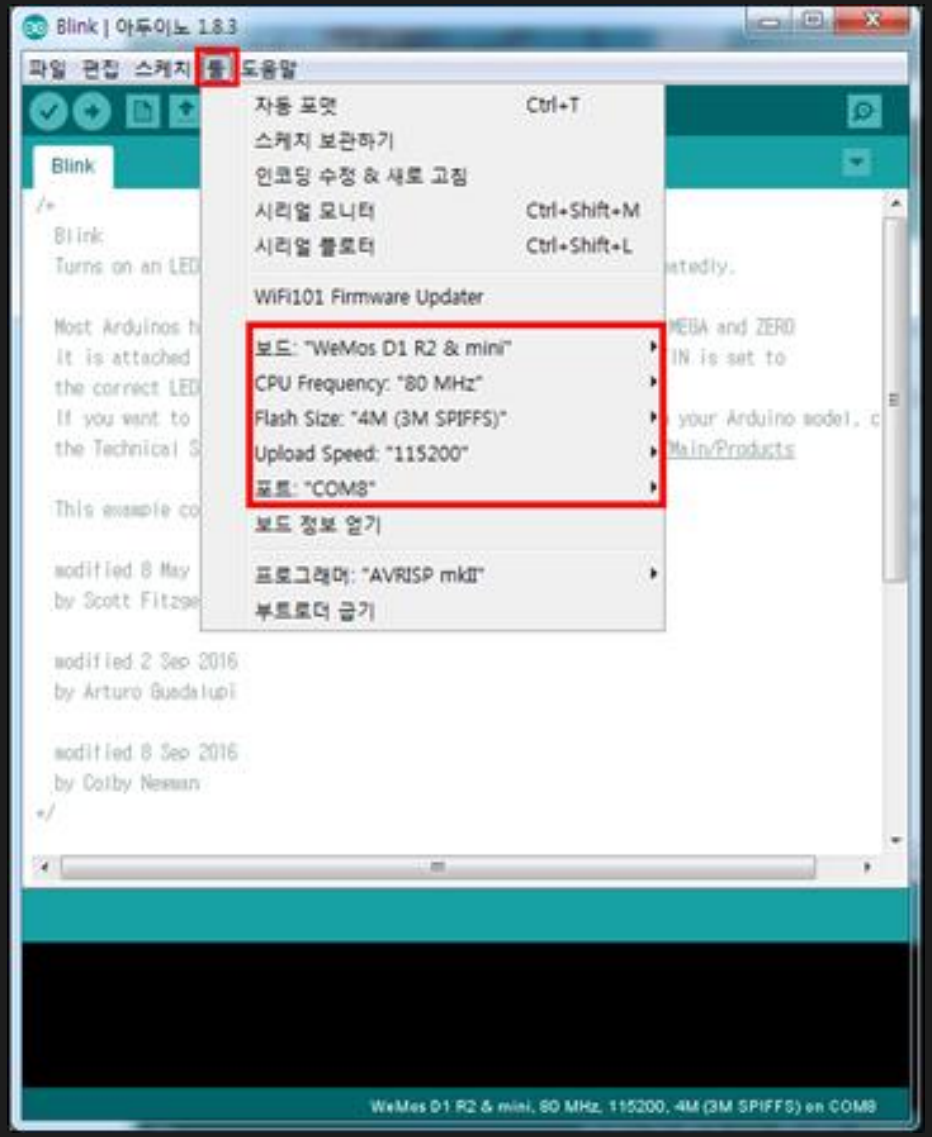
예제를 실행하기 전에 보드 설정을 합니다.
상단에서 툴 - 보드 - WeMos D1 를 설정합니다.

04. Wemos D1 보드 셋팅



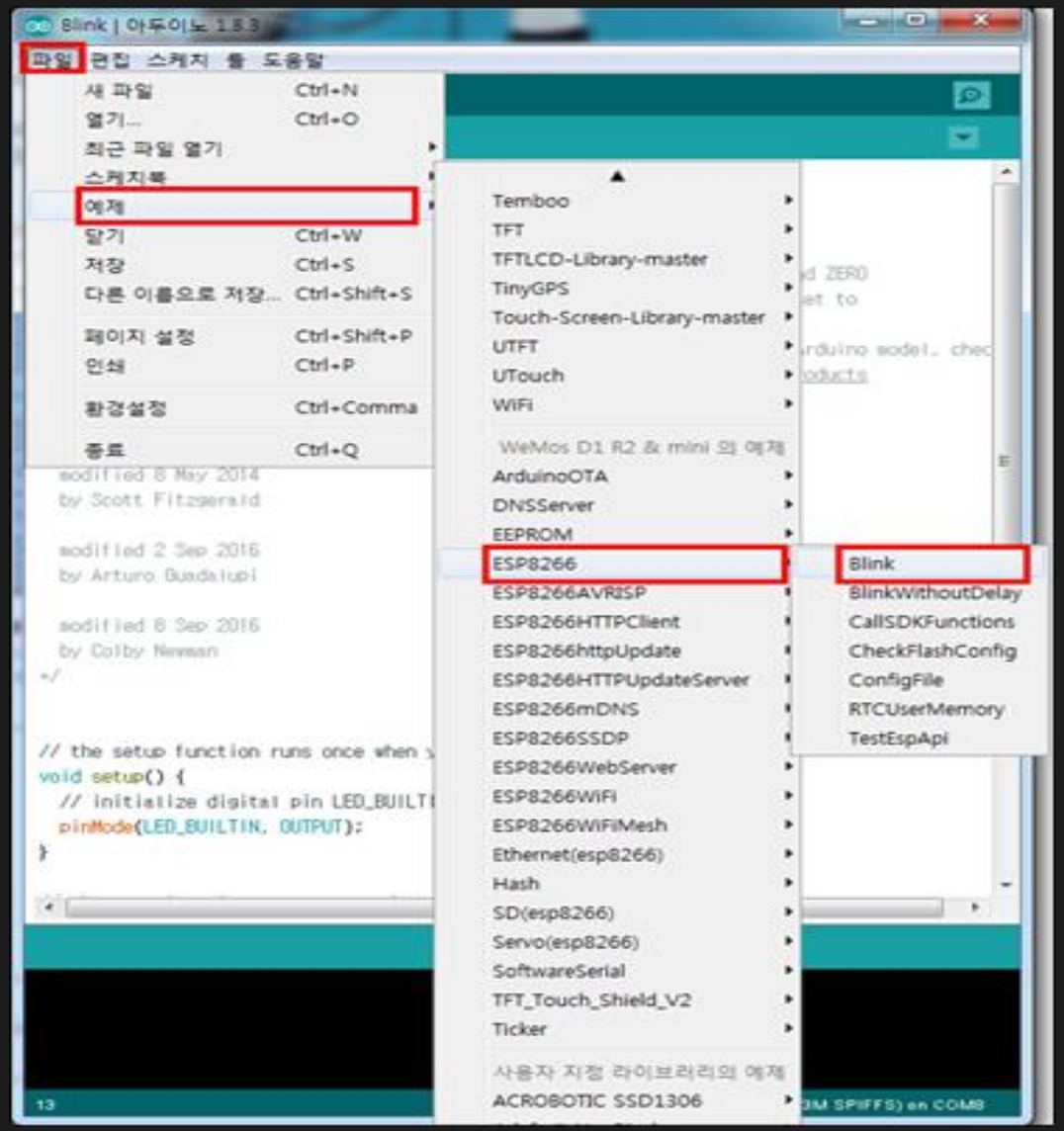
Upload Speed를 115200으로 세팅 합니다.
(업로드 실패 시 57600으로 변경하여 확인할 수 있습니다.)

04. Wemos D1 보드 셋팅



위와 같이 설정 한 후, 알맞은 포트에 연결합니다.

04. Wemos D1 보드 셋팅

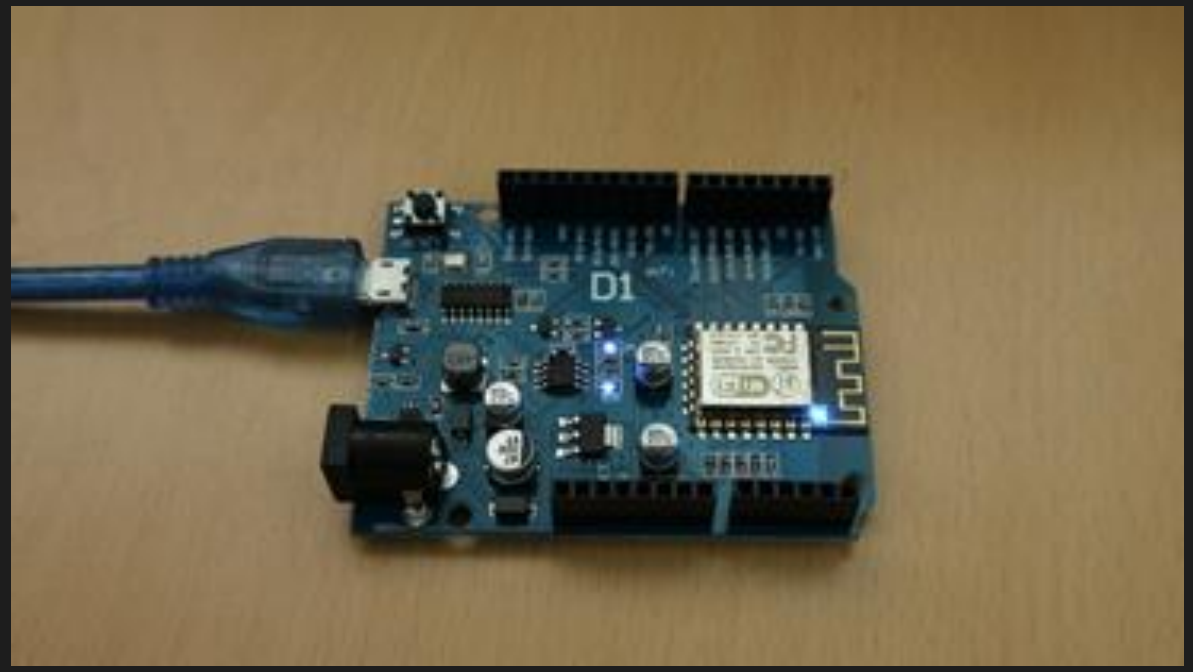


예제를 실행합니다. 상단의 파일 - 예제 - ESP8266 - Blink 순으로
Blink 예제를 실행 합니다.

04. Wemos D1 보드 셋팅

Blink 예제를 D1 보드에 업로드 합니다.
업로딩 과정은 위와 같으며 시간이 다소 소요됩니다.

04. Wemos D1 보드 셋팅



보드에 있는 WIFI 모듈 부분의 LED가 깜빡이는 것을 확인할 수 있습니다.