

OPENCV-PYTHON

OpenCV + Computer Vision



anaconda

구글에서 **anaconda** 검색



전체 이미지 동영상 뉴스 지도 더보기 설정 도구

검색결과 약 47,600,000개 (0.66초)

www.anaconda.com ▼

Anaconda | The World's Most Popular Data Science Platform

Anaconda is the birthplace of Python data science. We are a movement of data scientists, data-driven enterprises, and open source communities.

이 페이지를 여러 번 방문했습니다. 최근 방문 날짜: 21. 1. 27

Installation

Installing on Windows - Installing on Linux - Installing on macOS

Individual Edition

Anaconda Individual Edition is the world's most popular Python ...

Installing on Windows

Installing on Windows¶. Note. Using Anaconda in a ...

[anaconda.com](#) 검색결과 더보기 »

Pricing

Products and pricing for every data scientist. Whether you are a ...

Open Source

We are proud to distribute and contribute to a variety of open ...

Enterprise Edition

The end-to-end data science platform. Our enterprise platform ...

anaconda.org ▼

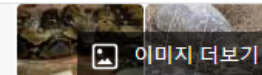
:: Anaconda Cloud

Where packages, notebooks, projects and environments are shared. Sign Up; Sign In. New to **Anaconda** Cloud? Sign up!

ko.wikipedia.org › wiki › 아나콘다_(파이썬_배포판) ▼

아나콘다 (파이썬 배포판) - 위키백과, 우리 모두의 백과사전

아나콘다(**Anaconda**)는 패키지 관리와 디플로이를 단순케 할 목적으로 과학 계산(데이터 과학, 기계 학습 애플리케이션, 대규모 데이터 처리, 예측 분석 등)을 위해 ...



아나콘다 (Anaconda)

파이썬 배포판

아나콘다는 패키지 관리와 디플로이를 단순케 할 목적으로 과학 계산을 위해 파이썬과 R 프로그래밍 언어의 자유-오픈 소스 배포판이다. 패키지 버전들은 패키지 관리 시스템 conda를 통해 관리된다. 위키백과

개발: [Continuum analytics](#)

라이선스: New BSD License

안정화 버전: 2019.03 / 2019년 4월 4일

종류: 프로그래밍 언어, 기계 학습, 데이터 과학

개발자: Anaconda, Inc. (과거: [Continuum Analytics](#))

프로그래밍 언어: 파이썬

관련 검색어

15개 이상 항목 더보기



파이썬



비주얼 스킷리오...

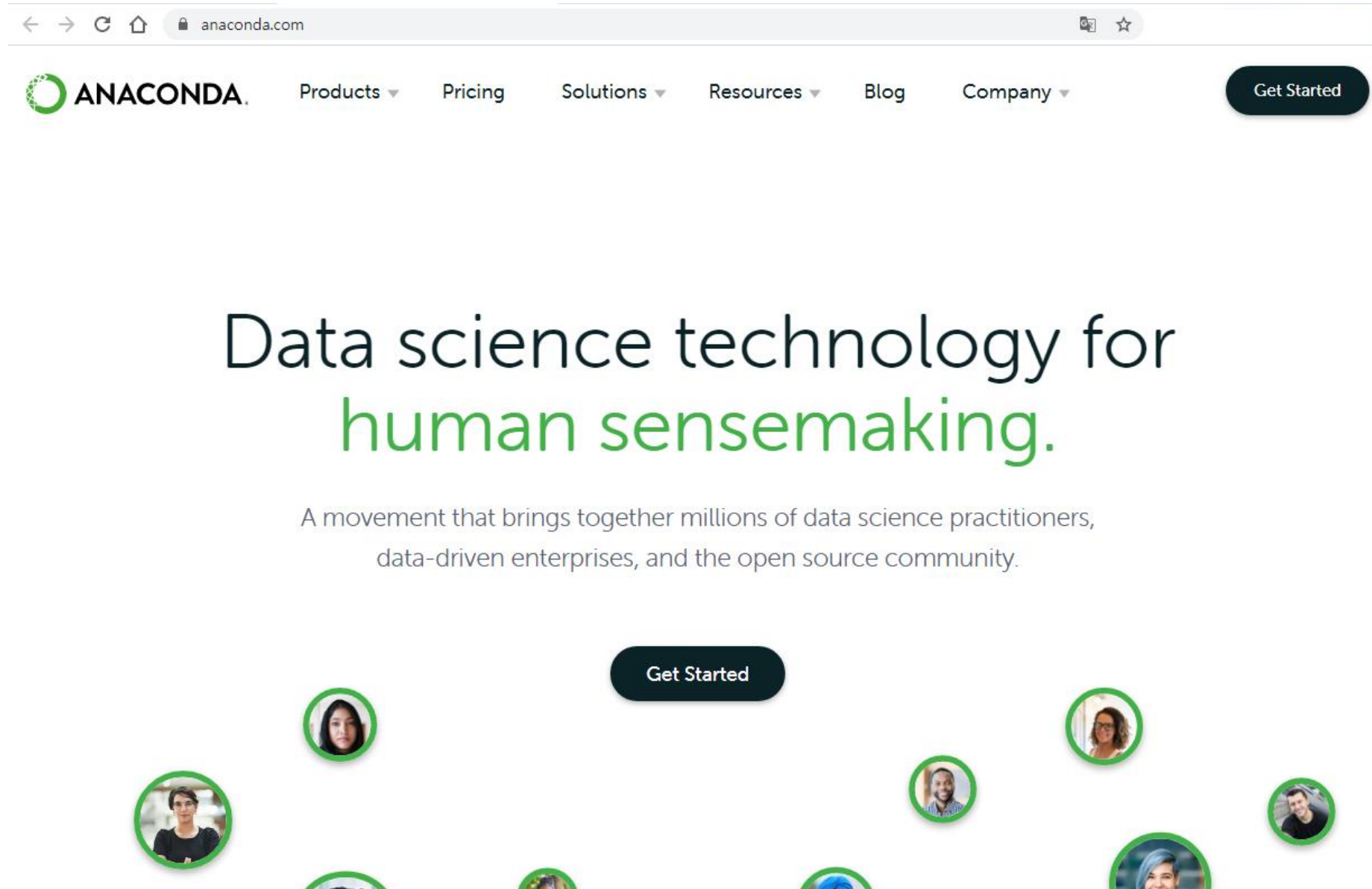


Conda



Spyder

피드백



The image is a screenshot of the Anaconda website homepage. At the top, there is a green header with the word "Anaconda" in white. Below the header is a navigation bar with the Anaconda logo (a green circle with a white dot) and the word "ANACONDA" in black. To the right of the logo are links for "Products", "Pricing", "Solutions", "Resources", "Blog", and "Company", each with a small downward arrow. Further right is a dark blue button with the text "Get Started". Below the navigation bar is a large white area with the text "Data science technology for" in black and "human sensemaking." in green. Below this text is a smaller line of text: "A movement that brings together millions of data science practitioners, data-driven enterprises, and the open source community." At the bottom of the page, there is a dark blue button with the text "Get Started" and several circular profile pictures of people, some of which are partially cut off by the bottom edge of the image.

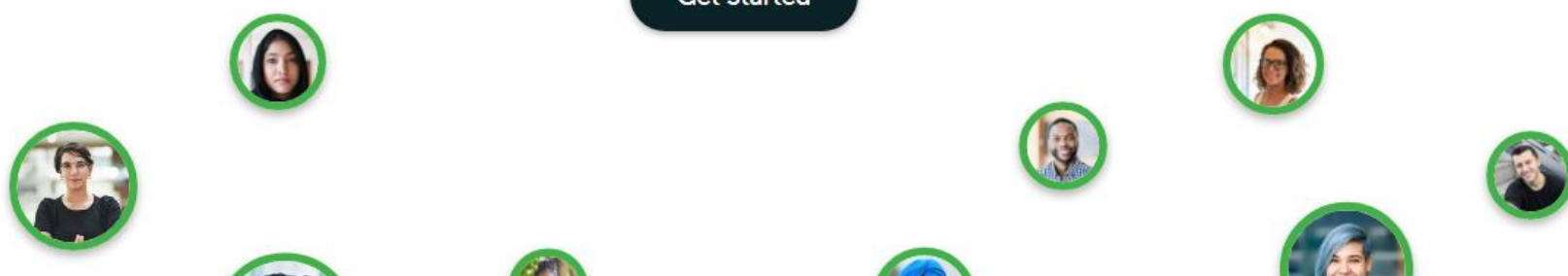
← → ↻ 🏠 anaconda.com 🔍 ☆

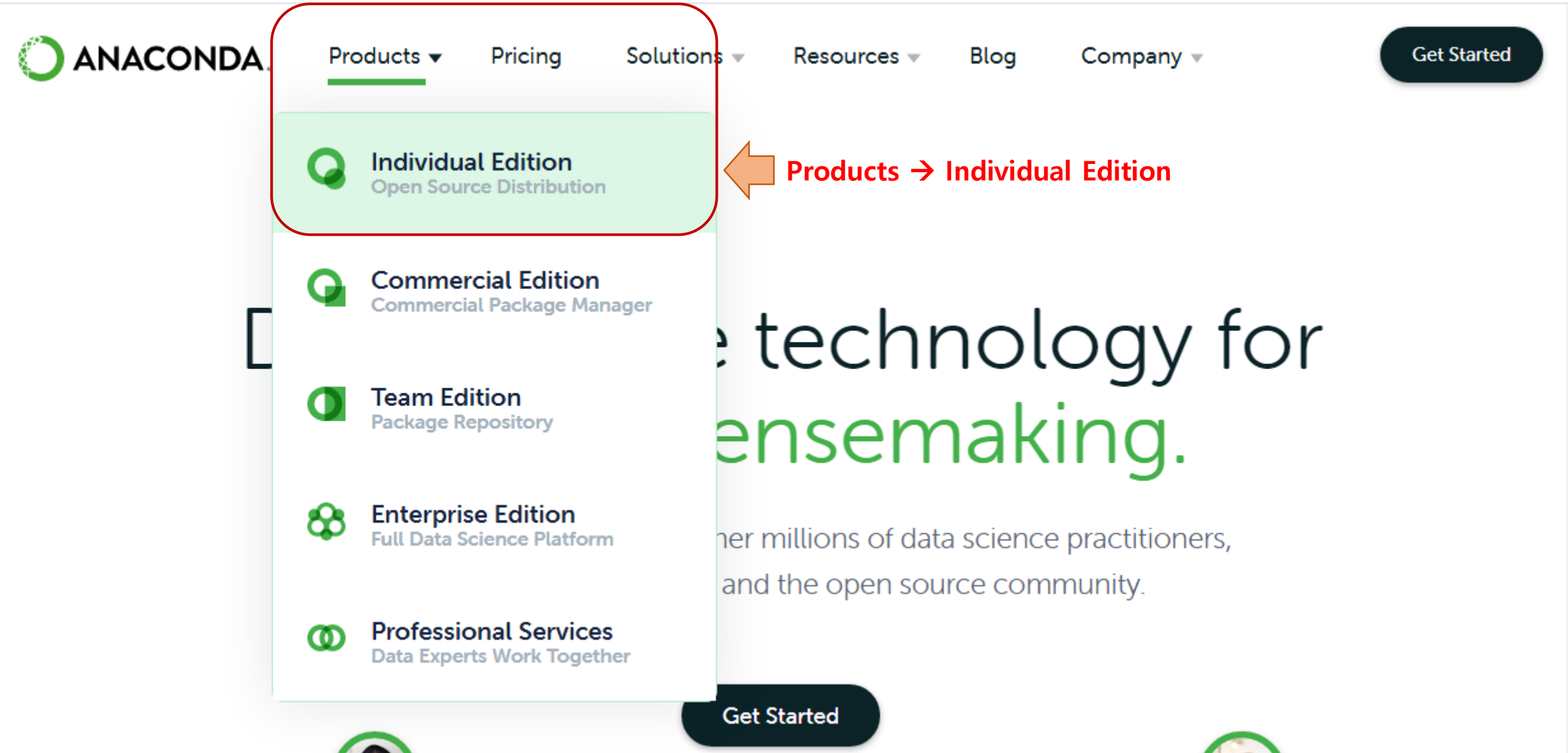
ANACONDA Products ▾ Pricing Solutions ▾ Resources ▾ Blog Company ▾ [Get Started](#)

Data science technology for human sensemaking.

A movement that brings together millions of data science practitioners,
data-driven enterprises, and the open source community.

[Get Started](#)





The screenshot shows the Anaconda website's navigation bar. The 'Products' dropdown menu is open, displaying five options: Individual Edition (Open Source Distribution), Commercial Edition (Commercial Package Manager), Team Edition (Package Repository), Enterprise Edition (Full Data Science Platform), and Professional Services (Data Experts Work Together). The 'Individual Edition' option is highlighted with a light green background and a red border. An orange arrow points from the text 'Products → Individual Edition' to the 'Individual Edition' option in the dropdown menu. The background of the website shows the Anaconda logo and the text 'the technology for ensemaking.' and 'ner millions of data science practitioners, and the open source community.'.

ANACONDA

Products ▾ Pricing Solutions ▾ Resources ▾ Blog Company ▾

Get Started

Individual Edition
Open Source Distribution

Commercial Edition
Commercial Package Manager

Team Edition
Package Repository

Enterprise Edition
Full Data Science Platform

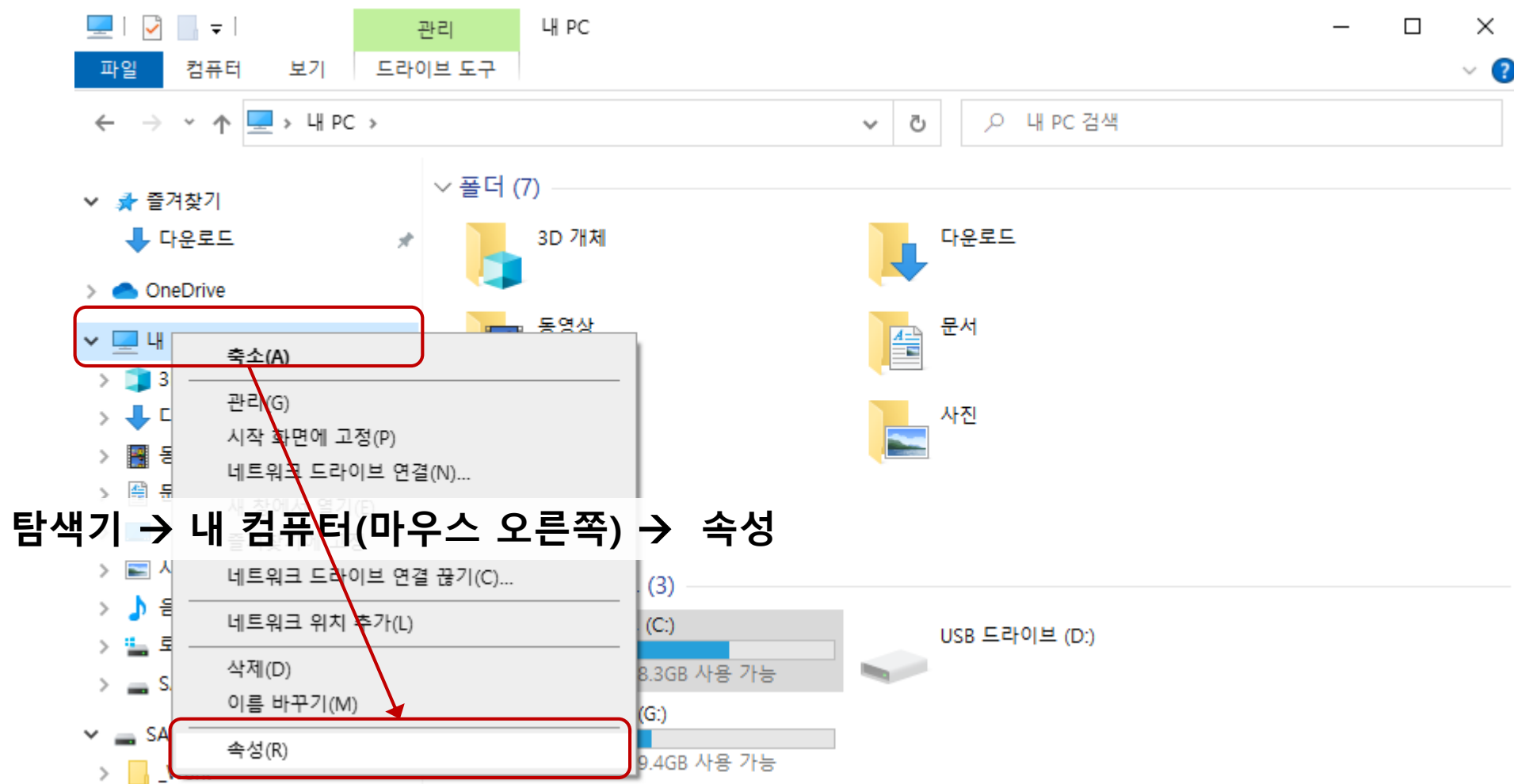
Professional Services
Data Experts Work Together

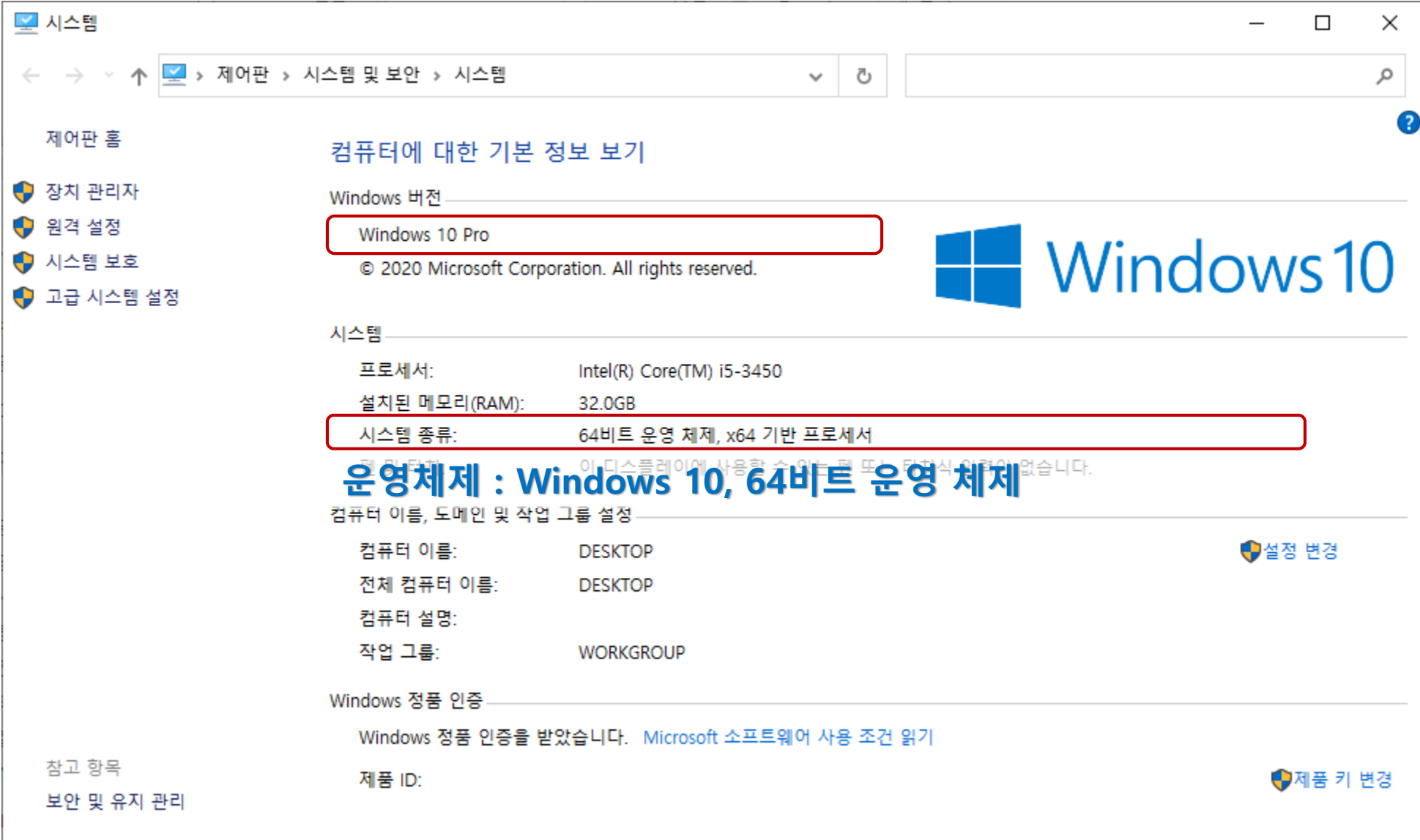
Products → Individual Edition

the technology for ensemaking.

ner millions of data science practitioners, and the open source community.

Get Started





The screenshot shows the Windows 10 'System' window. The left sidebar contains navigation links: '장치 관리자' (Device Manager), '원격 설정' (Remote Settings), '시스템 보호' (System Protection), and '고급 시스템 설정' (Advanced System Settings). The main content area is titled '컴퓨터에 대한 기본 정보 보기' (View basic information about this computer). It displays the following information:

- Windows 버전** (Windows version): Windows 10 Pro (highlighted with a red box). Below it, it says '© 2020 Microsoft Corporation. All rights reserved.' and the Windows 10 logo.
- 시스템** (System):
 - 프로세서 (Processor): Intel(R) Core(TM) i5-3450
 - 설치된 메모리(RAM) (Installed memory (RAM)): 32.0GB
 - 시스템 종류 (System type): 64비트 운영 체제, x64 기반 프로세서 (highlighted with a red box).
- 컴퓨터 이름, 도메인 및 작업 그룹 설정** (Computer name, domain, and workgroup settings):
 - 컴퓨터 이름 (Computer name): DESKTOP
 - 전체 컴퓨터 이름 (Full computer name): DESKTOP
 - 컴퓨터 설명 (Computer description):
 - 작업 그룹 (Workgroup): WORKGROUP
- Windows 정품 인증** (Windows activation):
 - Windows 정품 인증을 받았습니다. [Microsoft 소프트웨어 사용 조건 읽기](#) (Windows activation successful. [Read Microsoft software license terms](#))
 - 제품 ID (Product ID):

At the bottom left, there are links for '참고 항목' (Related topics) and '보안 및 유지 관리' (Security and maintenance). On the right side of the 'System' section, there is a '설정 변경' (Change settings) link. At the bottom right, there is a '제품 키 변경' (Change product key) link.

운영체제 : Windows 10, 64비트 운영 체제

[Products ▾](#)[Pricing](#)[Solutions ▾](#)[Resources ▾](#)[Blog](#)[Company ▾](#)[Get Started](#)

Individual Edition

Your data science toolkit

With over 20 million users worldwide, the open-source Individual Edition (Distribution) is the easiest way to perform Python/R data science and machine learning on a single machine. Developed for solo practitioners, it is the toolkit that equips you to work with thousands of open-source packages and libraries.


[Download](#)

사용할 운영체제에 맞춰 다운로드 (64-Bit)

Anaconda Installers

Windows 

MacOS 

Linux 

Python 3.8

[64-Bit Graphical Installer \(457 MB\)](#)

[32-Bit Graphical Installer \(403 MB\)](#)

Python 3.8

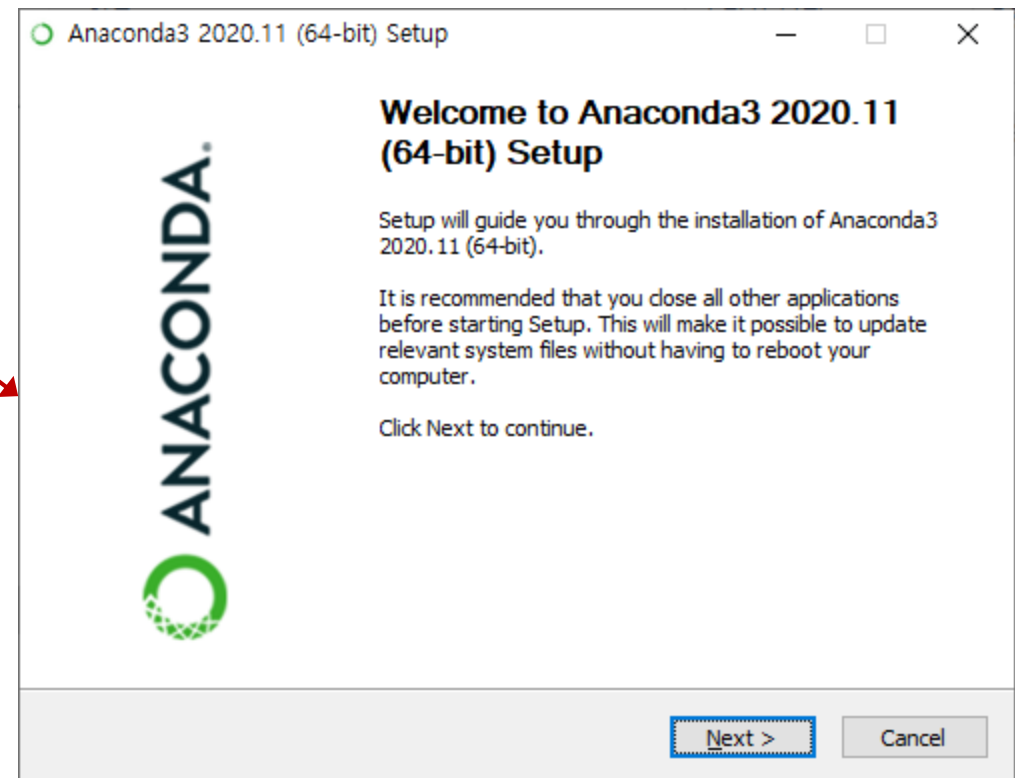
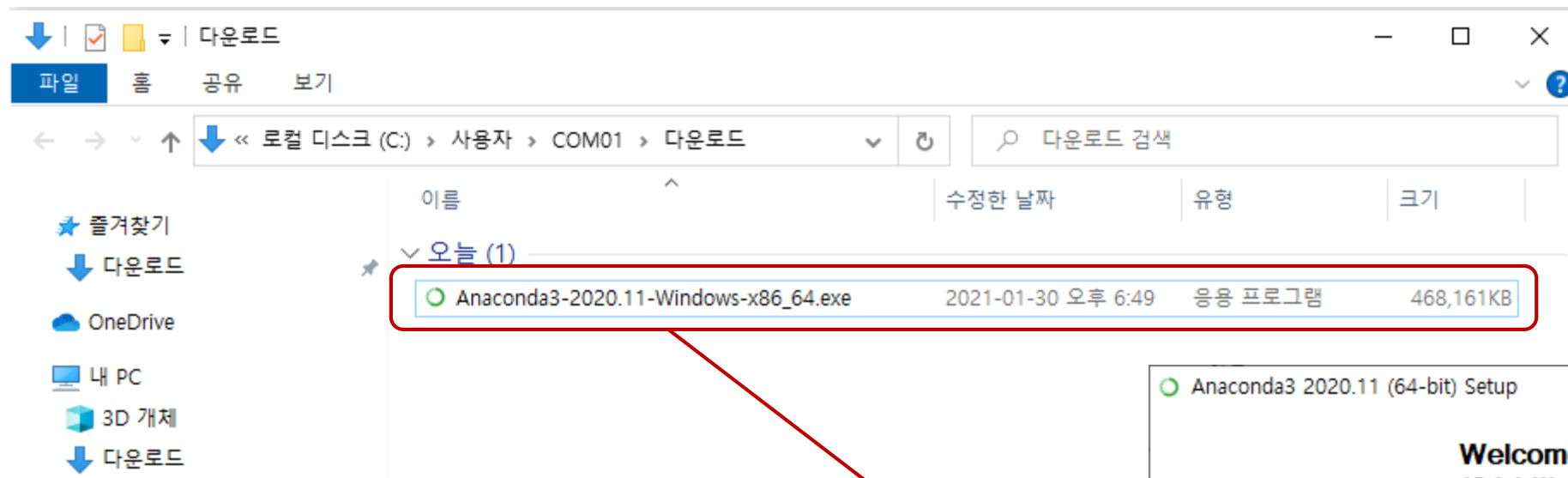
[64-Bit Graphical Installer \(435 MB\)](#)

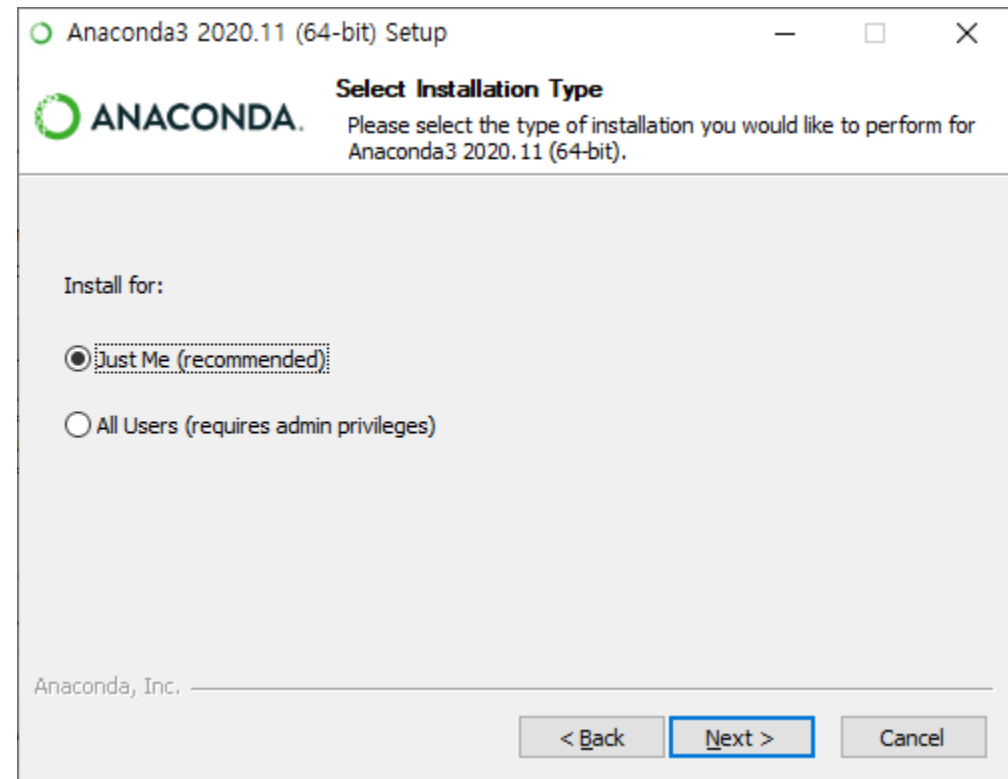
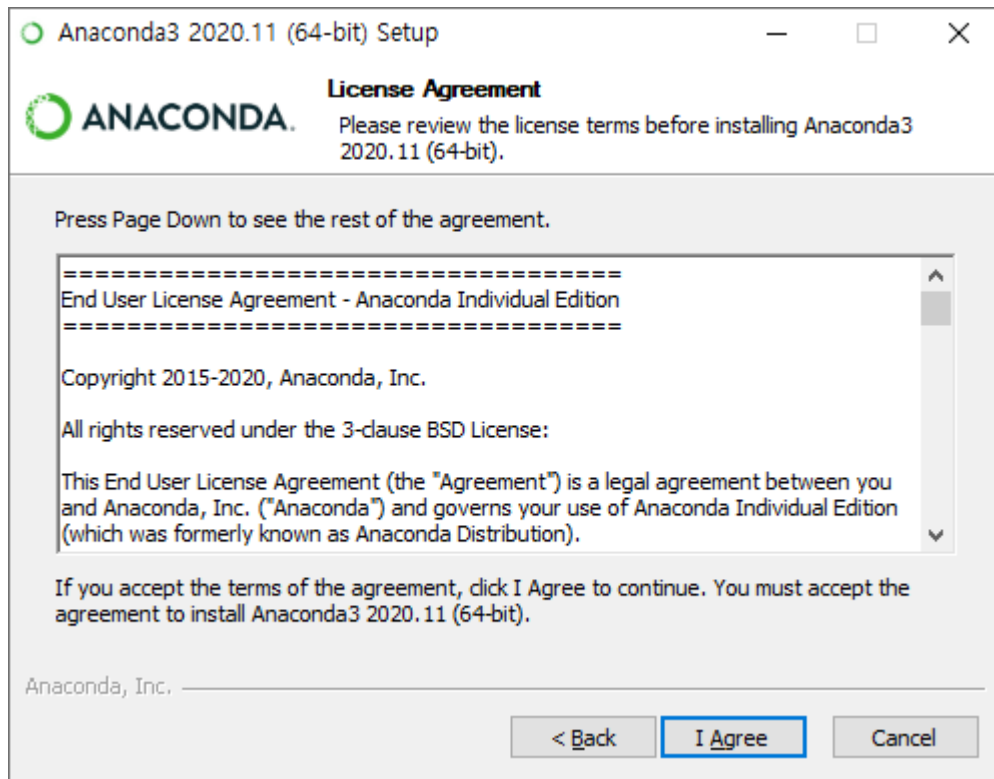
☐ [64-Bit Command Line Installer \(428 MB\)](#)

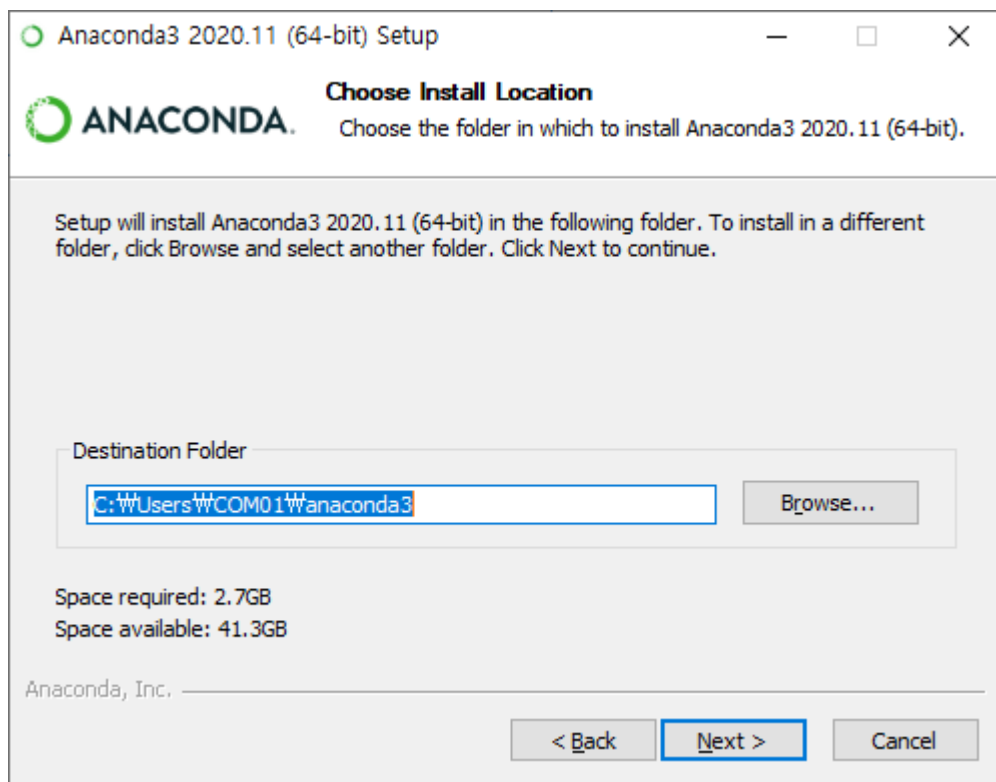
Python 3.8

[64-Bit \(x86\) Installer \(529 MB\)](#)

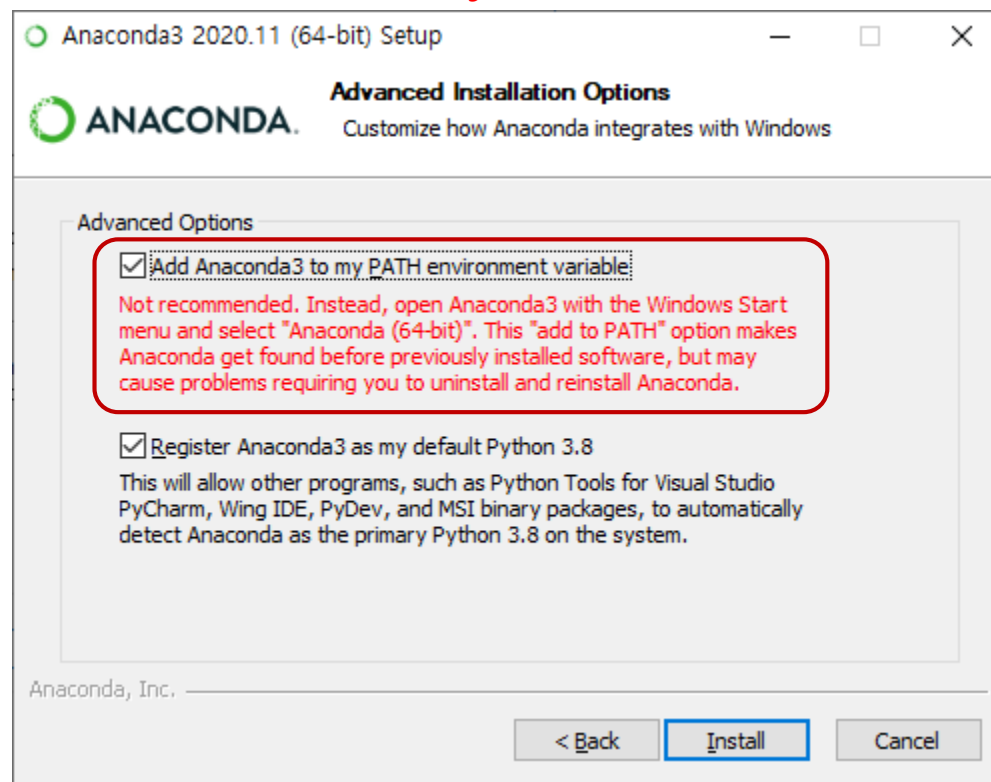
☐ [64-Bit \(Power8 and Power9\) Installer \(279 MB\)](#)

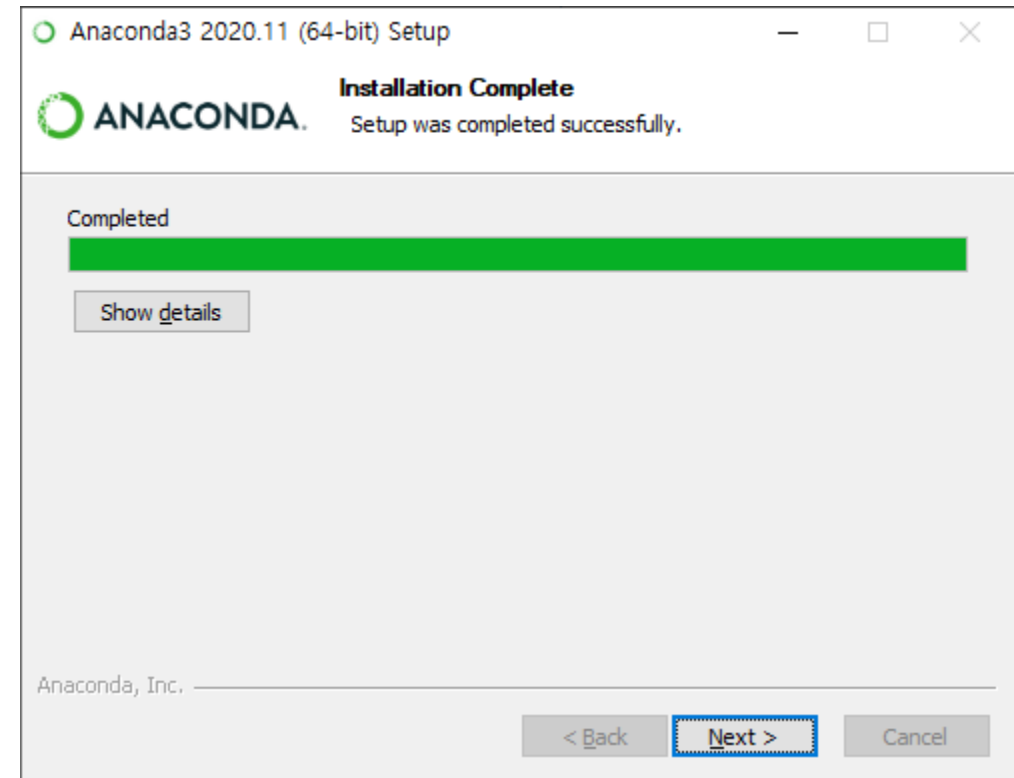
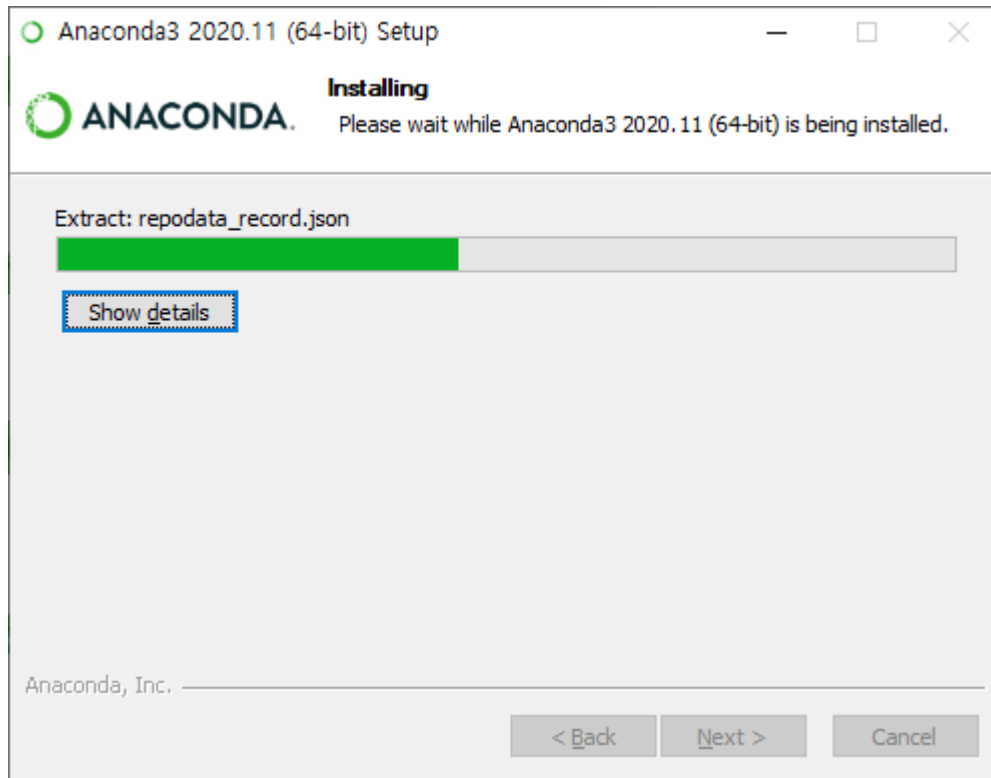


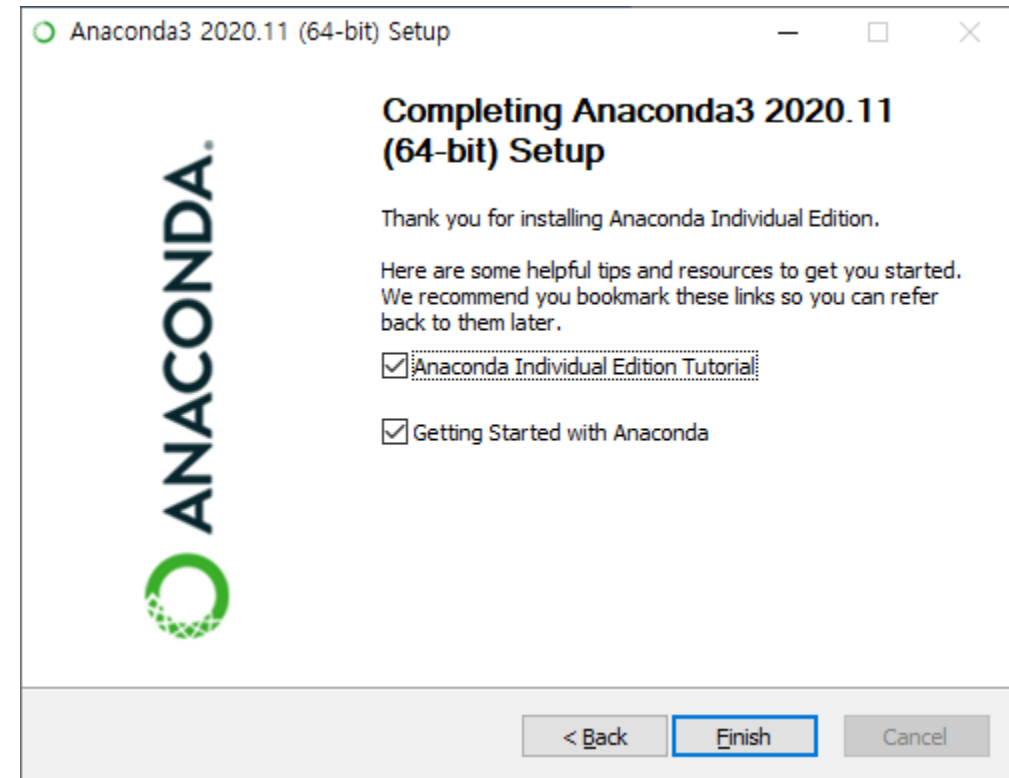
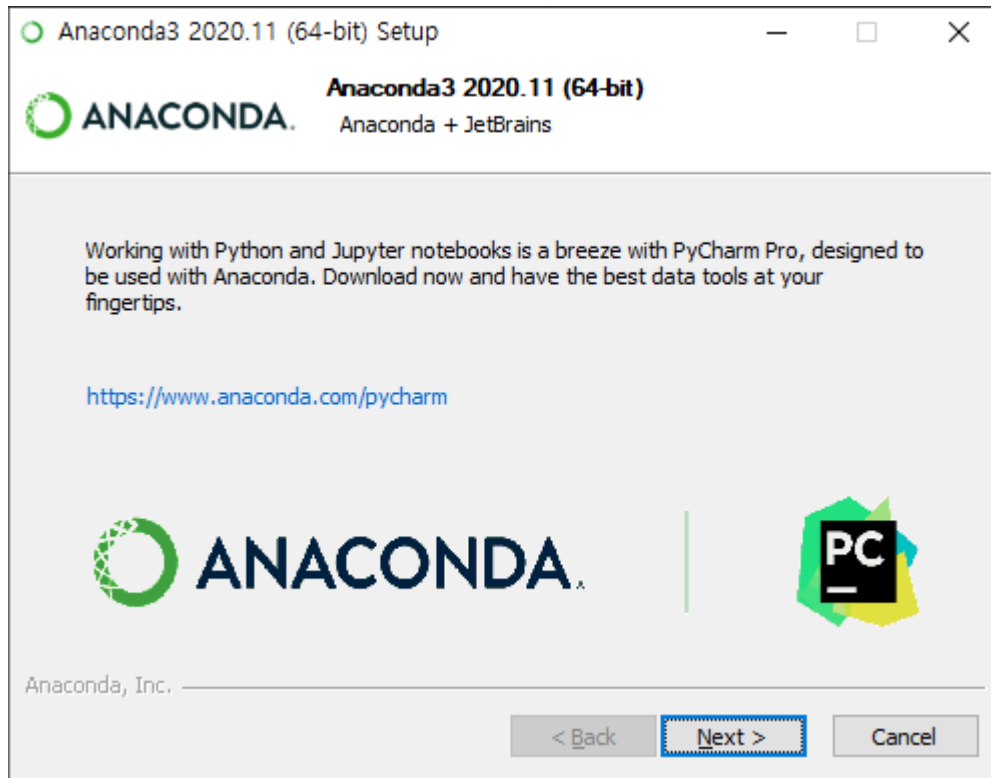


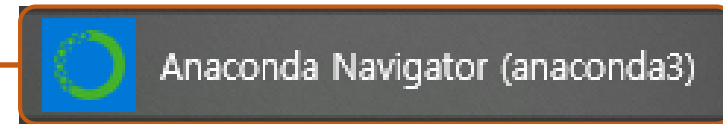
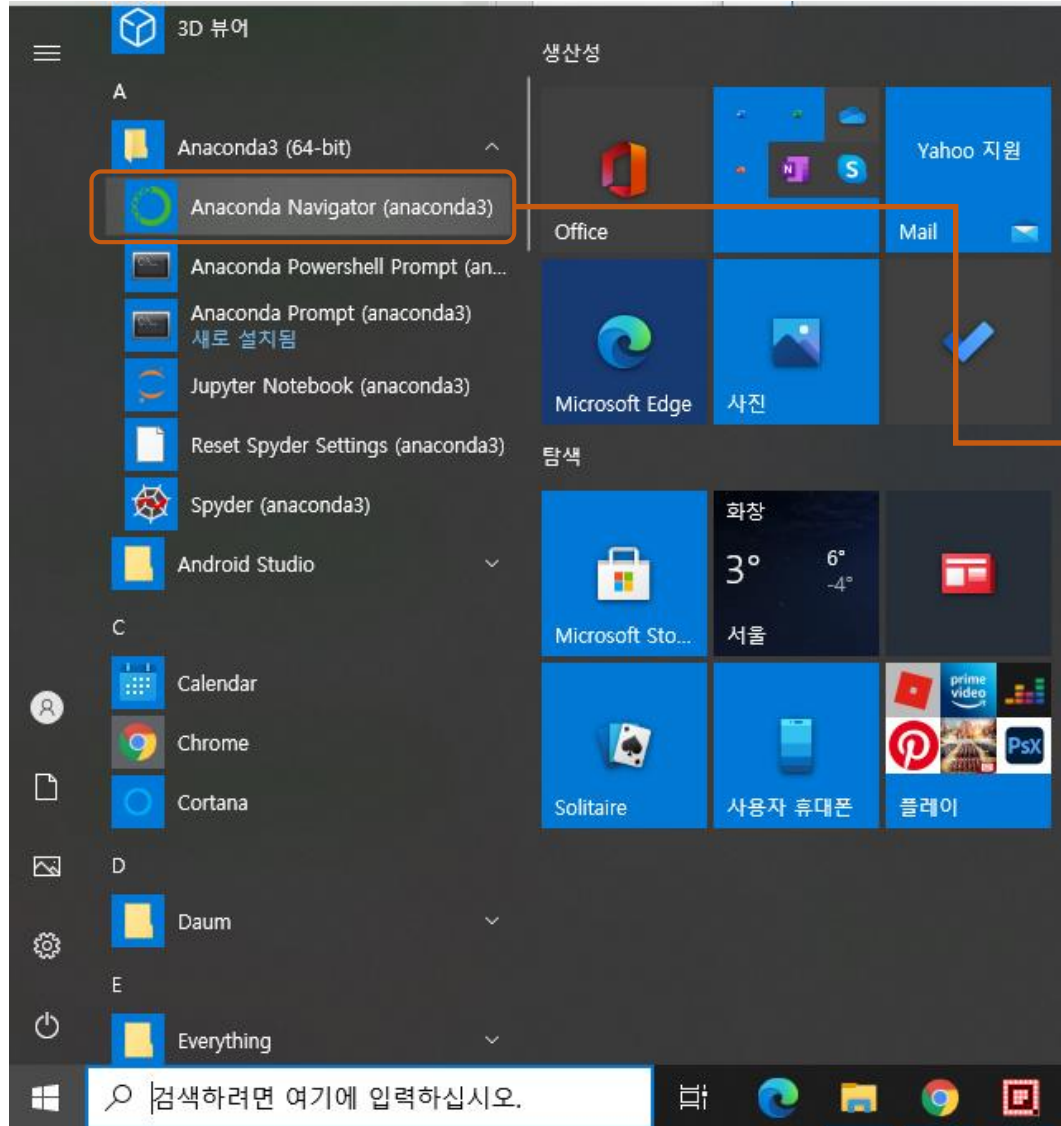


Add Anaconda3 to my PATH ... 체크

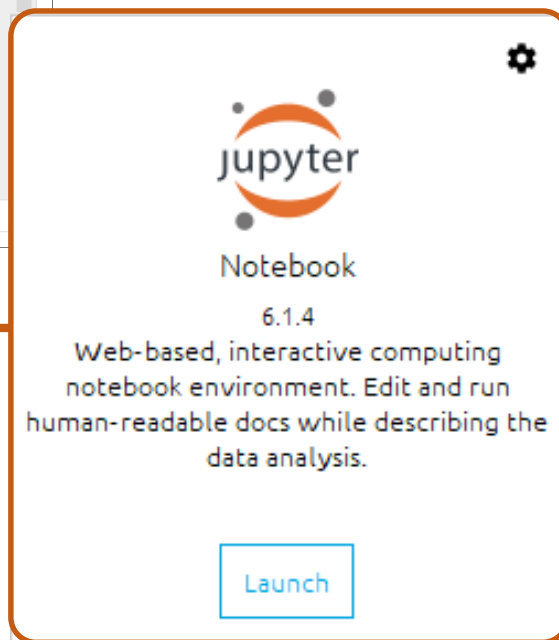
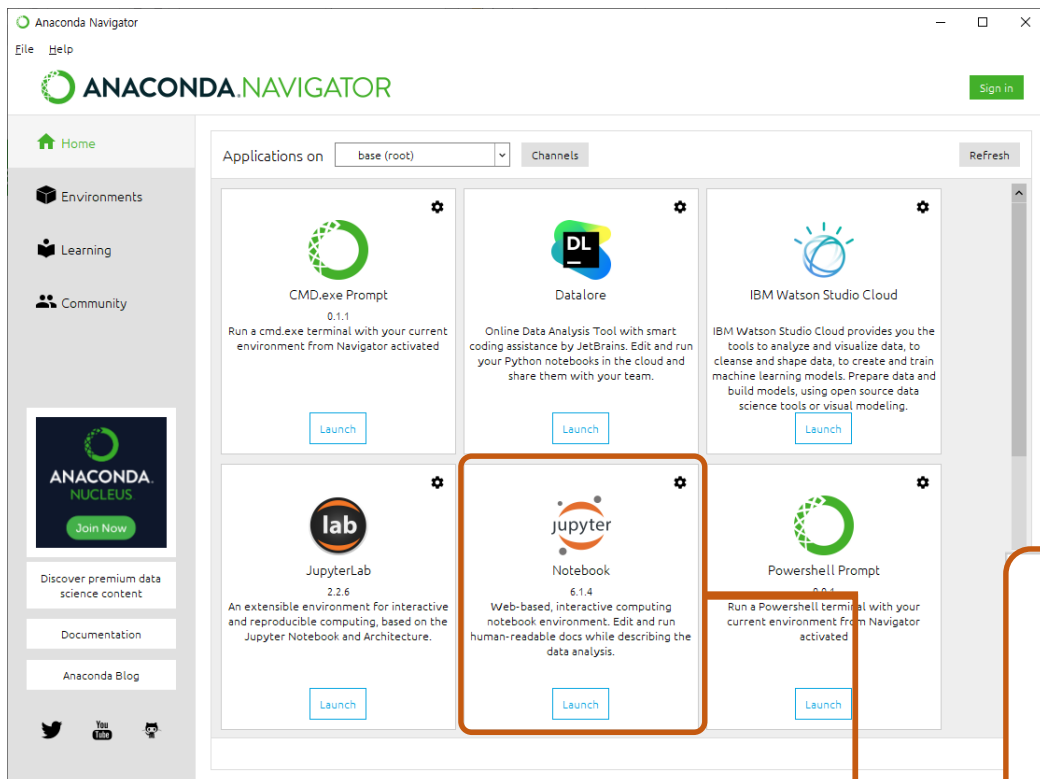








Anaconda Navigator 실행



Launch 클릭

이 파일을 열 때 사용할 앱을 선택하세요.

계속 이 앱 사용



Chrome

Windows 사용할 브라우저 : Chrome 선택



Microsoft Edge

Microsoft의 새 브라우저에서 더 많은 온라인 기능을 사용하세요.

기타 옵션



Firefox

새로 만들기



Internet Explorer



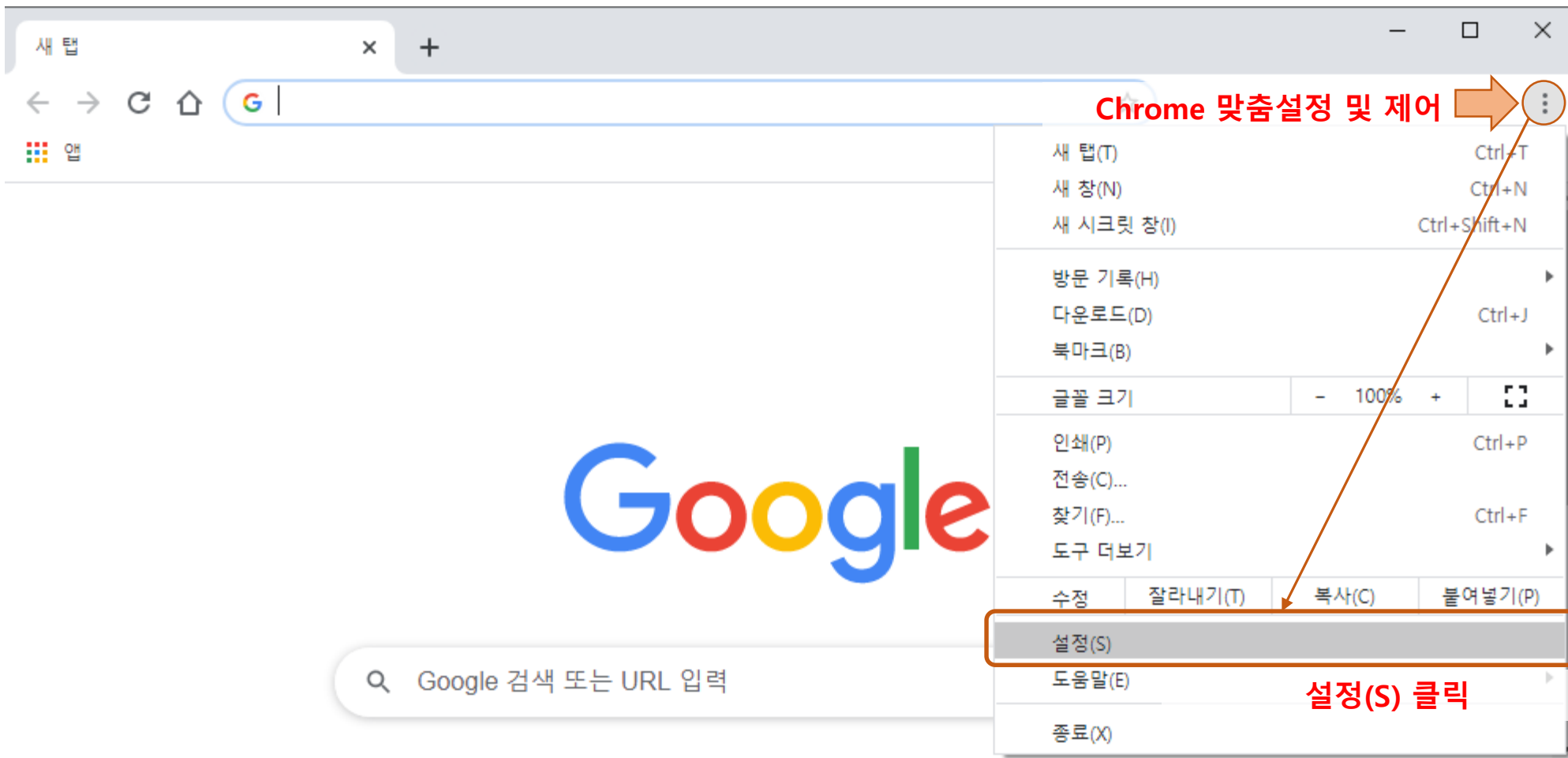
Microsoft Store에서 앱 찾기



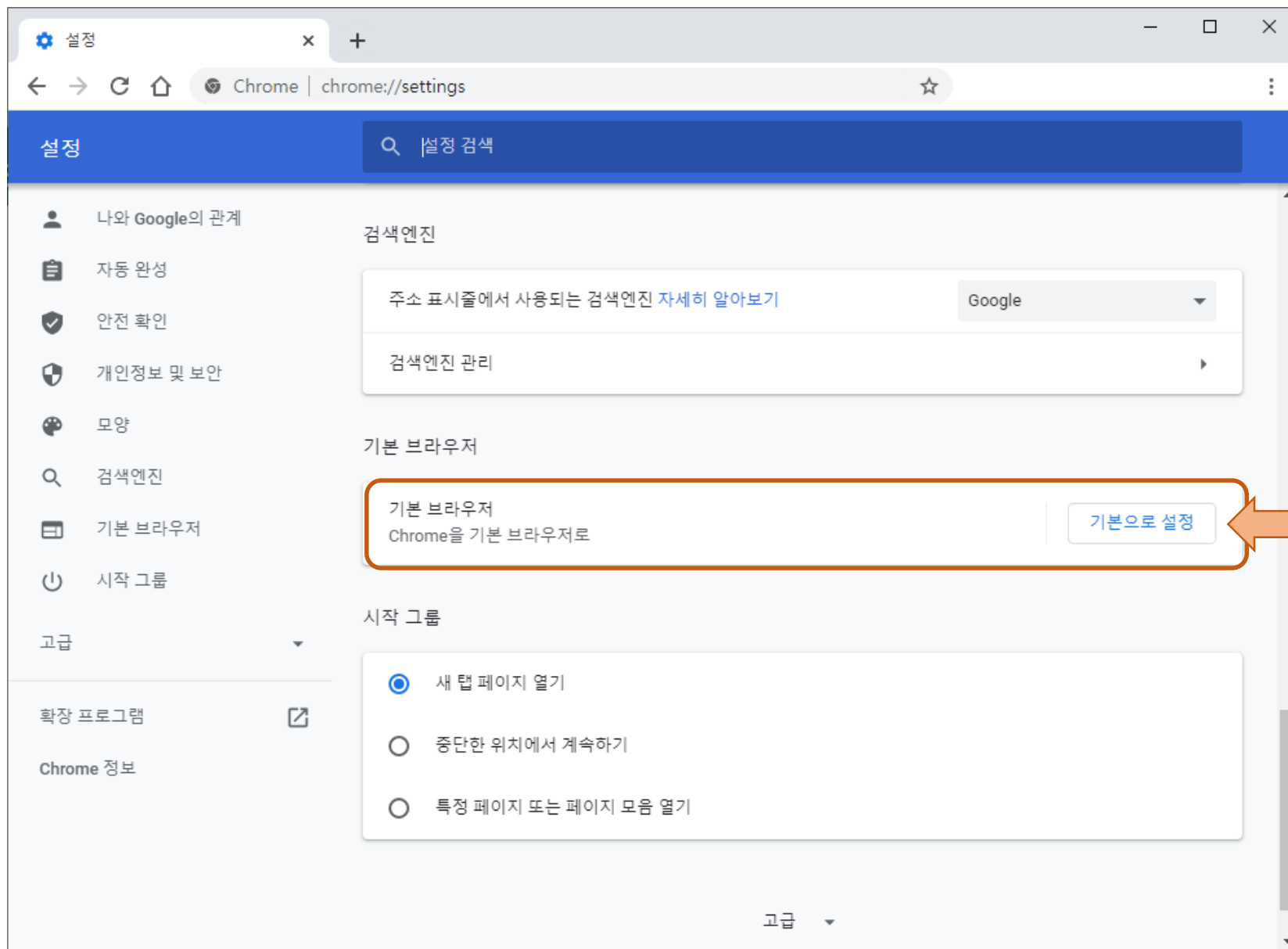
항상 이 앱을 사용하여 .html 파일 열기

확인

기본 브라우저가 Chrome이 아닌 다른 프로그램이 설정된 경우

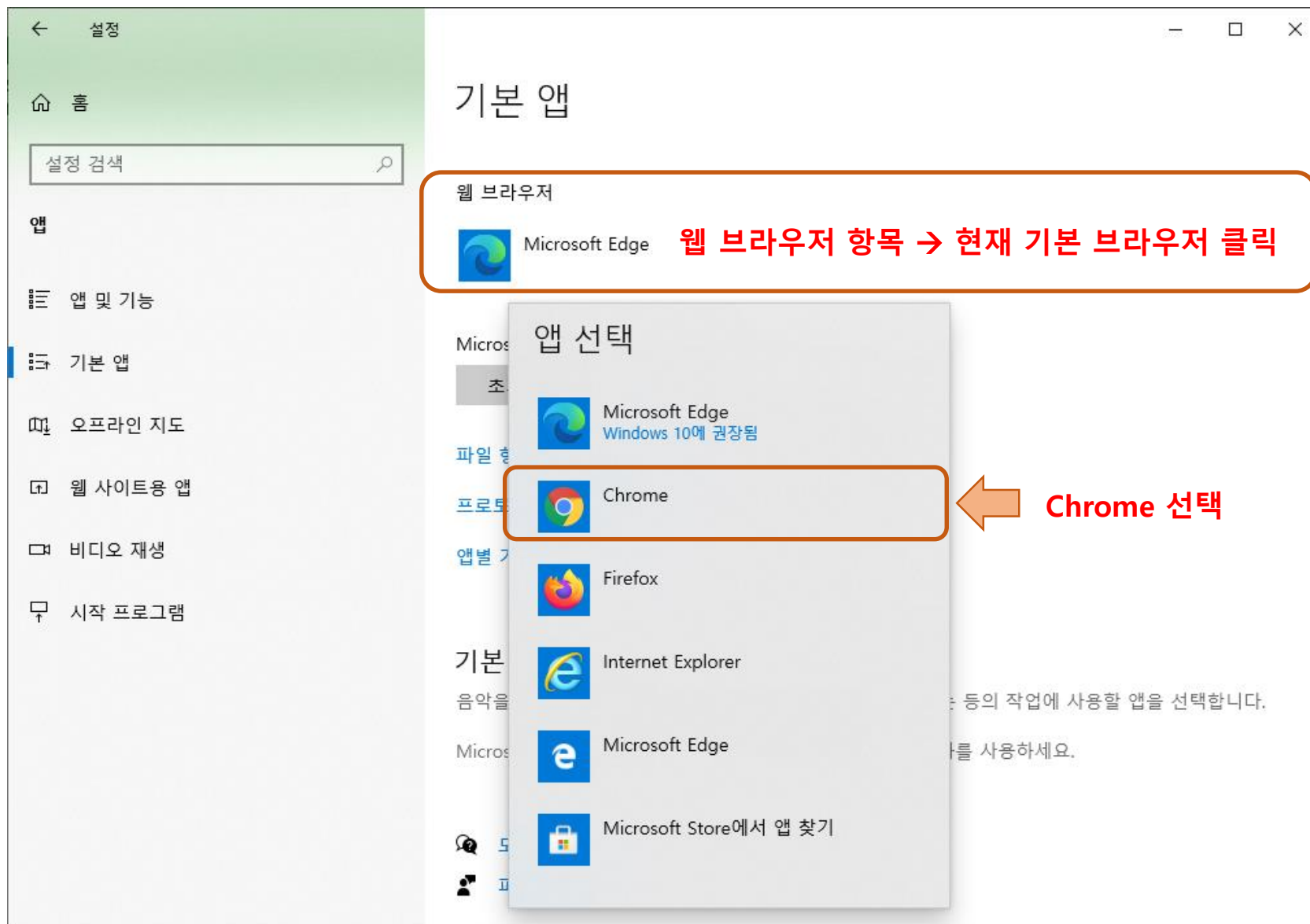


기본 브라우저가 Chrome이 아닌 다른 프로그램이 설정된 경우



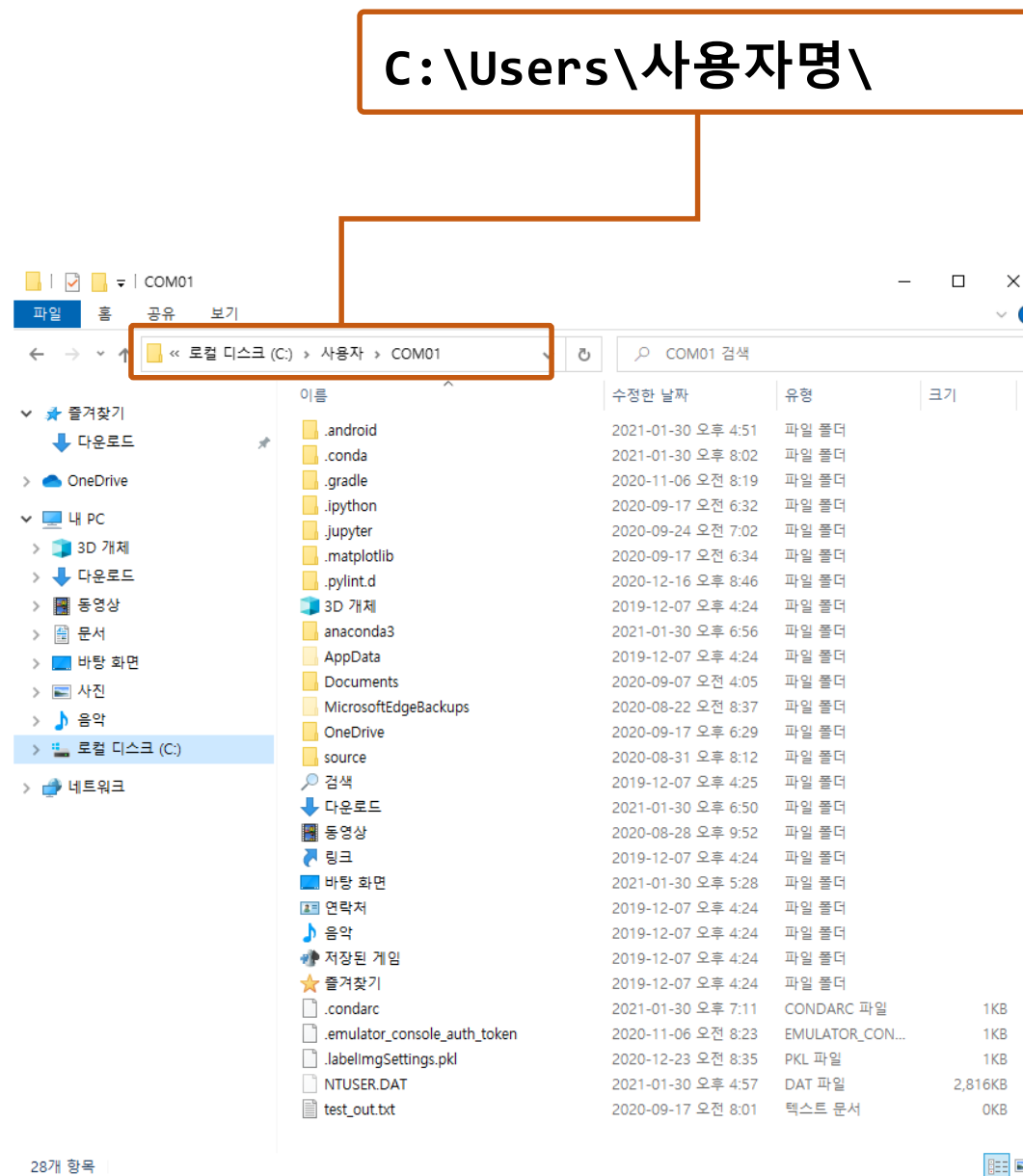
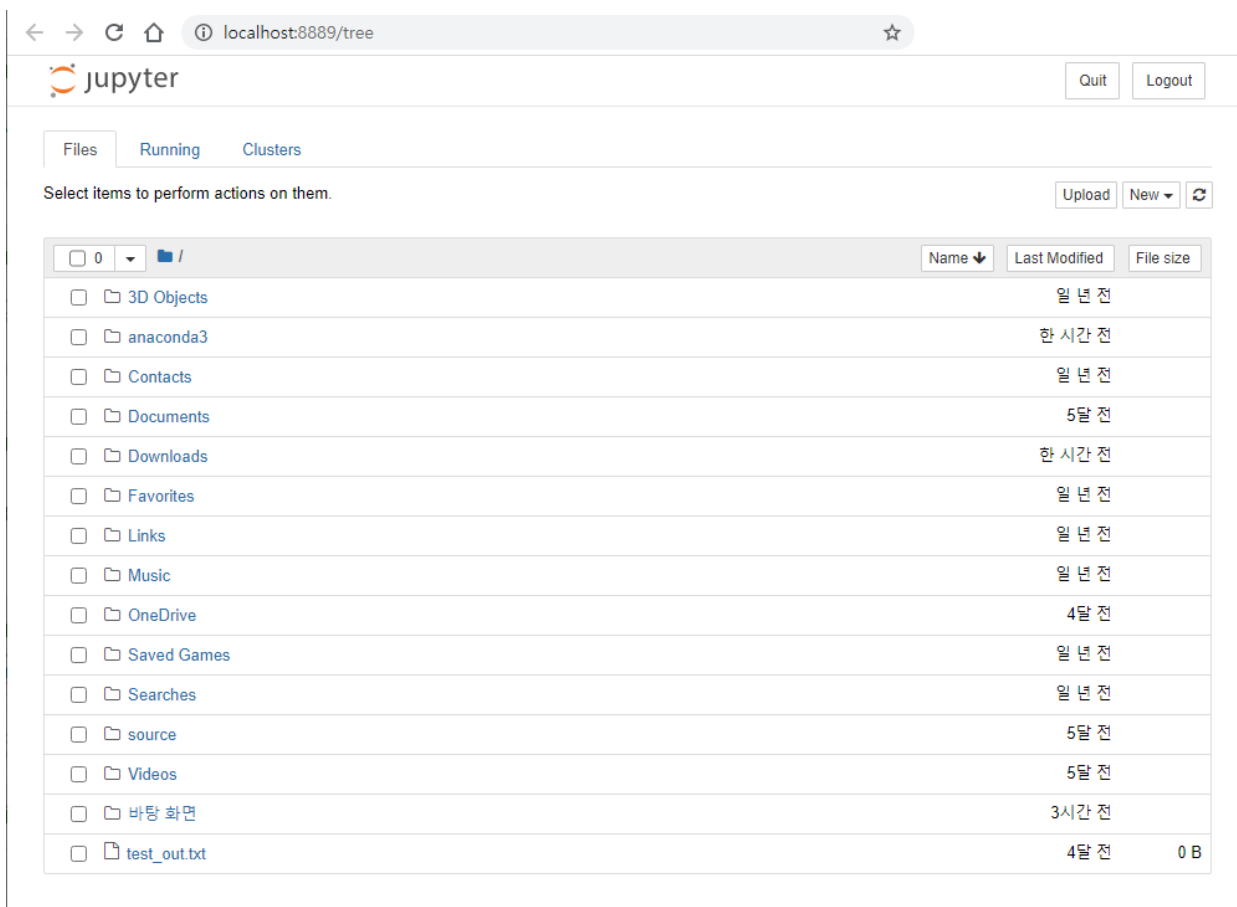
기본으로 설정 클릭

기본 브라우저가 Chrome이 아닌 다른 프로그램이 설정된 경우

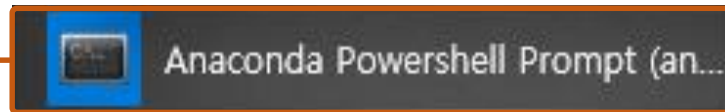
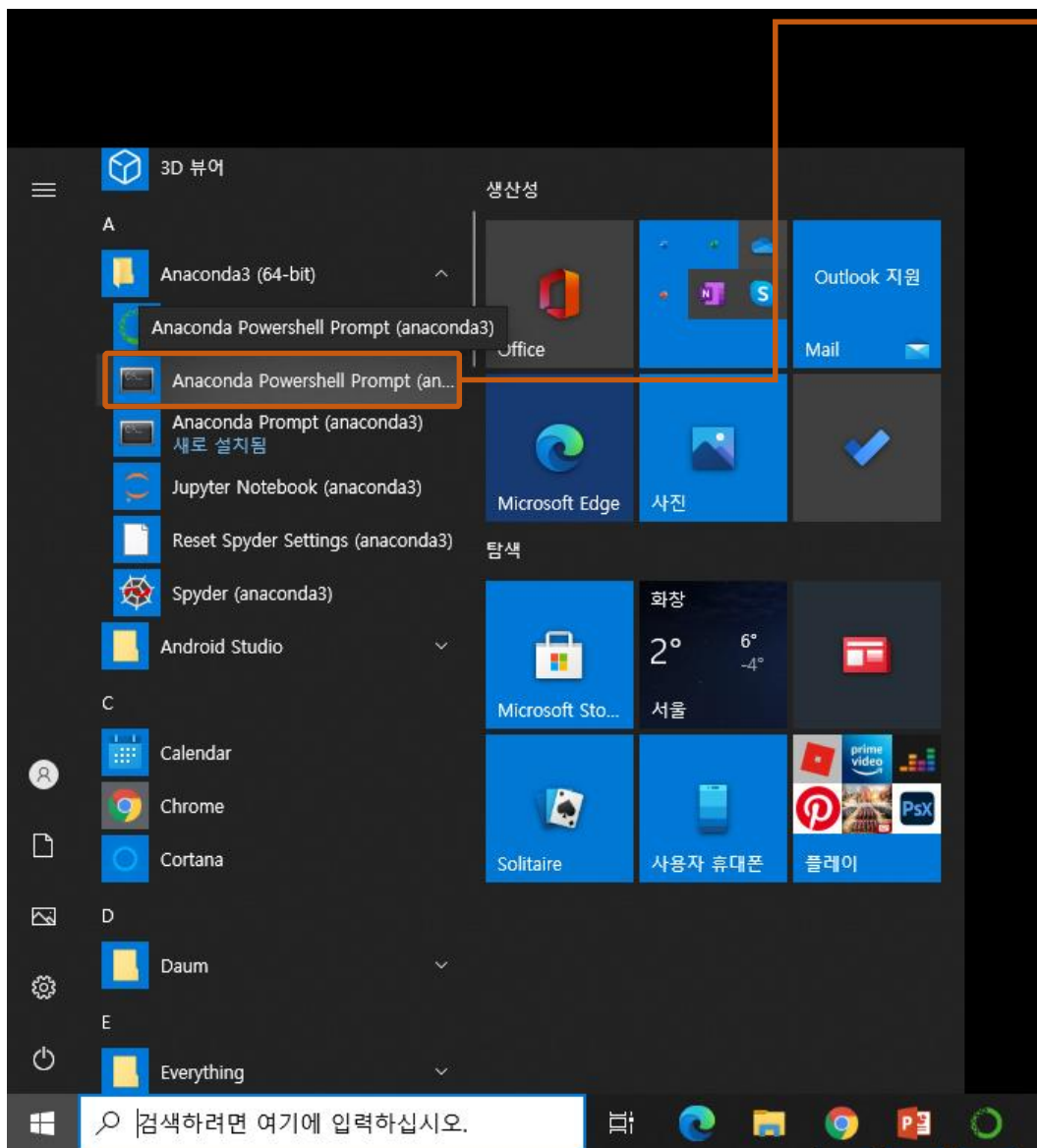


Anaconda Navigator - Jupyter Notebook 실행

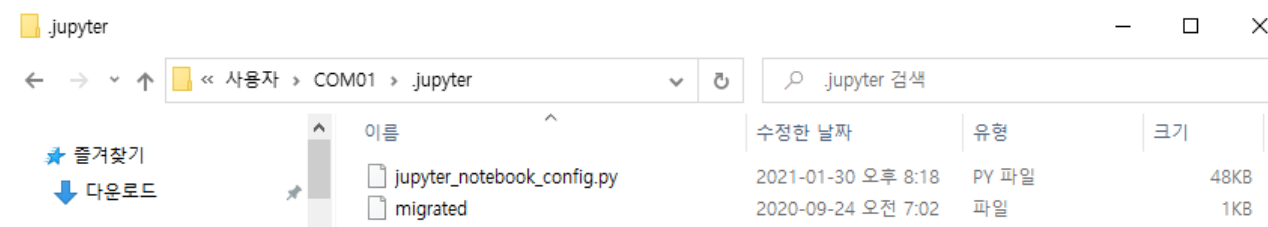
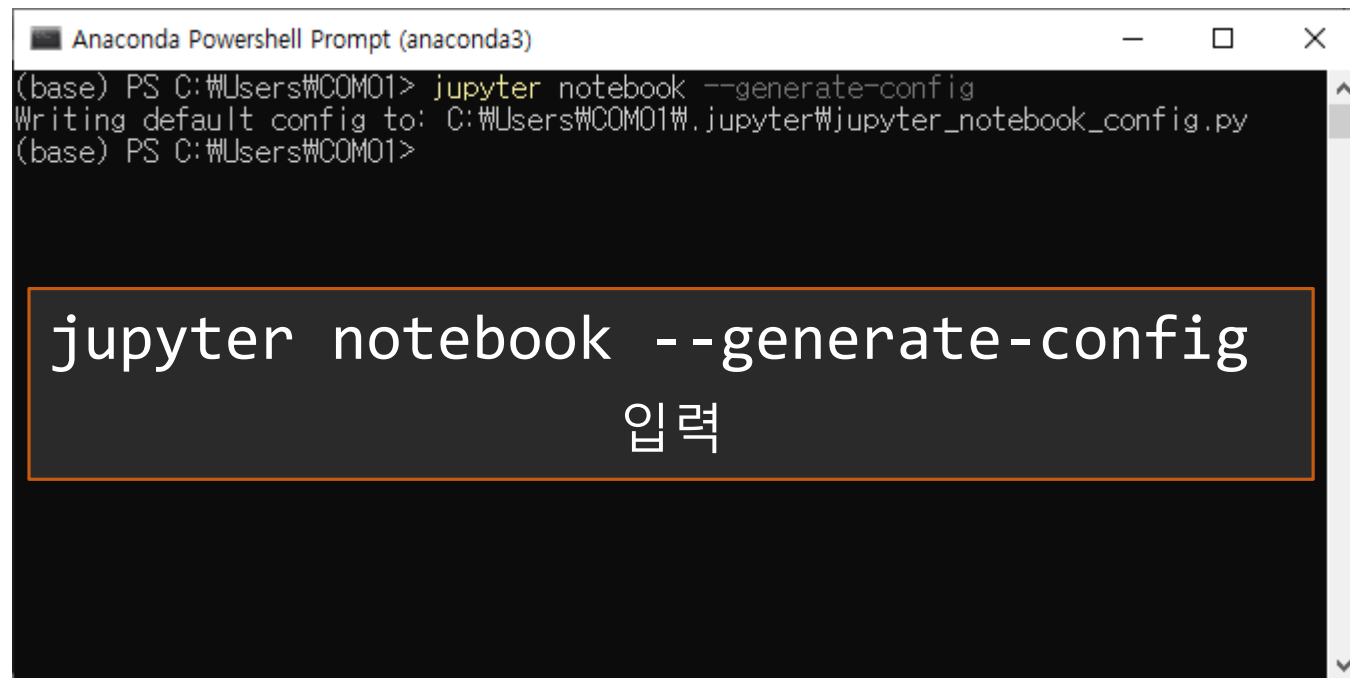
18 |



Jupyter Notebook 시작 위치 변경



Anaconda Powershell Prompt 실행



C:\Users\사용자명\.jupyter\jupyter_notebook_config.py
생성됨

C:\Users\사용자명\.jupyter\jupyter_notebook_config.py

1. Jupyter_notebook_config.py 마우스오른쪽 → 연결프로그램 → 메모장

2. Jupyter_notebook_config.py 마우스오른쪽 → Edit with Notepad++

이름

- jupyter_notebook_config.py 48KB
- migrated

연결 프로그램(H)

- Skype와 공유
- OneDrive로 이동(M)
- jupyter_notebook_config.zip으로 압축하기(Q)
- jupyter_notebook_config.7z로 압축하기(7)
- 반디집으로 압축하기(L)...
- Edit with Notepad++

액세스 권한 부여 (G) >

이전 버전 복원(V)

보내기(N) >

잘라내기(T)

복사(C)

바로 가기 만들기(S)

삭제(D)

이름 바꾸기(M)

속성(R)

Windows Media Player

Word 2016

그림판

메모장

워드패드

팟플레이어(64 비트)

이 PC에서 다른 앱 찾기

☒ 항상 이 앱을 사용하여 .py 파일 열기

확인

Jupyter Notebook 시작 위치 변경 – Notepad++

```
372
373 ## The directory to use for notebooks and kernels.
374 # Default: ''
375 c.NotebookApp.notebook_dir = 'C:\Jupyter'
376
377
378
379
```

맨 앞의 #을 제거하고
c.NotebookApp.notebook_dir = '원하는 경로'로 수정

C:\Users\COM01\jupyter\jupyter_notebook_config.py - Notepad++

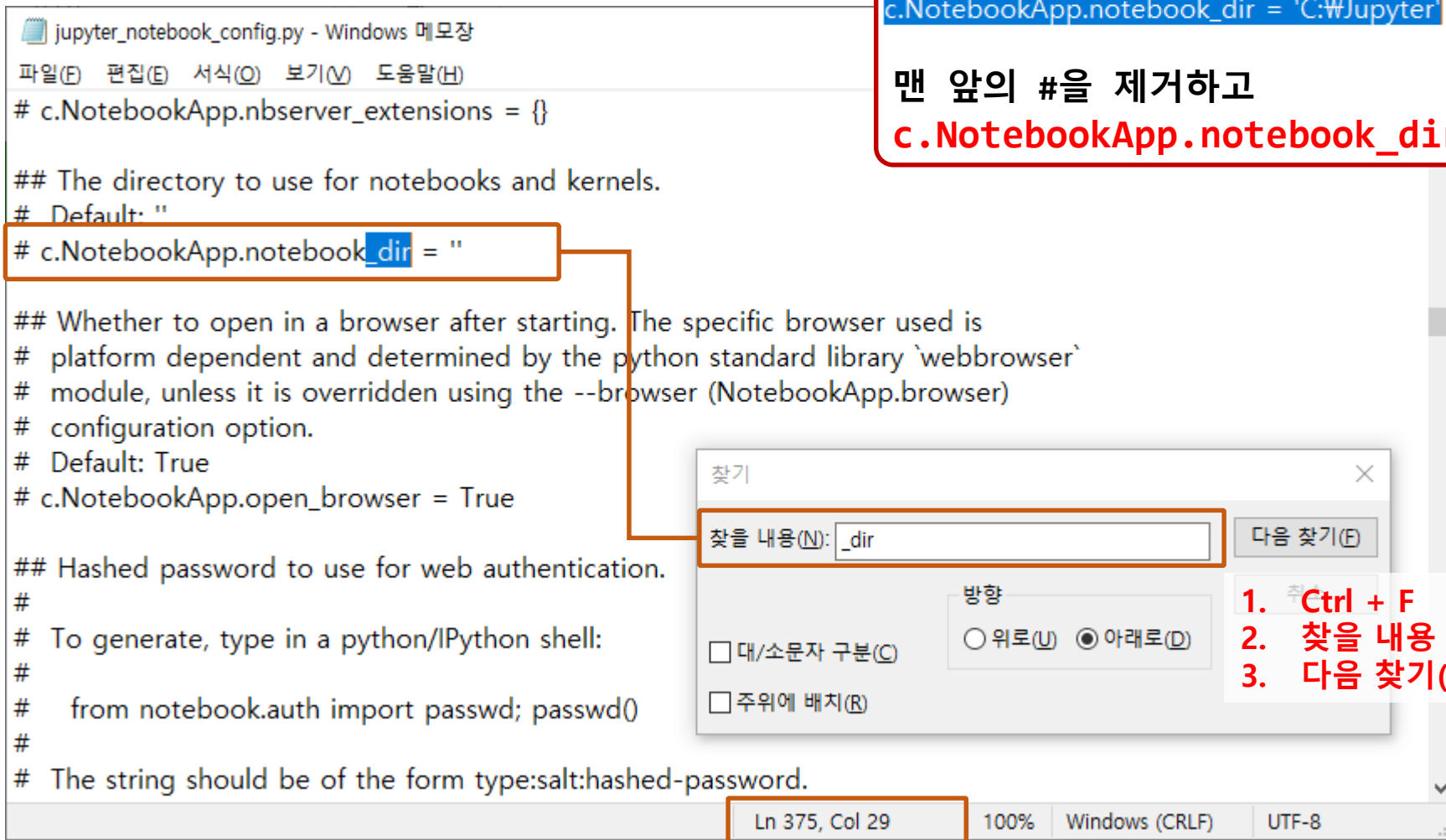
파일(F) 편집(E) 찾기(S) 보기(V) 인코딩(N) 언어(L) 설정(I) 도구(D)

new 1 x jupyter_notebook_config.py x

```
374 # Default: ''
375 # c.NotebookApp.notebook_dir = ''
376
377 ## Whether to open in a browser after starting the application
378 # platform dependent and determined by the
379 # module, unless it is overridden using the
380 # configuration option.
381 # Default: True
382 # c.NotebookApp.open_browser = True
383
384 ## Hashed password to use for web authentication
385 # To generate, type in a python/IPython prompt:
386 # password = hashlib.sha1('your password').hexdigest()
387 #
388 # c.NotebookApp.password = ''
389
390 ## Forces users to use a password for the Notebook server. This is useful in a
```



1. Ctrl + F
2. 찾을 내용 : _dir
3. 다음 찾기(F)



```
jupyter_notebook_config.py - Windows 메모장
파일(F) 편집(E) 서식(O) 보기(V) 도움말(H)
# c.NotebookApp.nbserver_extensions = {}

## The directory to use for notebooks and kernels.
# Default: ""
# c.NotebookApp.notebook_dir = ""

## Whether to open in a browser after starting. The specific browser used is
# platform dependent and determined by the python standard library `webbrowser`
# module, unless it is overridden using the --browser (NotebookApp.browser)
# configuration option.
# Default: True
# c.NotebookApp.open_browser = True

## Hashed password to use for web authentication.
#
# To generate, type in a python/IPython shell:
#
# from notebook.auth import passwd; passwd()
#
# The string should be of the form type:salt:hashed-password.

Ln 375, Col 29 100% Windows (CRLF) UTF-8
```

```
# c.NotebookApp.nbserver_extensions = {}
```

```
## The directory to use for notebooks and kernels.
```

```
# Default: ""
```

```
c.NotebookApp.notebook_dir = 'C:\Jupyter'
```

맨 앞의 #을 제거하고

c.NotebookApp.notebook_dir = '원하는 경로'로 수정

찾기

찾을 내용(N):

다음 찾기(F)

방향

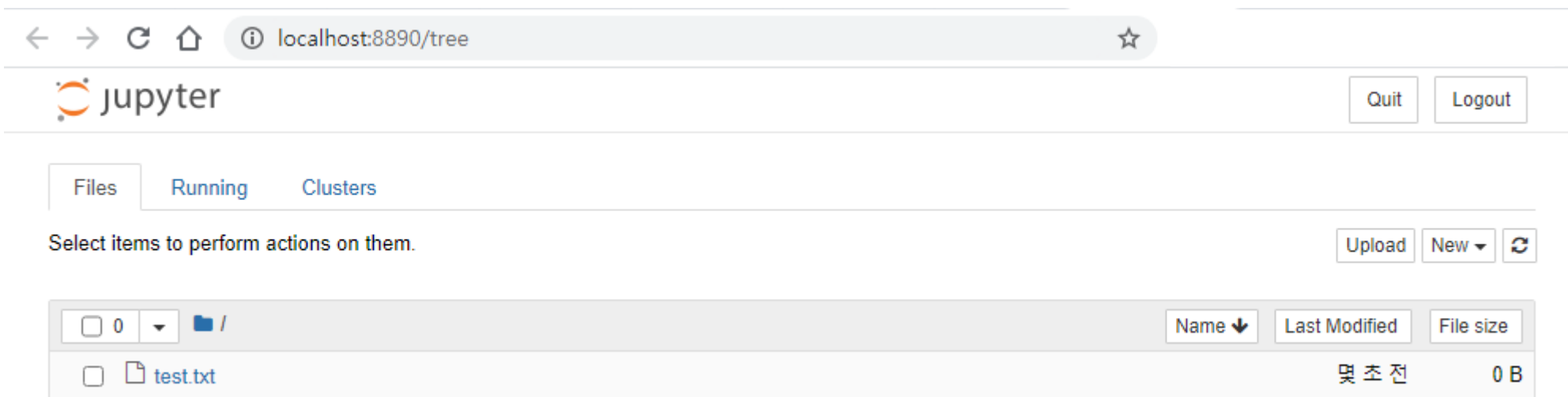
☐ 대/소문자 구분(C) ☐ 위로(U) ☒ 아래로(D)

☐ 주위에 배치(B)

1. Ctrl + F
2. 찾을 내용 : _dir
3. 다음 찾기(F)

Jupyter Notebook 시작 위치 변경 – 경로 변경 완료

23 |



← → ↻ 🏠 ⓘ localhost:8890/tree ☆

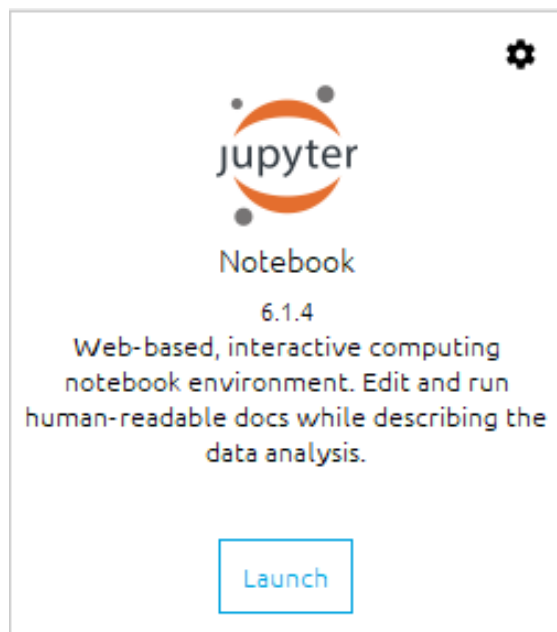
jupyter Quit Logout

Files Running Clusters

Select items to perform actions on them. Upload New ↻

0 / Name ↓ Last Modified File size

test.txt 몇 초 전 0 B

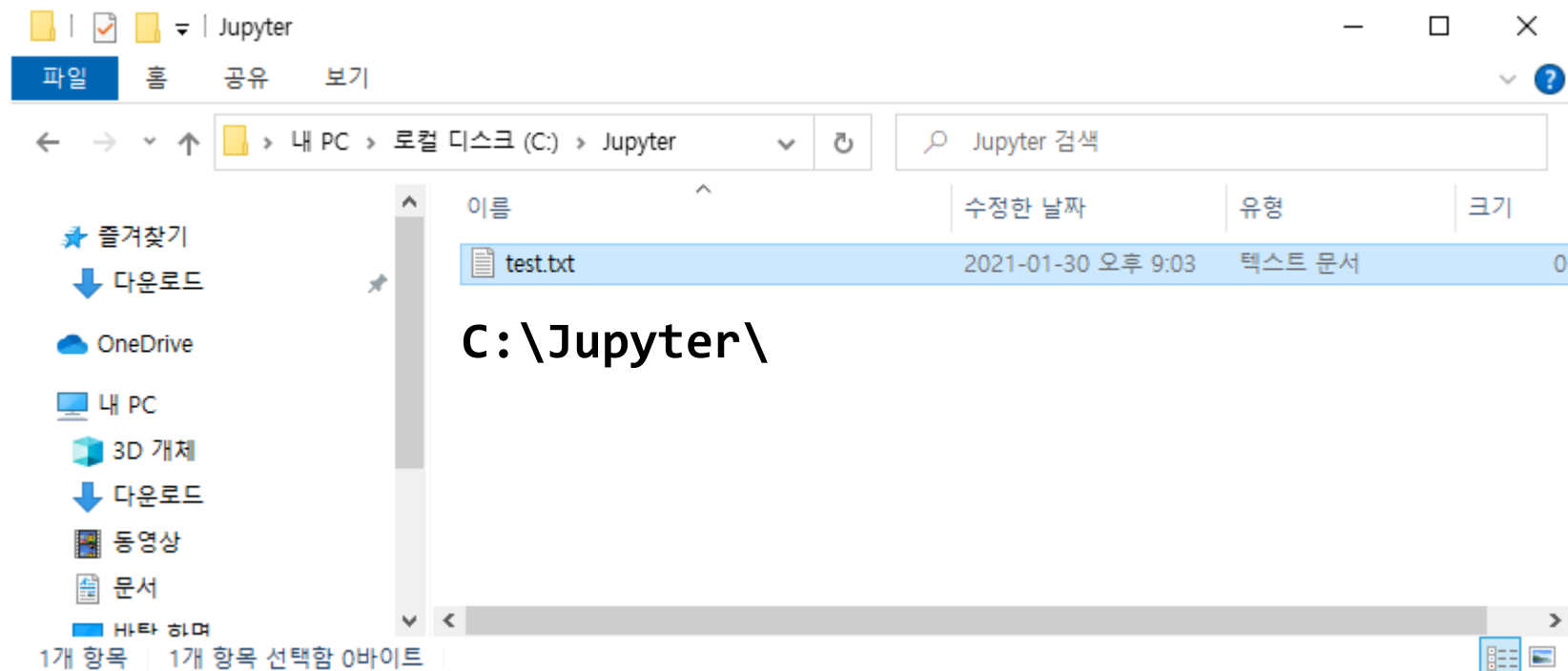


jupyter Notebook

6.1.4

Web-based, interactive computing notebook environment. Edit and run human-readable docs while describing the data analysis.

Launch



파일 홈 공유 보기

← → ↻ 🏠 > 내 PC > 로컬 디스크 (C:) > Jupyter ↻

Jupyter 검색

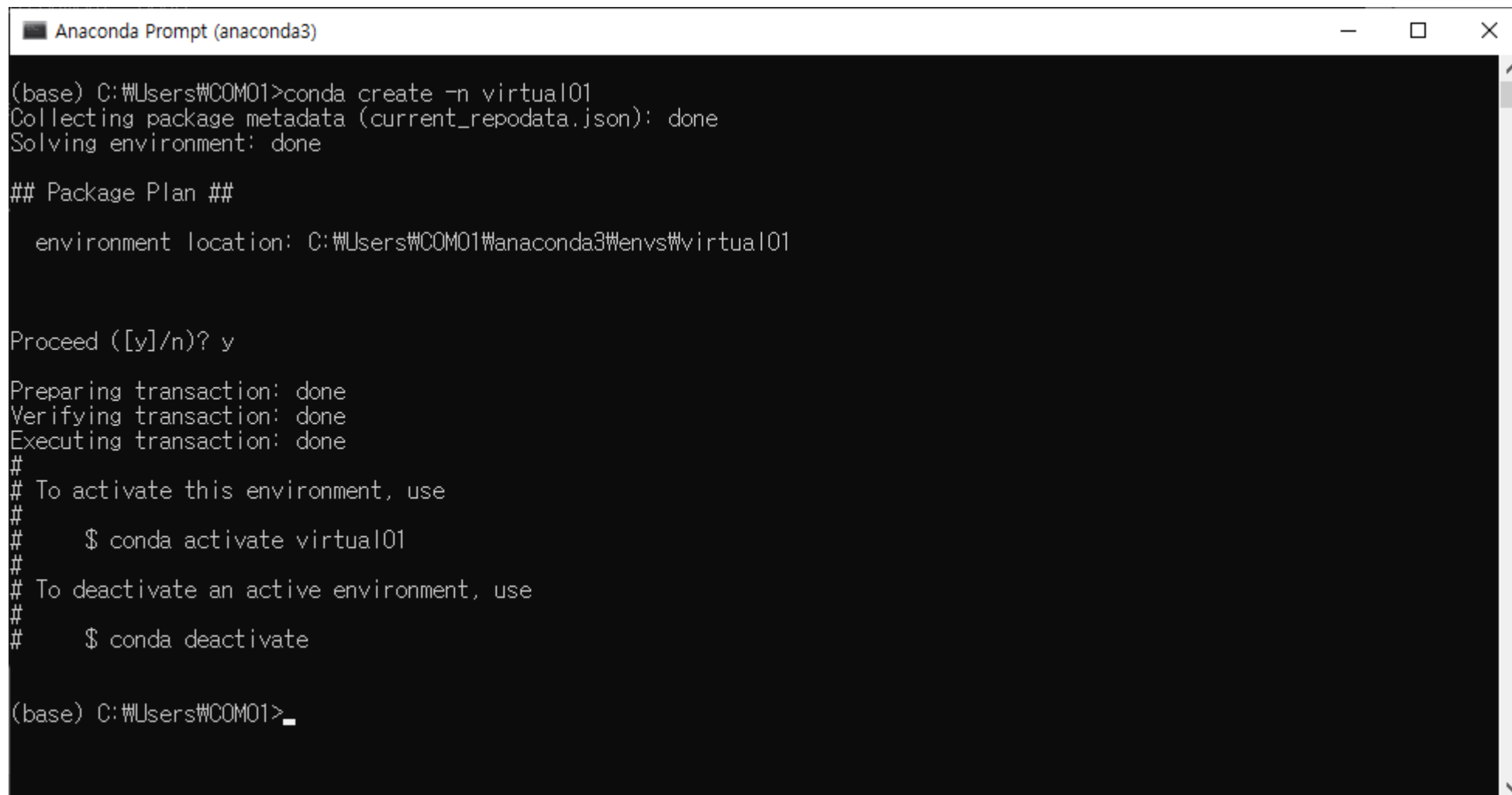
이름	수정한 날짜	유형	크기
test.txt	2021-01-30 오후 9:03	텍스트 문서	0 B

C:\Jupyter\

1개 항목 | 1개 항목 선택함 0바이트

- 파이썬 작업을 진행하다 보면 작업 마다 작업환경이 다를 수 있음
- 파이썬 및 기타 다른 라이브러리의 버전이 달라질 수 있음
- 각각의 작업을 다른 환경에서 진행하도록 가상 환경을 꾸밀 수 있음


```
(base) C:\users\username> conda create -n virtual01(가상환경이름)
```



```
Anaconda Prompt (anaconda3)

(base) C:\Users\COM01>conda create -n virtual01
Collecting package metadata (current_repodata.json): done
Solving environment: done

## Package Plan ##

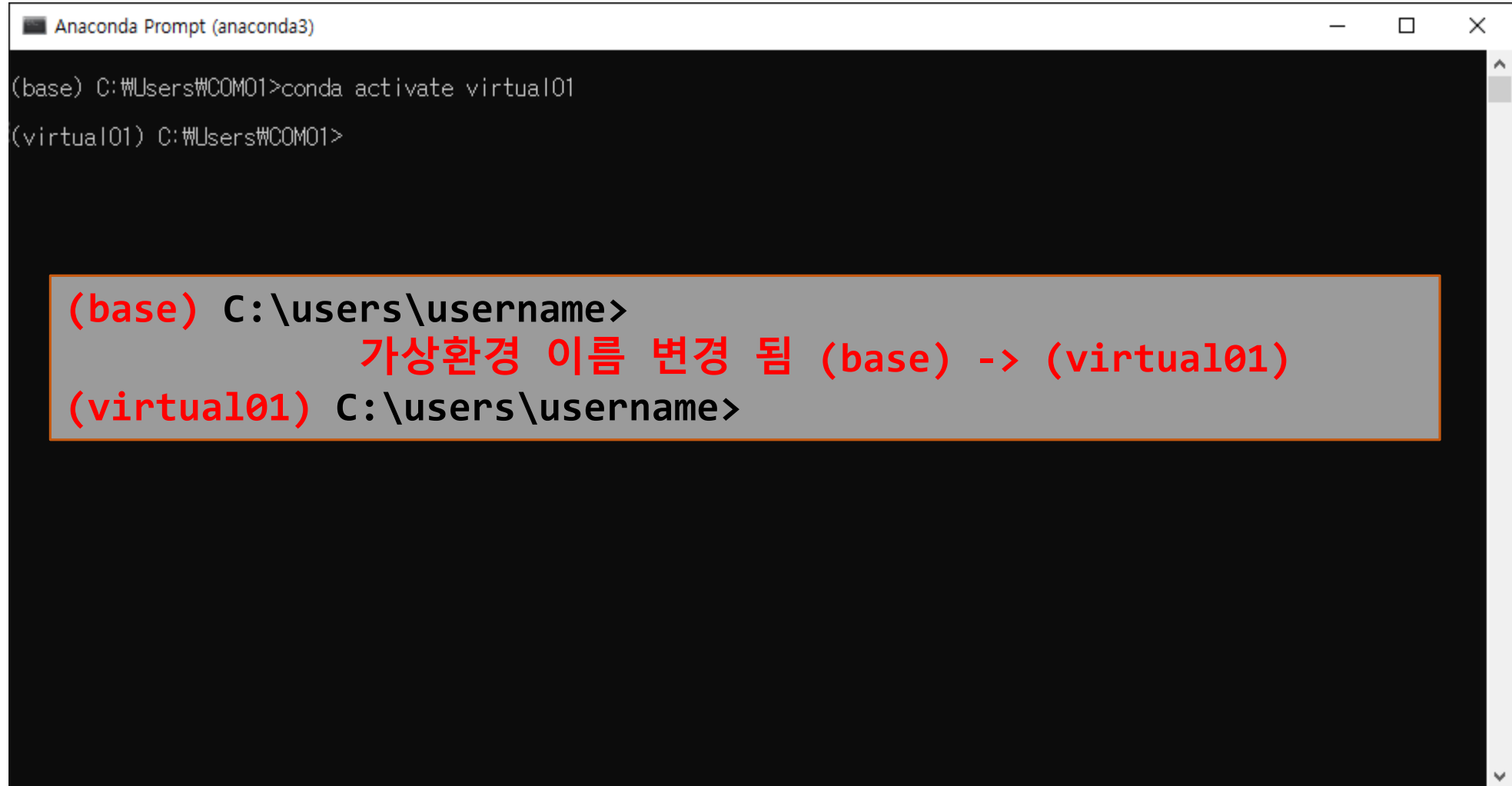
  environment location: C:\Users\COM01\anaconda3\envs\virtual01

Proceed ([y]/n)? y

Preparing transaction: done
Verifying transaction: done
Executing transaction: done
#
# To activate this environment, use
#
#     $ conda activate virtual01
#
# To deactivate an active environment, use
#
#     $ conda deactivate
#

(base) C:\Users\COM01>_
```

```
(base) C:\users\username> conda activate virtual01(가상환경이름)
```



The screenshot shows a terminal window titled "Anaconda Prompt (anaconda3)". The prompt is "(base) C:\Users\COM01>". The user enters the command "conda activate virtual01". The prompt changes to "(virtual01) C:\Users\COM01>". A red box highlights the text: "(base) C:\users\username> 가상환경 이름 변경 됨 (base) -> (virtual01) (virtual01) C:\users\username>".

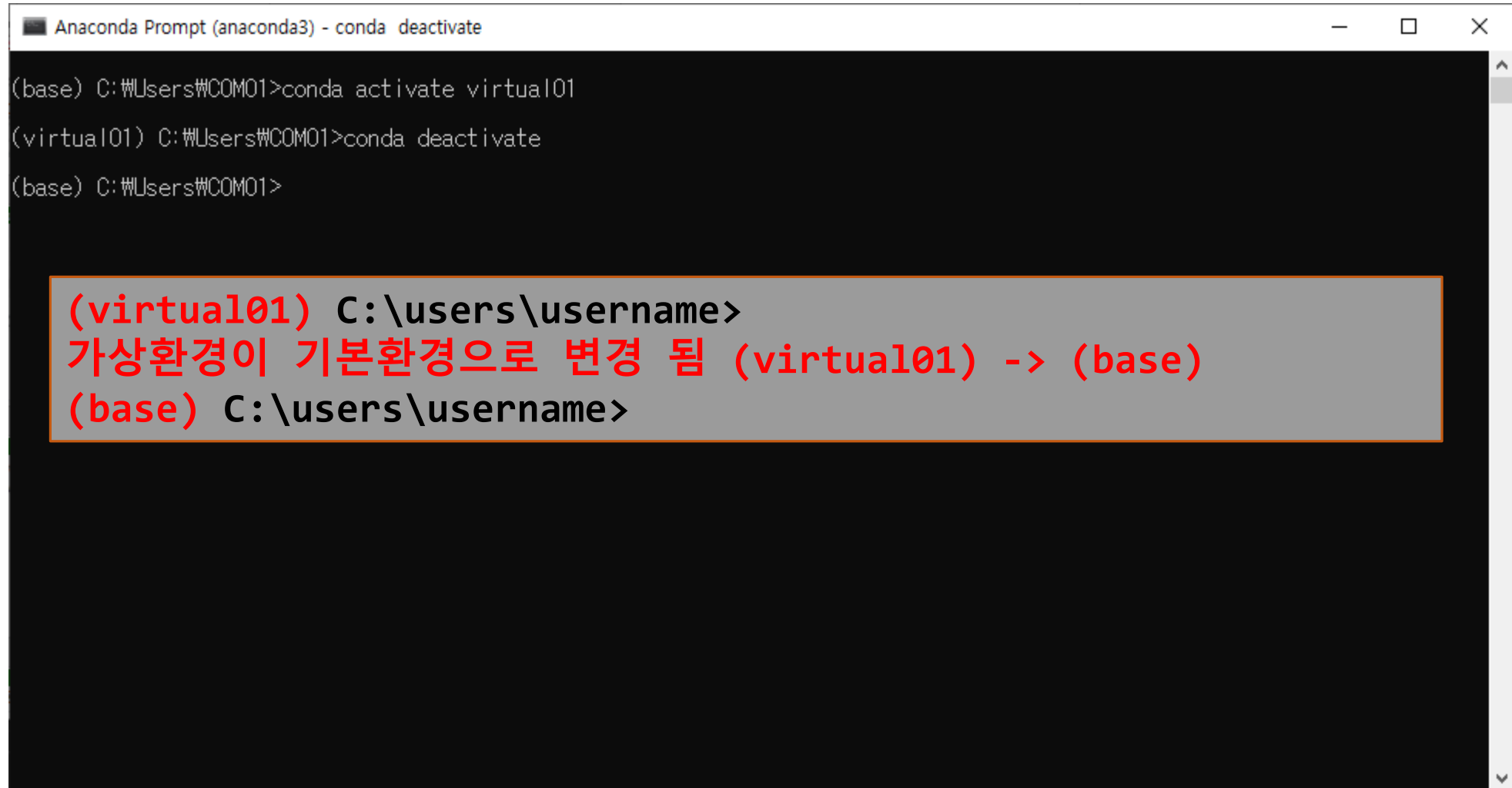
```
Anaconda Prompt (anaconda3)
(base) C:\Users\COM01>conda activate virtual01
(virtual01) C:\Users\COM01>
```

```
(base) C:\users\username>
가상환경 이름 변경 됨 (base) -> (virtual01)
(virtual01) C:\users\username>
```

Anaconda 가상환경 비활성화(기본환경으로 돌아가기)

27 |

```
(base) C:\users\username> conda deactivate
```



The screenshot shows a Windows command prompt window titled "Anaconda Prompt (anaconda3) - conda deactivate". The terminal text is as follows:

```
(base) C:\Users\COM01>conda activate virtual01
(virtual01) C:\Users\COM01>conda deactivate
(base) C:\Users\COM01>
```

Below the terminal text, a grey box contains the following text in red:

```
(virtual01) C:\users\username>
가상환경이 기본환경으로 변경 됨 (virtual01) -> (base)
(base) C:\users\username>
```

파이썬 버전이 다른 가상환경 만들기(python 3.6)

```
(base) C:\users\username> conda create -n python=3.6
```

Anaconda Prompt (anaconda3) - conda create -n virtual36 python=3.6

```
(base) C:\Users\COM01>conda create -n virtual36 python=3.6
Collecting package metadata (current_repodata.json): done
Solving environment: done
```

```
## Package Plan ##
```

```
environment location: C:\Users\COM01\anaconda3\envs\virtual36
```

```
added / updated specs:
- python=3.6
```

```
The following packages will be downloaded:
```

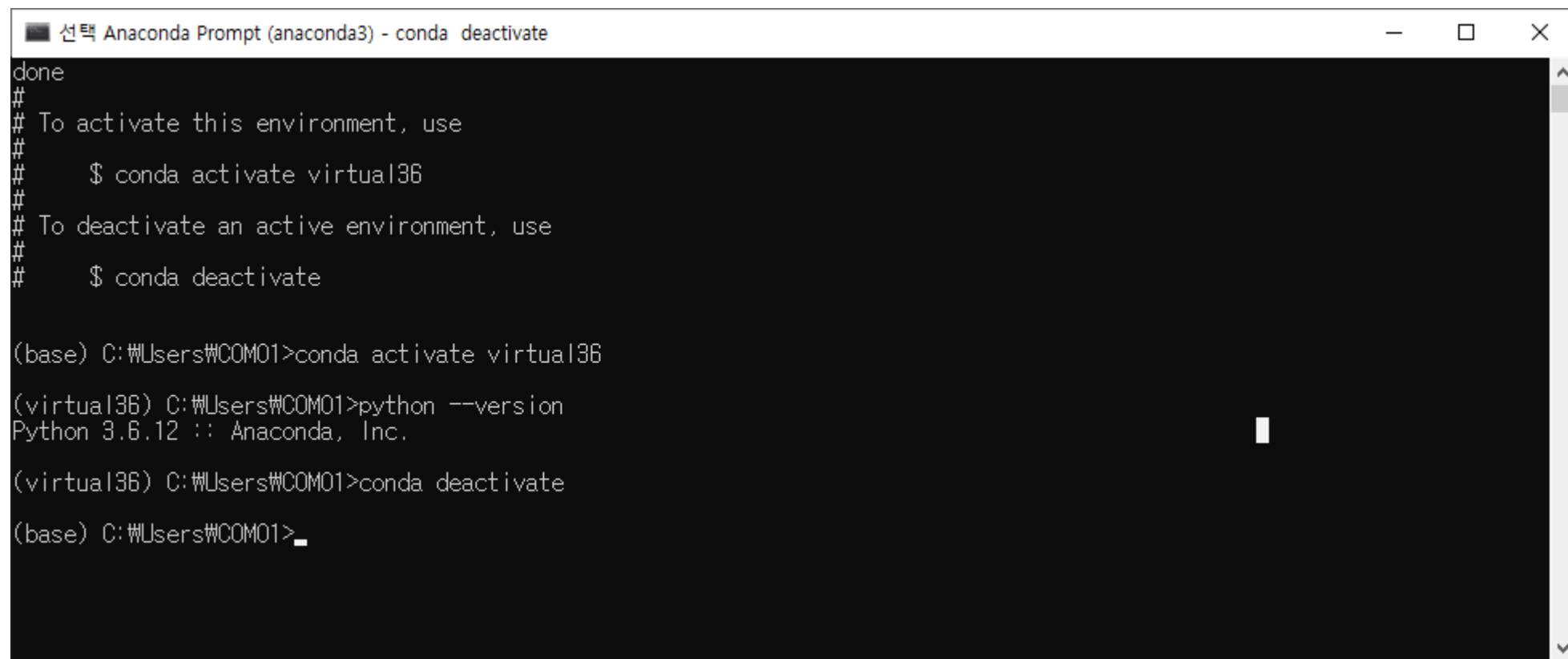
package	build	
certifi-2020.12.5	py36haa95532_0	140 KB
pip-20.3.3	py36haa95532_0	1.8 MB
python-3.6.12	h5500b2f_2	14.6 MB
setuptools-52.0.0	py36haa95532_0	723 KB
vc-14.2	h21ff451_1	8 KB
vs2015_runtime-14.27.29016	h5e58377_2	1007 KB
wheel-0.36.2	pyhd3eb1b0_0	33 KB
wincertstore-0.2	py36h7fe50ca_0	14 KB
Total:		18.3 MB

Anaconda Prompt (anaconda3)

```
# To activate this environment, use
#
# $ conda activate virtual36
#
# To deactivate an active environment, use
#
# $ conda deactivate
```

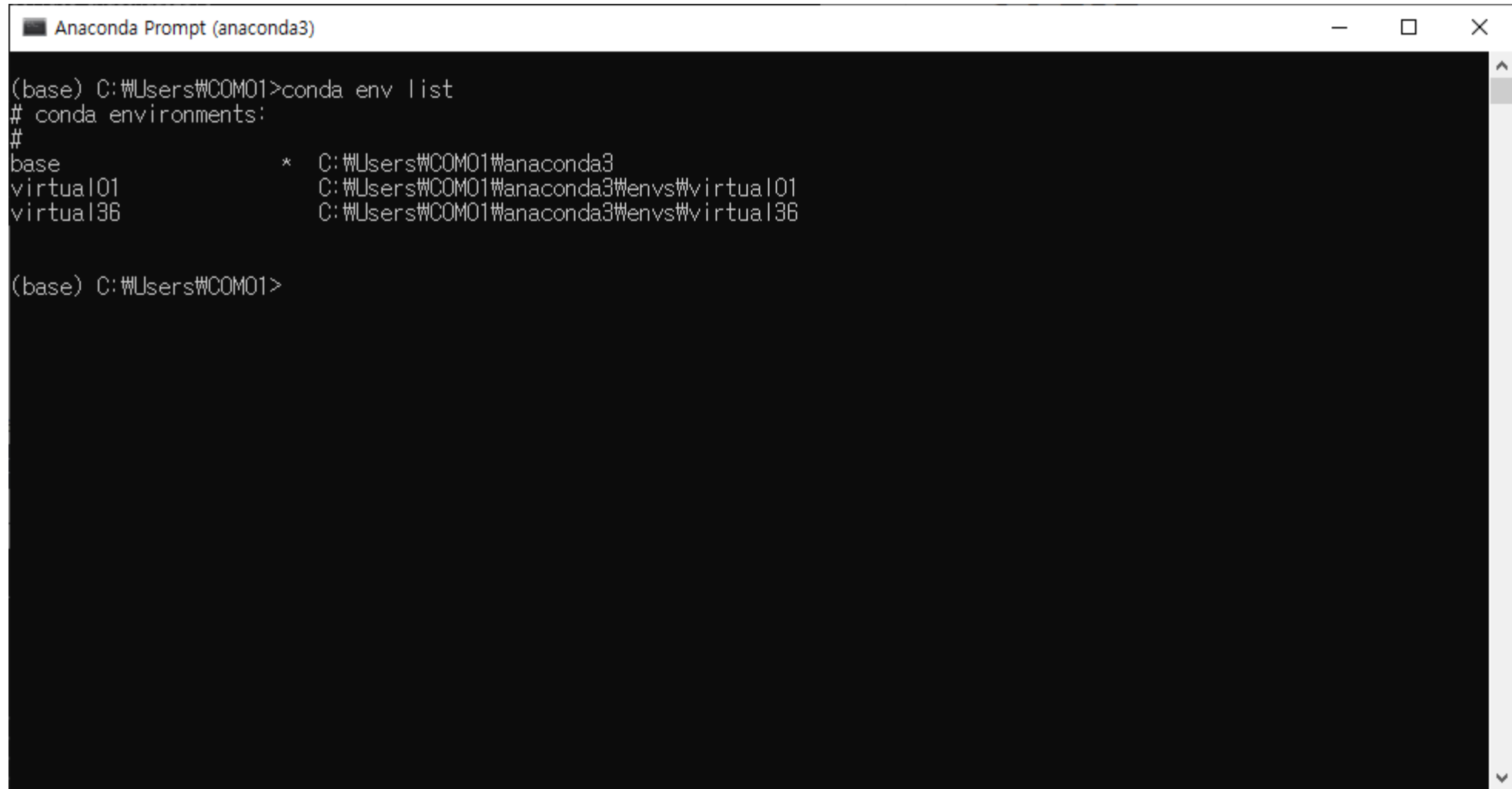
```
(base) C:\Users\COM01>_
```

```
(base) C:\users\username> conda activate virtual36  
(virtual36) C:\users\username> python --version  
  
(virtual36) C:\users\username> conda deactivate
```



```
선택 Anaconda Prompt (anaconda3) - conda deactivate  
done  
#  
# To activate this environment, use  
#  
#   $ conda activate virtual36  
#  
# To deactivate an active environment, use  
#  
#   $ conda deactivate  
  
(base) C:\Users\COM01>conda activate virtual36  
  
(virtual36) C:\Users\COM01>python --version  
Python 3.6.12 :: Anaconda, Inc.  
  
(virtual36) C:\Users\COM01>conda deactivate  
  
(base) C:\Users\COM01>_
```

```
(base) C:\users\username> conda env list
```

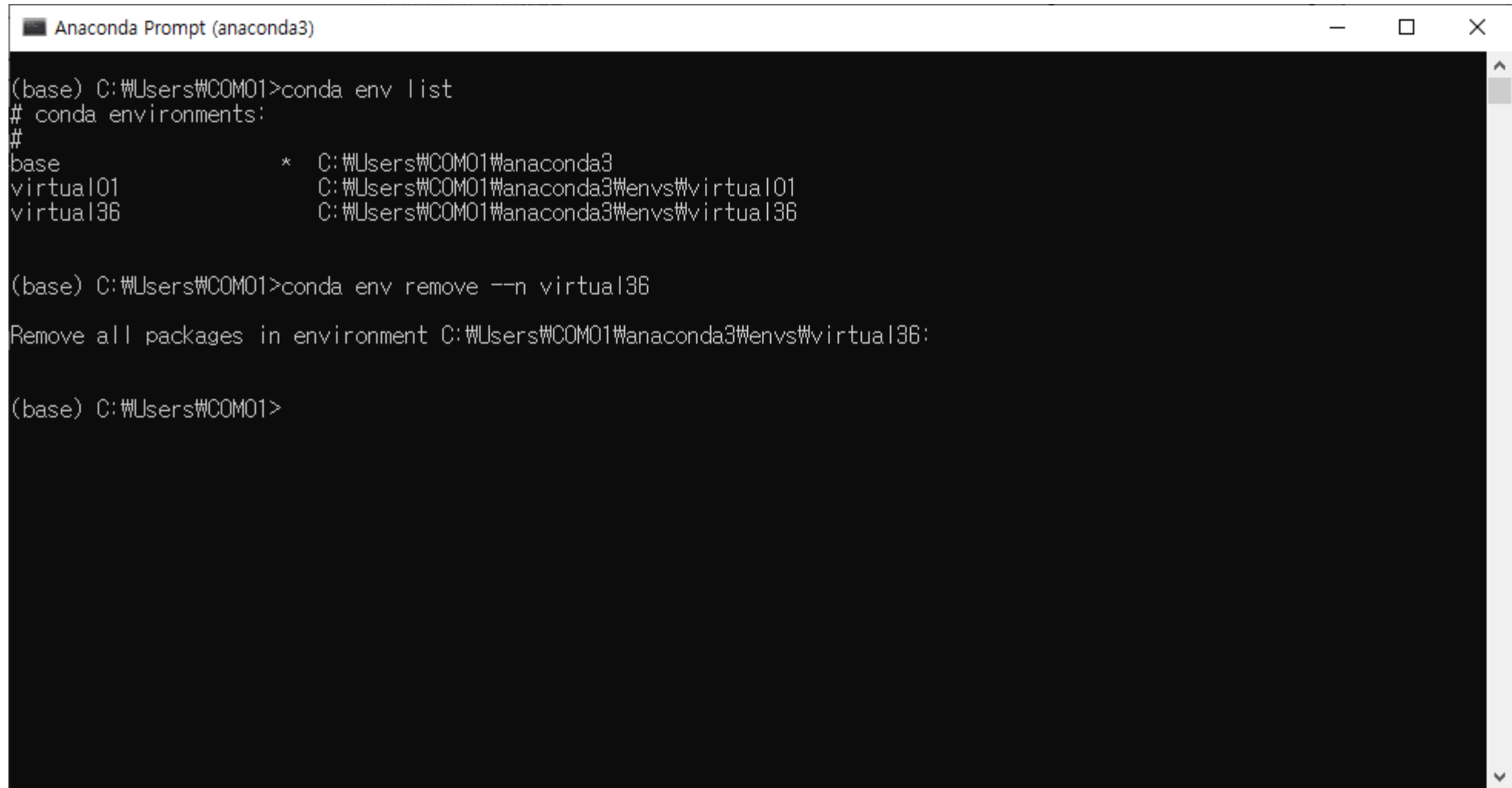


The screenshot shows a Windows command prompt window titled "Anaconda Prompt (anaconda3)". The prompt is "(base) C:\Users\WCOM01>". The user has entered the command "conda env list". The output shows the list of conda environments:

```
(base) C:\Users\WCOM01>conda env list
# conda environments:
#
base                * C:\Users\WCOM01\anaconda3
virtual01           C:\Users\WCOM01\anaconda3\envs\virtual01
virtual36           C:\Users\WCOM01\anaconda3\envs\virtual36

(base) C:\Users\WCOM01>
```

```
(base) C:\users\username> conda env remove -n virtual36(가상환경이름)
```



```
Anaconda Prompt (anaconda3)

(base) C:\Users\WCOM01>conda env list
# conda environments:
#
base                * C:\Users\WCOM01\anaconda3
virtual01           C:\Users\WCOM01\anaconda3\envs\virtual01
virtual36           C:\Users\WCOM01\anaconda3\envs\virtual36

(base) C:\Users\WCOM01>conda env remove --n virtual36

Remove all packages in environment C:\Users\WCOM01\anaconda3\envs\virtual36:

(base) C:\Users\WCOM01>
```

Visual Studio Code

설치



visual studio code


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이 페이지를 여러 번 방문했습니다. 최근 방문 날짜: 21. 1. 27

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Python

Step 2. Install the Python extension for Visual Studio Code. Step ...

VS Code Marketplace

Marketplace - Adobe XD - C/C++ - CodeSnap - VSCode Notion

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Docs

Introductory Videos - Linux - GCC on Windows - Version Control

C/C++

Extension for Visual Studio Code - C/C++ IntelliSense, ...

C# extension

Welcome to the C# extension for Visual Studio Code!

비주얼 스튜디오 코드 (Visual Studio Code)



Visual Studio Code

비주얼 스튜디오 코드는 마이크로소프트가 마이크로소프트 윈도우, macOS, 리눅스용으로 개발한 소스 코드 편집기이다. 디버깅 지원과 Git 제어, 구문 강조 기능등이 포함되어 있으며, 사용자가 편집기의 테마와 단축키, 설정 등을 수정할 수 있다. [위키백과](#)

개발: [마이크로소프트](#)

라이선스: 소스코드: [MIT 라이선스](#); 바이너리: [프리웨어](#)

종류: 소스 코드 편집기, 디버거

프로그래밍 언어: [자바스크립트](#), [종속형 시트](#), [자바](#), [HTML](#), [타입스크립트](#)

플랫폼: [IA-32](#), [x86-64](#), [AArch64](#)

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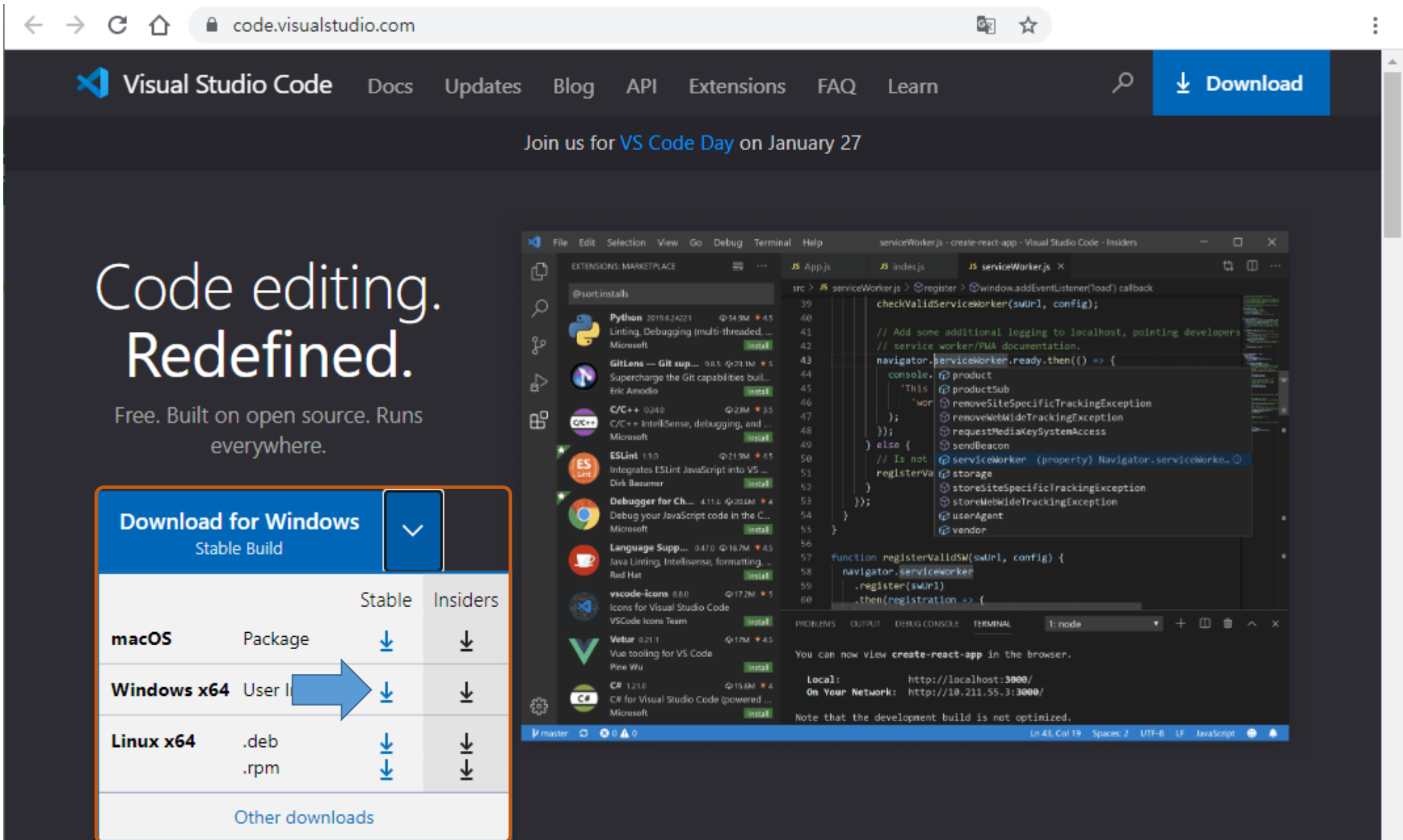
Join us for [VS Code Day](#) on January 27

Code editing. Redefined.

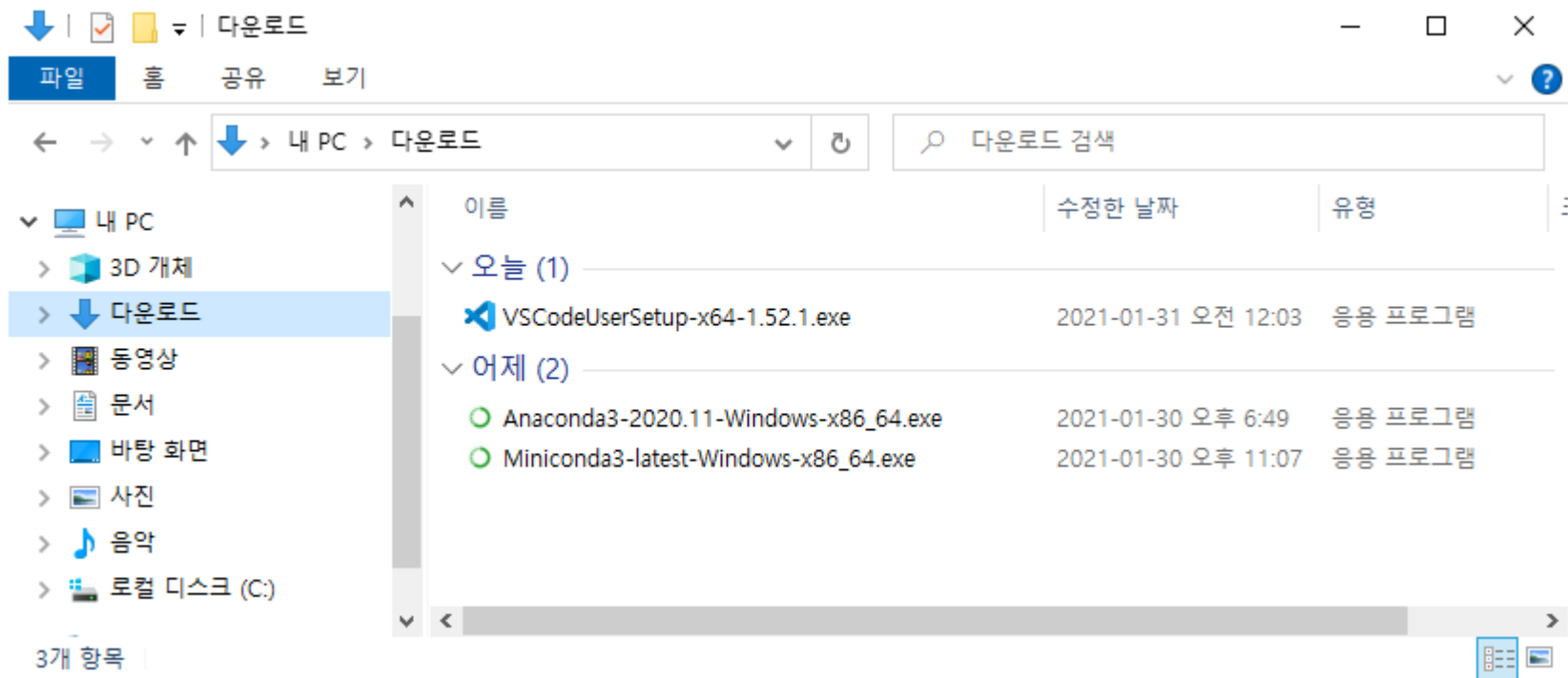
Free. Built on open source. Runs everywhere.

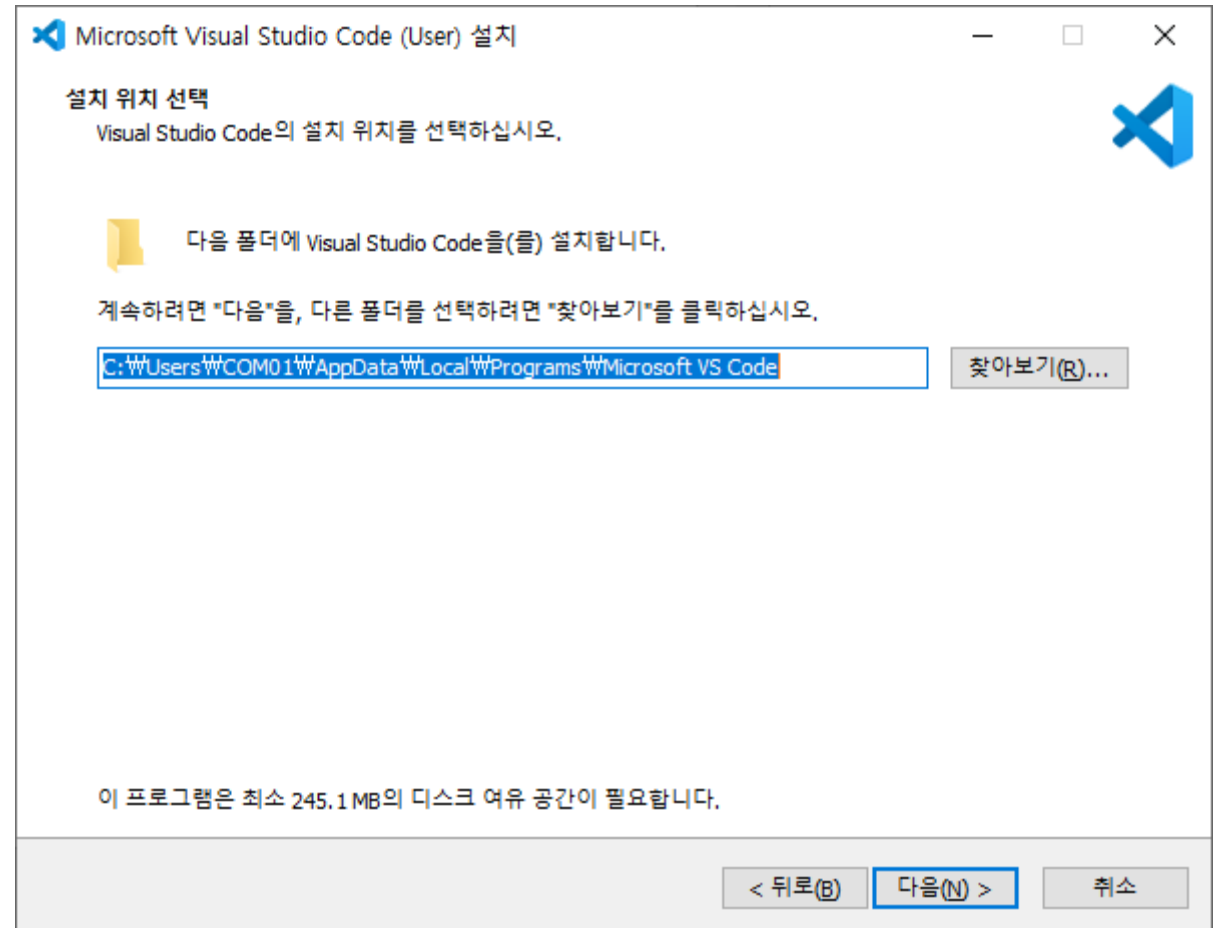
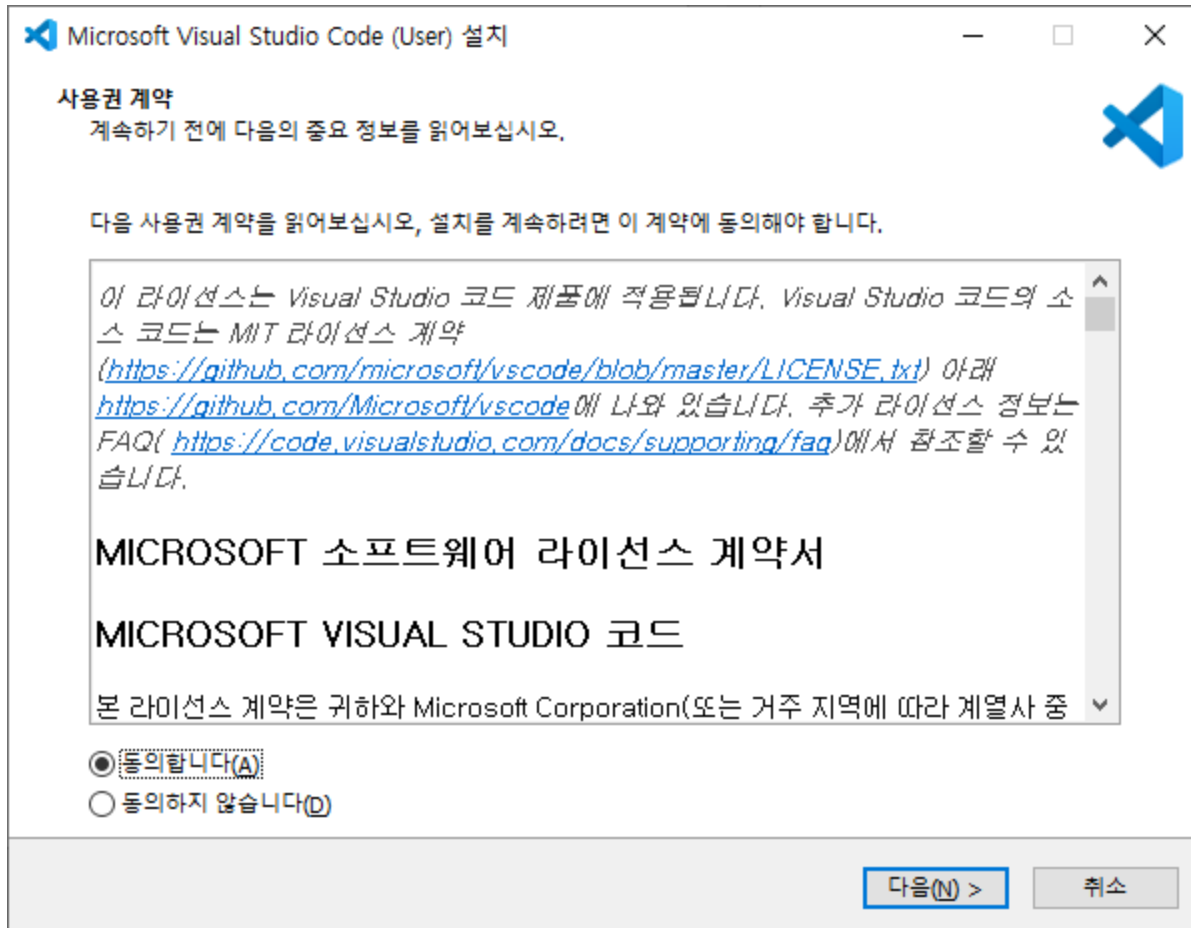
Download for Windows
Stable Build

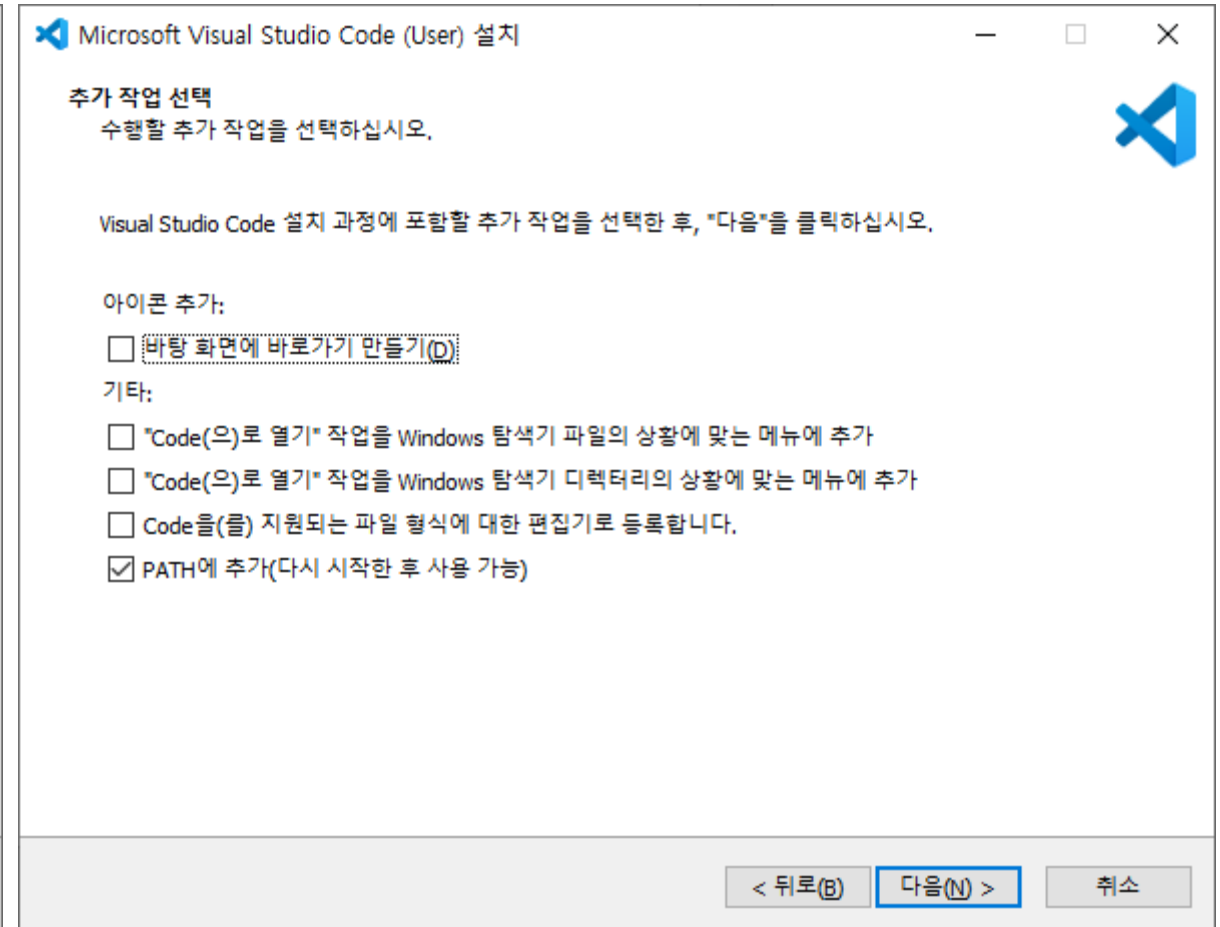
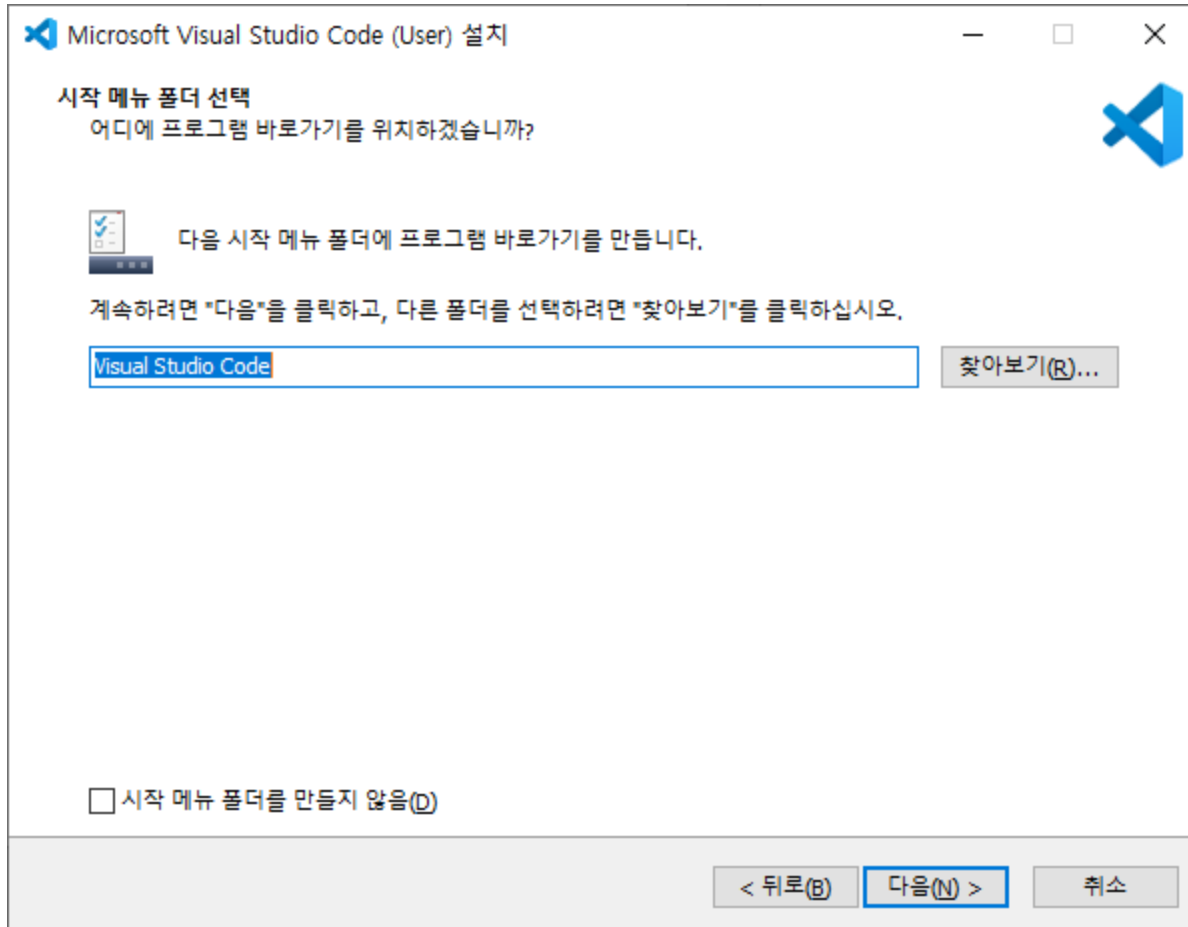
		Stable	Insiders
macOS	Package	↓	↓
Windows x64	User Installer	↓	↓
Linux x64	.deb .rpm	↓ ↓	↓ ↓
Other downloads			

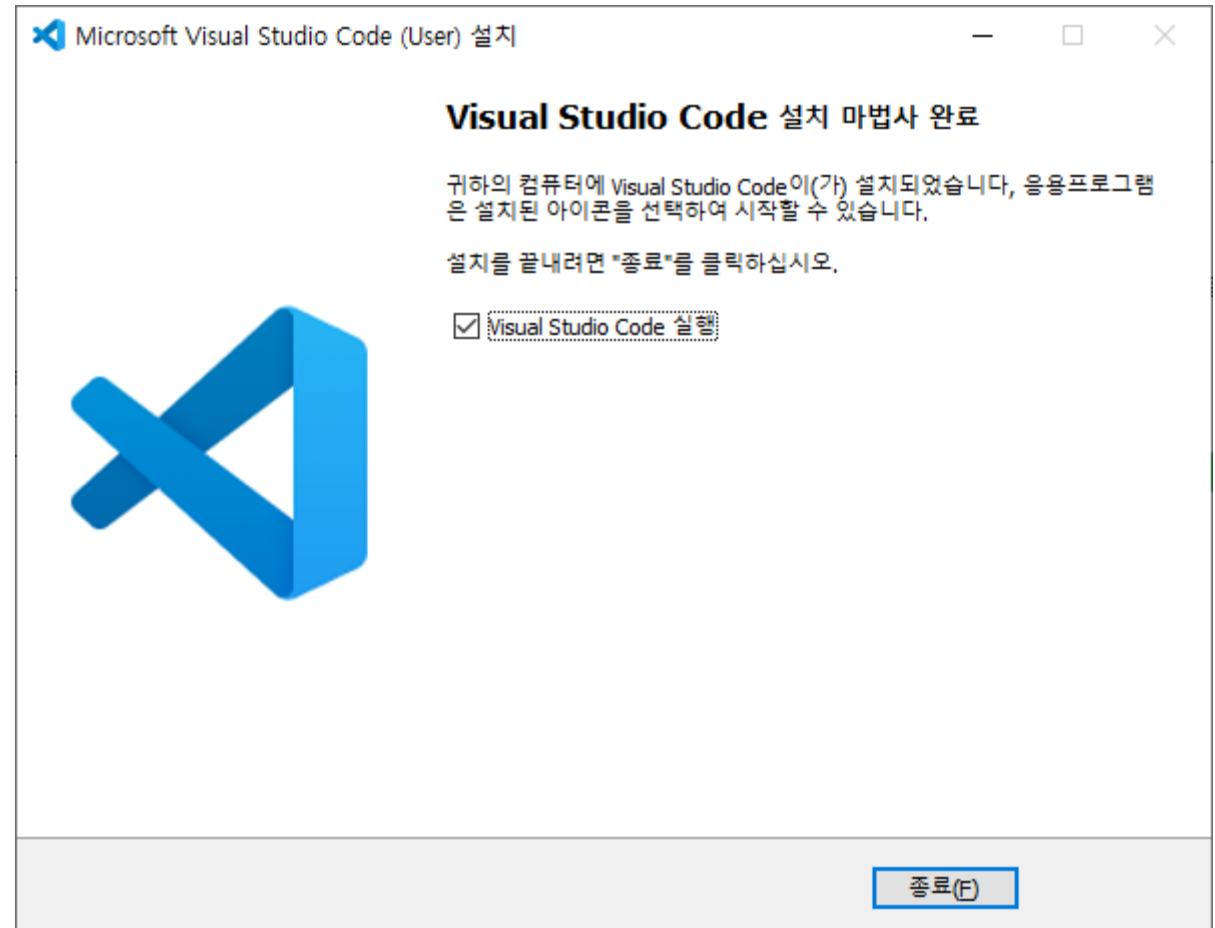
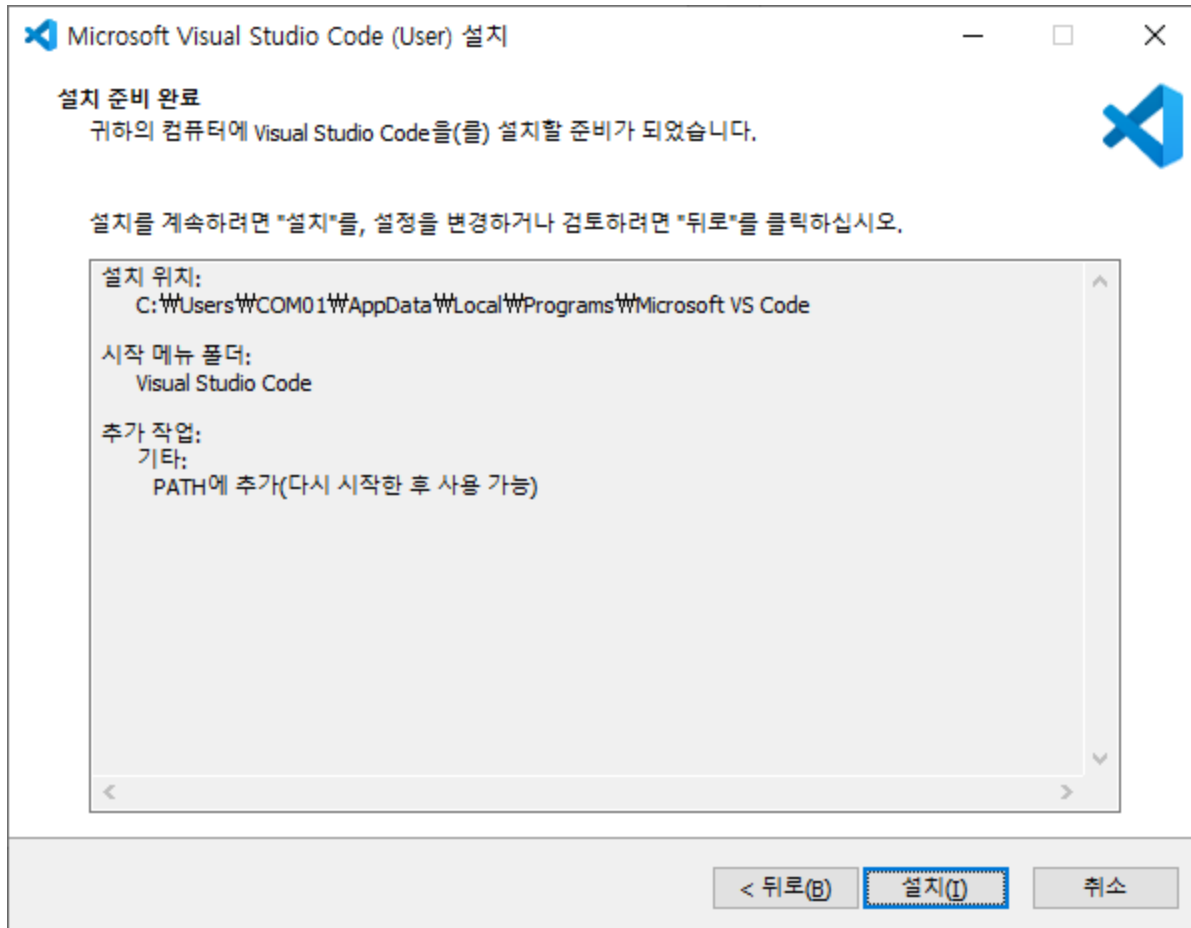


The screenshot shows the Visual Studio Code website with a navigation bar at the top containing links to Docs, Updates, Blog, API, Extensions, FAQ, and Learn. A prominent blue 'Download' button is on the right. Below the navigation bar is a banner for 'VS Code Day' on January 27. The main content area features the heading 'Code editing. Redefined.' and the tagline 'Free. Built on open source. Runs everywhere.' Below this is a download section for Windows, which includes a table with links to download the Stable and Insiders builds for macOS, Windows x64, and Linux x64. A blue arrow points to the Windows x64 User Installer link. To the right of the download section is a preview of the Visual Studio Code IDE interface, showing the Extensions Marketplace on the left, a code editor in the center with a JavaScript file, and a terminal at the bottom.





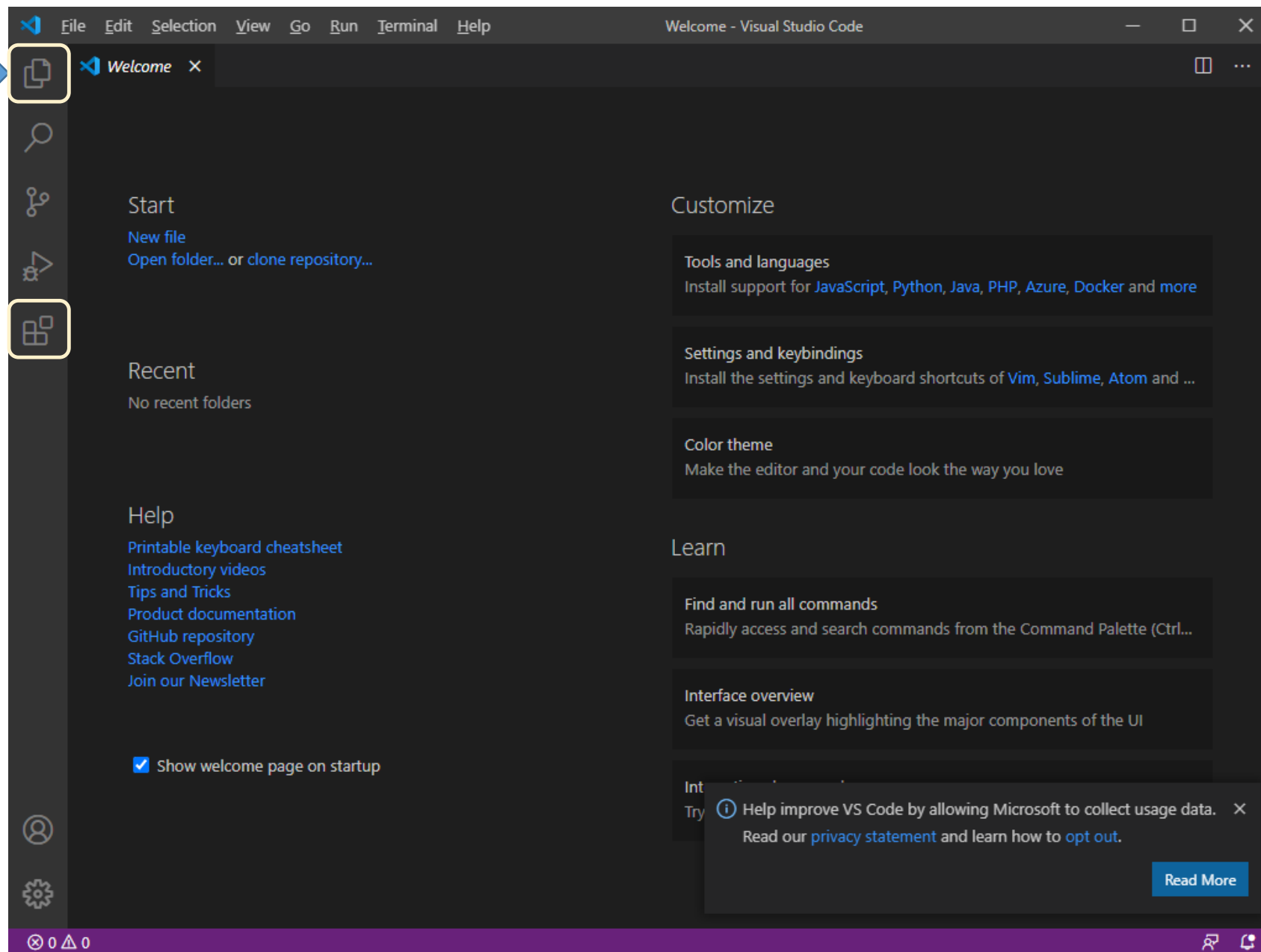




Explorer



Extensions




File Edit Selection View Go Run T

EXTENSIONS: MA... 🔍 ↺ ☰ ...

python

- Python** 2021.1.502429796
Linting, Debugging (multi-threaded, r...
Microsoft [Install](#)
- Python for VSCode** 0.2.3
Python language extension for vscode
Thomas Haakon Townsend [Install](#)
- Python Extension Pack** 1.6.0
Popular Visual Studio Code extensions...
Don Jayamanne [Install](#)
- Python Test Explorer for Visu...** 0.6.6
Run your Python tests in the Sidebar ...
Little Fox Team [Install](#)
- Python Docstring Generator** 0.5.4
Automatically generates detailed docs...
Nils Werner [Install](#)
- Python Indent** 1.12.0
Correct python indentation.
Kevin Rose [Install](#)
- AREPL for python** 2.0.1
real-time python scratchpad
Almenon [Install](#)
- Python Extended** 0.0.1
Python Extended is a vscode snippet t...
Taiwo Kareem [Install](#)




Python ms-python.python

Microsoft | 🔗 30,650,689 | ★★★★★ | Repository | License | v2021.1.502429796

Linting, Debugging (multi-threaded, remote), Intellisense, Jupyter Notebooks, code formatting, refactoring, unit tests, and more.

[Install](#) ⚙️




Python for VSCode tht13.python

Thomas Haakon Townsend | 🔗 2,410,793 | ★★★★★ | Repository | v0.2.3

Python language extension for vscode

[Install](#) ⚙️




Python Extension Pack donjayamanne.python-extension-pack

Don Jayamanne | 🔗 1,591,753 | ★★★★★ | Repository | License | v1.6.0

Popular Visual Studio Code extensions for Python

[Disable](#) [Uninstall](#) ▼ ⚙️ *This extension is enabled globally.*




Python Preview dongli.python-preview

dongli | 🔗 318,504 | ★★★★★ | Repository | License | v0.0.4

Provide Preview for Python Execution.

[Install](#) ⚙️




vscode-icons

vscode-icons-team.vscode-icons

VSCode Icons Team | 6,995,176 | ★★★★★ | Repository | License | v11.1.0

Icons for Visual Studio Code

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Code Runner

formulahendry.code-runner

Jun Han | 6,208,314 | ★★★★★ | Repository | License | v0.11.2

Run C, C++, Java, JS, PHP, Python, Perl, Ruby, Go, Lua, Groovy, PowerShell, CMD, BASH, F#, C#, VBScript, TypeScript, CoffeeScri...

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Pylance

ms-python.vscode-pylance Preview

Microsoft | 937,199 | ★★★★★☆ | Repository | License | v2021.1.3

A performant, feature-rich language server for Python in VS Code

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Korean Language Pack for Visual Studio Code

ms-ceintl.vscode-language-pack-ko

Microsoft | 514,410 | ★★★★★ | Repository | v1.53.1

Language pack extension for Korean

[Uninstall](#) ▼ ⚙️ *This extension is enabled globally.*



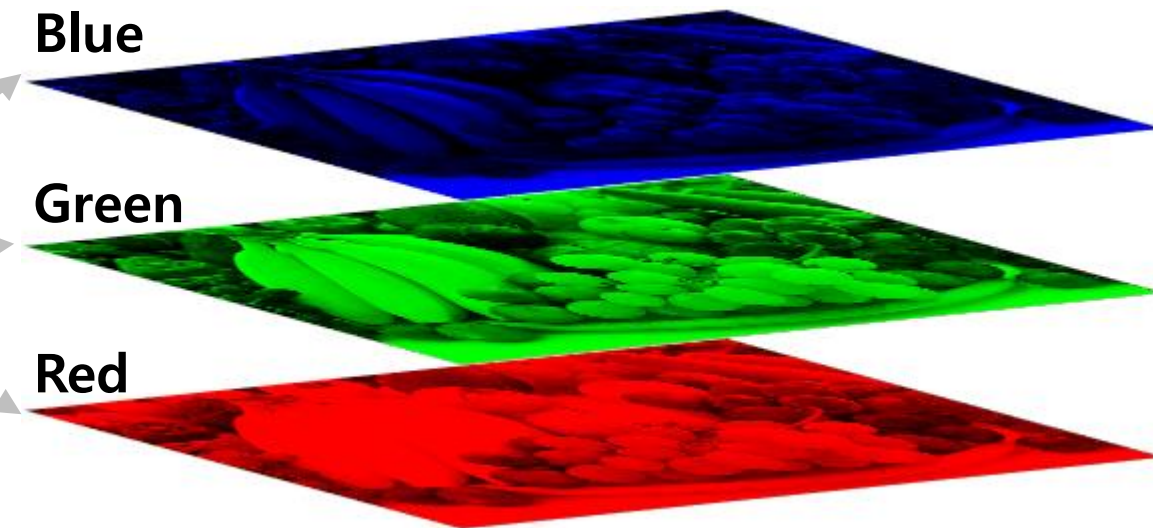
Color



Blue

Green

Red





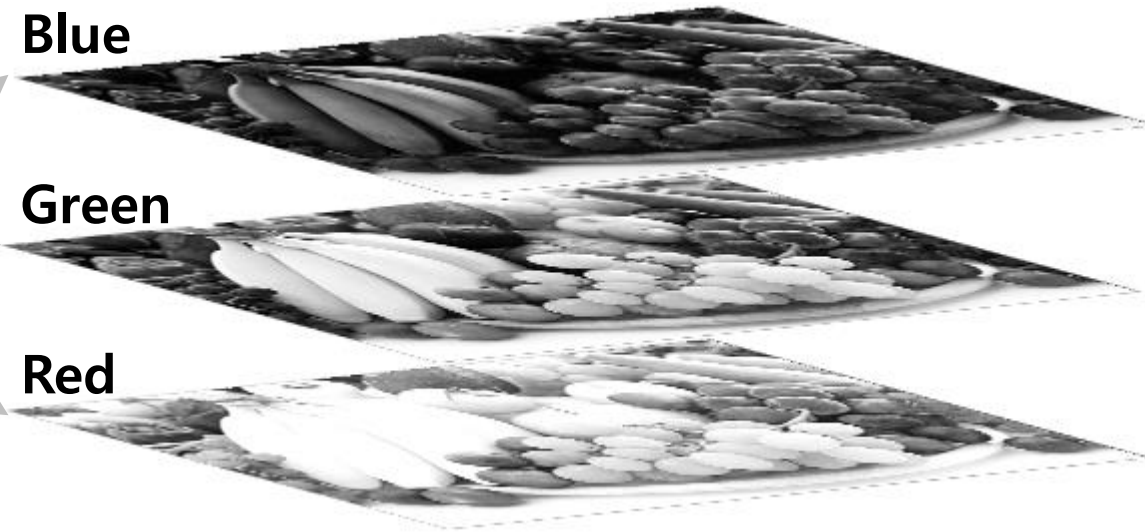
Color



Blue

Green

Red



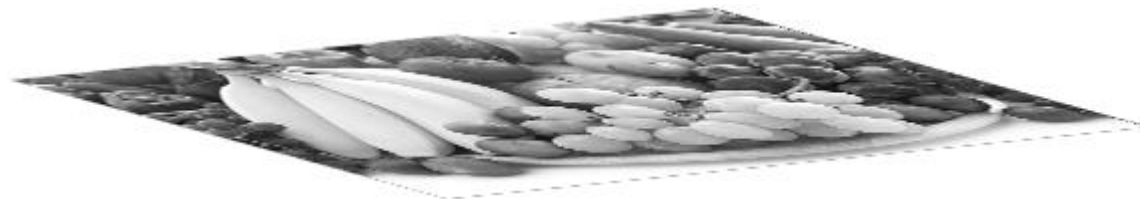
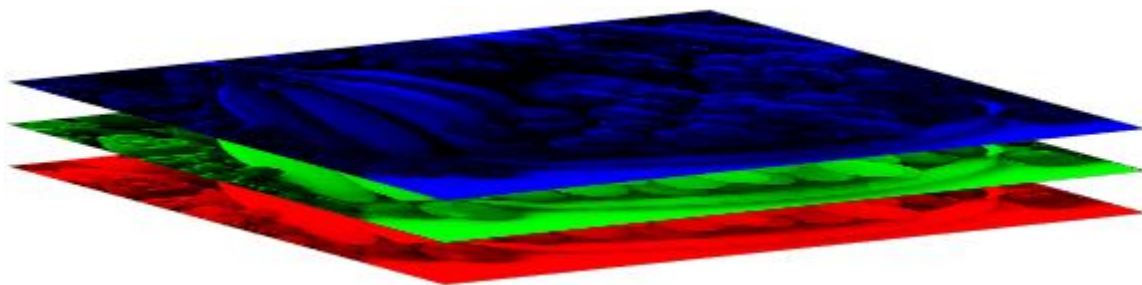

```
img_dst = cv2.cvtColor(img_src, cv2.COLOR_BGR2GRAY)
```



img_src (BGR)



img_dst (GRAY)



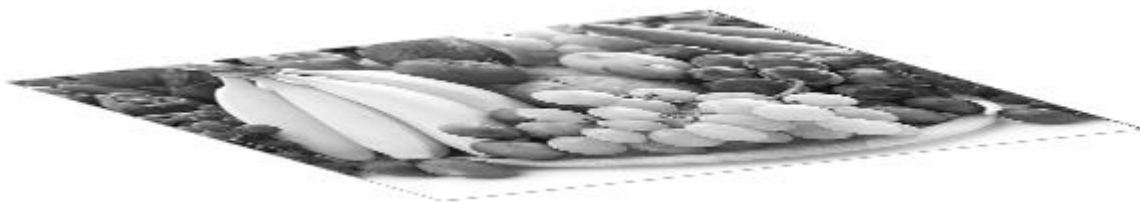
```
img_bgr = cv2.cvtColor(img_gray, cv2.COLOR_GRAY2BGR)
```



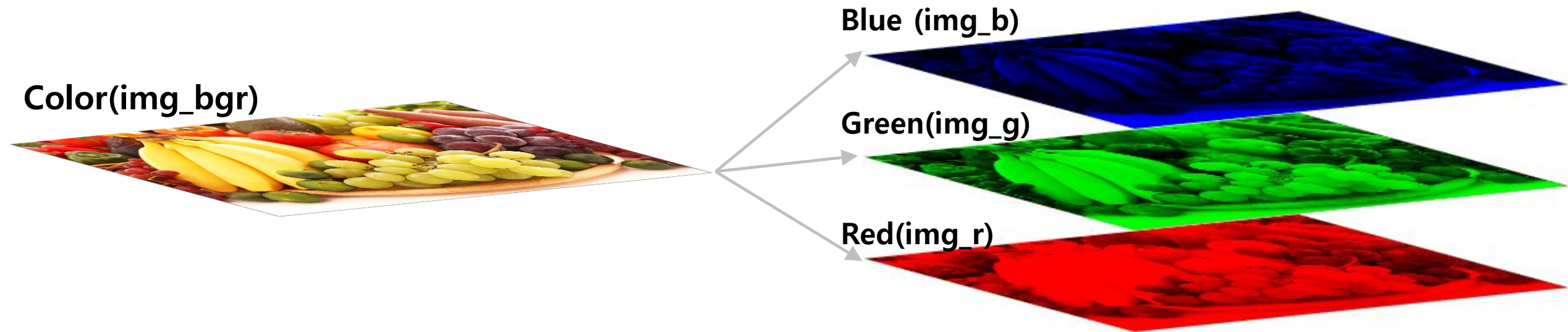
`img_gray` (GRAY 1-Channel)



`img_bgr` (COLOR(BGR), 3-Channel)



채널 나누기(분리)

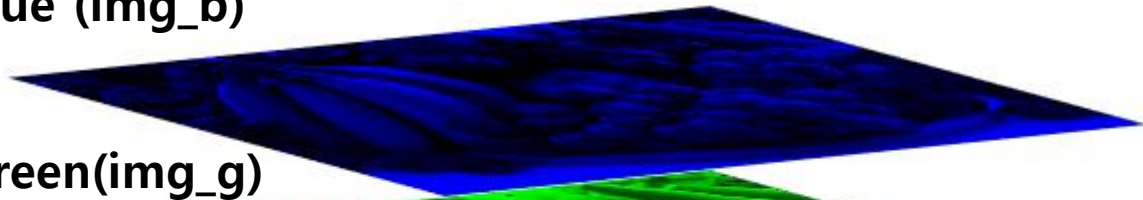


```
img_b, img_g, img_r = cv2.split(img_bgr)
```

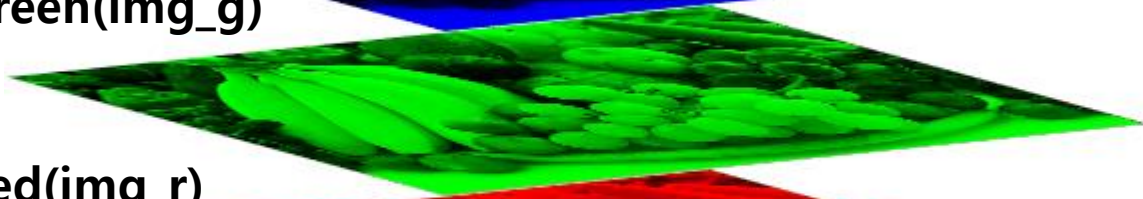
채널 합치기(병합)



Blue (img_b)



Green(img_g)



Red(img_r)



Color(img_bgr)

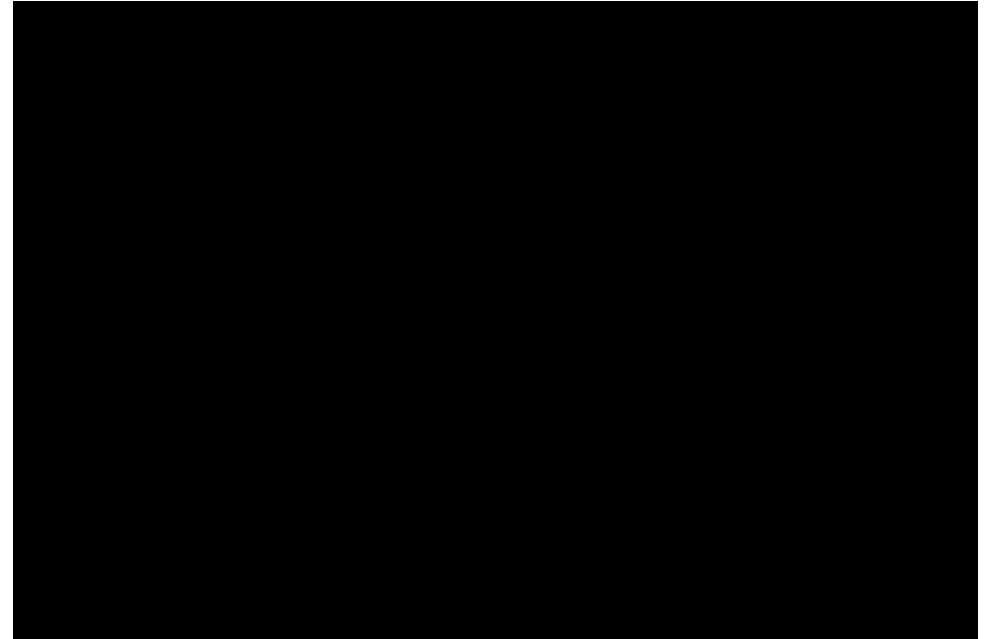


```
img_bgr = cv2.merge((img_b,img_g,img_r))
```


1채널 빈 이미지 만들기(zero)



`Color(img_bgr)`



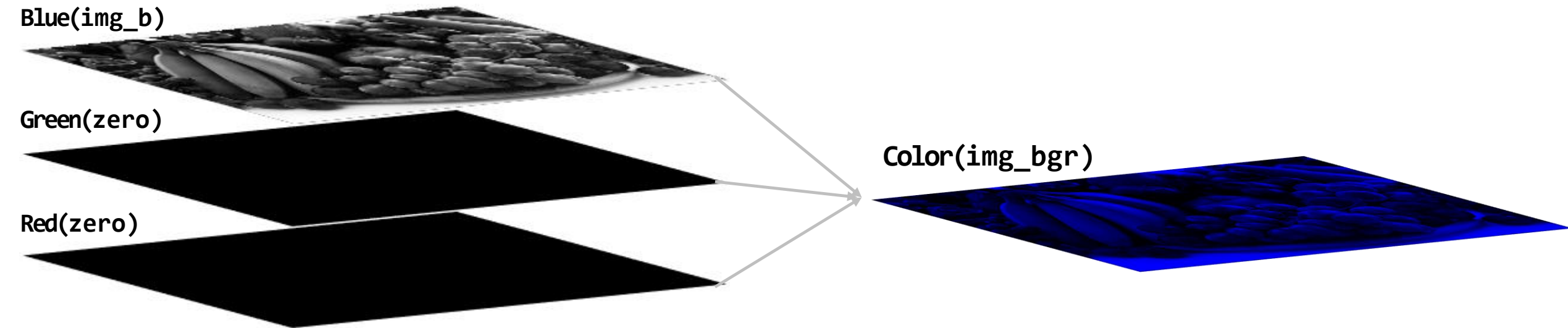
`Empty Image(zero)`

```
Height, width = img_bgr.shape[:2]
```

```
import numpy as np
```

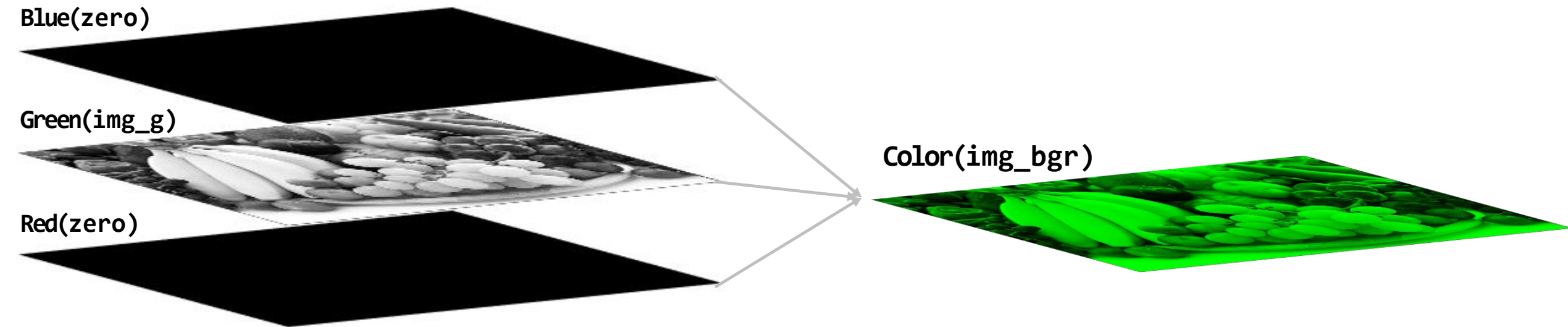
```
zero = np.zeros((height, width, 1), dtype = np.uint8)
```


단일 채널 표시



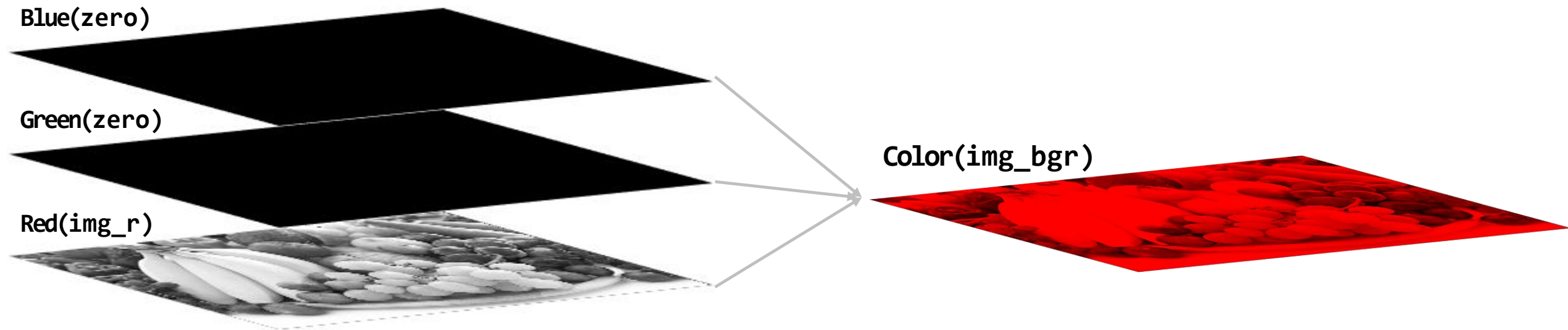
```
img_bgr = cv2.merge((img_b, zero, zero))
```

단일 채널 표시



```
img_bgr = cv2.merge((zero, img_g, zero))
```

단일 채널 표시



```
img_bgr = cv2.merge((zero, zero, img_r))
```

```
img_canny = cv2.Canny(  
img_src, threshold1, threshold2, edges=None, apertureSize=None, L2gradient=None)
```

- img_src : 입력 이미지
- threshold1 : 최소 Threshold threshold2 : 최대 Threshold
- edges : Canny 결과를 저장할 변수

파이썬에선 Canny 함수 리턴으로 받을 수 있기 때문에 필요없음

- apertureSize : 이미지 그래디언트를 구할때 사용하는 Sobel 커널 크기(default : 3)
- L2 Gradient : True

$$\sqrt{(dI/dx)^2 + (dI/dy)^2}$$

L2 Gradient : False(default)

$$||dI/dx|| + ||dI/dy||$$

cv2.line(*img_src*, *start*, *end*, *color*, *thickness*)

img_src : 그림을 그릴 이미지 파일

start : 시작 좌표 pt1(x1, y1)

end : 종료 좌표 pt2(x2, y2)

color : BGR형태의 Color((B, G, R) : (255, 0, 0))

thickness (*int*) – 선의 두께(pixel)

```
import cv2
import numpy as np

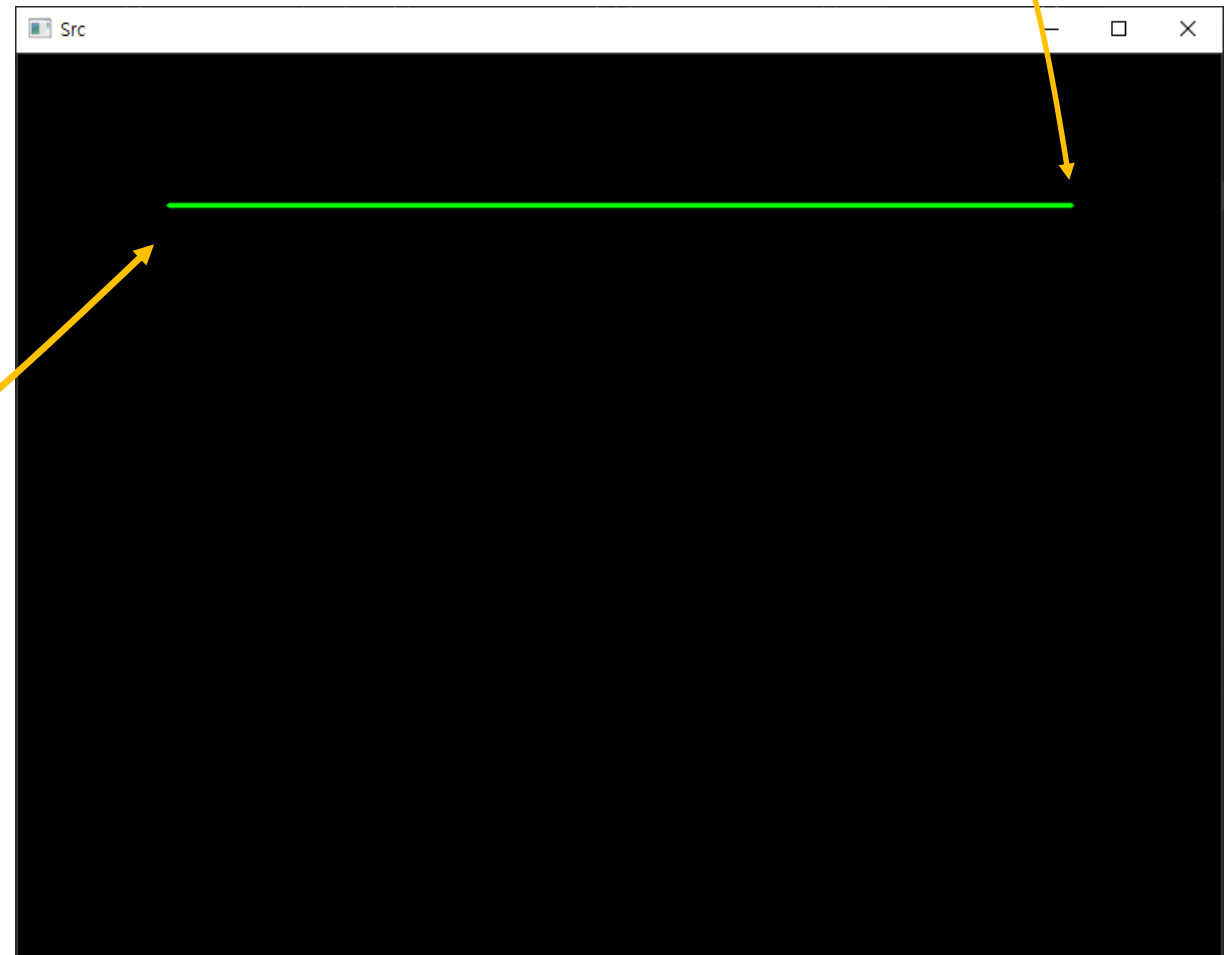
img_src = np.zeros((600, 800, 3), dtype=np.uint8)

cv2.line(img_src, (100,100), (700,100), (0,255,0) 2)

cv2.imshow('Src', img_src)

cv2.waitKey(0)

cv2.destroyAllWindows()
```



cv2.rectangle(*img_src*, *start*, *end*, *color*, *thickness*)

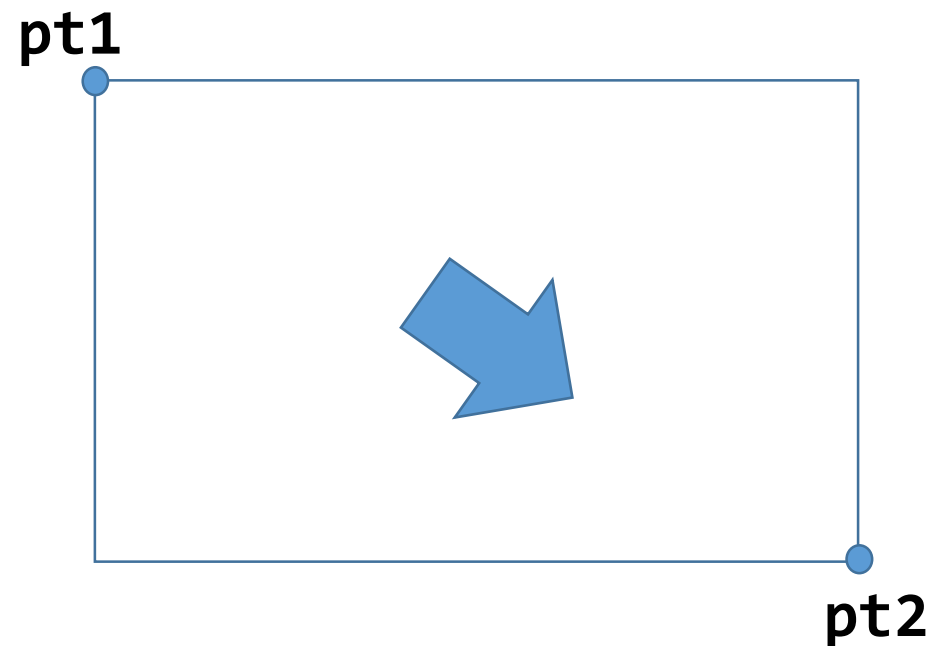
img_src : 그림을 그릴 이미지 파일

start : 시작 좌표 pt1(x1, y1)

end : 종료 좌표 pt2(x2, y2)

color : BGR형태의 Color((B, G, R) : (255, 0, 0))

thickness (int) – 선의 두께(pixel)



`cv2.circle(img, center, radian, color, thickness)`

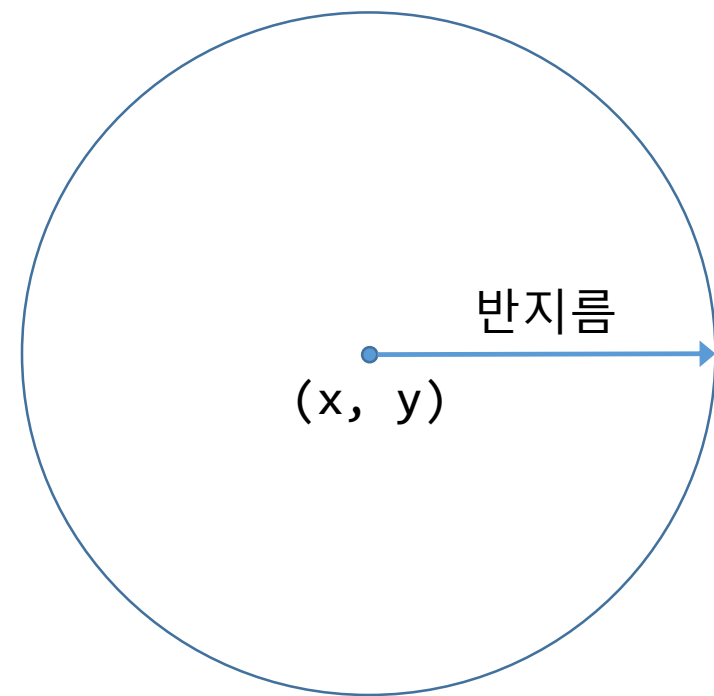
img_src : 그림을 그릴 이미지 파일

center : 원의 중심좌표 (x, y)

radian : 반지름 (pixel)

color : BGR형태의 Color((B, G, R) : (255, 0, 0))

thickness (*int*) – 선의 두께(pixel), -1이면 안쪽을 채움



cv2.ellipse(*img_src*, *center*, *axes*, *angle*, *startAngle*, *endAngle*, *color*, *thickness*)

img_src : 그림을 그릴 이미지 파일

center : 타원의 중심좌표 (x, y)

axes : 타원의 가장 큰 거리와 작은 거리

startAngle – 타원의 시작 각도

endAngle – 타원이 끝나는 각도

color : 타원의 색 BGR형태((B, G, R) : (255, 0, 0))

thickness (*int*) – 선의 두께(pixel), -1이면 안쪽을 채움

```
import cv2
import numpy as np

img_src = np.zeros((600, 800, 3), dtype=np.uint8)

#타원 그리기
cv2.ellipse(img_src, (250,400), (100,50), 0, 0, 360, (0,255,0), 2)
cv2.ellipse(img_src, (650,400), (50,100), 0, 0, 360, (255,255,0), 2)

cv2.imshow('Src', img_src)

cv2.waitKey(0)

cv2.destroyAllWindows()
```



`cv2.polylines(img_src, pts, isClosed, color, thickness)`

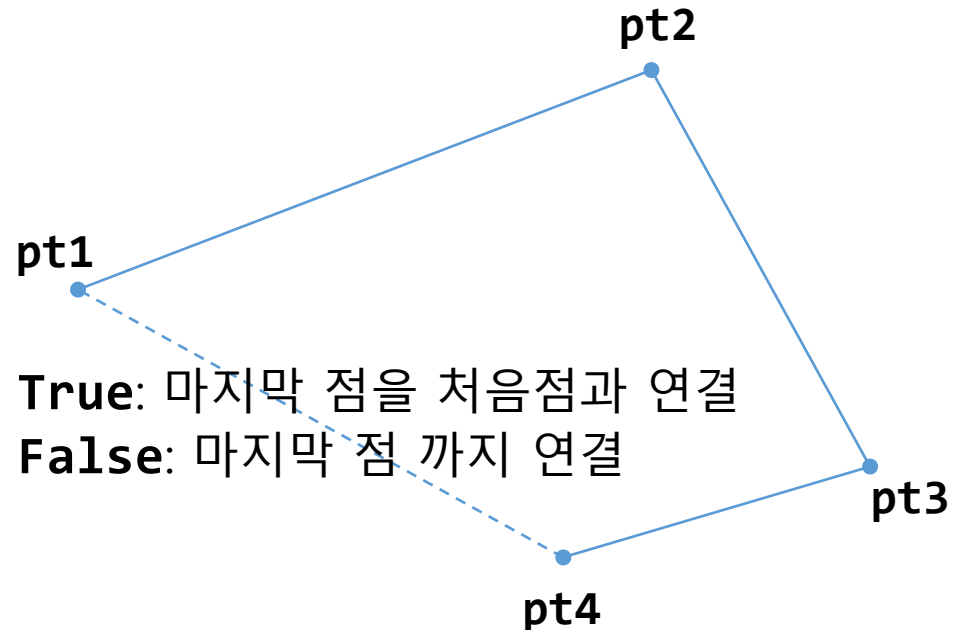
img_src : 그림을 그릴 이미지 파일

pts (array) : 연결할 꼭지점의 좌표

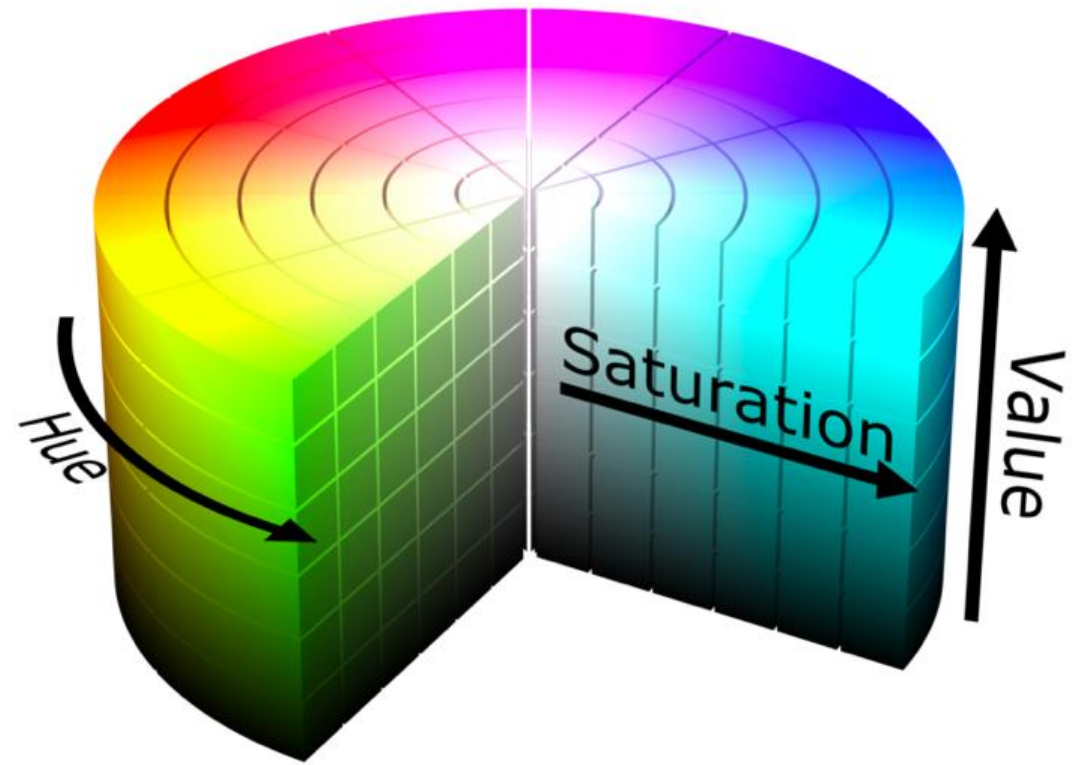
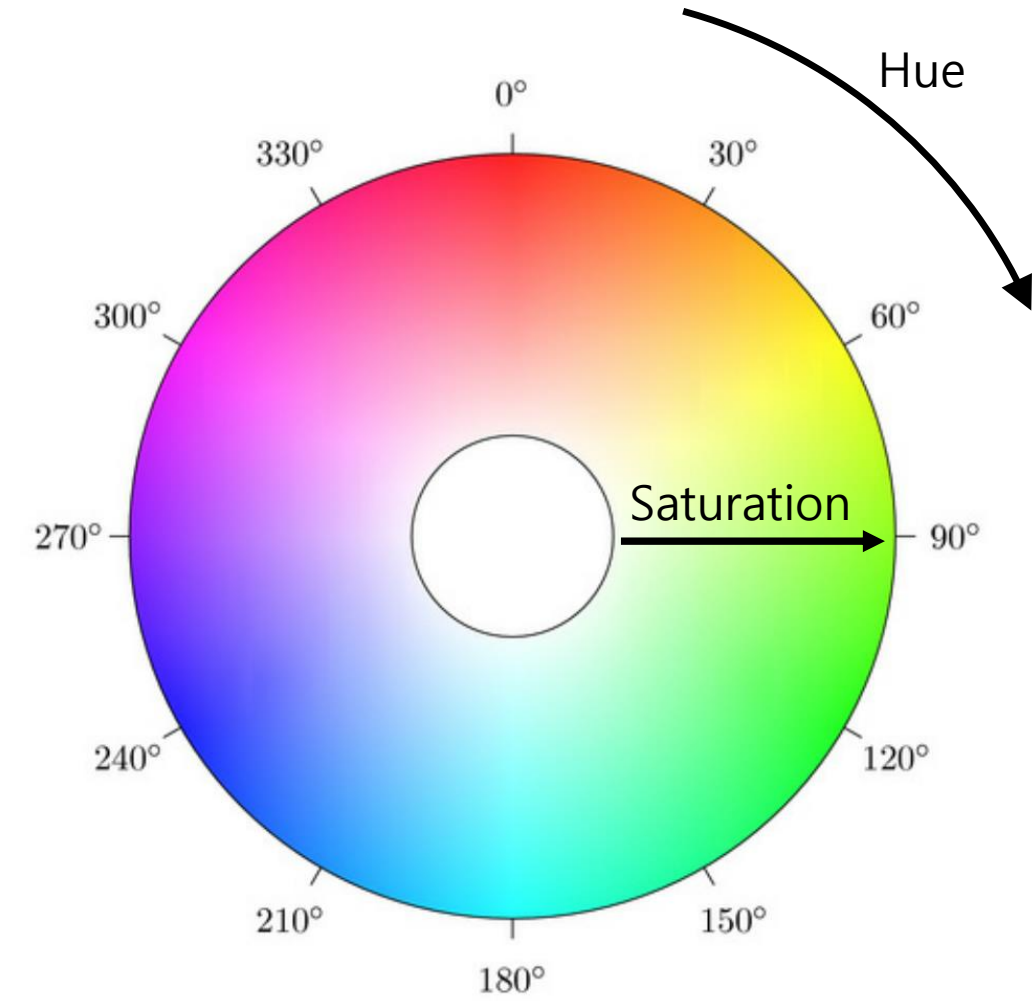
isClosed : 닫힘 유/무 (True: 닫힘)

color : BGR형태의 Color((B, G, R) : (255, 0, 0))

thickness (int) – 선의 두께(pixel)



<https://opencv-python.readthedocs.io/en/latest/doc/03.drawShape/drawShape.html>





0 60 120 180 240 300 360

색 편집

기본 색(B):

사용자 지정 색(C):

사용자 지정 색 만들기(D) >>

색상 H(0~239)

색상(E): 0 빨강(R): 0

채도(S): 240 녹색(G): 0

명도(L): 0 파랑(B): 0

색|단색(Q)

사용자 지정 색에 추가(A)

확인 취소

색 편집

기본 색(B):

사용자 지정 색(C):

사용자 지정 색 만들기(D) >>

채도 S(0~240)

색상(E): 239 빨강(R): 255

채도(S): 240 녹색(G): 255

명도(L): 240 파랑(B): 255

색|단색(Q)

사용자 지정 색에 추가(A)

확인 취소

명도
V(0~240)