



YONSEI
UNIVERSITY

[IIT4204] SW 프로젝트

Yonsei University 2021-02



About TAs

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Guide for this course

- Proficiency in **Python3** is required for this class.
 - All code and assignment will be in Python
- Middle-level familiarity with **NumPy** is required.
 - Array indexing, broadcasting, etc.
- **OpenCV** and **Matplotlib** will be used to image handle.
- **PyTorch** will be used as a Deep Learning framework.
- All Code will be implemented on Google **Colab**.
 - Most libraries are already installed.

Tutorial for Python3

- Python Official Tutorial
 - (Eng) <https://docs.python.org/3/tutorial/>
 - (Kor) <https://docs.python.org/ko/3/tutorial/index.html>
- Jump to Python
 - <https://wikidocs.net/book/1>
- If you need help, ask TAs



NumPy. OpenCV. Matplotlib

- The concept of multidimensional matrix will be used in the code frequently.
 - You need to be familiar with NumPy matrix operation, array indexing and broadcasting.
 - The same applies to PyTorch.
 - A brief tutorial of NumPy will be in the next class.
- OpenCV and Matplotlib will be covered whenever necessary.



PyTorch

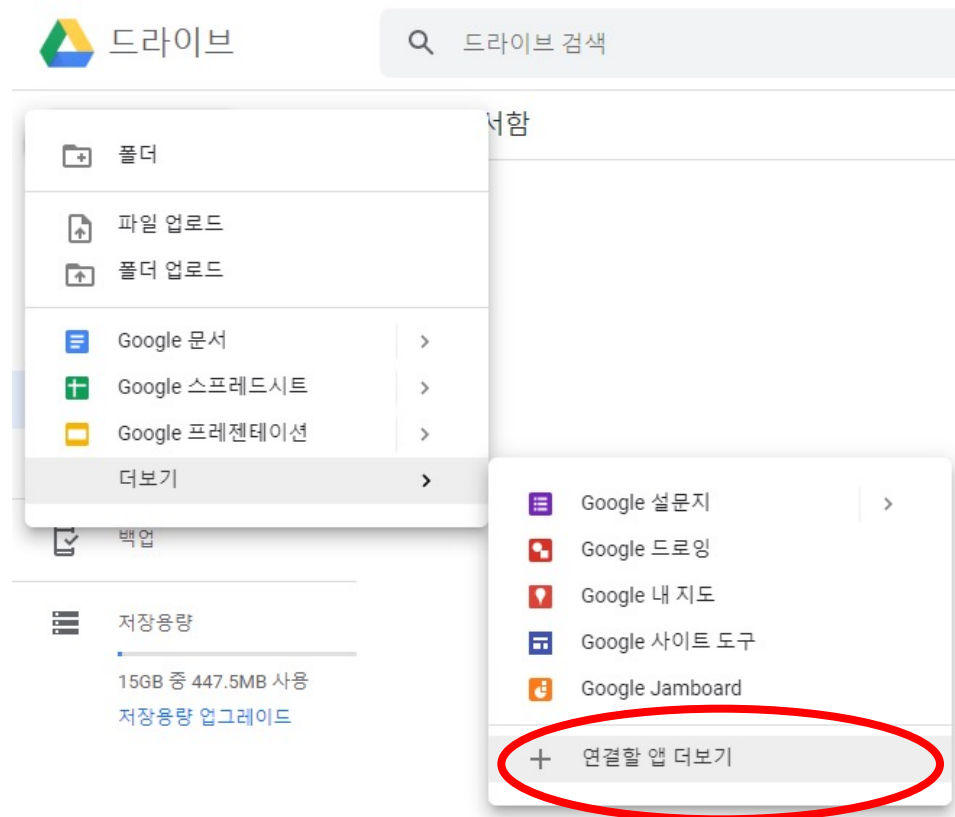
- PyTorch tutorial will be in the next class.
- It will be covered in the class, but it is recommended to prepare and review by yourself.
- PyTorch official Tutorial
 - <https://pytorch.org/tutorials/>
- All the functions and methods are listed in the Pytorch official document
 - <https://pytorch.org/docs/stable/index.html>

Installation Guide for Colab

- Free Jupyter environment
- Guide for Colab
 - https://colab.research.google.com/notebooks/welcome.ipynb#scrollTo=xitplqMNk_Hc
 - Various code snippets for Colab(e.g. connecting Google Drive storage, etc.)

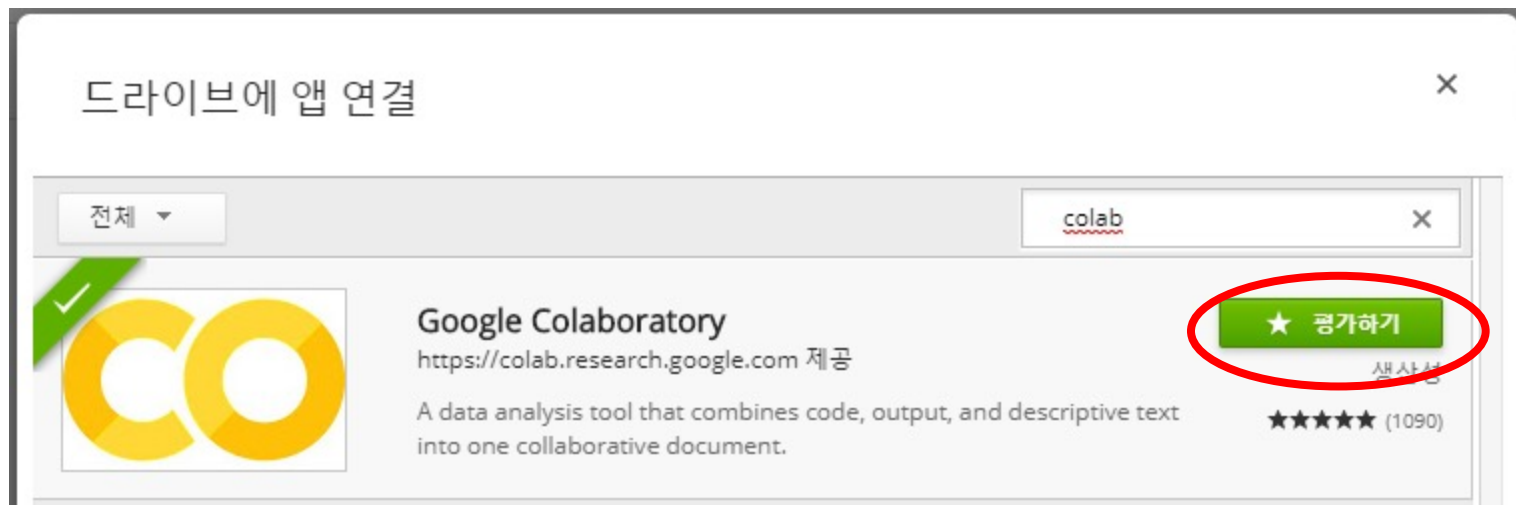
Installation Guide for Colab

- Google Drive

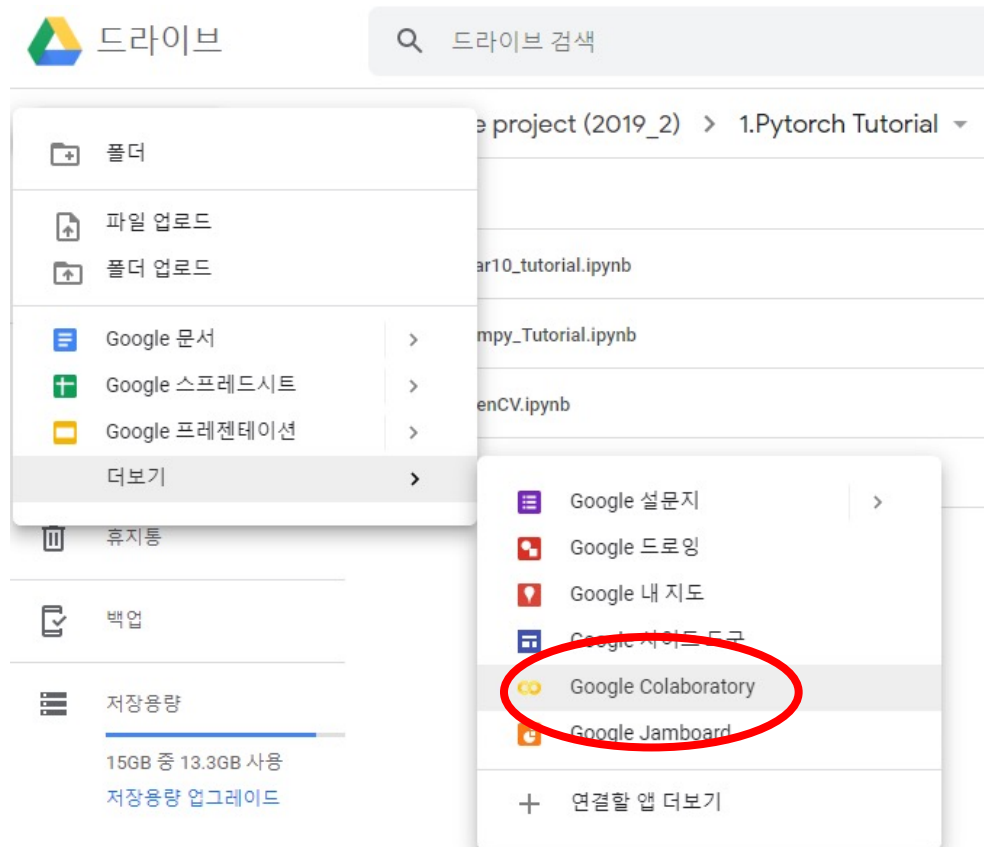


Installation Guide for Colab

- Google Drive



Installation Guide for Colab



Installation Guide for Colab



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파일 수정 보기 삽입 런타임 도구 도움말

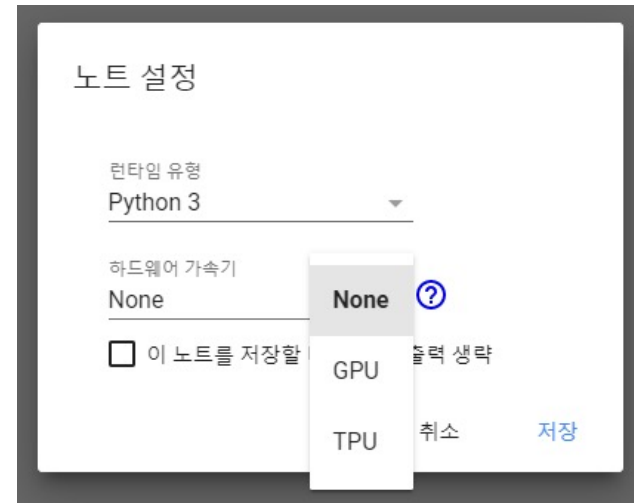
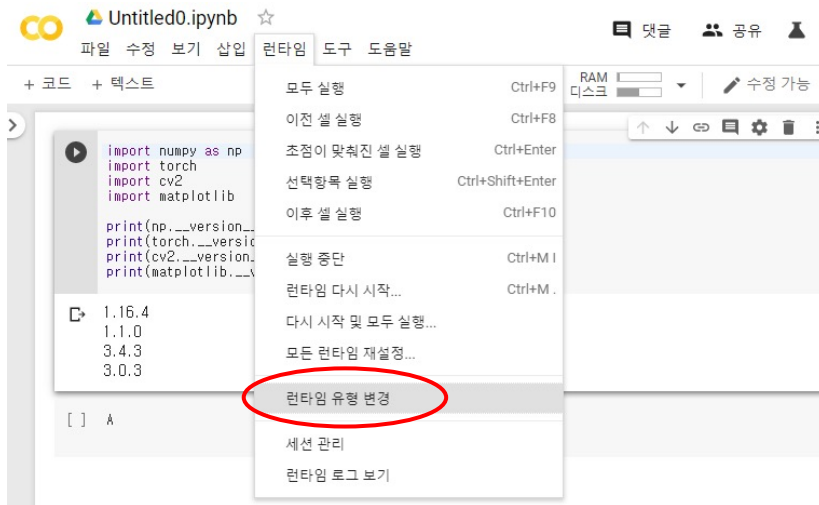
+ 코드 + 텍스트

```
[1] import numpy as np
import torch
import cv2
import matplotlib

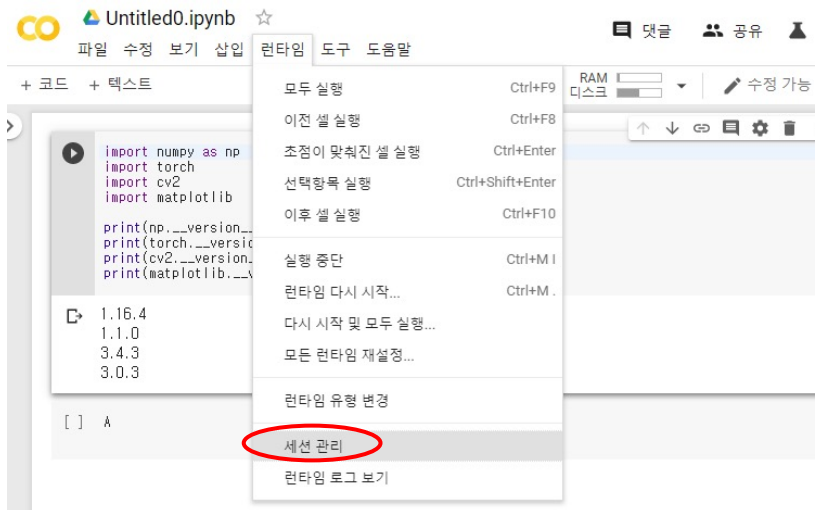
print(np.__version__)
print(torch.__version__)
print(cv2.__version__)
print(matplotlib.__version__)
```

```
1.16.4
1.1.0
3.4.3
3.0.3
```

Installation Guide for Colab





Installation Guide for Colab



활성 세션


하드웨어 가속기

None

제목	마지막 실행	사용된 RAM	
현재 세션			
 <div>Untitled0.ipynb</div>	0분 전	0.25 GB	종료
기타 세션			
 <div>Colaboratory에 오신 것을 환영합니다</div>	8분 전		종료

다른 세션 종료

닫기

The image features a white background with decorative geometric elements in the corners. In the top-left corner, there are overlapping triangles in dark blue and grey. In the bottom-right corner, there are overlapping triangles in dark blue and grey. Centered on the page is the text "Q & A" in a large, bold, black sans-serif font.

Q & A