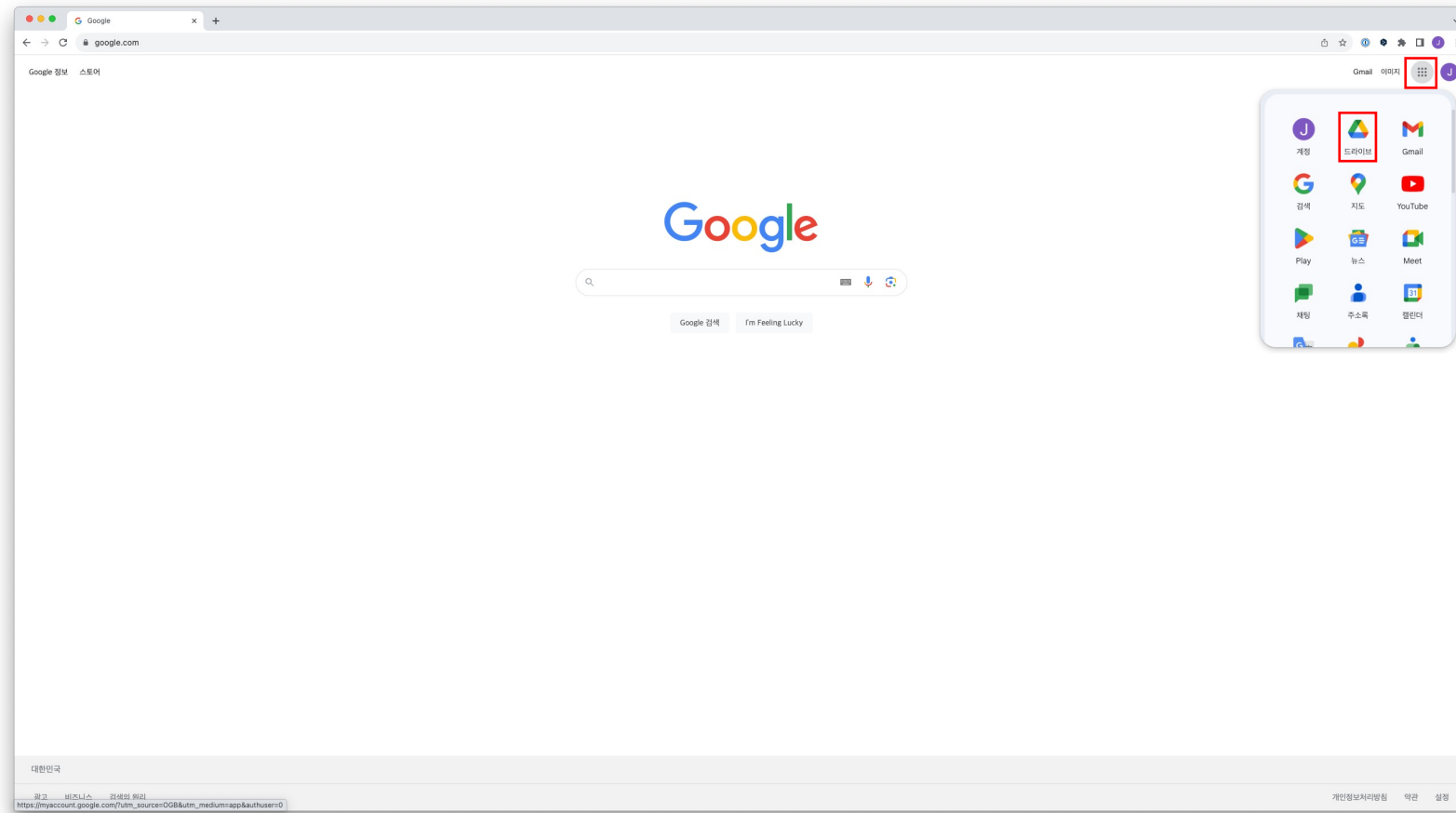


Google Colab

Language & Intelligence Lab
UNIST AI

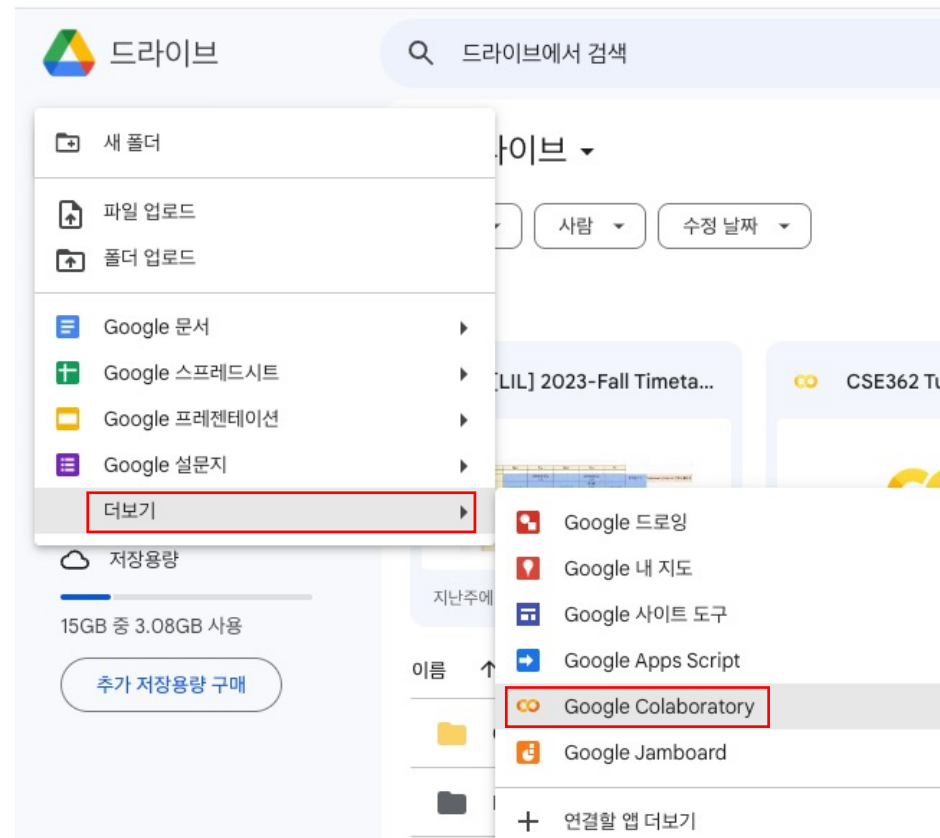
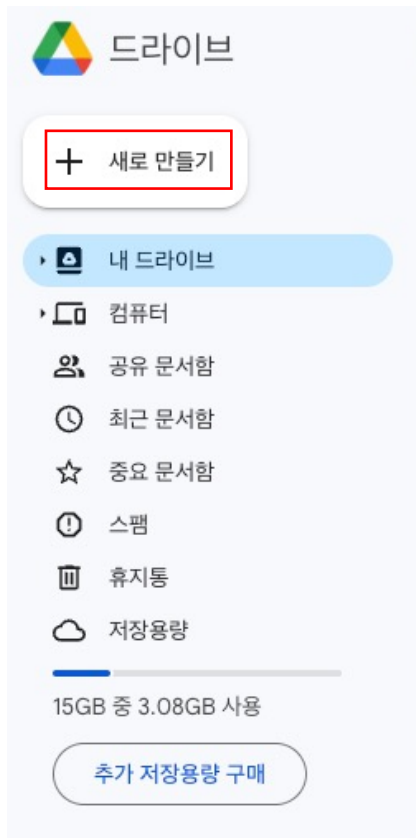
How to run

- Please visit Google



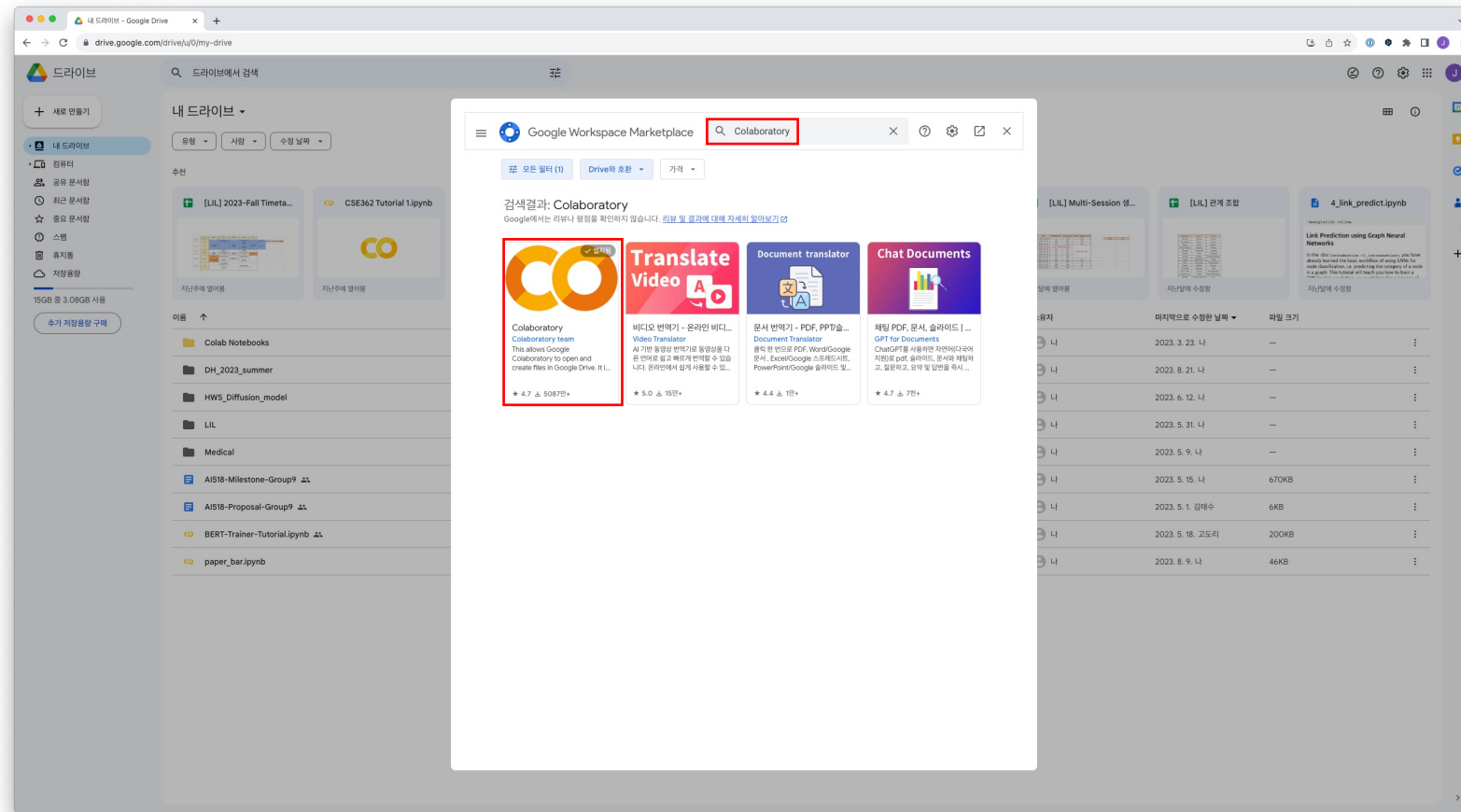
How to run

- Select New – More – Google Colaboratory
- If you can not see Google Colaboratory, please select “Connect more apps”



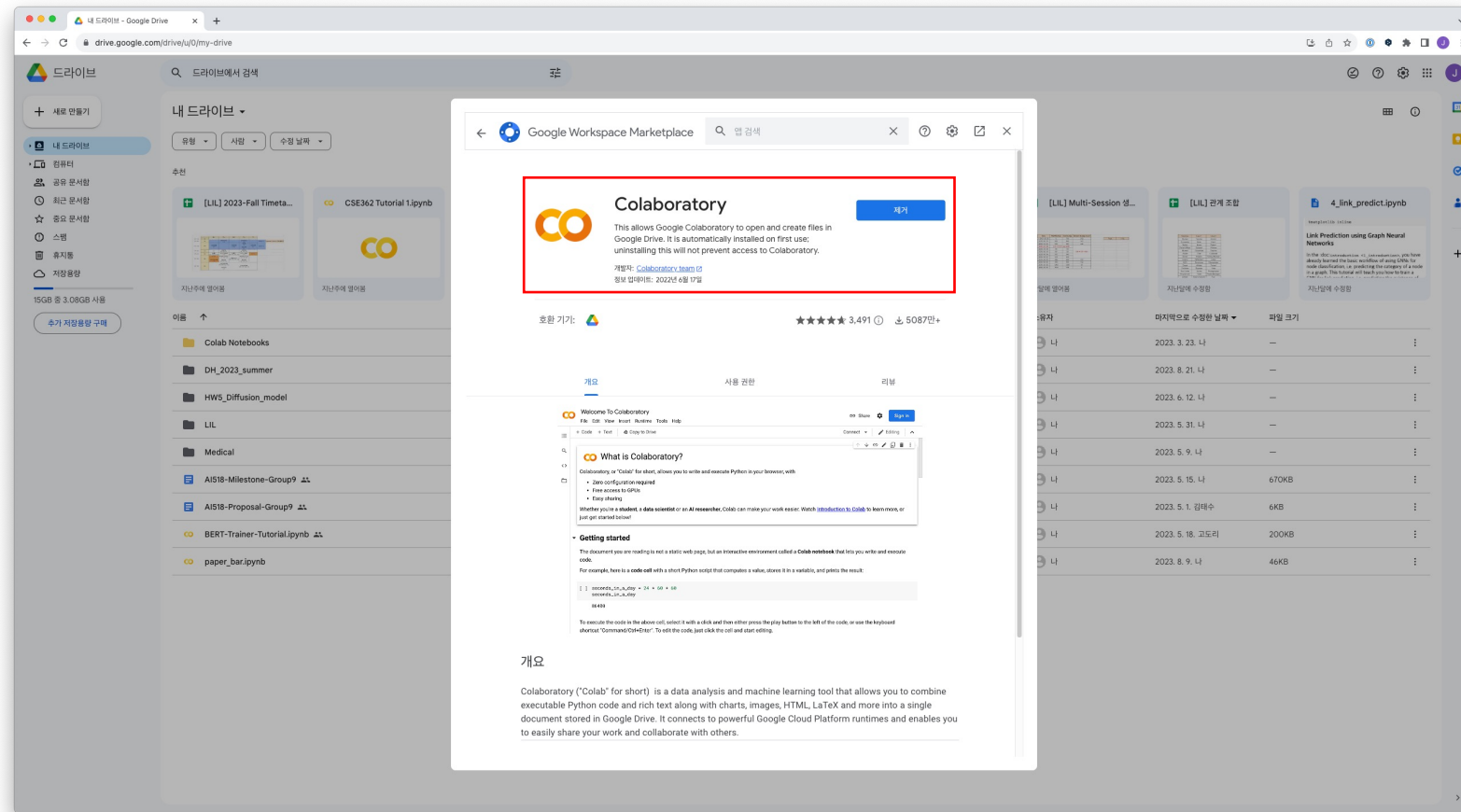
How to run

- Then, enter the “Colaboratory” in the search bar



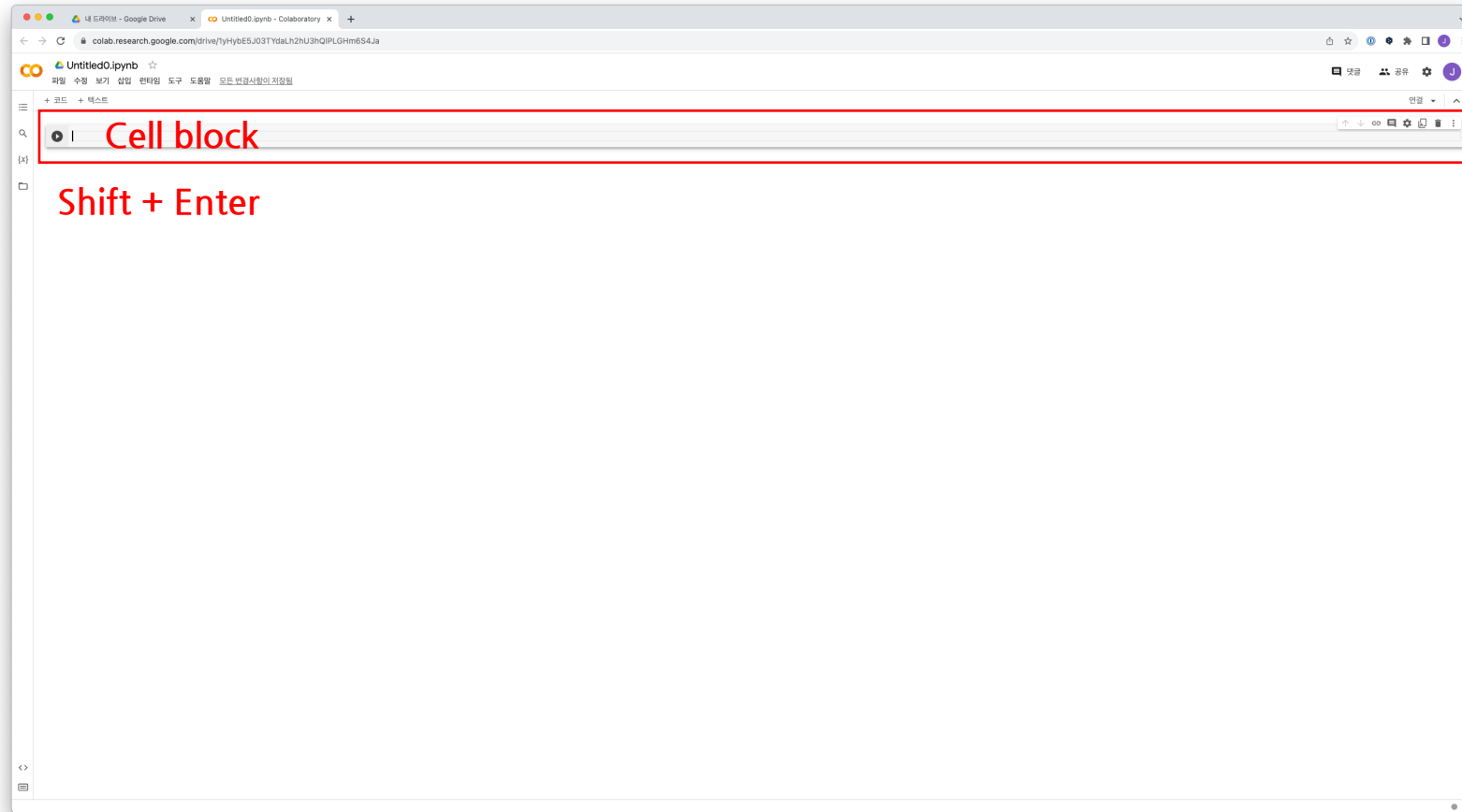
How to run

- Now you can install and use Colab in your Google Drive



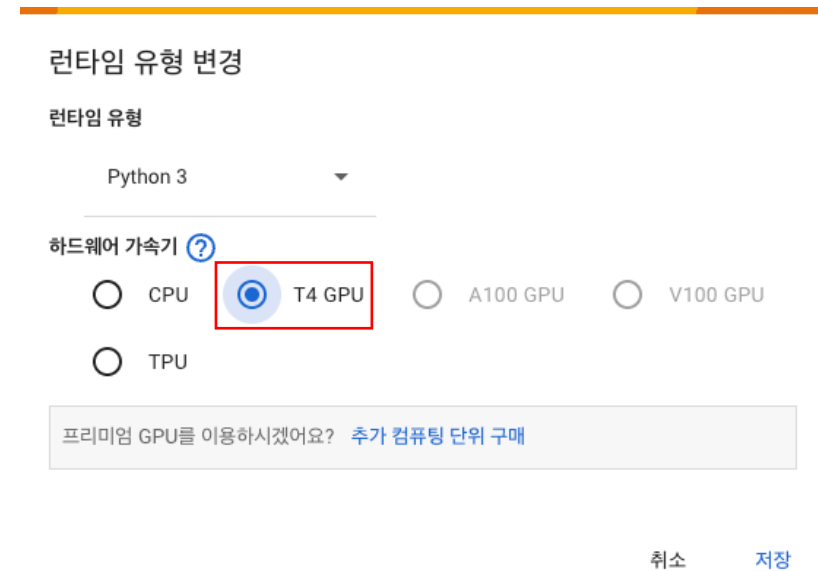
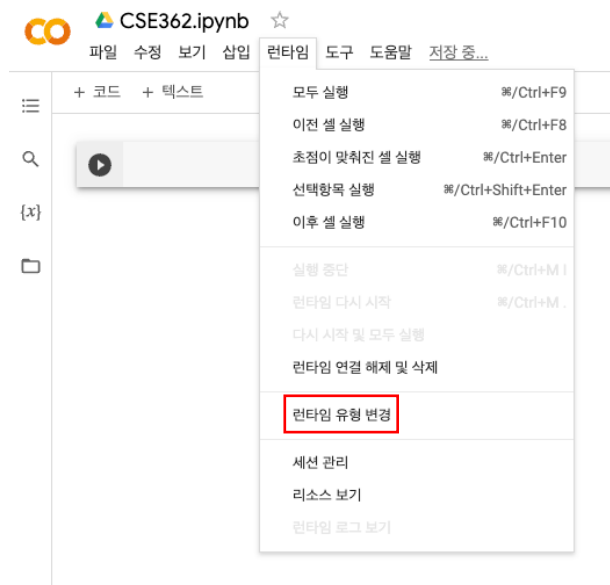
How to use

- You can write your own code in multiple cells



How to use

- You can use free GPUs for homework
- Runtime – Change runtime type – T4 GPU (FREE)



- When using a command that is not a Python code, you prefix it with '!'

```
[ ] !pip install transformers
```

```
Collecting transformers
  Downloading transformers-4.32.1-py3-none-any.whl (7.5 MB)
    7.5/7.5 MB 40.3 MB/s eta 0:00:00
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-packages (from transformers) (3.12.2)
Collecting huggingface-hub<1.0,>=0.15.1 (from transformers)
  Downloading huggingface_hub-0.16.4-py3-none-any.whl (268 kB)
    268.8/268.8 kB 28.8 MB/s eta 0:00:00
Requirement already satisfied: numpy>=1.17 in /usr/local/lib/python3.10/dist-packages (from transformers) (1.23.5)
Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.10/dist-packages (from transformers) (23.1)
Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.10/dist-packages (from transformers) (6.0.1)
Requirement already satisfied: regex!=2019.12.17 in /usr/local/lib/python3.10/dist-packages (from transformers) (2023.6.3)
Requirement already satisfied: requests in /usr/local/lib/python3.10/dist-packages (from transformers) (2.31.0)
Collecting tokenizers!=0.11.3,<0.14,>=0.11.1 (from transformers)
  Downloading tokenizers-0.13.3-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (7.8 MB)
    7.8/7.8 MB 62.4 MB/s eta 0:00:00
Collecting safetensors>=0.3.1 (from transformers)
  Downloading safetensors-0.3.3-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.3 MB)
    1.3/1.3 MB 81.8 MB/s eta 0:00:00
Requirement already satisfied: tqdm>=4.27 in /usr/local/lib/python3.10/dist-packages (from transformers) (4.66.1)
Requirement already satisfied: fspec in /usr/local/lib/python3.10/dist-packages (from huggingface-hub<1.0,>=0.15.1->transformers) (2023.6.0)
Requirement already satisfied: typing-extensions>=3.7.4.3 in /usr/local/lib/python3.10/dist-packages (from huggingface-hub<1.0,>=0.15.1->transformers) (4.7.1)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.10/dist-packages (from requests->transformers) (3.2.0)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages (from requests->transformers) (3.4)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.10/dist-packages (from requests->transformers) (2.0.4)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.10/dist-packages (from requests->transformers) (2023.7.22)
Installing collected packages: tokenizers, safetensors, huggingface-hub, transformers
Successfully installed huggingface-hub-0.16.4 safetensors-0.3.3 tokenizers-0.13.3 transformers-4.32.1
```

```
[ ] !nvidia-smi
```

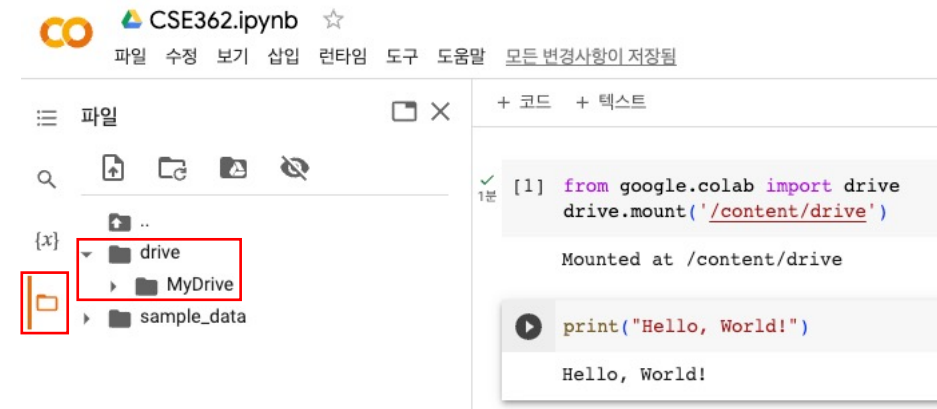
```
Thu Aug 31 02:25:27 2023
+-----+
| NVIDIA-SMI 525.105.17   Driver Version: 525.105.17   CUDA Version: 12.0   |
+-----+-----+
| GPU   Name           Persistence-M| Bus-Id        Disp.A | Volatile Uncorr. ECC | |
| Fan  Temp  Perf    Pwr:Usage/Cap|  Memory-Usage | GPU-Util  Compute M. |
|                               |              |      |          |
+-----+-----+
|  0 Tesla T4           Off         | 00000000:00:04:0 | Off      | 0          |
| N/A   40C    P8      9W /  70W   |  0MiB / 15360MiB |           | Default    |
+-----+-----+
|                               |              |      |          |
+-----+-----+
| Processes:                                                       GPU Memory |
|  GPU   GI    CI        PID   Type   Process name                  Usage    |
|  ID   ID                                   |              |          |
+-----+-----+
| No running processes found                                     |              |          |
+-----+-----+
```


How to use

- Connect Google Drive (To read Google Drive files in Colab)

```
[1] from google.colab import drive
    drive.mount('/content/drive')

Mounted at /content/drive
```



How to save

- File – Download – .ipynb download (not .py)

