

# Instruction

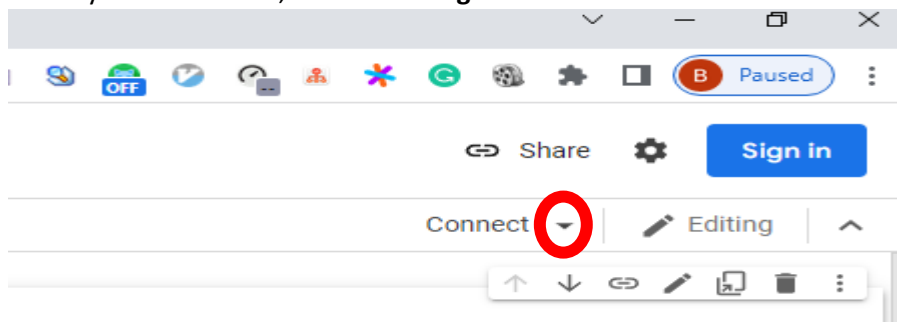
**Hardware:** NVIDIA RTX 2080 super

**IDLE:** Google Colab (recommended)

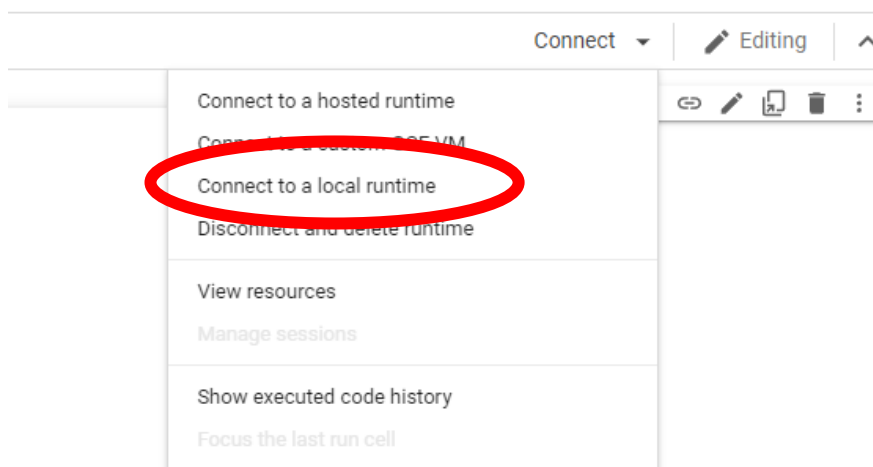
**Framework:** PyTorch

## How to set the environment up:

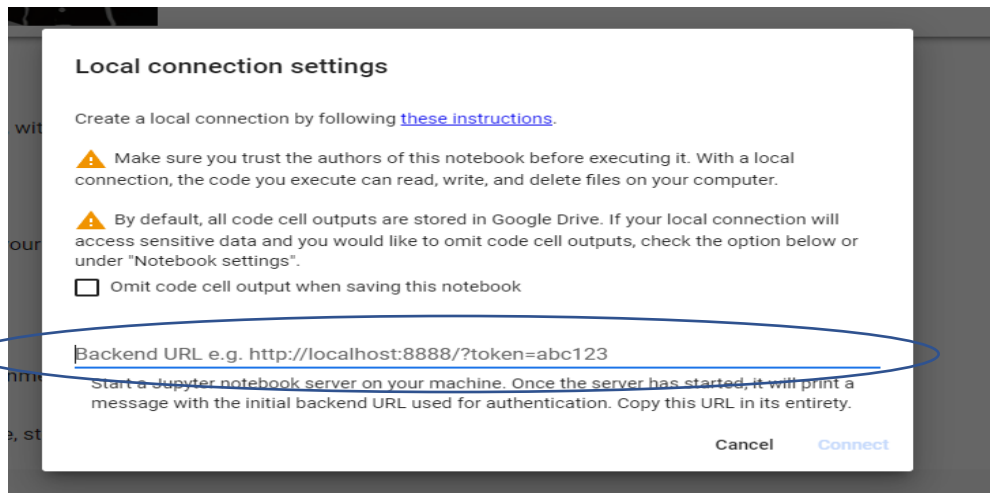
1. Open google chrome and login your google account, then go to Google Colab.
2. When you are in Colab, click **the triangle beside Connect**.



3. Then, select 'Connect to local runtime'



4. A window shows up, and it requires a **Backend URL**.



5. Open **Anaconda PowerShell Prompt** on your machine and run commands respectively:
  - 1) `pip install jupyter_http_over_ws`
  - 2) `jupyter serverextension enable --py jupyter_http_over_ws`
  - 3) `jupyter notebook --NotebookApp.allow_origin='https://colab.research.google.com' --port=8888 --NotebookApp.port_retries=0`

Then copy the generated link back to **Backend URL** box in colab and click **Connect**.

```
base) PS C:\WINDOWS\system32> jupyter notebook --NotebookApp.allow_origin='https://colab.research.google.com' --port=8888 --NotebookApp.port_retries=0
jupyter_http_over_ws extension initialized. Listening on /http_over_websocket
[17:11:55.974 NotebookApp] JupyterLab extension loaded from C:\Apps\Anaconda3\lib\site-packages\jupyterlab
[17:11:55.974 NotebookApp] JupyterLab application directory is C:\Apps\Anaconda3\share\jupyter\lab
[17:11:56.318 NotebookApp] Serving notebooks from local directory: C:\WINDOWS\system32
[17:11:56.318 NotebookApp] The Jupyter Notebook is running at:
[17:11:56.319 NotebookApp] http://localhost:8888/?token=9feaa231d0f109babfa797b1e06e1a135965ffec06c6c40c
[17:11:56.319 NotebookApp] or http://127.0.0.1:8888/?token=9feaa231d0f109babfa797b1e06e1a135965ffec06c6c40c
[17:11:56.320 NotebookApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
C:\WINDOWS\system32>

To access the notebook, open this file in a browser:
file:///C:/Users/mxa19ypu/AppData/Roaming/jupyter/runtime/nbsrvr-16240-open.html
Or copy and paste one of these URLs:
http://localhost:8888/?token=9feaa231d0f109babfa797b1e06e1a135965ffec06c6c40c
or http://127.0.0.1:8888/?token=9feaa231d0f109babfa797b1e06e1a135965ffec06c6c40c
```

6. In Colab code block,
  - 1) Run '`cd`' to change working directory.
  - 2) Run '`pip install torch==1.9.1+cu102 torchvision==0.10.1+cu102 torchaudio==0.9.0 -f https://download.pytorch.org/whl/torch_stable.html`' to install PyTorch. After this, you need to restart Colab.
7. Finally, run code below. If it returns a True, you can do further exercise. Happy coding!

