Colab Notebooks

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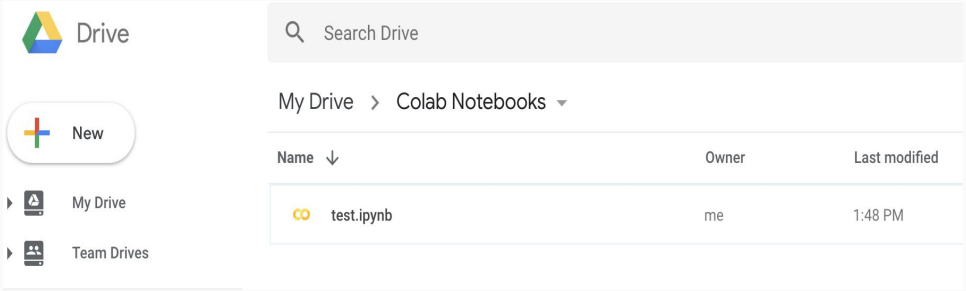
CloudMile

Introduction

- 類似Jupyter Notebook，互動式介面，及時輸出結果
- 儲存在Google Drive 上，可以共同編輯
- 背後有VM 在運作
- 可連續使用免費的 Tesla K80 GPU 12小時(每次)
- 許多套件已事先安裝，例如：TensorFlow, Scikit-learn, Matplotlib等

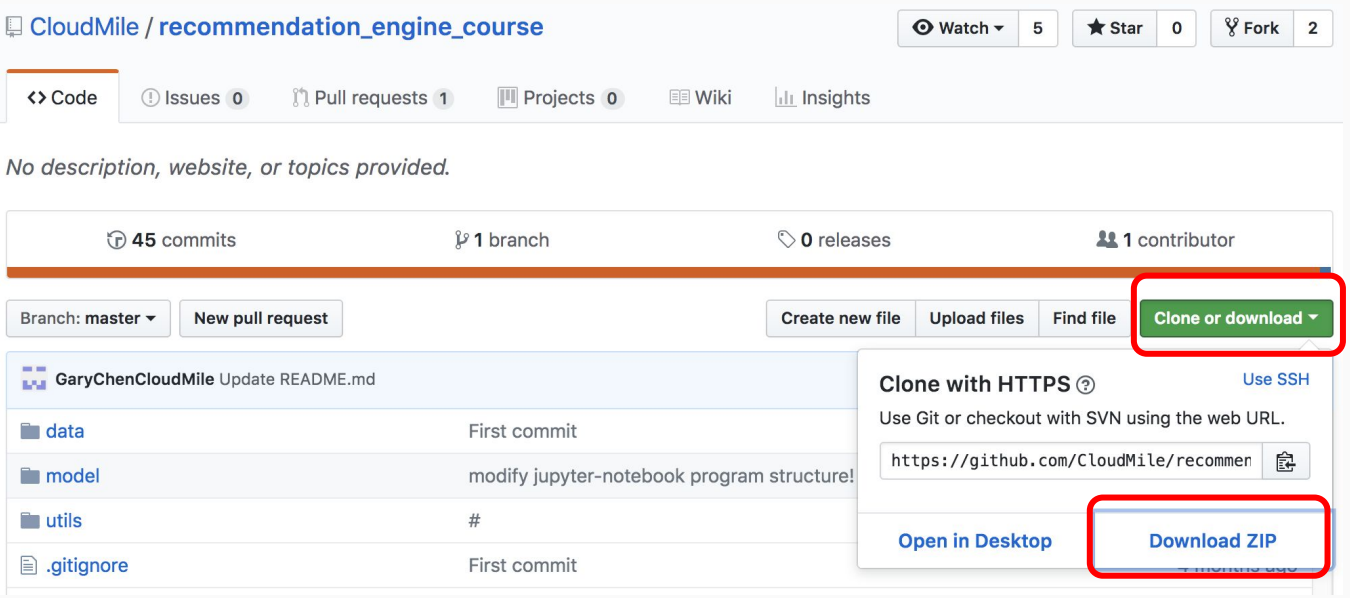
➔ Text Note: goo.gl/vmJGJ4



下載檔案

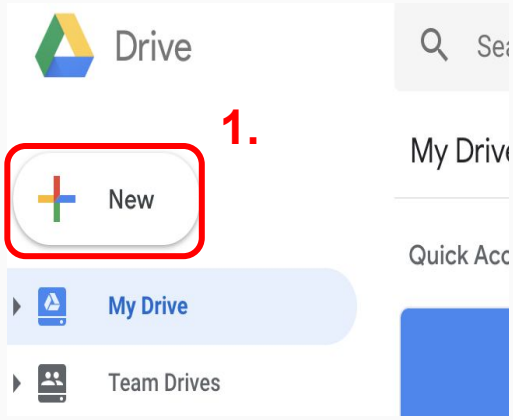
從網站下載 code 到本機 -> 網址 : github.com/CloudMile/recommendation_engine_course

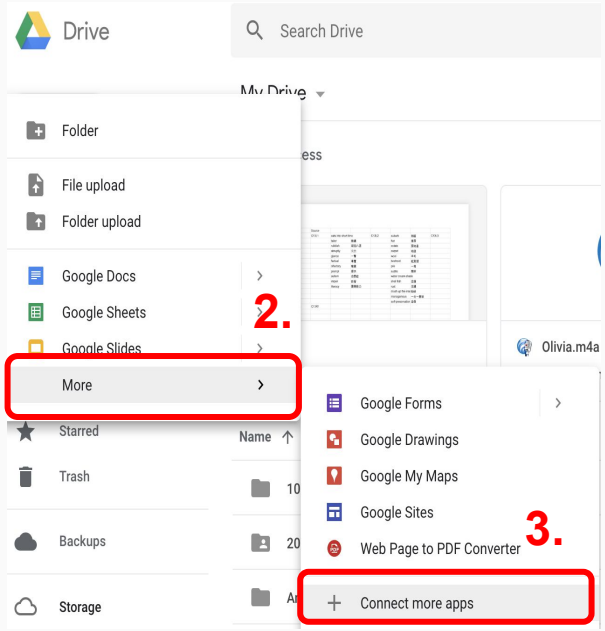
➔ Text Note: goo.gl/vmJGJ4

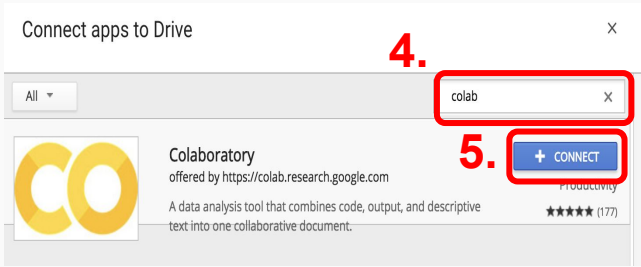


Setup

- 進入Google Drive 連接到Colaboratory

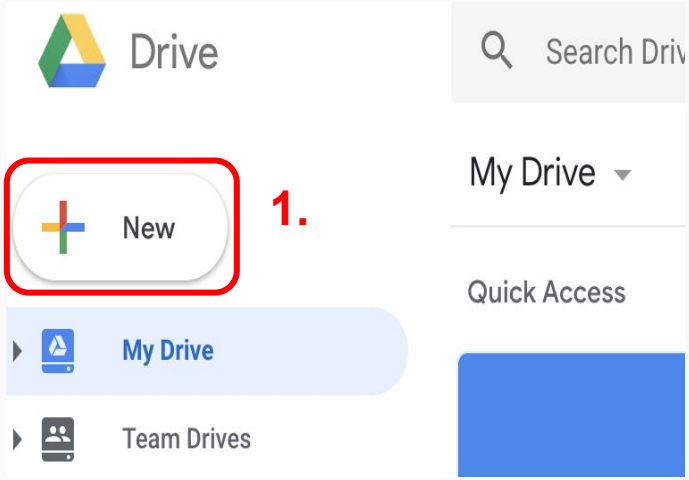


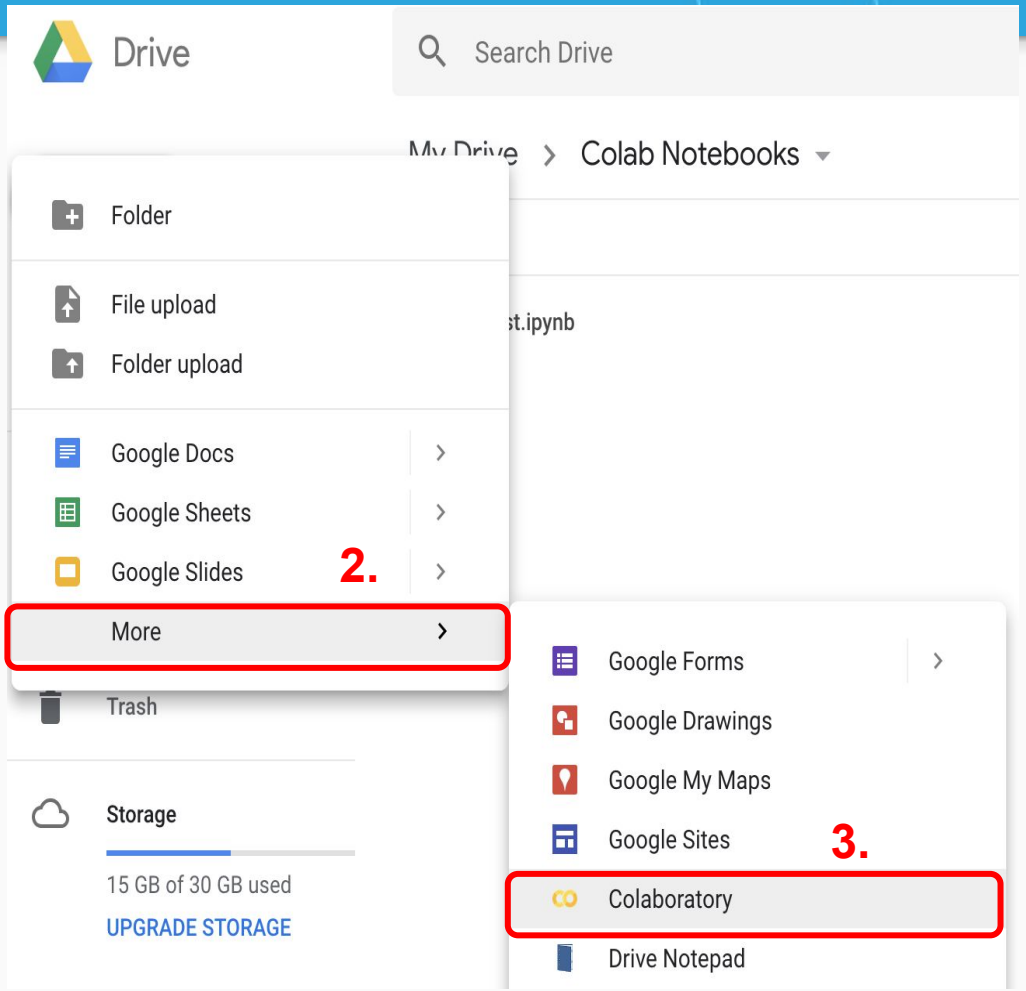




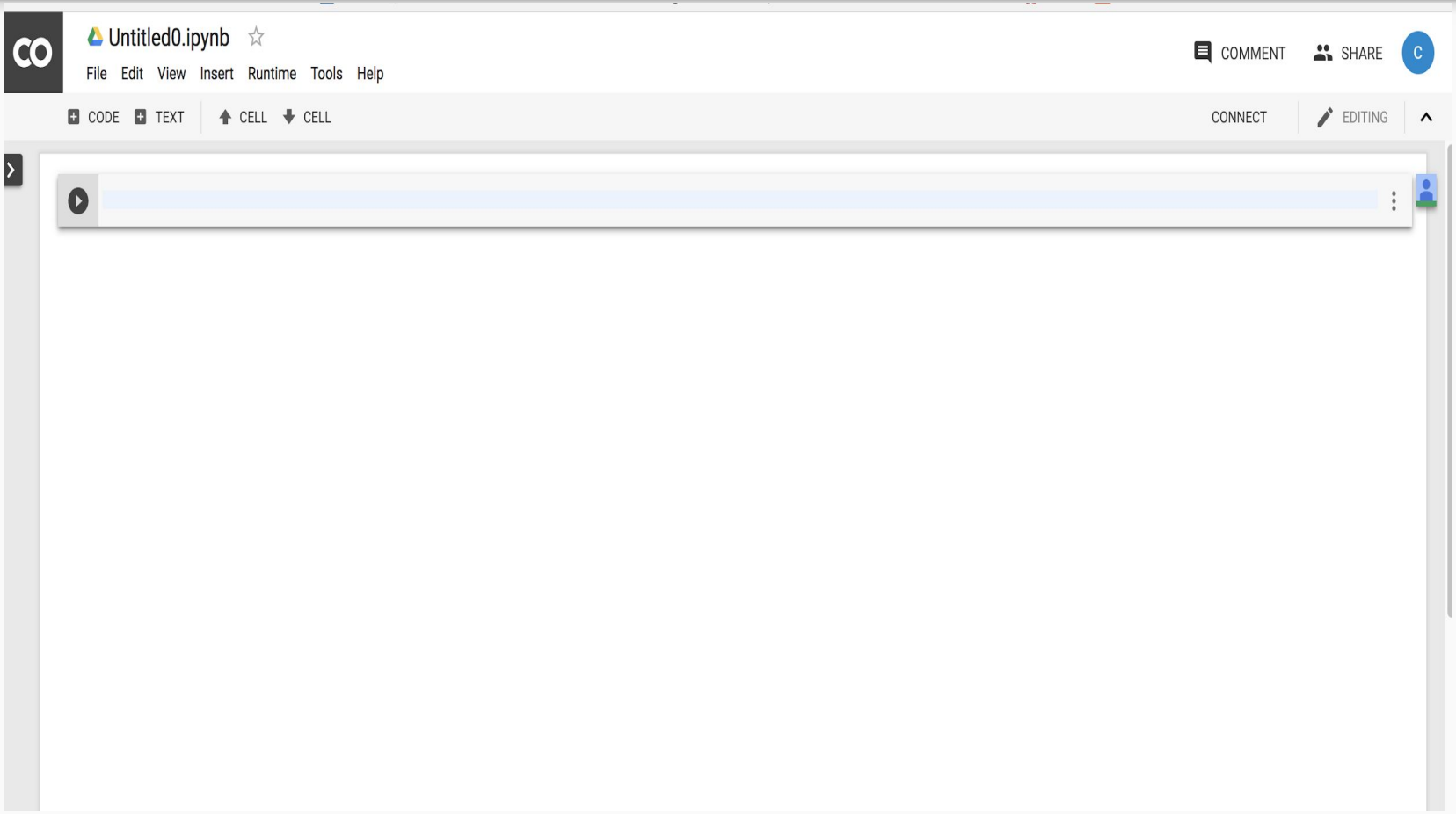
Setup

- 建立一個新的Colaboratory

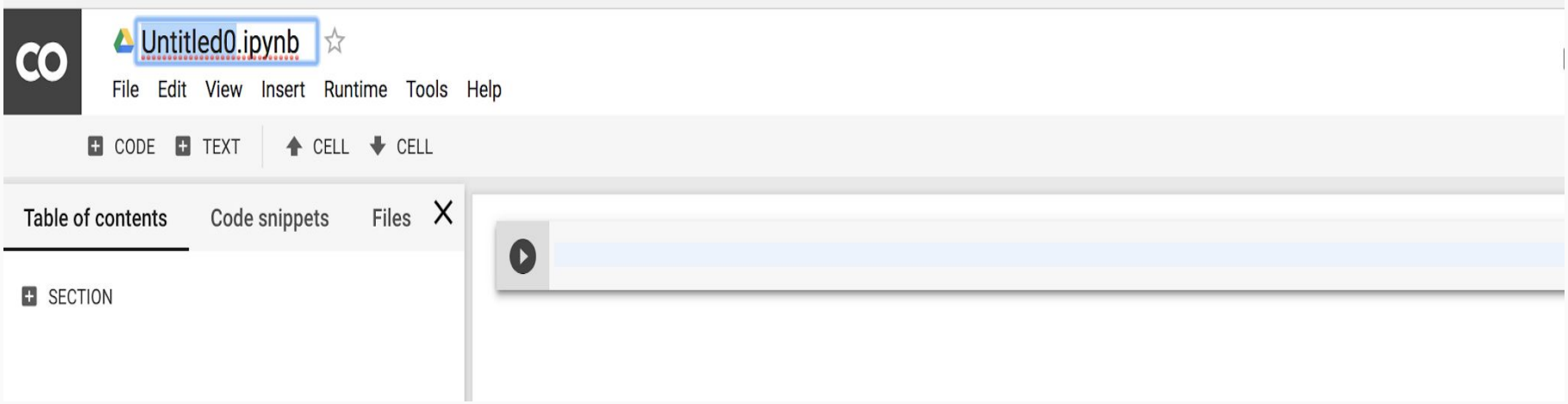




建立完成


Untitled0.ipynb
File Edit View Insert Runtime Tools Help
COMMENT
SHARE
CODE
TEXT
CELL
CELL
CONNECT
EDITING

修改名稱


Untitled0.ipynb
File Edit View Insert Runtime Tools Help
CODE TEXT CELL CELL
Table of contents
Code snippets
Files
SECTION

查看檔案


Untitled0.ipynb
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CONNECT
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Code snippets
Files
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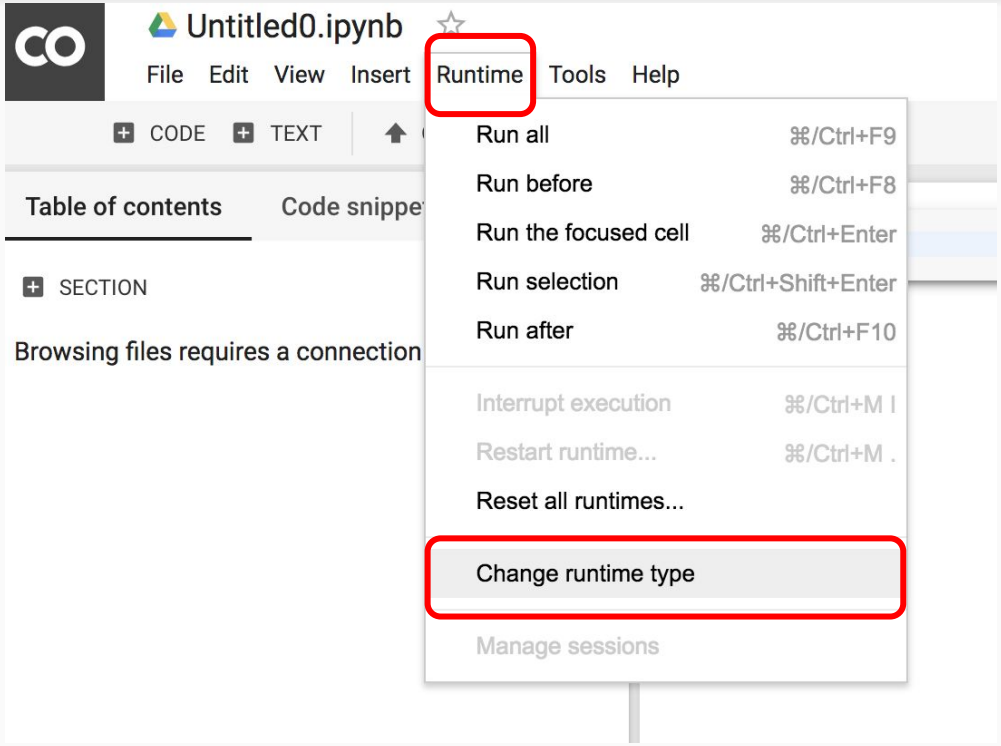
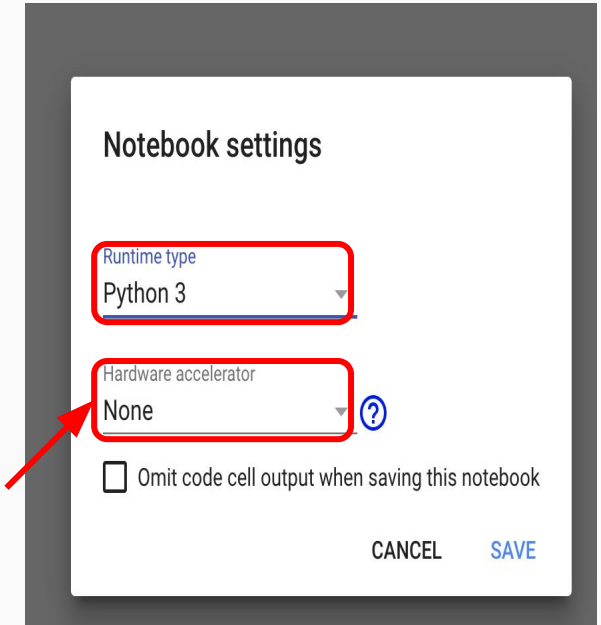
Browsing files requires a connection to a runtime.

修改Runtime



- 使用 Python 3



可選GPU

連接VM


Untitled0.ipynb
File Edit View Insert Runtime Tools Help
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CELL
CONNECT
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SECTION
Connect to hosted runtime
Connect to local runtime...

連接完成

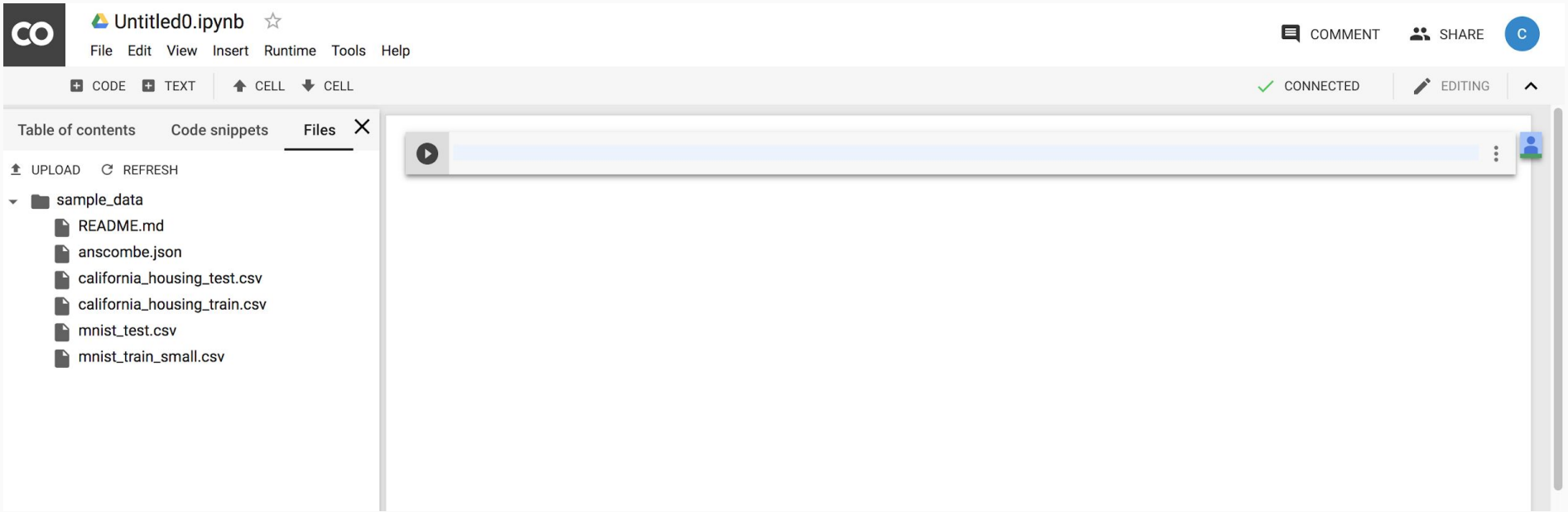
Untitled0.ipynb
File Edit View Insert Runtime Tools Help
COMMENT
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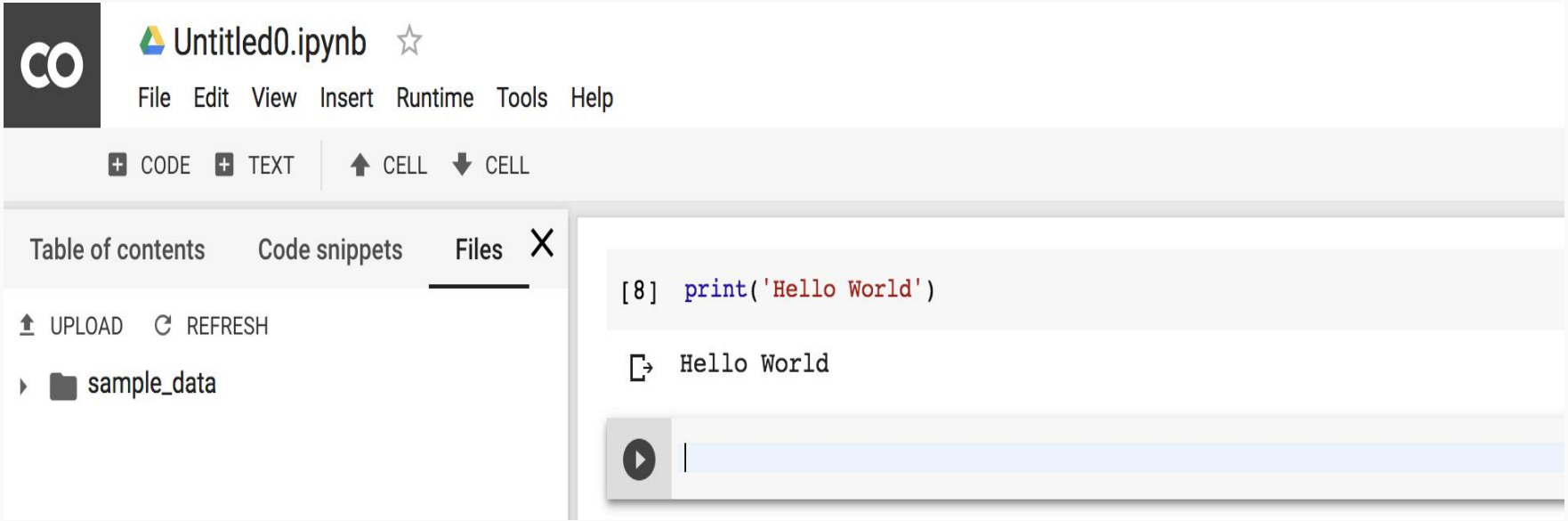
Table of contents
Code snippets
Files
UPLOAD
REFRESH
sample_data
README.md
anscombe.json
california_housing_test.csv
california_housing_train.csv
mnist_test.csv
mnist_train_small.csv

基本語法 - Python

- 輸入 python 程式碼，點擊「Run」或是「Ctrl + Enter」執行程式碼區塊。

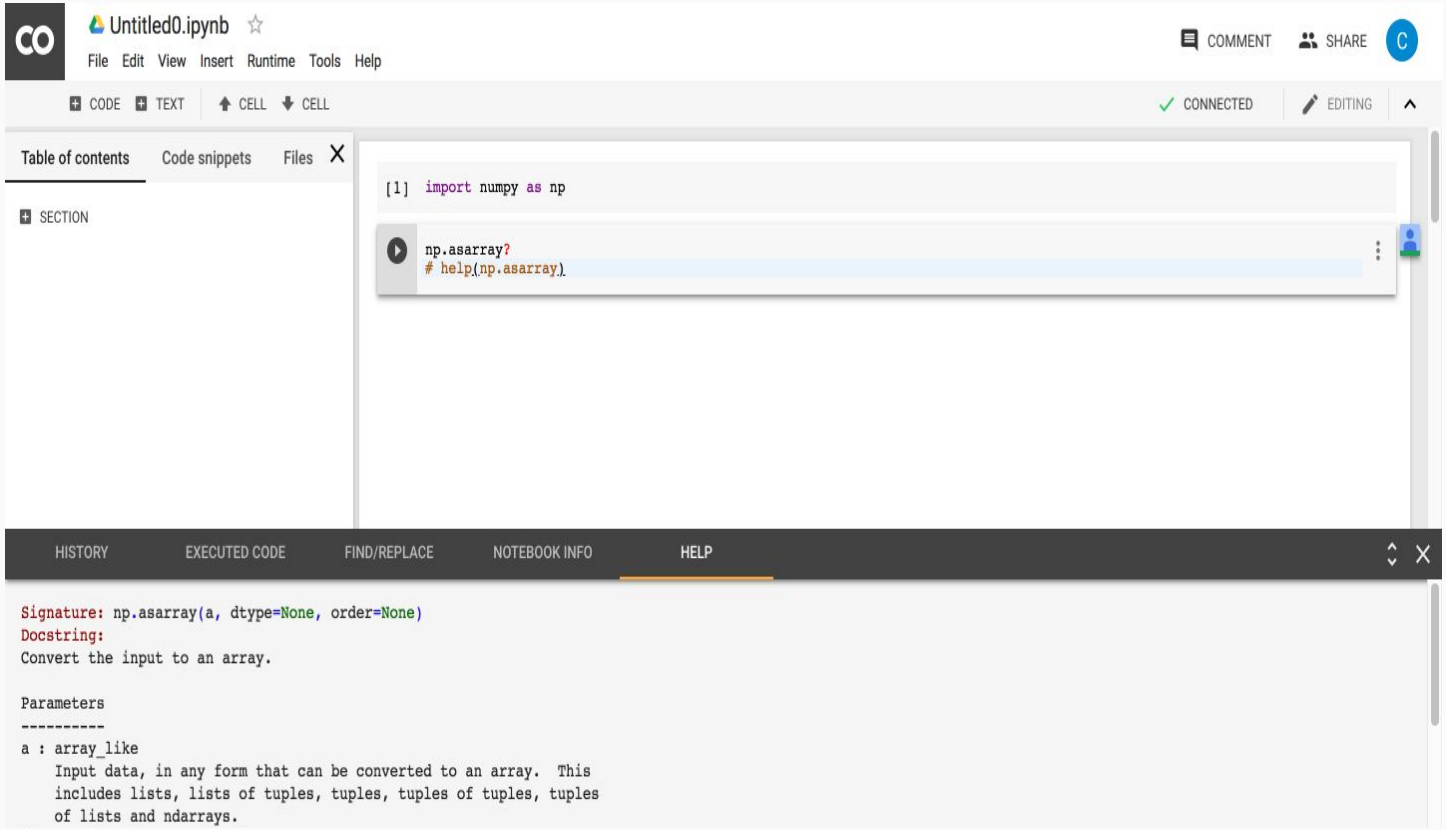


基本語法 - Shell

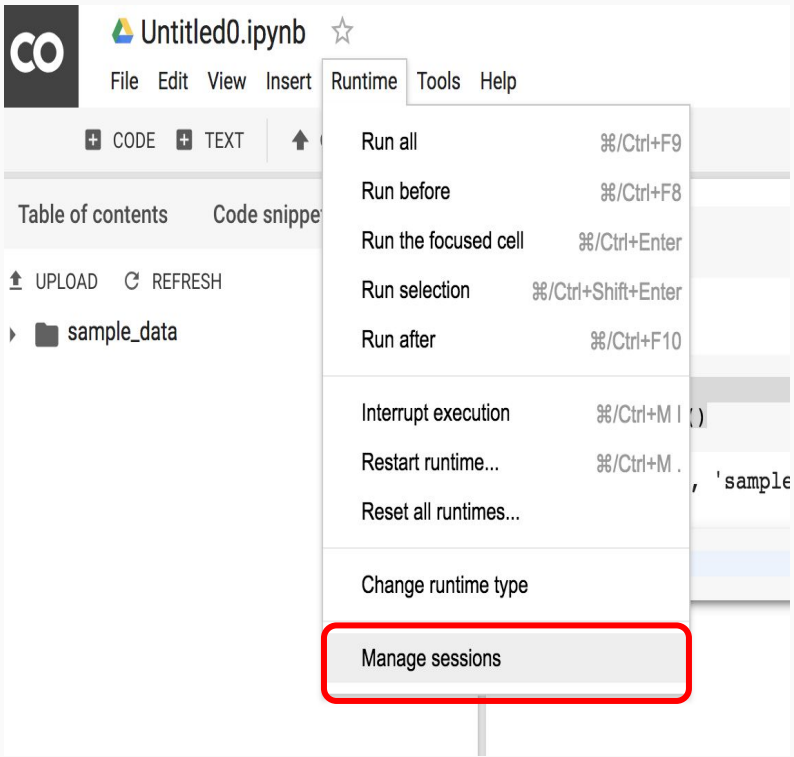
- 前面加上！

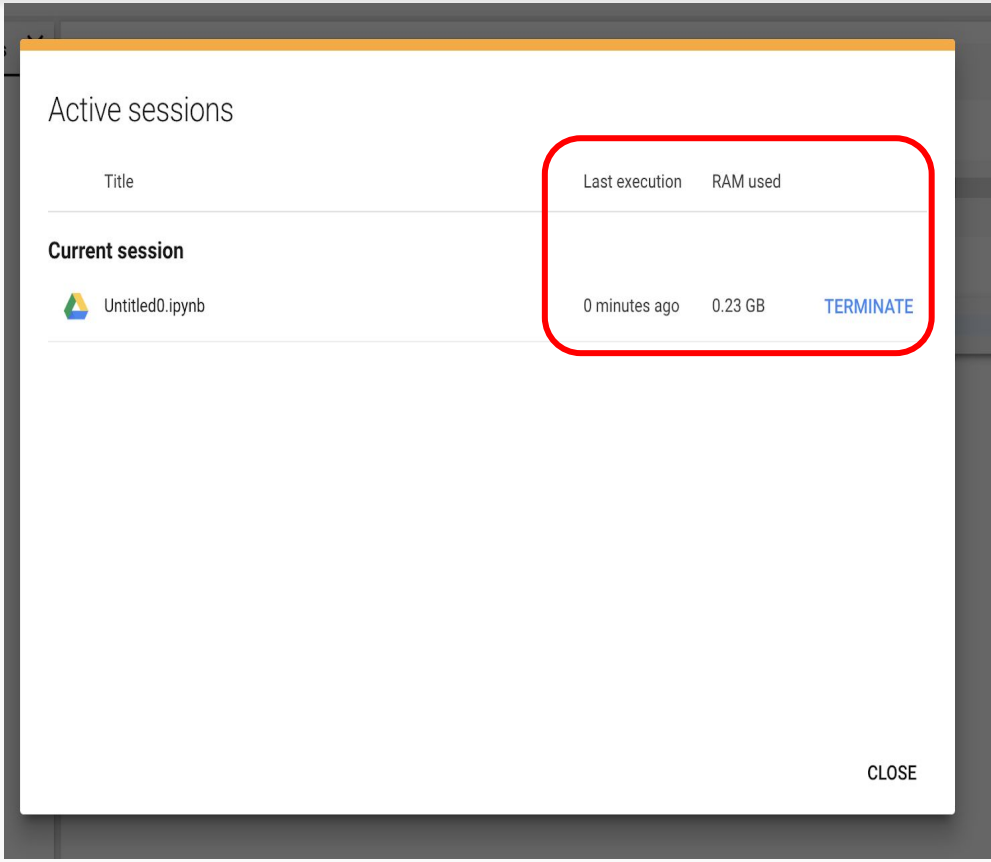
特殊語法 - 查看

- 在function 前面加上? 或是用help( )可以查看documentation

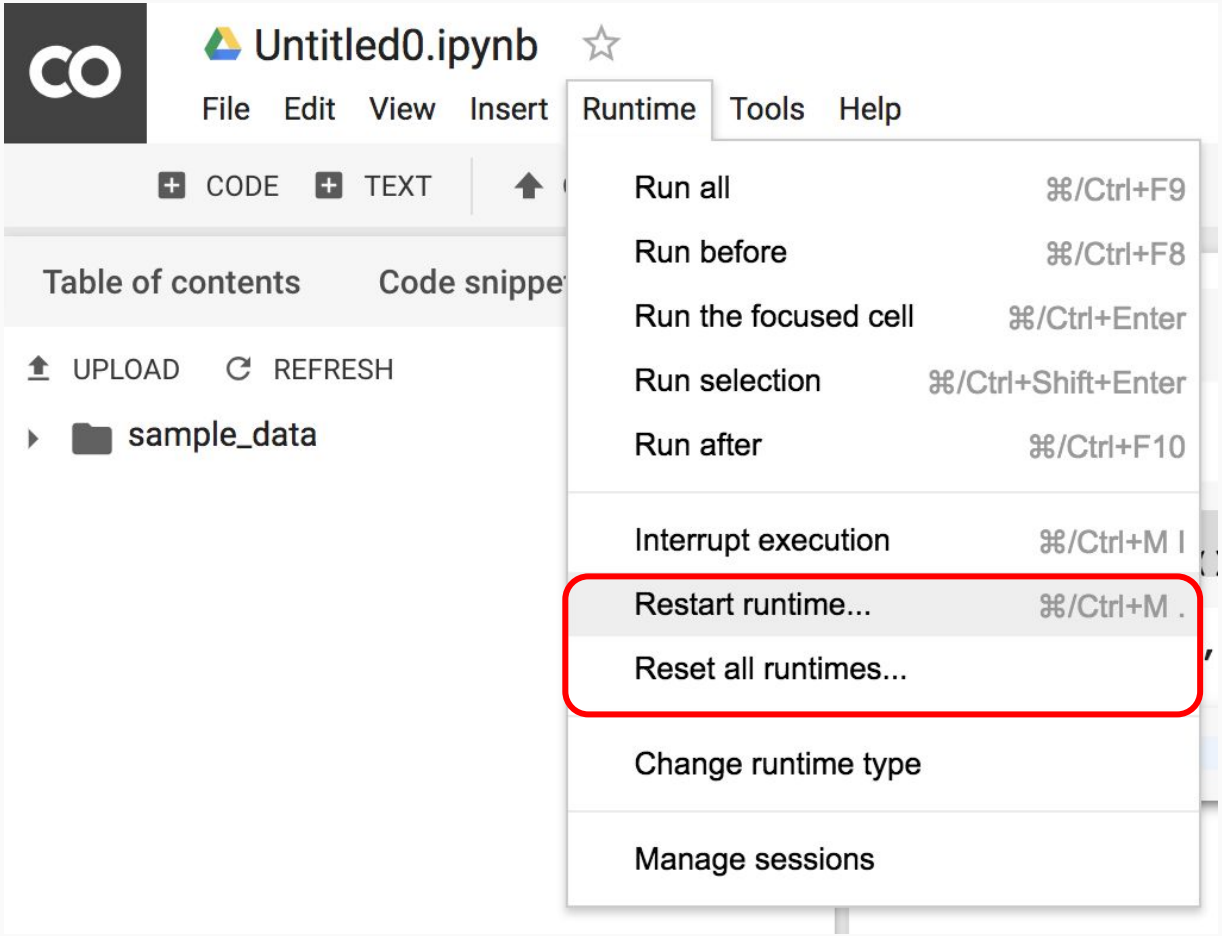


管理Session


Untitled0.ipynb
File Edit View Insert Runtime Tools Help
CODE TEXT
Table of contents
UPLOAD REFRESH
sample_data
Run all ⌘/Ctrl+F9
Run before ⌘/Ctrl+F8
Run the focused cell ⌘/Ctrl+Enter
Run selection ⌘/Ctrl+Shift+Enter
Run after ⌘/Ctrl+F10
Interrupt execution ⌘/Ctrl+M I
Restart runtime... ⌘/Ctrl+M .
Reset all runtimes...
Change runtime type
Manage sessions


Active sessions
Title
Last execution
RAM used
Current session
Untitled0.ipynb
0 minutes ago
0.23 GB
TERMINATE
CLOSE

Restart runtime/ Reset runtime



Lab 1: Memory-Based CF

➔ Note: goo.gl/vmJGJ4

Colab Links

1.

Lab 1: Memory base CF
reco_memory_base.ipynb

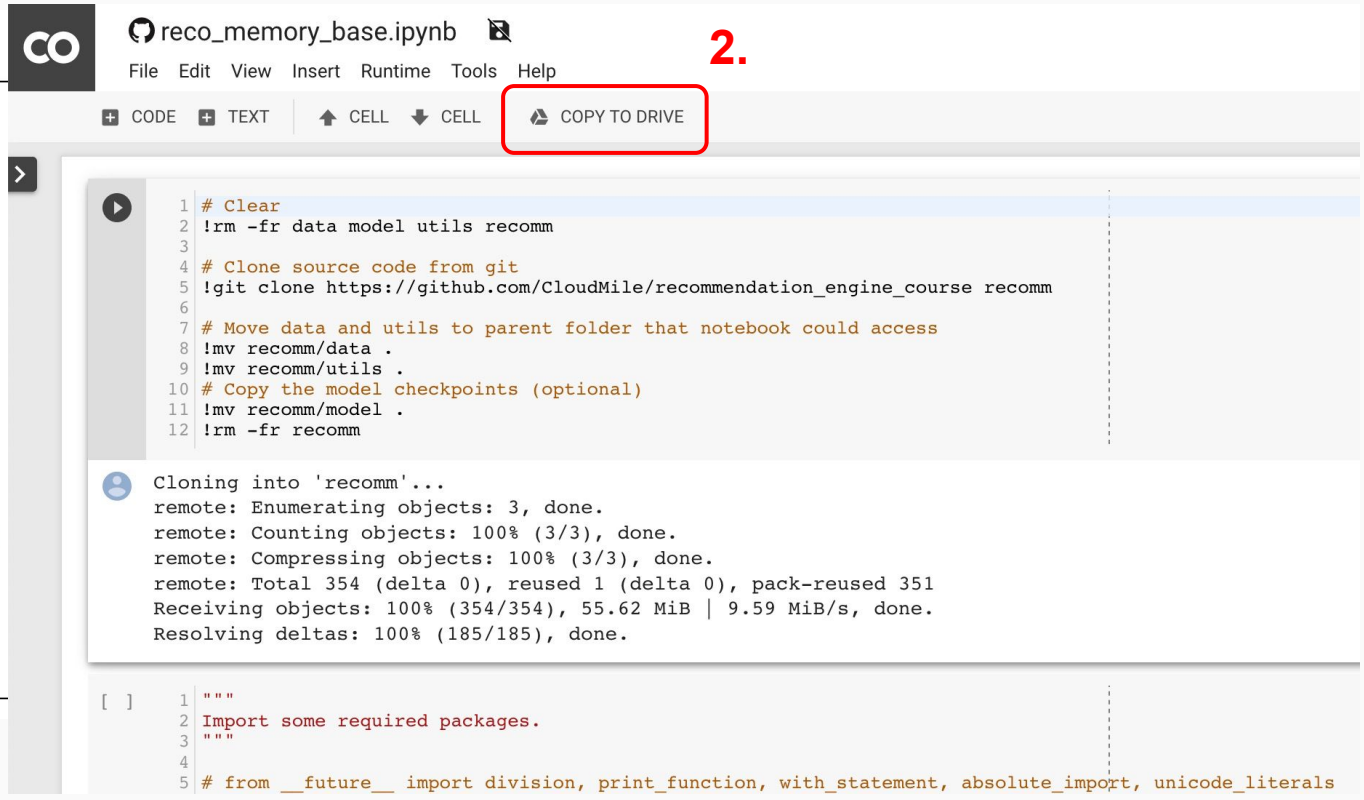
Lab 2: DNN practice:
tutorial_dnn_practice.ipynb
lab_tutorial_dnn_practice.ipynb

Lab 3: Basic MF
reco_model_mf.ipynb
lab_reco_model_mf.ipynb

Lab 4: MF with user histories
reco_model_mf_with_history.ipynb
lab_reco_model_mf_with_history.ipynb

Lab 5: MF with DNN
reco_model_mf_dnn.ipynb
lab_reco_model_mf_dnn.ipynb

2.



從Colab打開Jupyter Notebook

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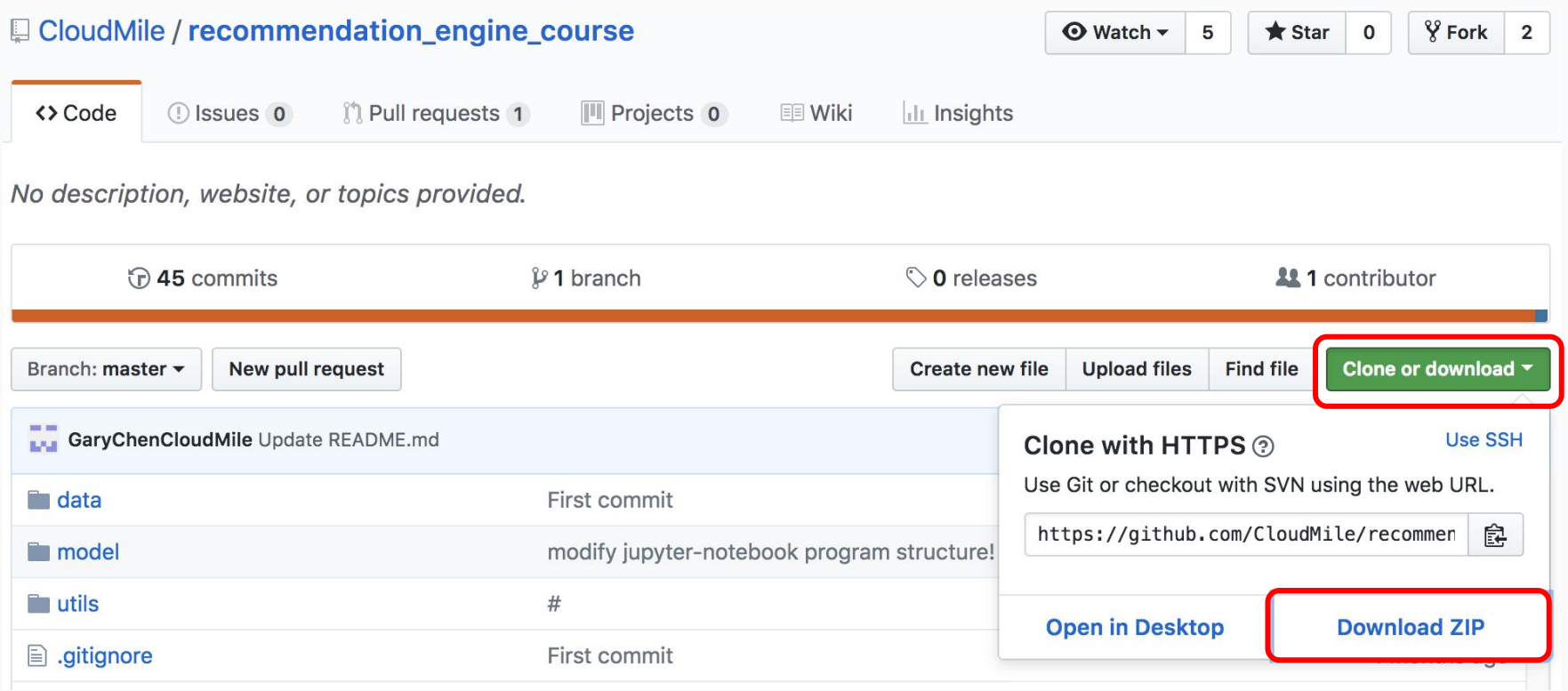
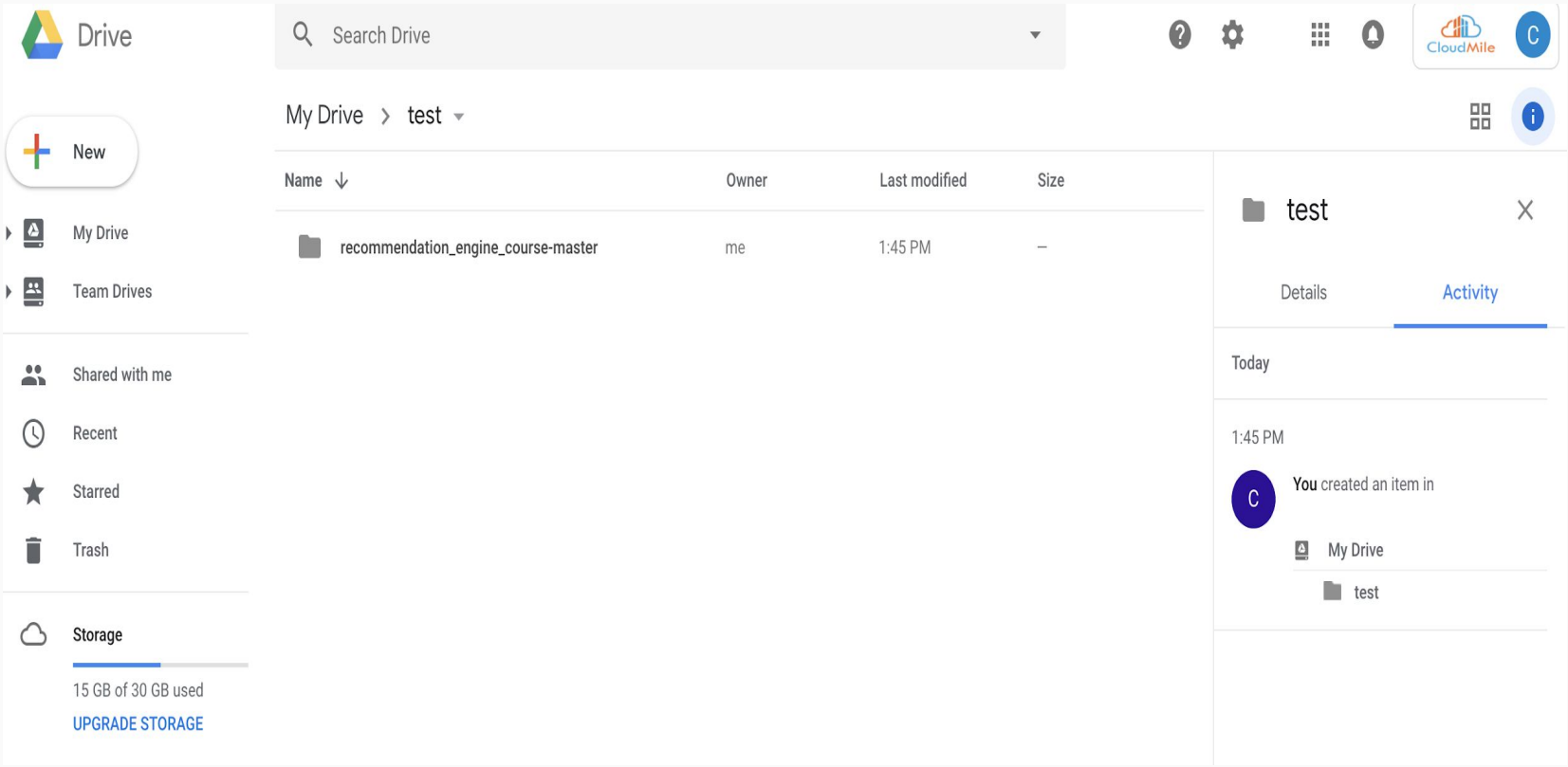
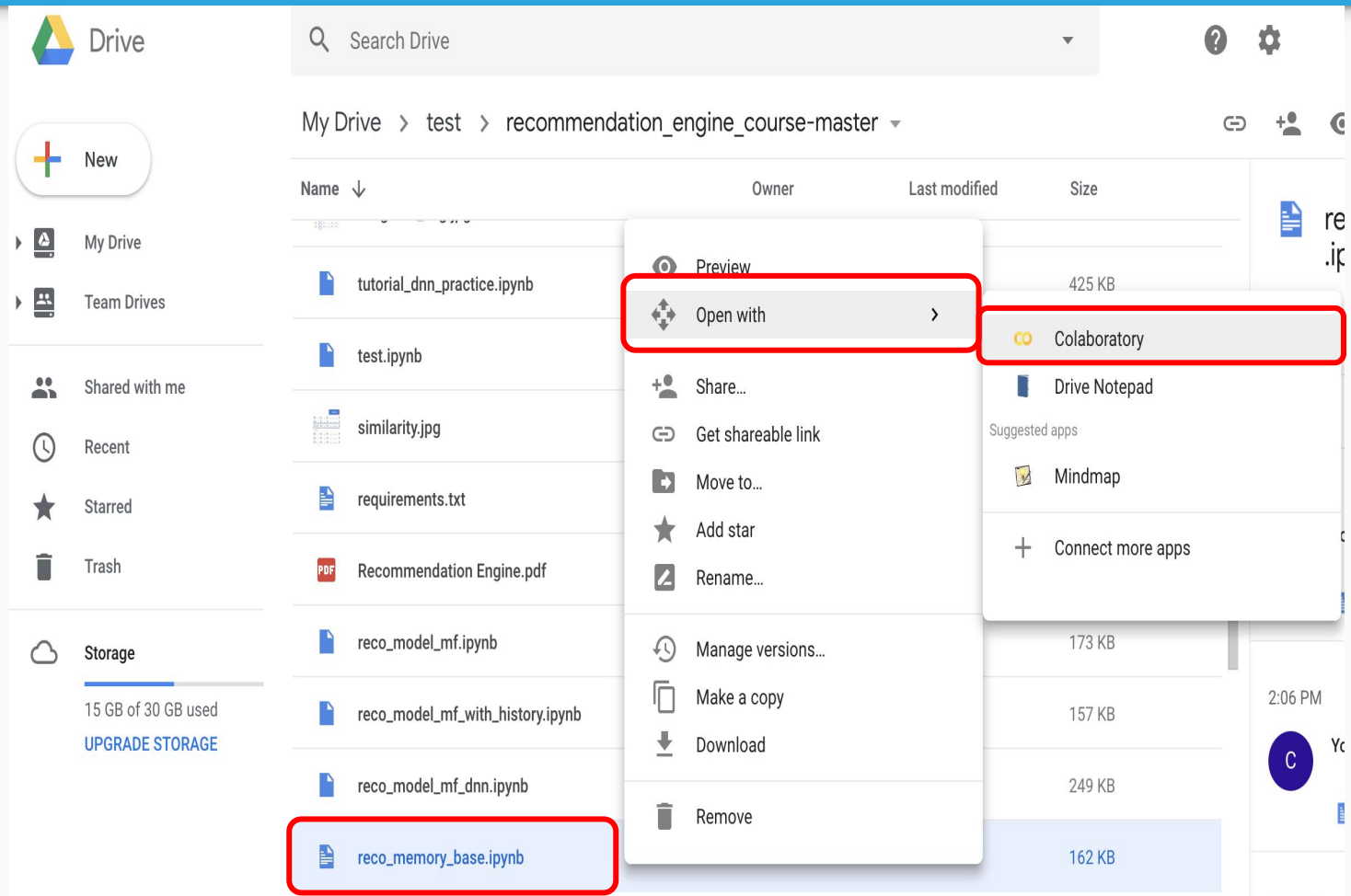


從Colab打開Jupyter Notebook

- 解壓縮後，上傳整個資料夾到Google Drive



從Colab打開Jupyter Notebook



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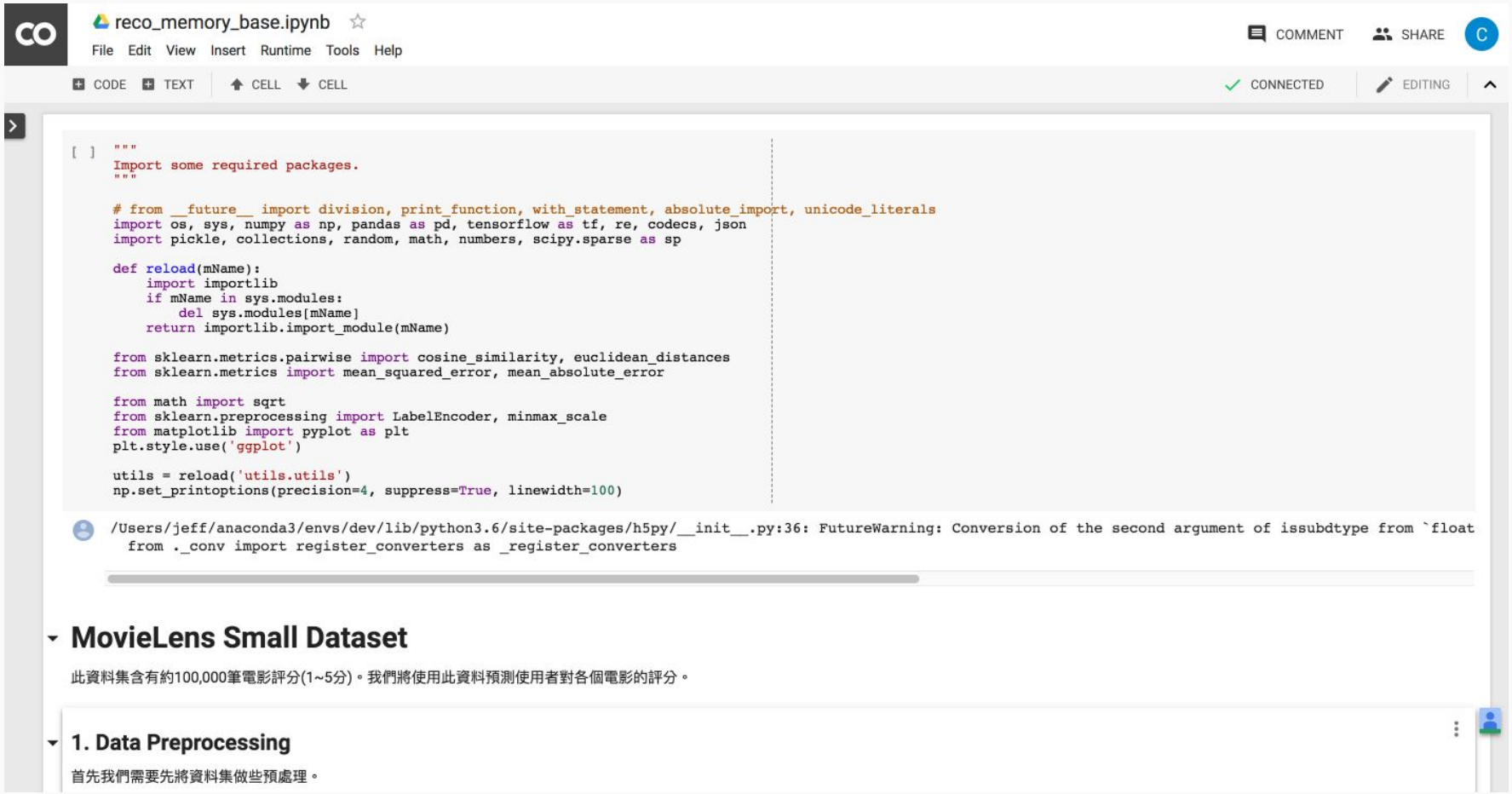

Reference

- https://colab.research.google.com/drive/1jt6Dk2MoUaBZu0nUuQpNAzVfMpm08Vps?authuser=1#scrollTo=zmVS_bIsW2Cq
- https://research.google.com/colaboratory/faq.html#gpu-availability
- https://research.google.com/colaboratory/local-runtimes.html