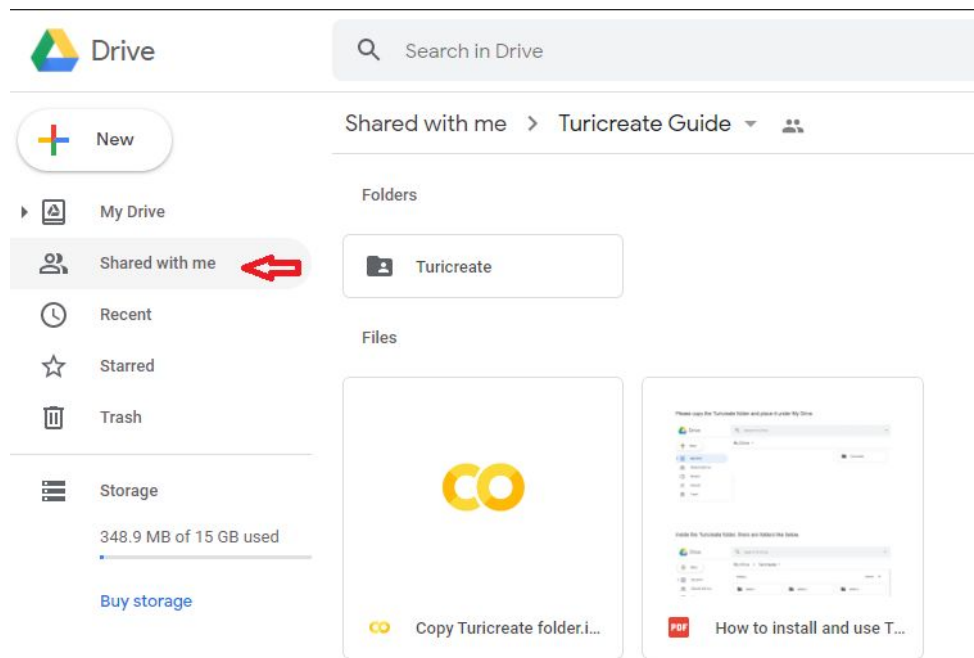
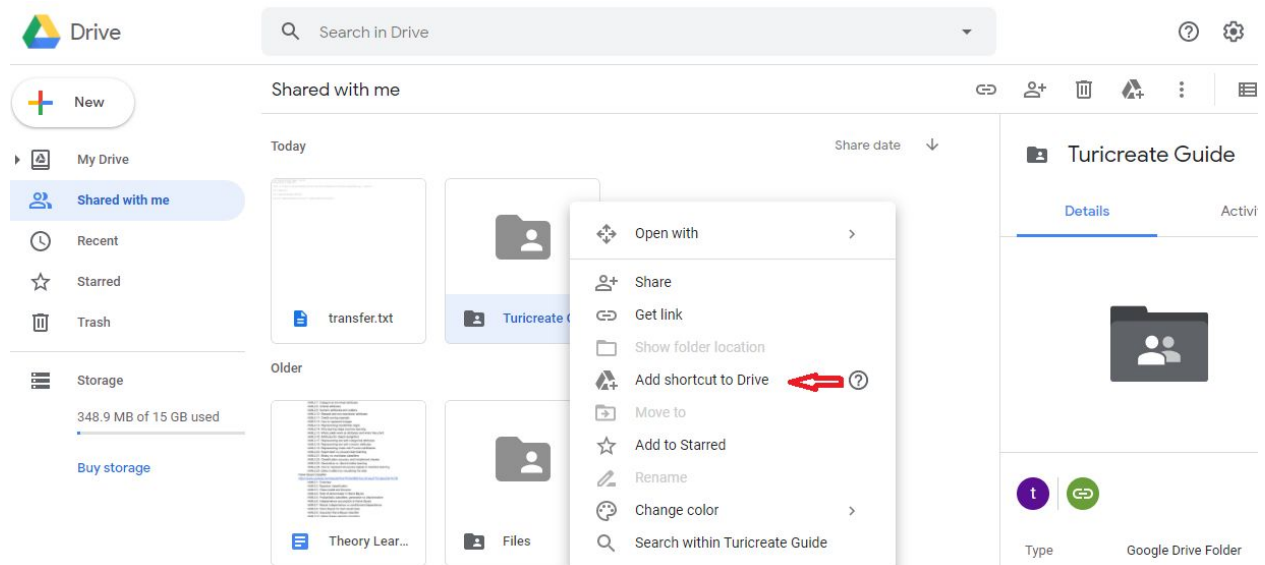


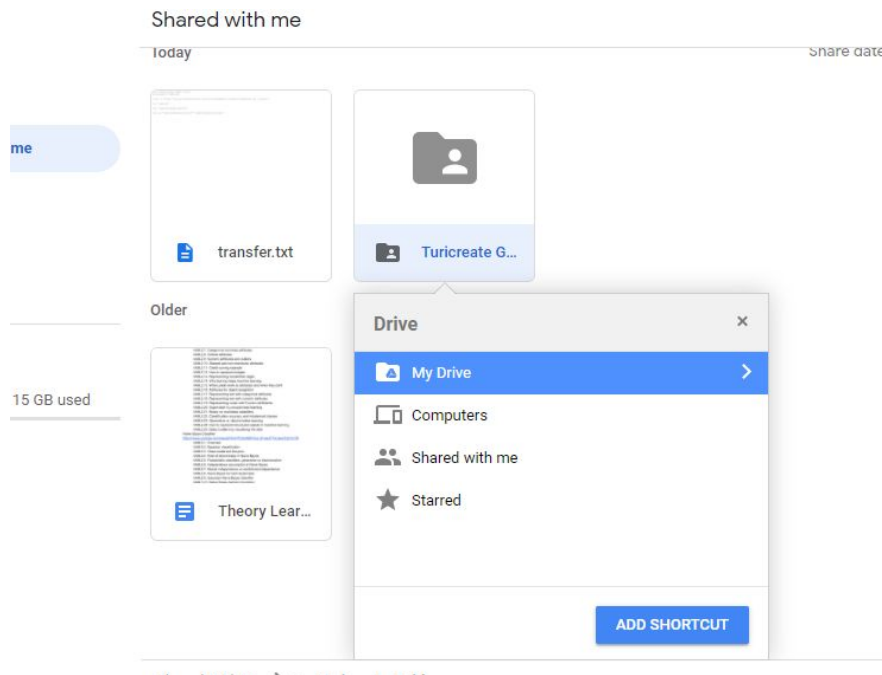
Please click Shared with me.



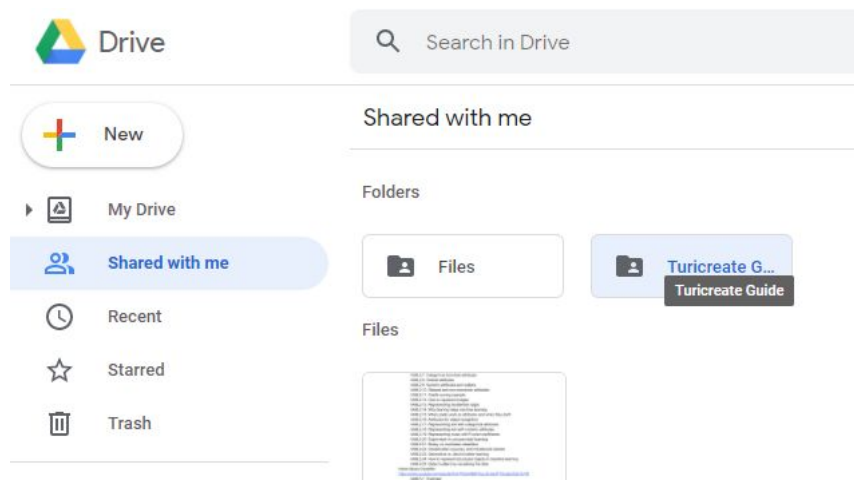
Inside Shared with me folder, please right click on Turicreate Guide folder and click Add shortcut to Drive.



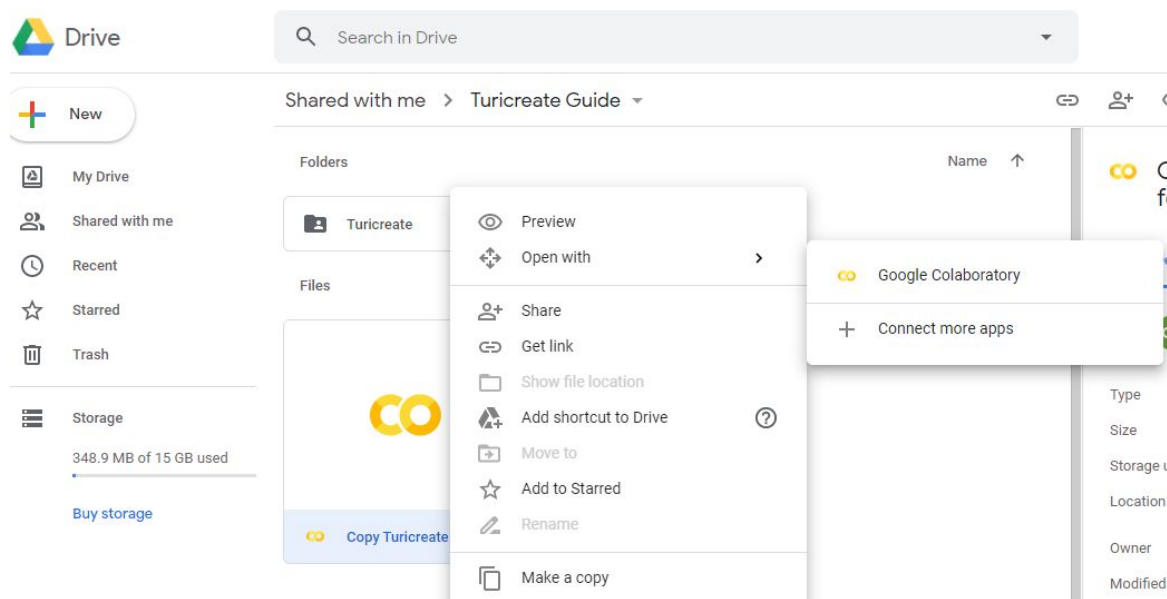
Please select My Drive and click ADD SHORTCUT.



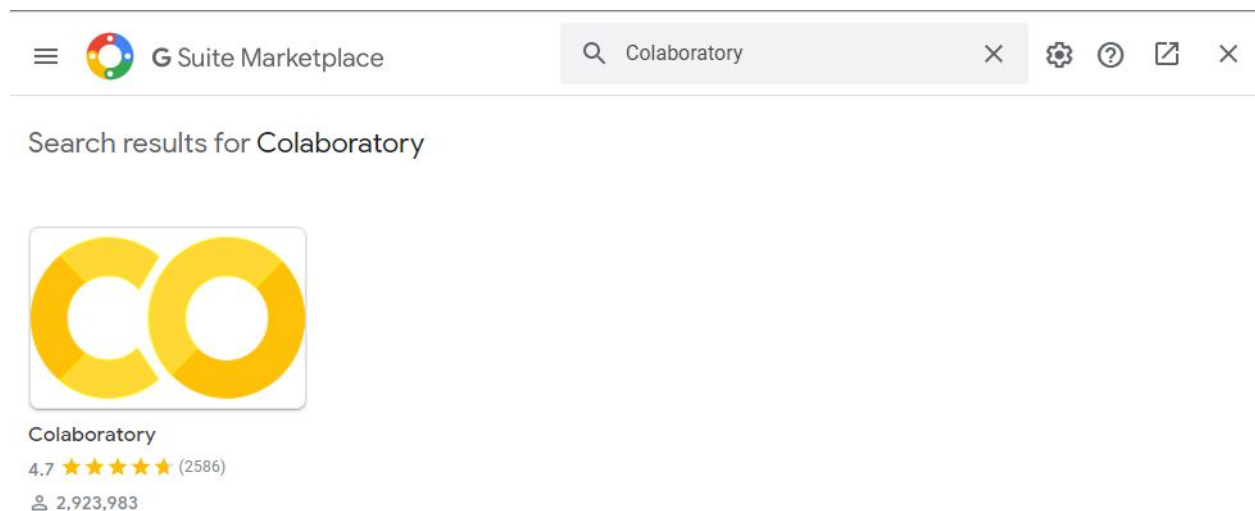
Double click on Turicreate Guide folder.



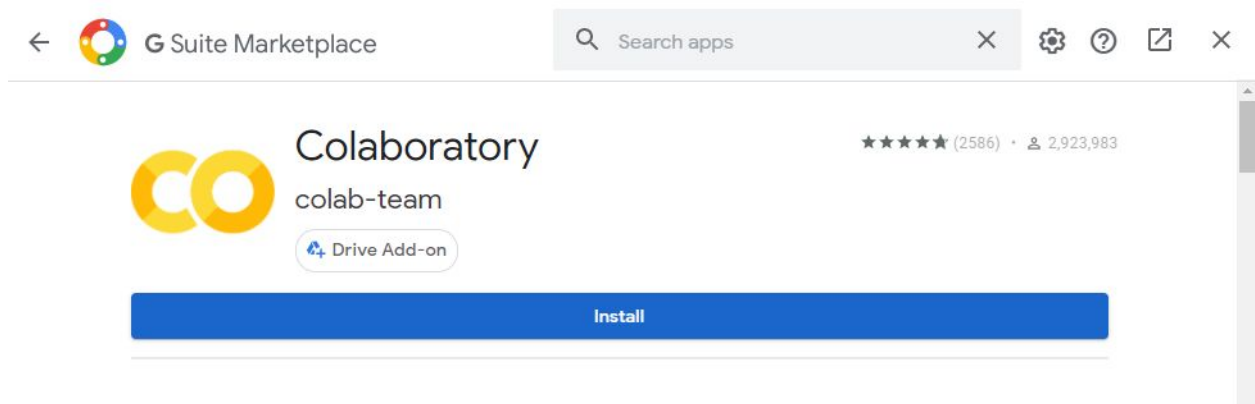
Right click on Copy Turicreate folder.ipnb file, go to Open with and select Google Colaboratory. If there is no Google Colaboratory, please click on Connect more apps.




Please search Colaboratory and click on Colaboratory.



Please click install.



Please click continue.

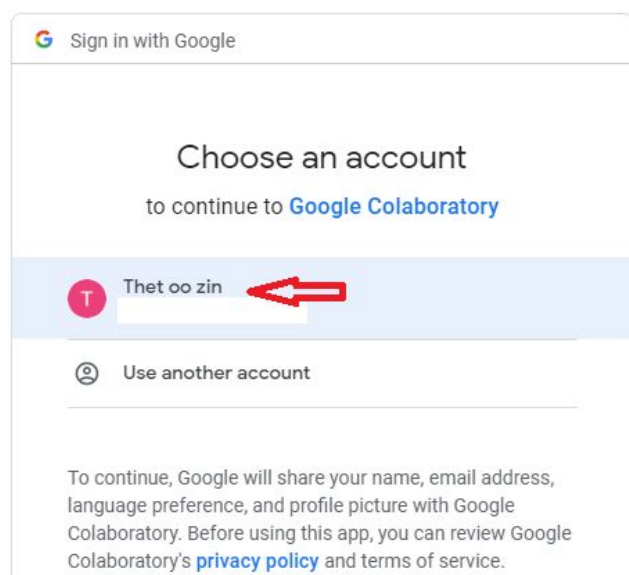
 Get ready to install

Colaboratory needs your permission in order to start installing.

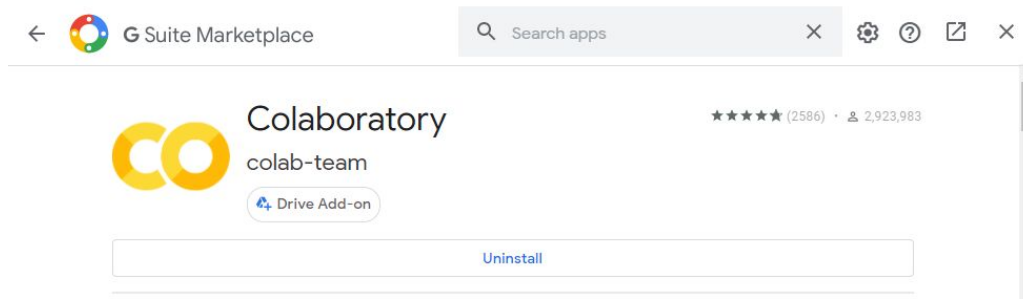
By clicking Continue, you acknowledge that your information will be used in accordance with the [terms of service](#) and [privacy policy](#) of this application.

CANCEL CONTINUE

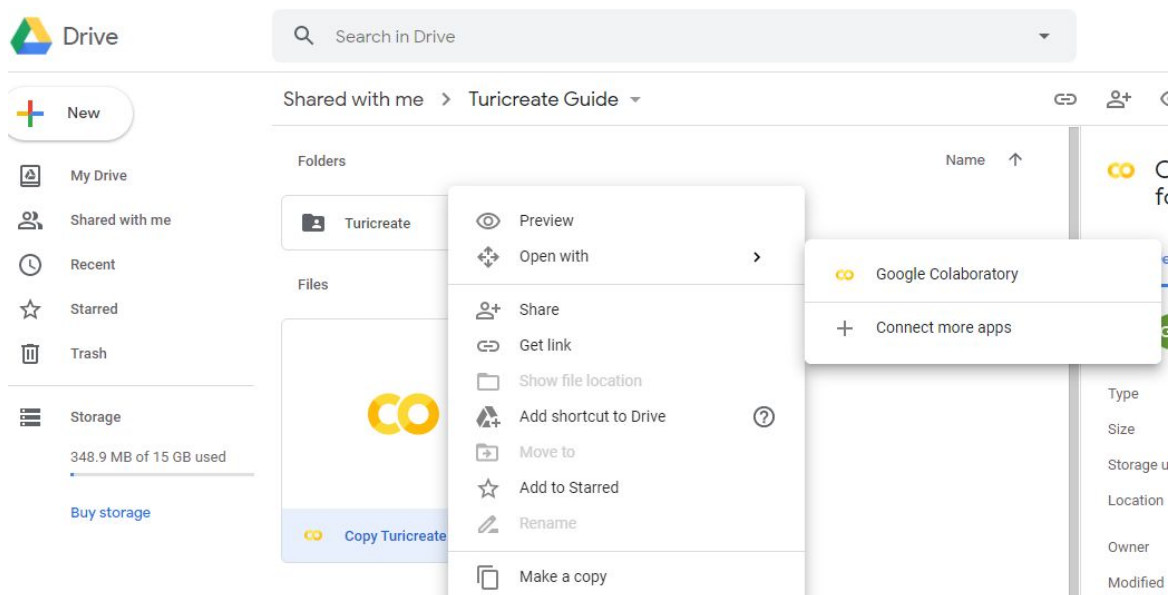
Please select own account.



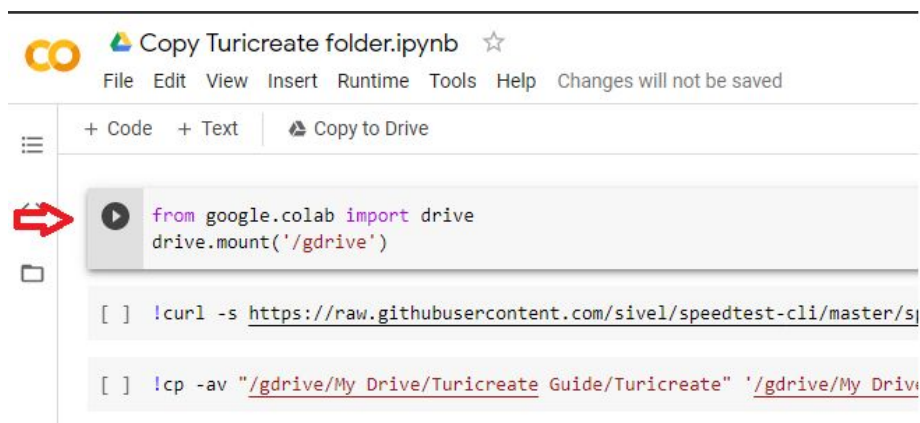
Please click OK , Done and close G Suite Marketplace.



Right click on Copy Turicreate folder file, go to Open with and select Google Colaboratory.



Please click that symbol to run the first line.



Please click RUN ANYWAY

Warning: This notebook was not authored by Google.

This notebook was authored by **jmail.com**. It may request access to your data stored with Google, or read data and credentials from other sessions. Please review the source code before executing this notebook. Please contact the creator of this notebook at thetoozin@gmail.com with any additional questions.

CANCEL

RUN ANYWAY

Please click on url.




```
from google.colab import drive
drive.mount('/gdrive')
```




... Go to this URL in a browser: <https://accounts.google.com/o/oauth2/auth>

Enter your authorization code:

Please select own account.

 Google ဖြင့် လက်မှတ်ထိုးဝင်ခြင်း



အကောင့်တစ်ခု ရွေးပါ

Google Drive File Stream သို့ ရွှေ့ဆက်ပါ

T

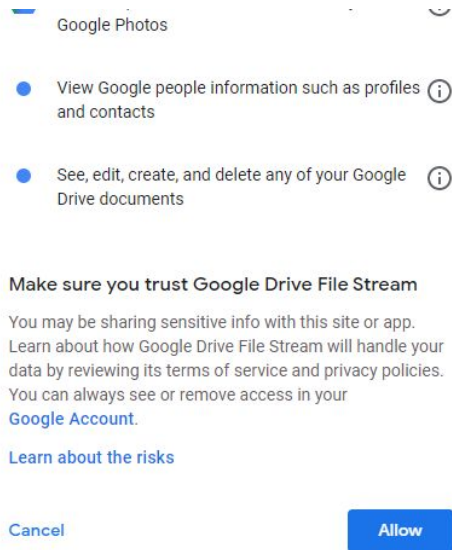
Thet oo zin

👤

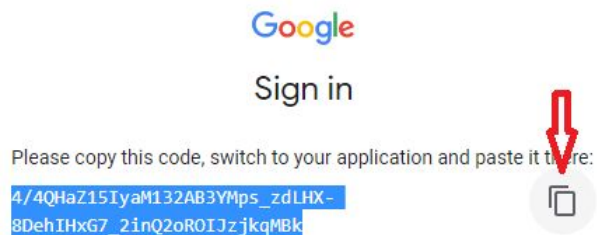
အခြားအကောင့်ကို သုံးပါ

ရွှေ့ဆက်ရန်အတွက် Google သည် သင်၏အမည်၊ အီးမေးလ်လိပ်စာ၊ ဘာသာစကား၊ ရွေးချယ်မှုနှင့် ပရိုဖိုင်ပုံတို့ကို Google Drive File Stream နှင့် မျှဝေပါမည်။

Please click Allow.



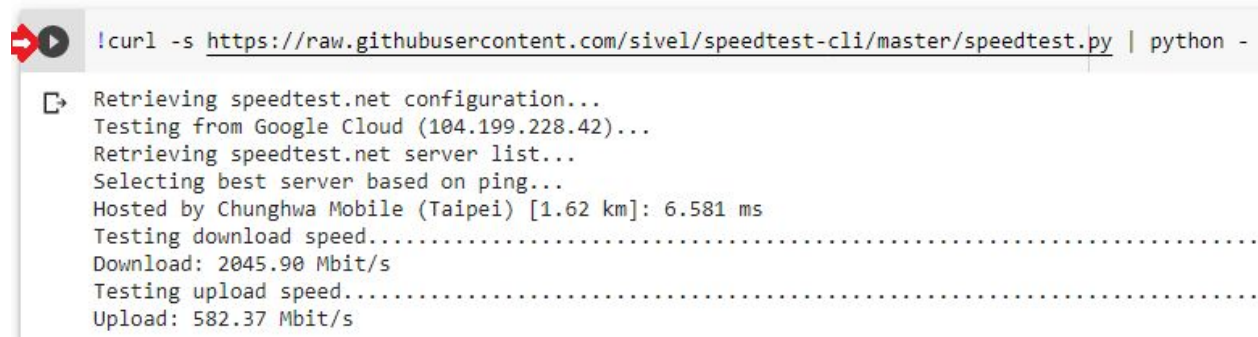
Please click to copy the code.



Please go back to Colab, paste the code and press Enter.

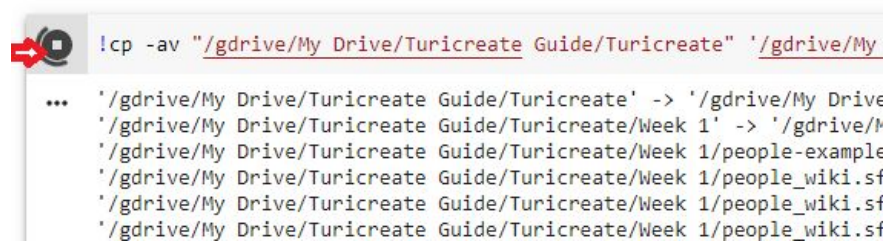


Please click to run the second line and third line.



```
!curl -s https://raw.githubusercontent.com/sivel/speedtest-cli/master/speedtest.py | python -
```

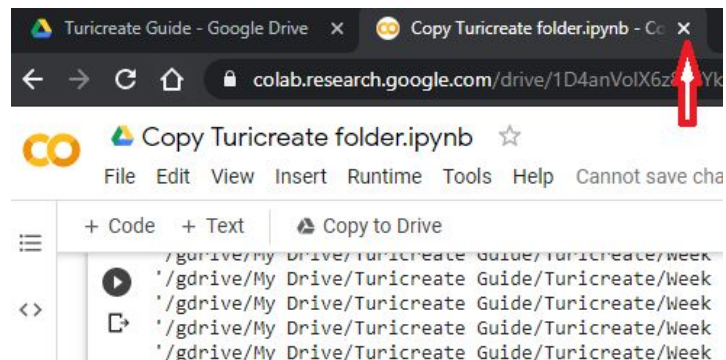
Retrieving speedtest.net configuration...
Testing from Google Cloud (104.199.228.42)...
Retrieving speedtest.net server list...
Selecting best server based on ping...
Hosted by Chunghwa Mobile (Taipei) [1.62 km]: 6.581 ms
Testing download speed.....
Download: 2045.90 Mbit/s
Testing upload speed.....
Upload: 582.37 Mbit/s



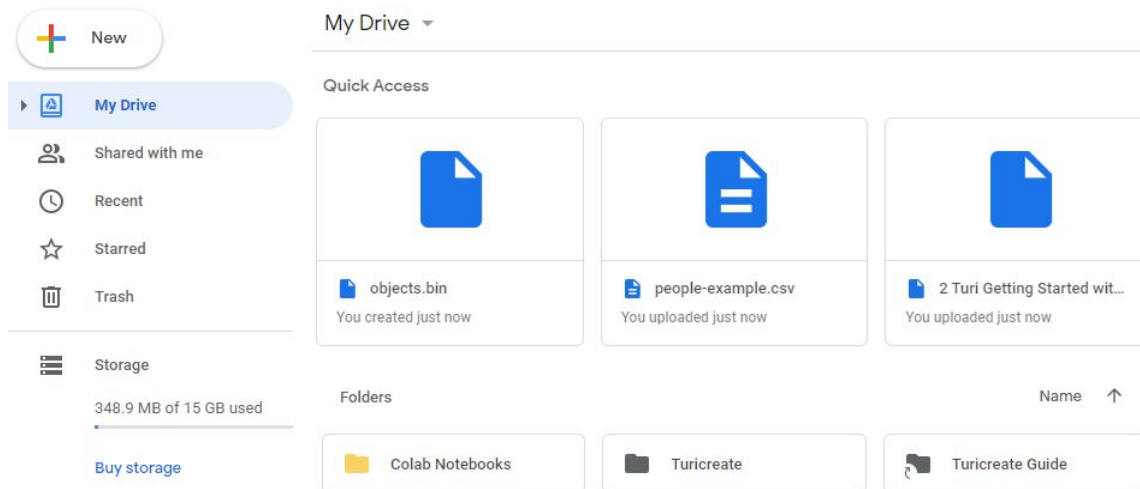
```
!cp -av "/gdrive/My Drive/Turicreate Guide/Turicreate" "/gdrive/My
```

...
'/gdrive/My Drive/Turicreate Guide/Turicreate' -> '/gdrive/My Drive
'/gdrive/My Drive/Turicreate Guide/Turicreate/Week 1' -> '/gdrive/M
'/gdrive/My Drive/Turicreate Guide/Turicreate/Week 1/people-example
'/gdrive/My Drive/Turicreate Guide/Turicreate/Week 1/people_wiki.sf
'/gdrive/My Drive/Turicreate Guide/Turicreate/Week 1/people_wiki.sf
'/gdrive/My Drive/Turicreate Guide/Turicreate/Week 1/people_wiki.sf

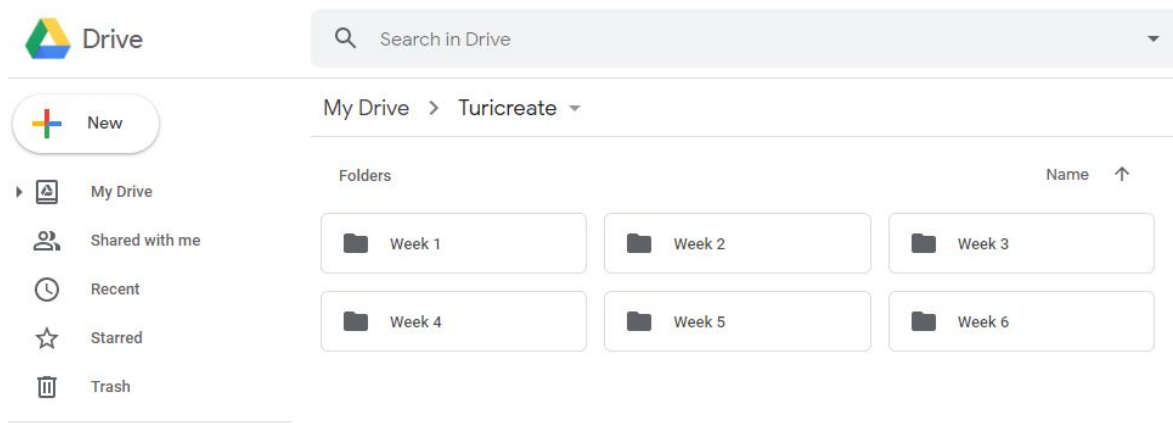
After copying the files, please close the tab and go back to Google Drive.



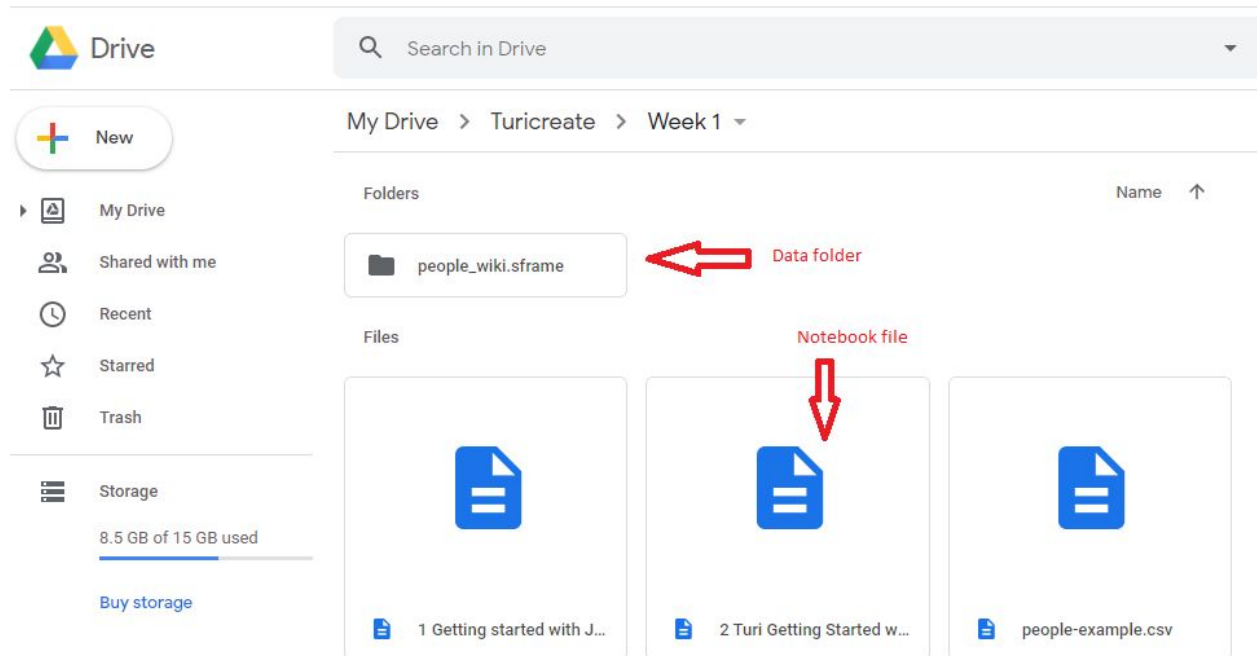
Please select My Drive and double click on Turicreate folder.



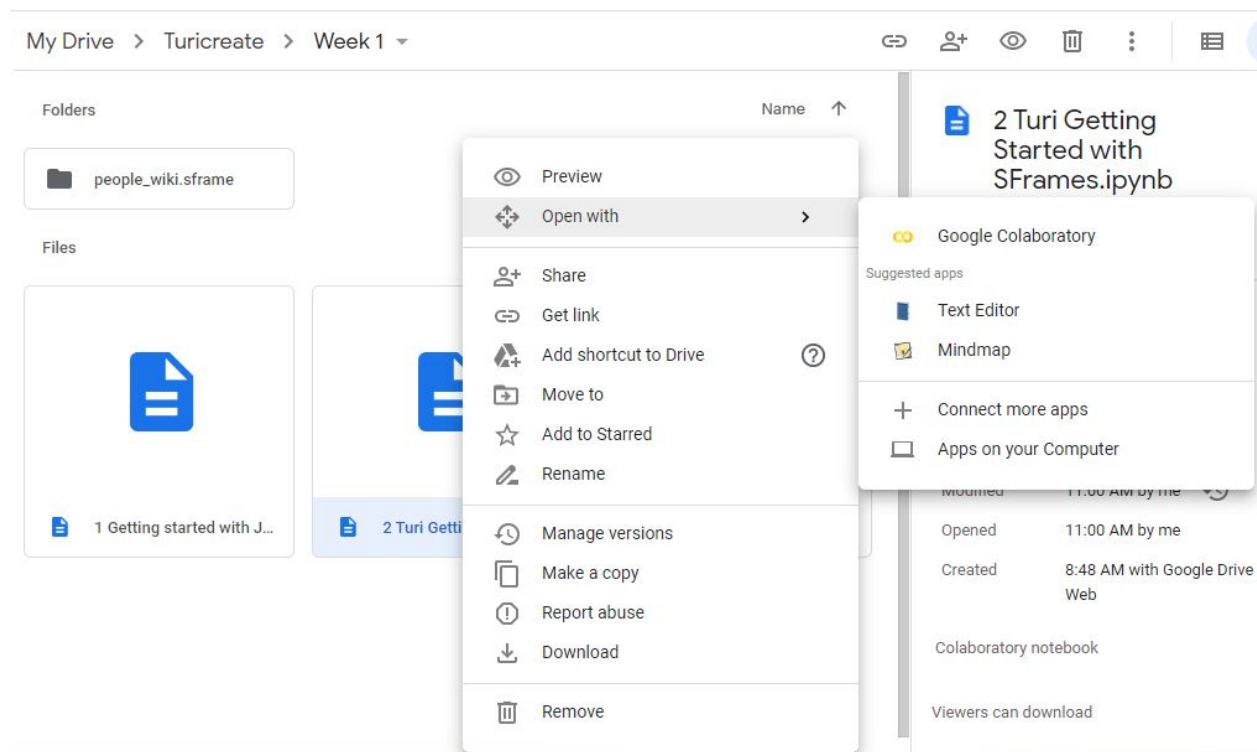
Inside the Turicreate folder, there are folders like below.



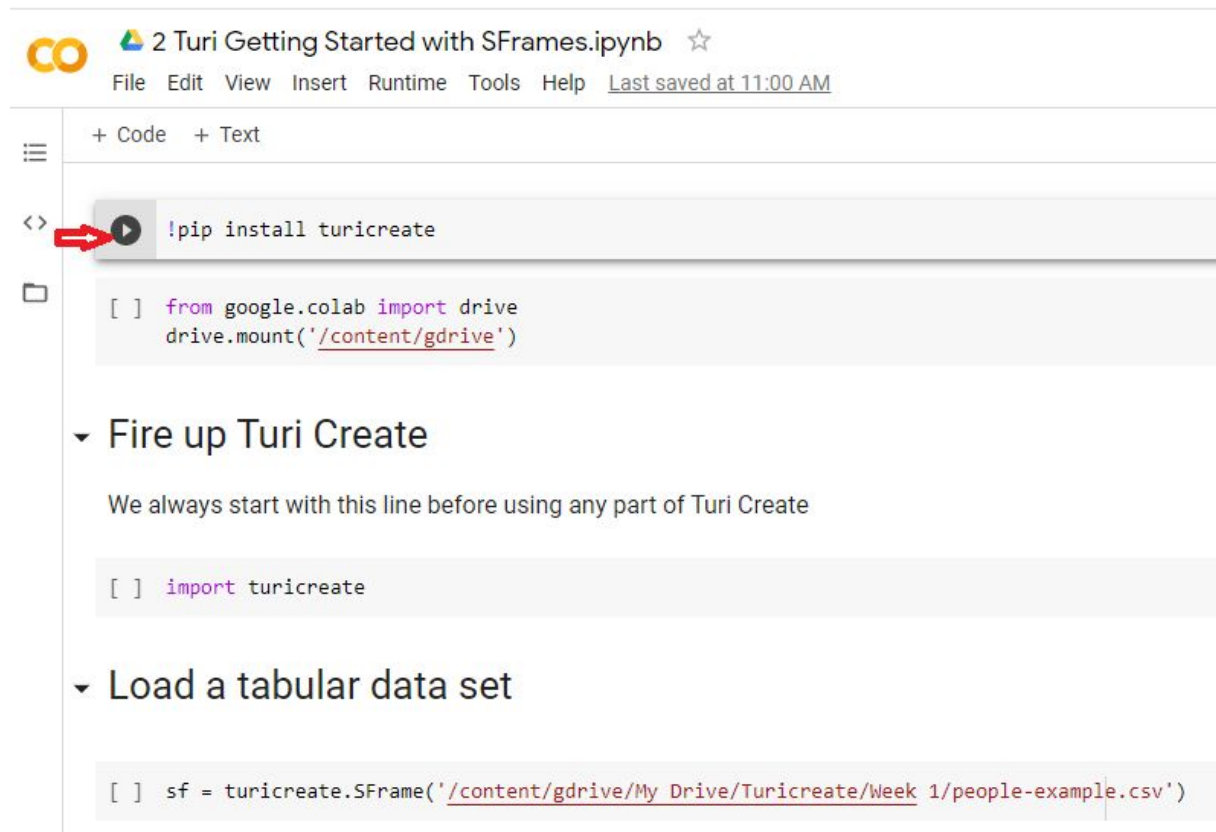
Inside the Week 1 folder, there are data folder, Notebook file and csv file.



To open the notebook file, please right click on 2 Turi Getting Started with SFrames.ipynb file and go to Open with and click Google Colaboratory. For 1 Getting started with Jupyter Notebook.ipynb, it is the same process which does not need to install turicreate and can run line by line.




The notebook file was opened in Google Colab.



2 Turi Getting Started with SFrames.ipynb ☆

File Edit View Insert Runtime Tools Help Last saved at 11:00 AM

+ Code + Text

<>  !pip install turicreate

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

▼ Fire up Turi Create

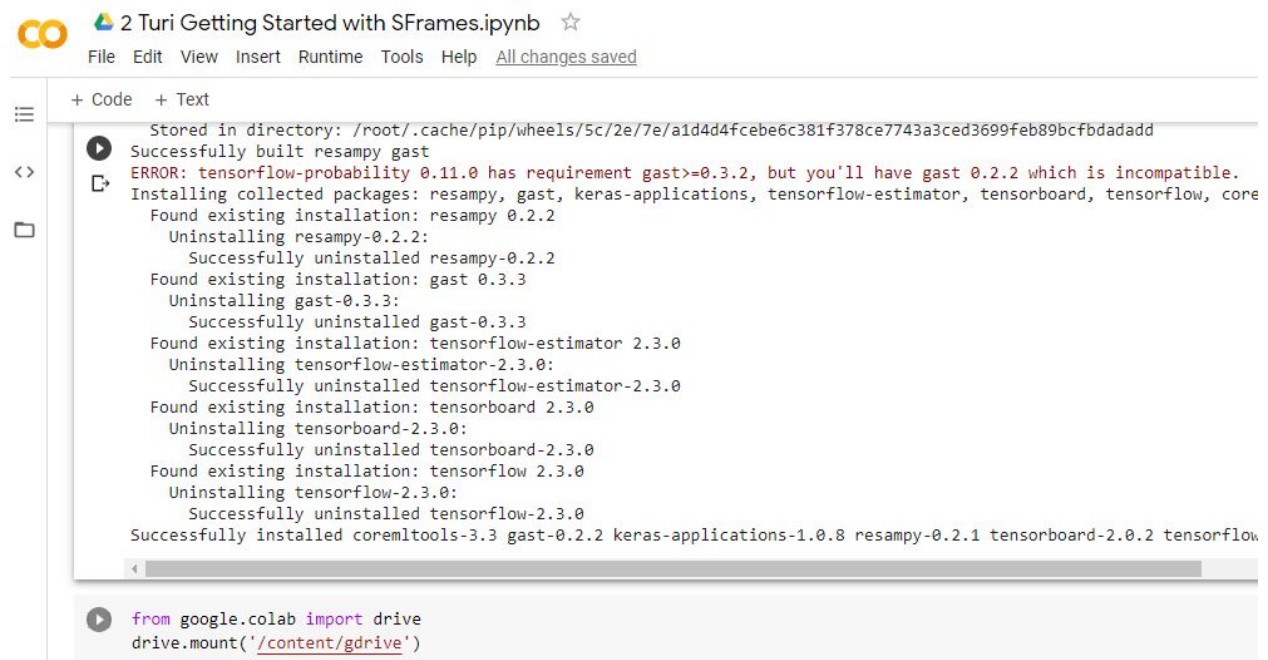
We always start with this line before using any part of Turi Create

```
[ ] import turicreate
```

▼ Load a tabular data set

```
[ ] sf = turicreate.SFrame('/content/gdrive/My Drive/Turicreate/Week 1/people-example.csv')
```


Click that symbol to run the first line (to install turicreate in Google Colab).



2 Turi Getting Started with SFrames.ipynb ☆

File Edit View Insert Runtime Tools Help All changes saved

+ Code + Text

<>  Stored in directory: /root/.cache/pip/wheels/5c/2e/7e/a1d4d4fceb6c381f378ce7743a3ced3699feb89bcfbdadadd
Successfully built resampy gast
ERROR: tensorflow-probability 0.11.0 has requirement gast>=0.3.2, but you'll have gast 0.2.2 which is incompatible.
Installing collected packages: resampy, gast, keras-applications, tensorflow-estimator, tensorboard, tensorflow, core
Found existing installation: resampy 0.2.2
Uninstalling resampy-0.2.2:
Successfully uninstalled resampy-0.2.2
Found existing installation: gast 0.3.3
Uninstalling gast-0.3.3:
Successfully uninstalled gast-0.3.3
Found existing installation: tensorflow-estimator 2.3.0
Uninstalling tensorflow-estimator-2.3.0:
Successfully uninstalled tensorflow-estimator-2.3.0
Found existing installation: tensorboard 2.3.0
Uninstalling tensorboard-2.3.0:
Successfully uninstalled tensorboard-2.3.0
Found existing installation: tensorflow 2.3.0
Uninstalling tensorflow-2.3.0:
Successfully uninstalled tensorflow-2.3.0
Successfully installed coremltools-3.3 gast-0.2.2 keras-applications-1.0.8 resampy-0.2.1 tensorboard-2.0.2 tensorflow

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

The installation is finished and there is 1 error but it is OK to use turicreate.

Please run the second line (to mount the data folder or csv file).

```
Successfully installed coremltools-3.3 gast-0.2.2 keras-applications-1.0.8 resampy-0.2.1 tensor
```

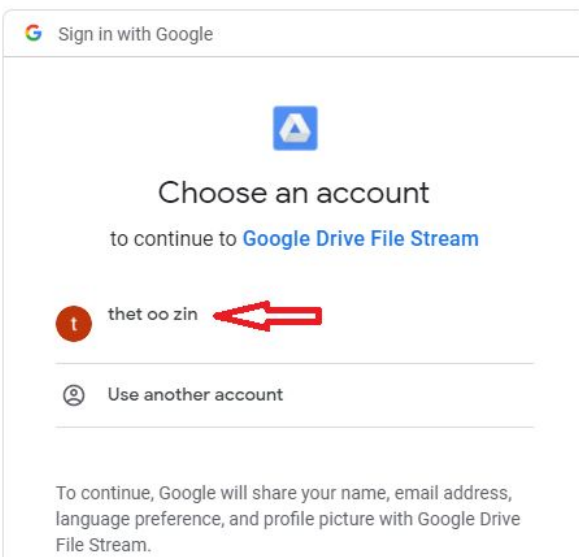
```
from google.colab import drive
drive.mount('/content/gdrive')
```

... Go to this URL in a browser: https://accounts.google.com/o/oauth2/auth?client_id=947318989803-1


Enter your authorization code:

Please click on the url.


Please select own account.




Please click Allow.





See, edit, create, and delete all of your Google Drive files







View the photos, videos and albums in your Google Photos






View Google people information such as profiles and contacts





See, edit, create, and delete any of your Google Drive documents



Make sure you trust Google Drive File Stream


You may be sharing sensitive info with this site or app. Learn about how Google Drive File Stream will handle your data by reviewing its terms of service and privacy policies. You can always see or remove access in your [Google Account](#).

[Learn about the risks](#)

Cancel

Allow


Please click to copy the code.



Sign in

Please copy this code, switch to your application and paste it there:

4/4QFUzeD_wEcskCe1RIfEaij6yvbjy0xni_c69BmVScUe3H
REpU1aKew



Please go back to Google Colab and paste the code and press Enter.

```
from google.colab import drive
drive.mount('/content/gdrive')
```

Go to this URL in a browser: https://accounts.google.com/o/oauth2/auth?client_id=947318

Enter your authorization code:

4/40FuzeD wEcskCe1RIfEaij6yvbivOxni c69BmVScUe3HREpU1aKew

Google Drive is mounted to Colab.

```
from google.colab import drive
drive.mount('/content/gdrive')
```

Mounted at /content/gdrive

Import turicreate and read the csv file to sf.

```
<>
└ Fire up Turi Create
  We always start with this line before using any part of Turi Create
  [3] import turicreate

└ Load a tabular data set
  sf = turicreate.SFrame('/content/gdrive/My Drive/Turicreate/Week 1/people-example.csv')
```


Read 7 lines. Lines per second: 88.3738
Finished parsing file /content/gdrive/My Drive/Turicreate/Week 1/people-example.csv

Inferred types from first 100 line(s) of file as
column_type_hints=[str,str,str,int]
If parsing fails due to incorrect types, you can correct
the inferred type list above and pass it to read_csv in
the column_type_hints argument

Parsing completed. Parsed 7 lines in 0.07955 secs.
Finished parsing file /content/gdrive/My Drive/Turicreate/Week 1/people-example.csv
Parsing completed. Parsed 7 lines in 0.016747 secs.

Please run the remaining lines.

 `sf #we can view first few lines of table`



First Name	Last Name	Country	age
Bob	Smith	United States	24
Alice	Williams	Canada	23
Malcolm	Jone	England	22
Felix	Brown	USA	23
Alex	Cooper	Poland	23
Tod	Campbell	United States	22
Derek	Ward	Switzerland	25

[7 rows x 4 columns]

 `sf.tail() # view end of the table`



First Name	Last Name	Country	age
Bob	Smith	United States	24
Alice	Williams	Canada	23
Malcolm	Jone	England	22
Felix	Brown	USA	23
Alex	Cooper	Poland	23
Tod	Campbell	United States	22
Derek	Ward	Switzerland	25

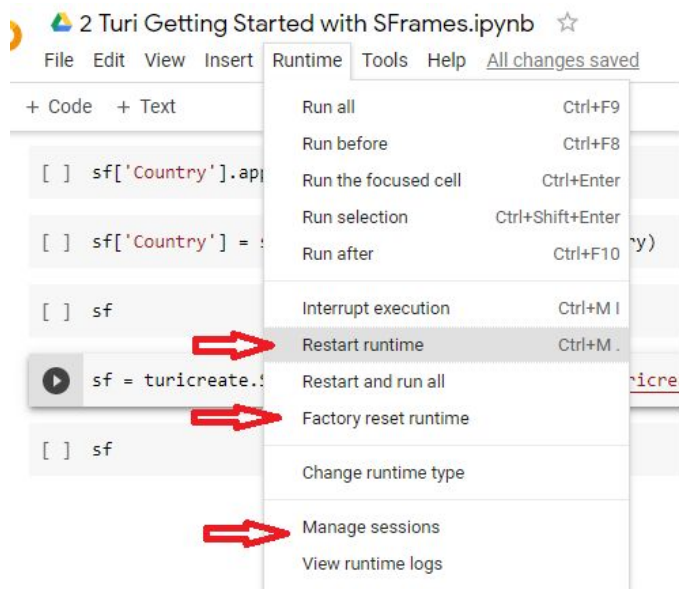
[7 rows x 4 columns]

If the data is from data folder, we only need to change the file name (people_wiki.sframe instead of csv file). We can also change the location of Turicreate folder.

 `sf = turicreate.SFrame('/content/gdrive/My Drive/Turicreate/Week 1/people_wiki.sframe')`

So, there is no problem to run other lines. We can do the exercises from week folders. It is easy to install and use turicreate in Google Colab and no need to install it on our own computer.

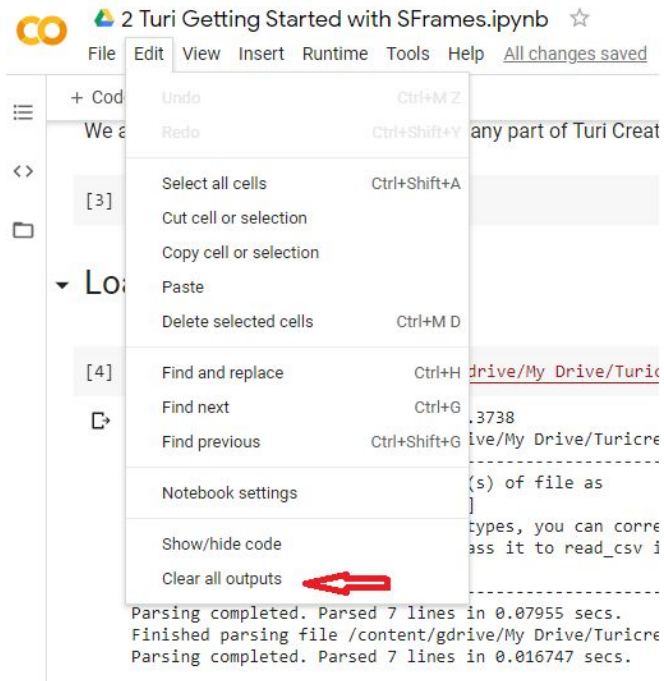
If there is an error about runtime, please choose Restart runtime or Factory reset runtime. If there are a lot of sessions, please choose Manage sessions and terminate the active sessions.



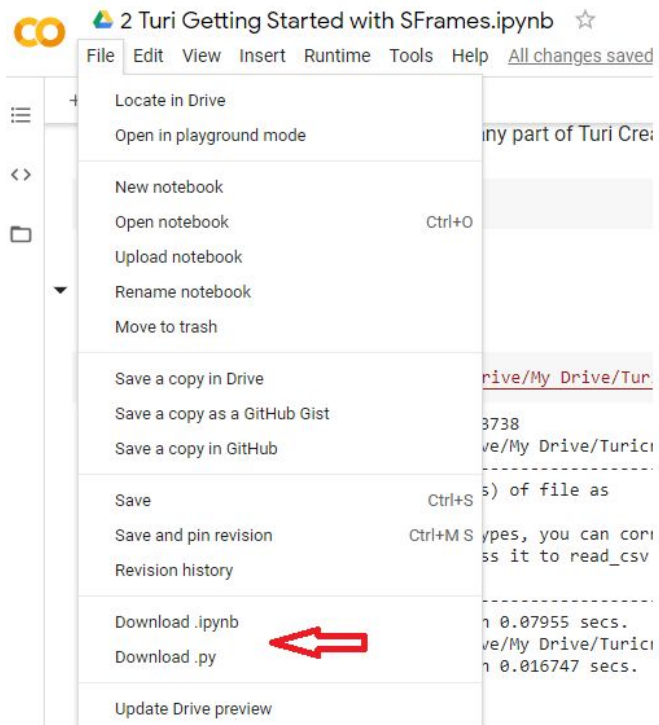
Active sessions

Title	Last execution	RAM used	
 2 Turi Getting Started with SFrames.ipynb Current session	0 minutes ago	0.22 GB	TERMINATE 
 FND06-NB01.ipynb	1 hour ago	0.83 GB	TERMINATE 

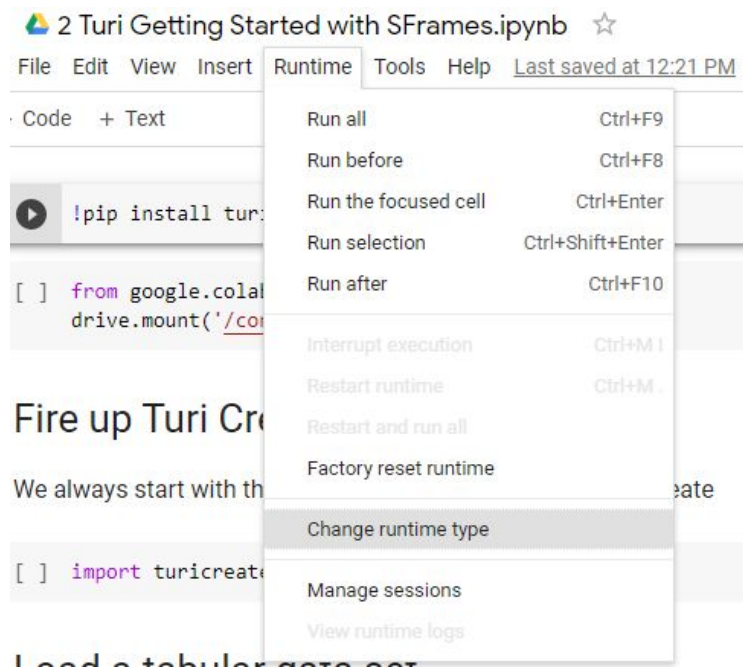
Want to clear the output, please choose Clear all outputs.



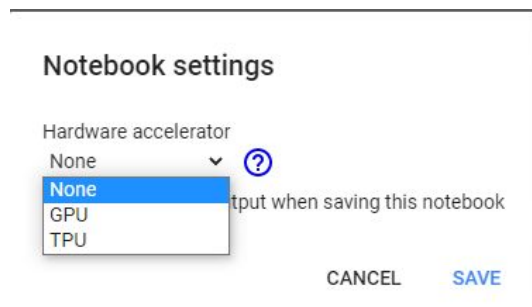
Want to download, please choose the type and download.



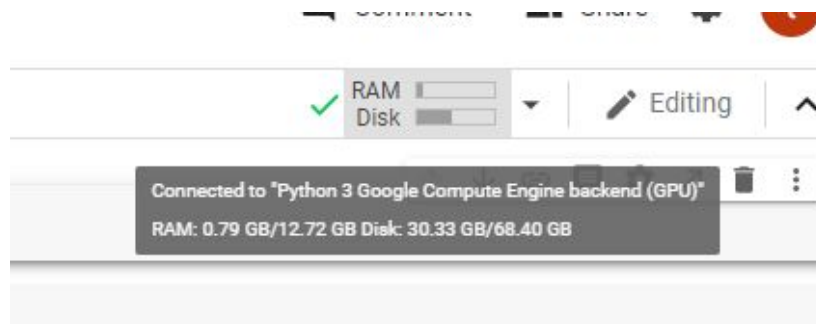
For machine learning training or to do something, we need good computer with GPU. GPU has more cores than CPU. If we want to use GPU or TPU, click on Change runtime type.



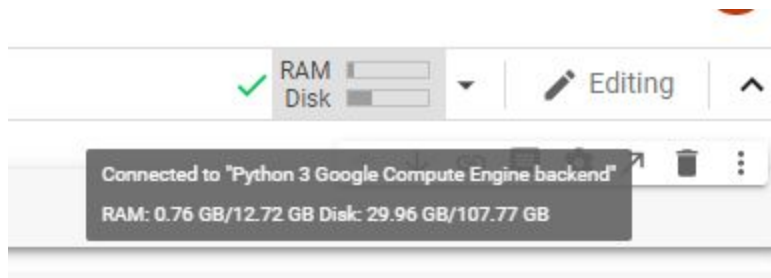
Please select one we want and click SAVE.



With GPU, we can use the following specification.



Without GPU or TPU, we can use the following specification.



By using the free version of Google Colab, we can run the session continuously for about 12 hours. So, if our own computer does not have a good GPU or CPU model is low, we can use Colab to train the model.