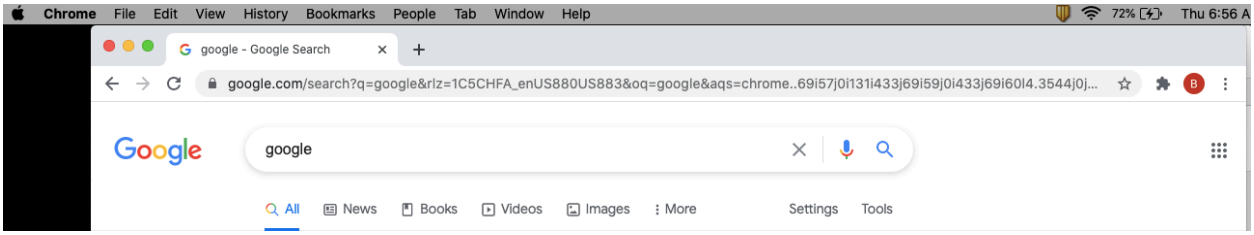
Google Colab- Setup

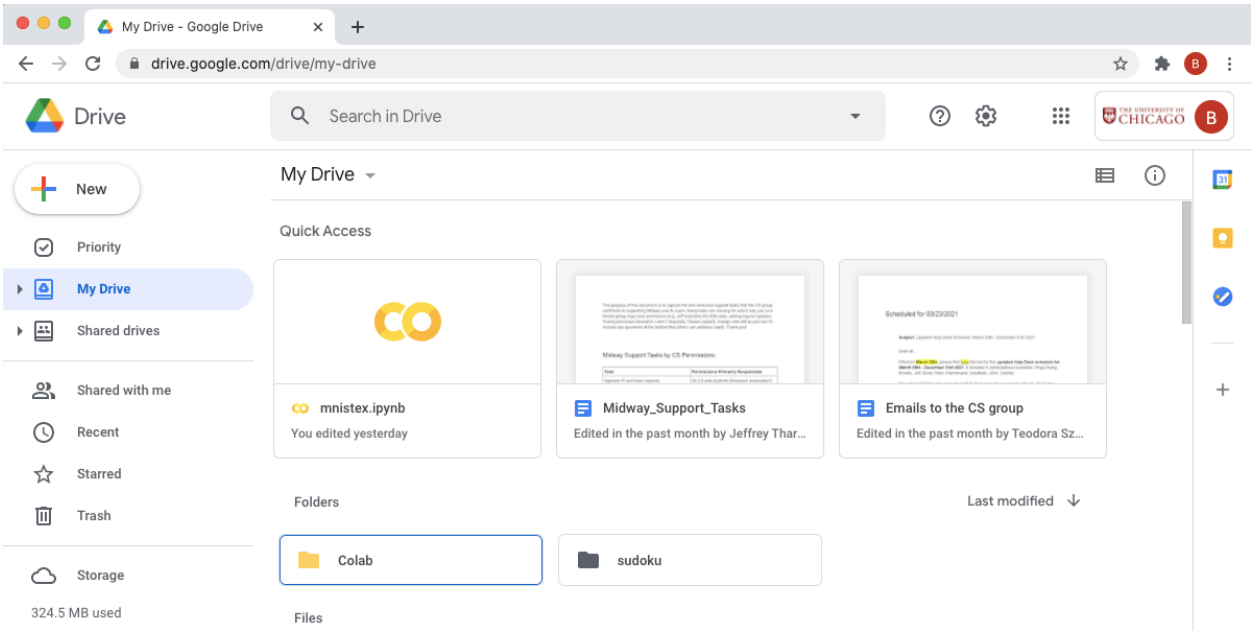
The purpose of this document is to provide you with a few hints and tricks for setting up Google Colab. Google offers free access to computing resources on CPUs, GPUs and TPUs. There are a few minor hiccups and issues that may not make this the best forum for regular academic research, but for our purposes, this will be a valuable resource to get you up and running fast. Please remember, you will need to use your UChicago email account (actually a gmail account hidden behind the .edu address) or your own personal gmail address to get logged on. Also, Colab will run best in Google Chrome (a web browser designed by Google). Therefore,

Step 1: download and install Google Chrome on your local machine **www.google.com/chrome/**

After the installation, please look in the upper right corner to be sure that you are actively logged into Chrome. Note the small red circle in the upper right corner below. I can hover over this and confirm that I am logged in with my desired gmail account.



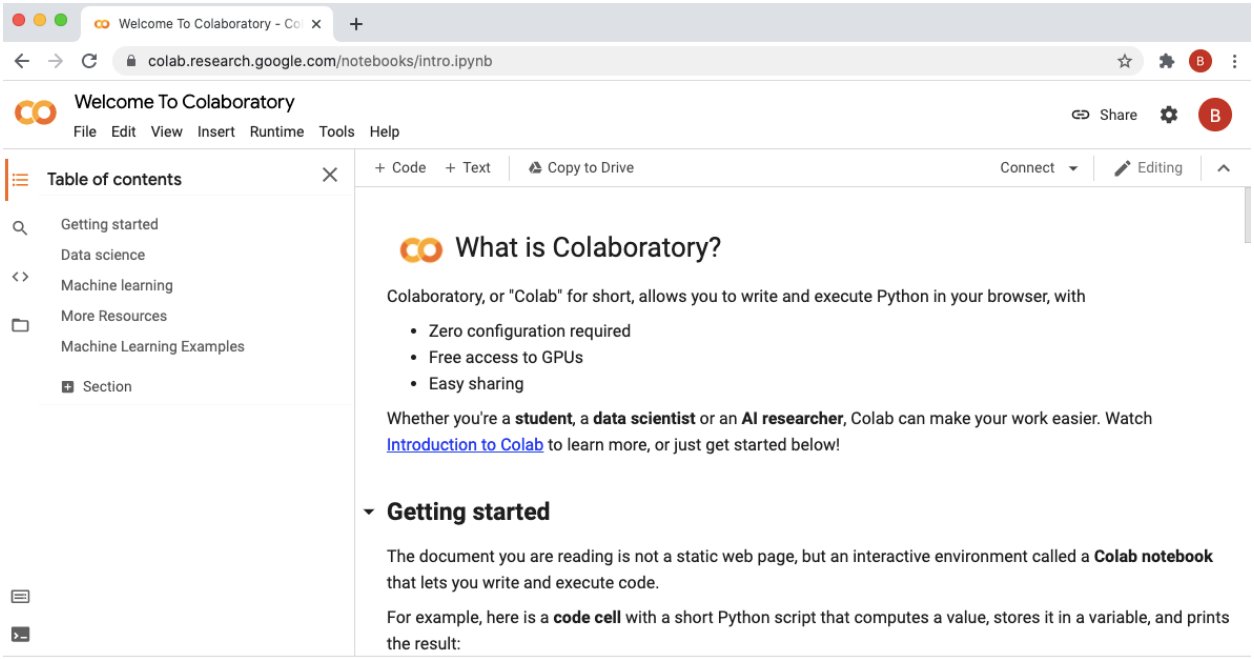
Step 2: After I am logged in, I see the nine little dots in a square as an icon below this red circle. This is the link that will take me to google apps and my google drive. You will need to navigate to your google drive in order to place the files and scripts that you will work on in Google colab. We will soon connect these resources. Please open your google drive.



Step 3: You will now select the “New” button marked with a rainbow cross in the upper left corner. Then add a folder with a name of your choosing. It will be best to define one folder for each project.

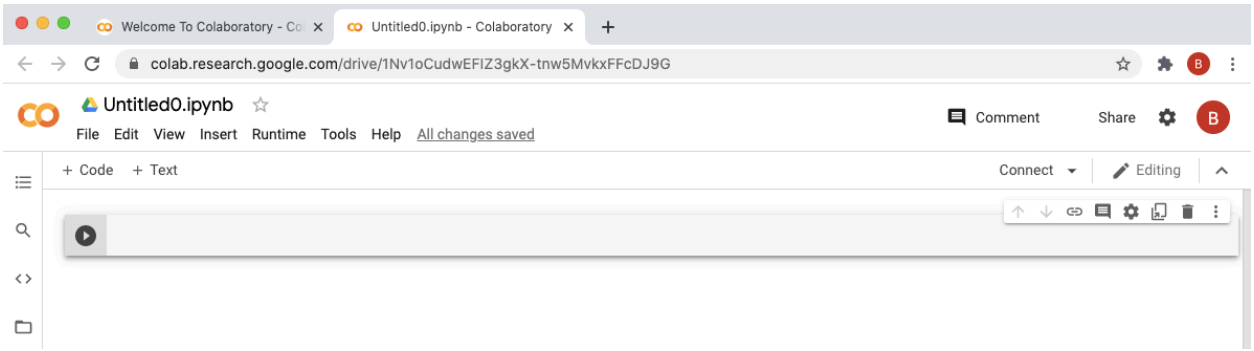
Step 4: Please add the .py or .ipynb files to the folder on the drive that you will be working with. These are your scripts that you have modified and will now run in the Colab environment.

Step 5: Without closing anything, we will navigate to **https://colab.google.research.google.com** This will generally pop up automatically when we start to type google colab in the web address line.



You should see this welcome page with many very useful documents on getting started and using Google Colab. Everything on this site should looks familiar to you if you have worked in a Jupyter Notebook before. We will now create a new notebook and link our Google drive, allowing us to navigate their with ease and execute our files.

Step 6: Please select File > New Notebook. You should see



The gray box with the play symbol is code cell ready for you to add python code and execute. You will see that just like in a Jupyter notebook, you can add code blocks or text blocks in standard Markdown fashion to comment and run your code. In contrast to a Jupyter Notebook, here the blocks are executed, or run, by clicking on the gray play symbol.

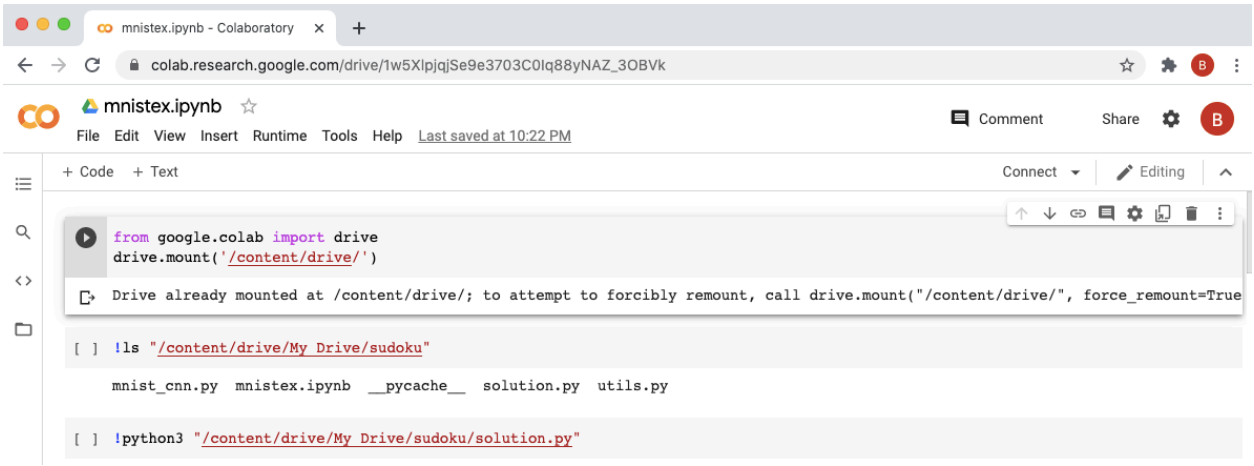
Step 7: Connect your google drive content to the google colab session active under your login. Please type in the code block below and execute.

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

After a moment or two, you should see a message indicating that your drive is mounted.

Step 8: We will now list all content of our selected folder with the materials that we previously put in the google drive. You will note, I am using the command

```
!ls "/content/drive/My Drive/sudoku"
```



Step 9: Run the Python script as indicate in the final line above.

Note that prior to running a script, you can select to use GPU under Edit> Notebook Settings. Then select GPU as your accelerator, where needed. Continue with your session and remember to close out properly by killing the session before you exit.

Step 10: We will need to kill our session before logging out. Please remember that this is important preserving resources and securing your continued usage with Google. You may now logout.