How to Get Started with Data Analysis In Python

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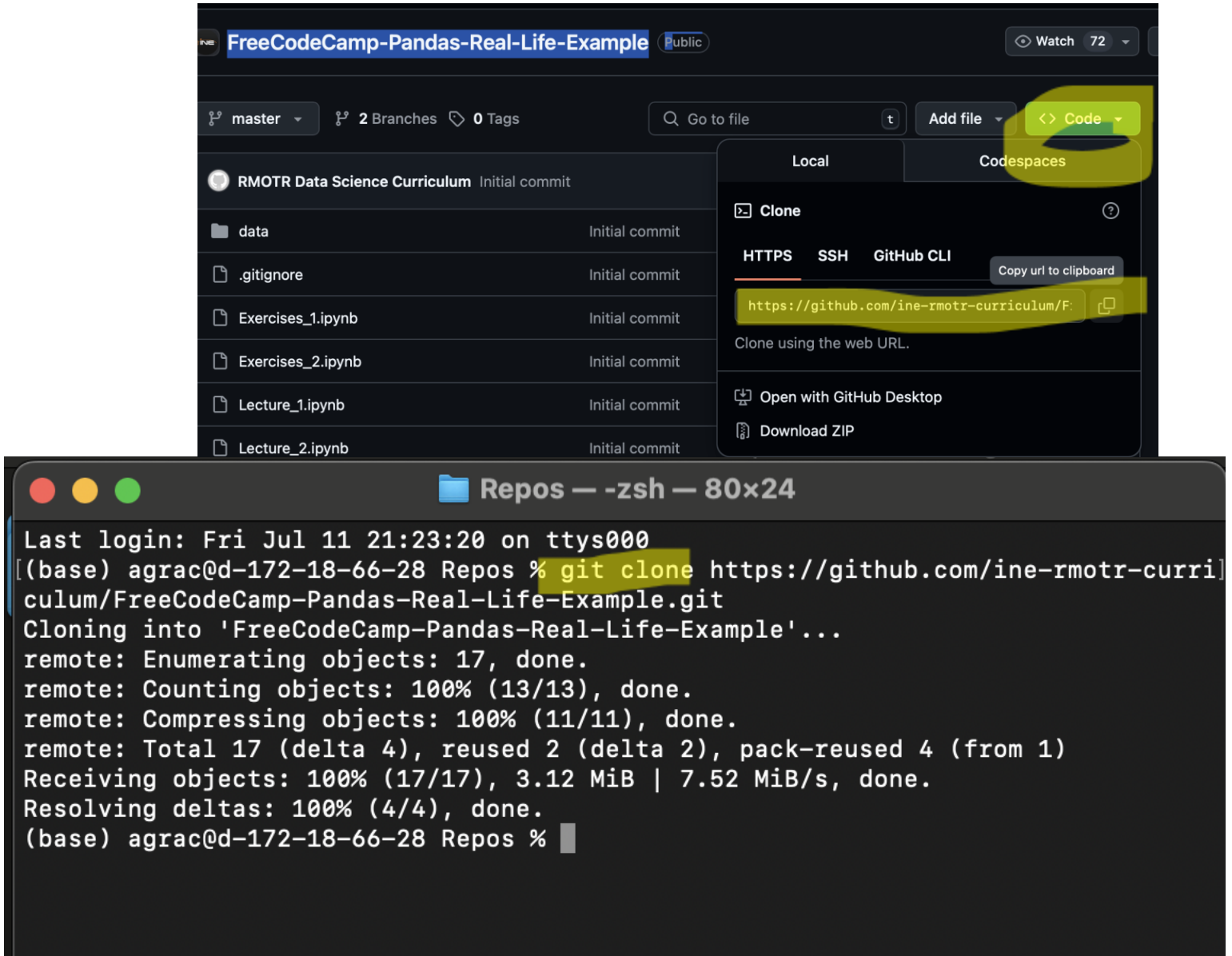
Clone the 2 Github repos we'll be working with or just copy the files

1. *FreeCodeCamp-Pandas-Real-Life-Example*.
   - FreeCodeCamp link: https://www.freecodecamp.org/learn/data-analysis-with-python/data-analysis-with-python-course/data-analysis-example-a
   - Github link: https://github.com/ine-rmotr-curriculum/FreeCodeCamp-Pandas-Real-Life-Example

2. *LoadingDatasetsToPython*.
   - Github link: https://github.com/AnnaGraceDickerson/LoadingDatasetsToPython



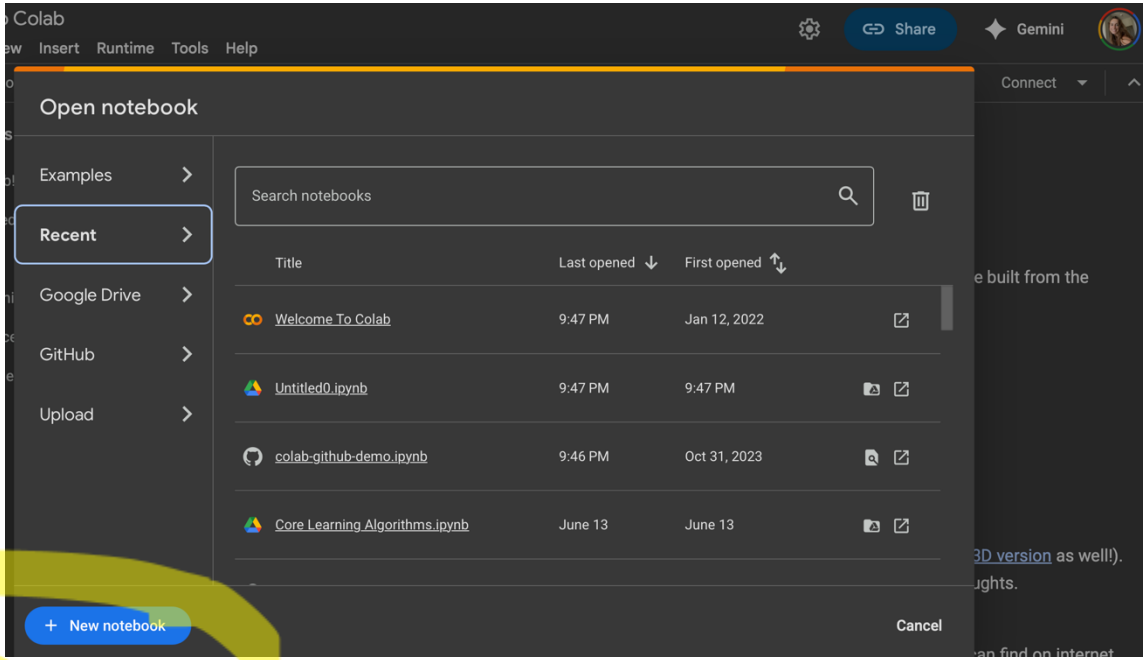
If Installed, Launch Jupyter Notebook

- Type ‘jupyter lab’ into the terminal/powershell/command line

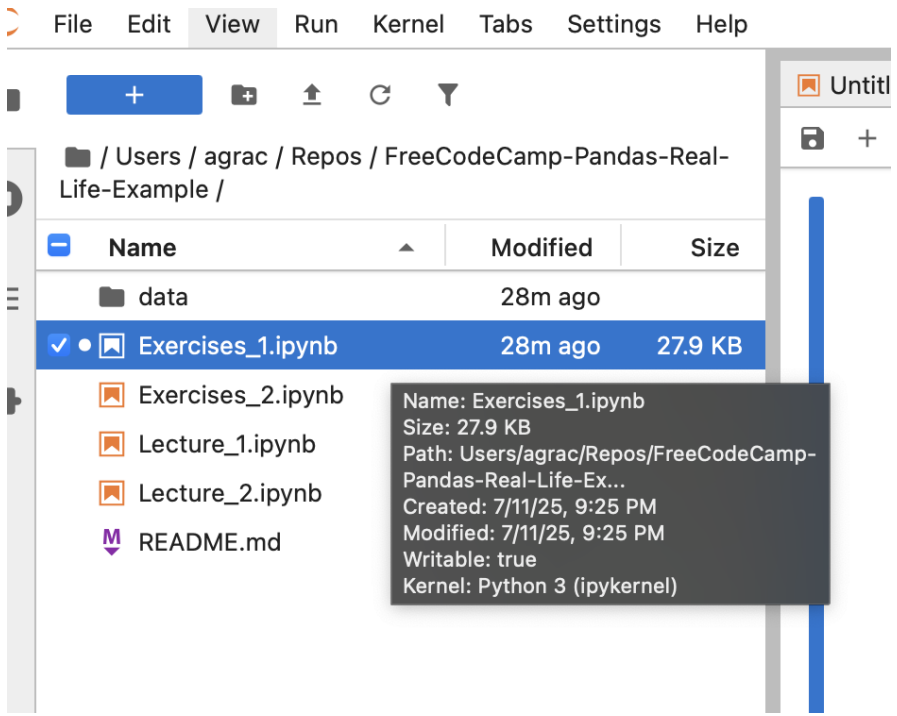
```
(base) agrac@d-172-18-66-28 Repos % jupyter lab
[I 2025-07-11 21:43:50.222 ServerApp] jupyter_lsp | extension was successfully linked.
[I 2025-07-11 21:43:50.224 ServerApp] jupyter_server_terminals | extension was successfully linked.
[I 2025-07-11 21:43:50.226 ServerApp] jupyterlab | extension was successfully linked.
[I 2025-07-11 21:43:50.227 ServerApp] notebook | extension was successfully linked.
[I 2025-07-11 21:43:50.371 ServerApp] notebook_shim | extension was successfully linked.
[I 2025-07-11 21:43:50.426 ServerApp] notebook_shim | extension was successfully loaded.
[I 2025-07-11 21:43:50.427 ServerApp] jupyter_lsp | extension was successfully loaded.
[I 2025-07-11 21:43:50.428 ServerApp] jupyter_server_terminals | extension was successfully loaded.
[I 2025-07-11 21:43:50.430 LabApp] JupyterLab extension loaded from /opt/homebrew/Cellar/jupyterlab/
3.4_1/libexec/lib/python3.13/site-packages/jupyterlab
[I 2025-07-11 21:43:50.430 LabApp] JupyterLab application directory is /opt/homebrew/Cellar/jupyter
/4.3.4_1/libexec/share/jupyter/lab
[I 2025-07-11 21:43:50.430 LabApp] Extension Manager is 'pypi'.
[I 2025-07-11 21:43:50.451 ServerApp] jupyterlab | extension was successfully loaded.
[I 2025-07-11 21:43:50.452 ServerApp] notebook | extension was successfully loaded.
[I 2025-07-11 21:43:50.453 ServerApp] The port 8888 is already in use, trying another port.
[I 2025-07-11 21:43:50.454 ServerApp] Serving notebooks from local directory: /Users/agrac/Users/ag
/Repos
[I 2025-07-11 21:43:50.454 ServerApp] Jupyter Server 2.15.0 is running at:
[I 2025-07-11 21:43:50.454 ServerApp] http://localhost:8889/lab?token=caea7dace285646f972cb81e3f090
6dbc5bff2fbaeec9
[I 2025-07-11 21:43:50.454 ServerApp]     http://127.0.0.1:8889/lab?token=caea7dace285646f972cb81e3
0f106dbc5bff2fbaeec9
[I 2025-07-11 21:43:50.454 ServerApp] Use Control-C to stop this server and shut down all kernels (
ce to skip confirmation).
[C 2025-07-11 21:43:50.456 ServerApp]

    To access the server, open this file in a browser:
        file:///Users/agrac/Library/Jupyter/runtime/jpserver-33557-open.html
    Or copy and paste one of these URLs:
        http://localhost:8889/lab?token=caea7dace285646f972cb81e3f090f106dbc5bff2fbaeec9
        http://127.0.0.1:8889/lab?token=caea7dace285646f972cb81e3f090f106dbc5bff2fbaeec9
[I 2025-07-11 21:43:50.789 ServerApp] Skipped non-installed server(s): bash-language-server, docker
```

Else, Open Google Colab Through a Google Account

- Go to https://colab.research.google.com
- Sign in to your google account if not already
- Click +New Notebook



Open Exercise_1.ipynb Using the File Explorer

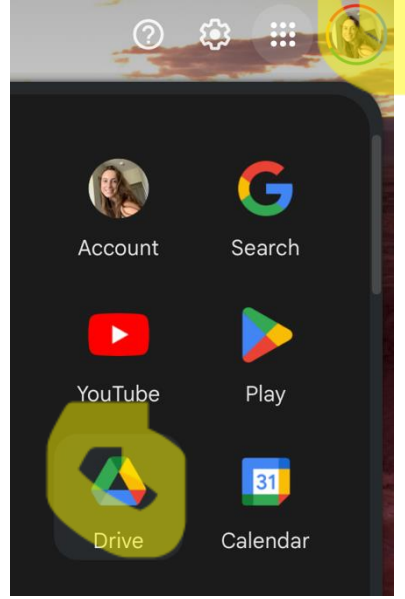


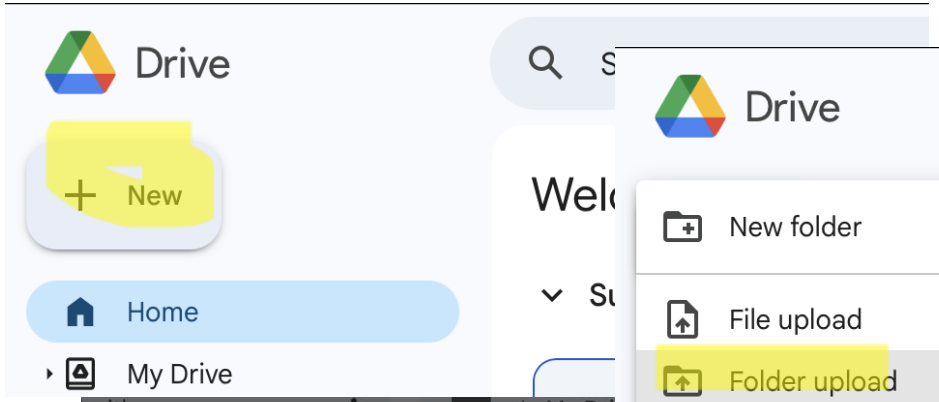
Open Exercise_1.ipynb by

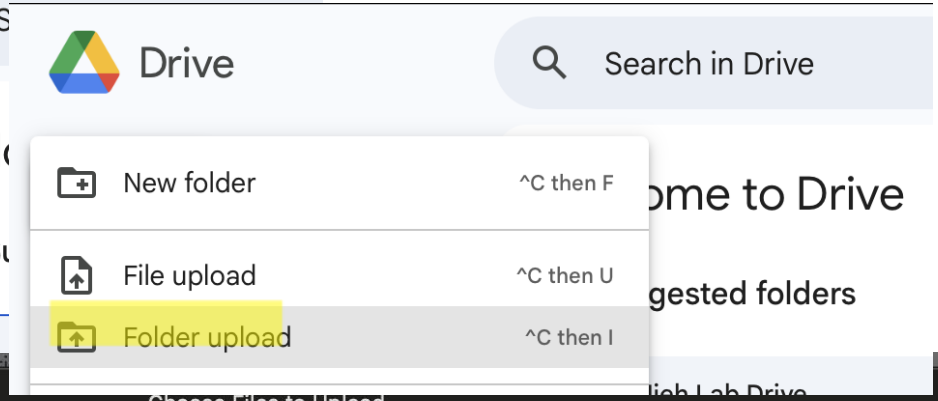
1. **Uploading the Folder to Your Google Drive**
2. **Mounting Your Google Drive**

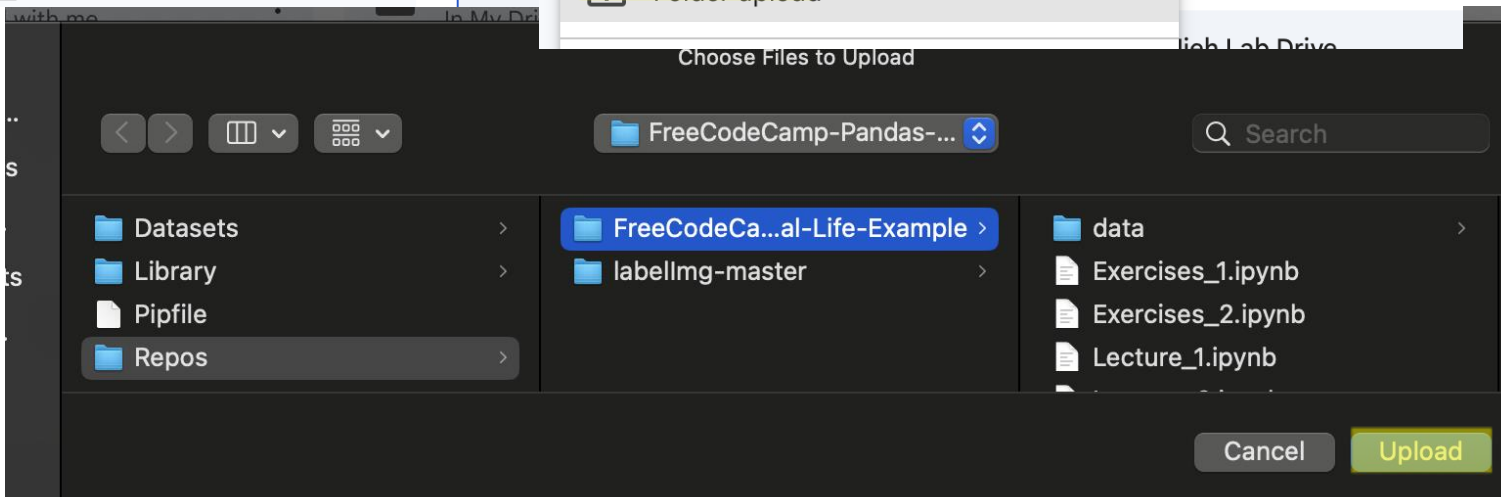
<u>Step 1:</u>

- Go to your google drive
- Click +New > Folder Upload
- Find and Upload the *FreeCodeCamp* folder **&** the *LoadingDatasetsToPython* you just downloaded or cloned from the repo



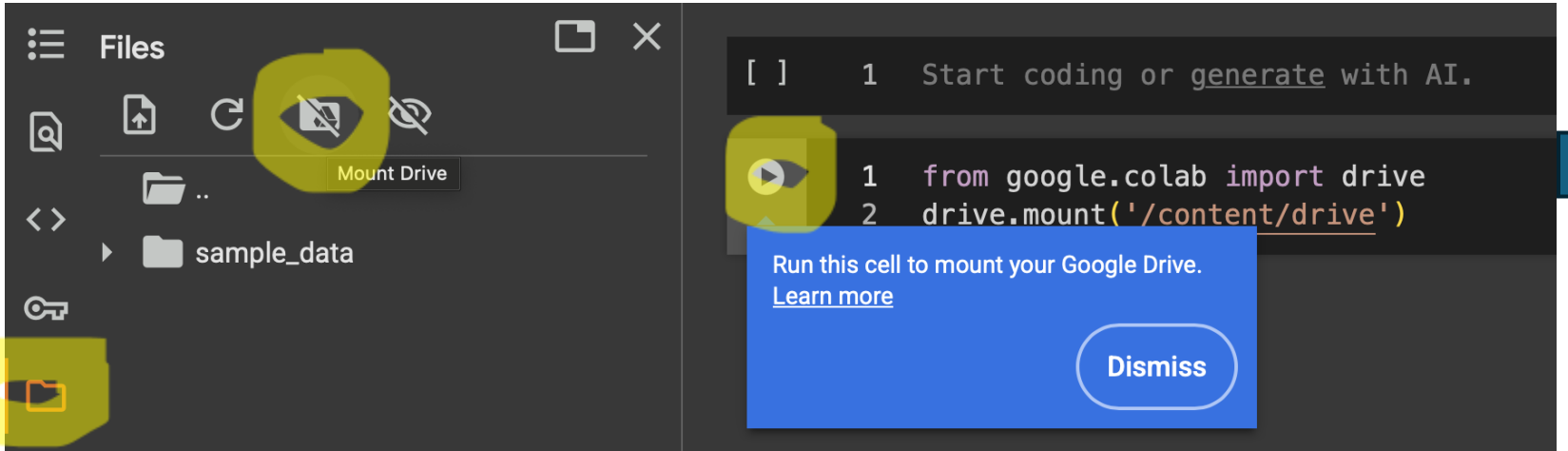


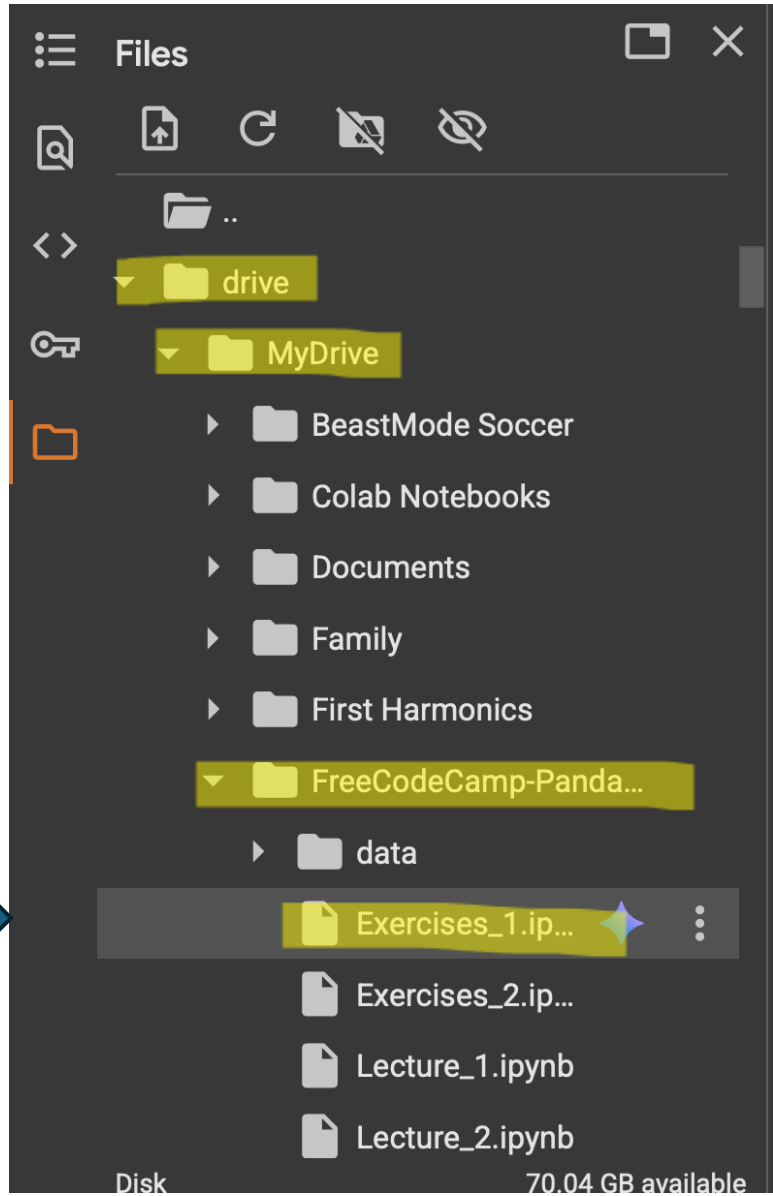




Another step for Google Colab

- Go back to Google Colab
- Click the folder image on the menu bar on the right
- Click the Google Drive folder image in the menu bar that pops out
- Click Connect to google drive and allow all access
- Run the code cell it generates to mount your google drive
- This will make a new folder named ‘drive’ appear
- Open this folder, navigate to the FreeCodeCamp folder you just uploaded and open Exercise_1.ipynb





Now We Code

Learn what you can do with the pandas package which can be used on any table. You can read in csv's, excel's, json's, sql tables, R tables, etc.

Learn Data Analysis Functions

- Lecture 1 (can go back to FreeCodeCamp if you want to hear what they say)
- Exercise 1
- Lecture 2
- Exercise 2

Learn How to Read in a Variety of Data Types

- Open ExamplesOfLoadingInDifferentTypesOfData.ipynb in the other LoadingDatasetsToPython repo you cloned/downloaded
- Runmthe cells to upload the different types of data. Try out some of the data anlysis functions you learned in the Exercise/Lecture notebooks on this data.

Start Applying Your New Skills to Your Own Projects

- Finally, using the functions you've learned, can you read in one of your own data files and play around with it?

Bonus: Keep going through FreeCodeCamp's *Data Analysis* modules on your own to keep expanding and practicing your skills. Maybe even try out some other courses that seem relevant – perhaps *Data Visualization* or *Machine Learning with Python*.