

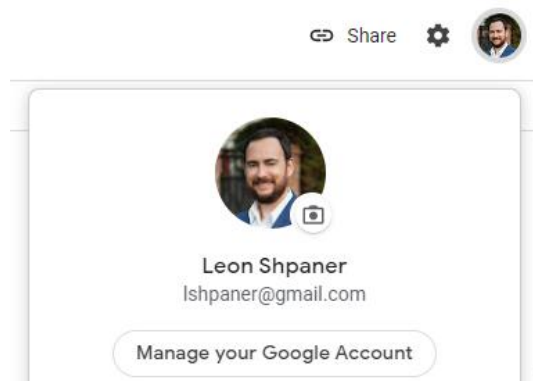
## Data Science for Everyone: Python Introduction Via Google Colab

Whereas JupyterLab and Jupyter Notebook are the two most commonly used interactive computing platforms warehoused within the Anaconda distribution, data scientists can also leverage the cloud-based coding environment of Google Colab.

### Instructions

A proper Python Jupyter notebook is saved with the `.ipynb` filename extension. To read in an example notebook into Google Colab, follow the following instructions.

1. Sign into your desired Google account.
2. Navigate your browser (preferably Google Chrome) over to: <https://colab.research.google.com/>. Ensure that you are using the correct Google Account by checking with the preferences of your selected profile in the upper right-hand corner of the Chrome window. For example:



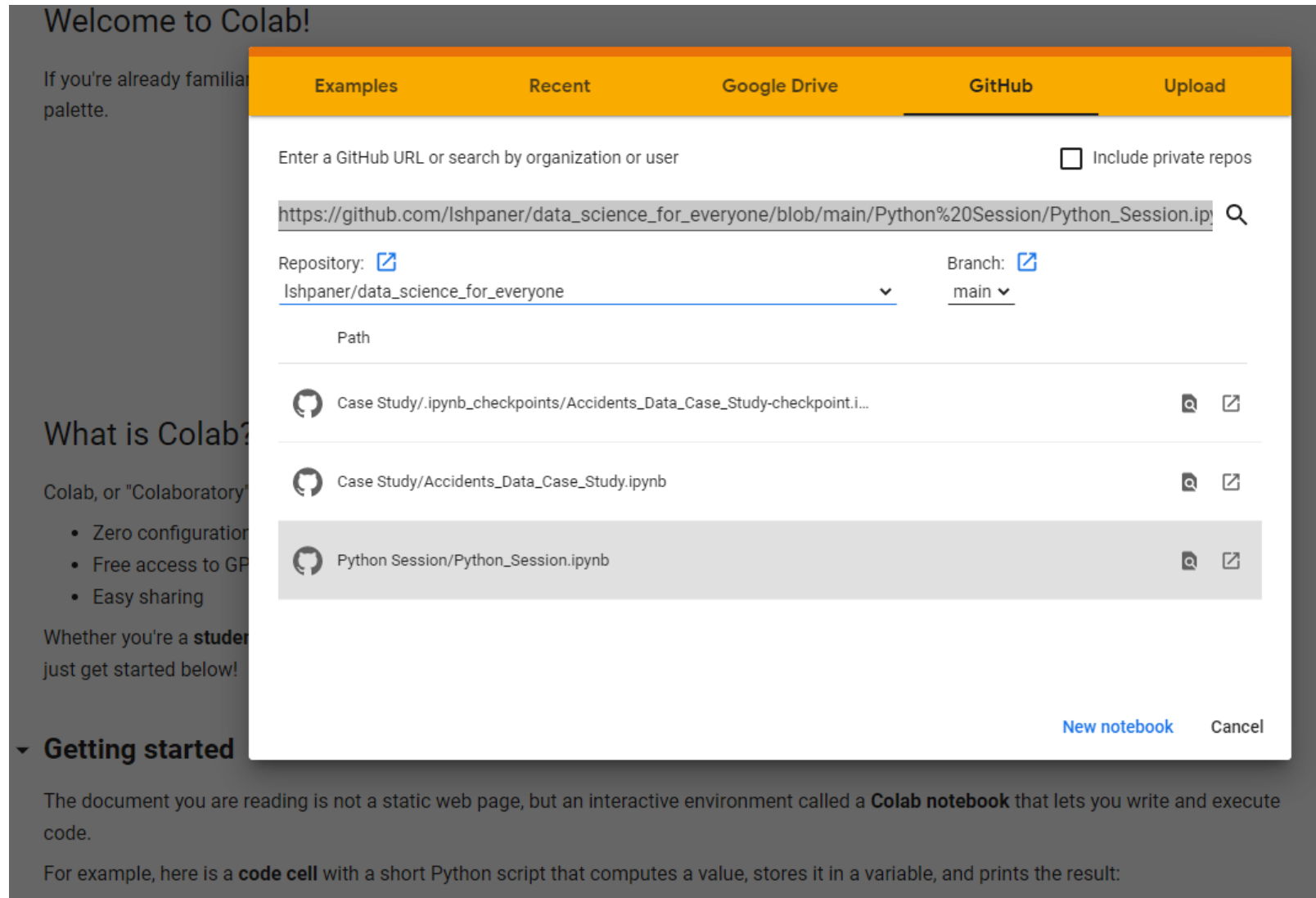
3. A new window will pop-up landing on the `Recent` tab denoted by the orange color by default. Navigate to and click on the `GitHub` tab. In the space provided below `Enter a GitHub URL or search by organization or user,` enter the following link(s):

**For The Python Introductory Session, use the following link:**

[https://github.com/lshpaner/data\\_science\\_for\\_everyone/blob/main/Python%20Session/Python\\_Session.ipynb](https://github.com/lshpaner/data_science_for_everyone/blob/main/Python%20Session/Python_Session.ipynb)

For the Python Case Study Session, use this link:

[https://github.com/lshpaner/data\\_science\\_for\\_everyone/blob/main/Case%20Study/Accidents\\_Data\\_Case\\_Study.ipynb](https://github.com/lshpaner/data_science_for_everyone/blob/main/Case%20Study/Accidents_Data_Case_Study.ipynb)



Welcome to Colab!

If you're already familiar with the Colab interface, you can skip this introduction and go to the Colab palette.

What is Colab?

Colab, or "Colaboratory", is a free, easy-to-use, and powerful environment for data science and machine learning. It's designed to be a one-stop shop for all your data science needs, from data collection and cleaning to model training and deployment.

- Zero configuration
- Free access to GPUs
- Easy sharing

Whether you're a student or a professional, you can get started with Colab in just a few minutes. Just get started below!

Getting started

The document you are reading is not a static web page, but an interactive environment called a **Colab notebook** that lets you write and execute code.

For example, here is a **code cell** with a short Python script that computes a value, stores it in a variable, and prints the result:

Examples    Recent    Google Drive    **GitHub**    Upload

Enter a GitHub URL or search by organization or user  Include private repos

Repository:  Branch:

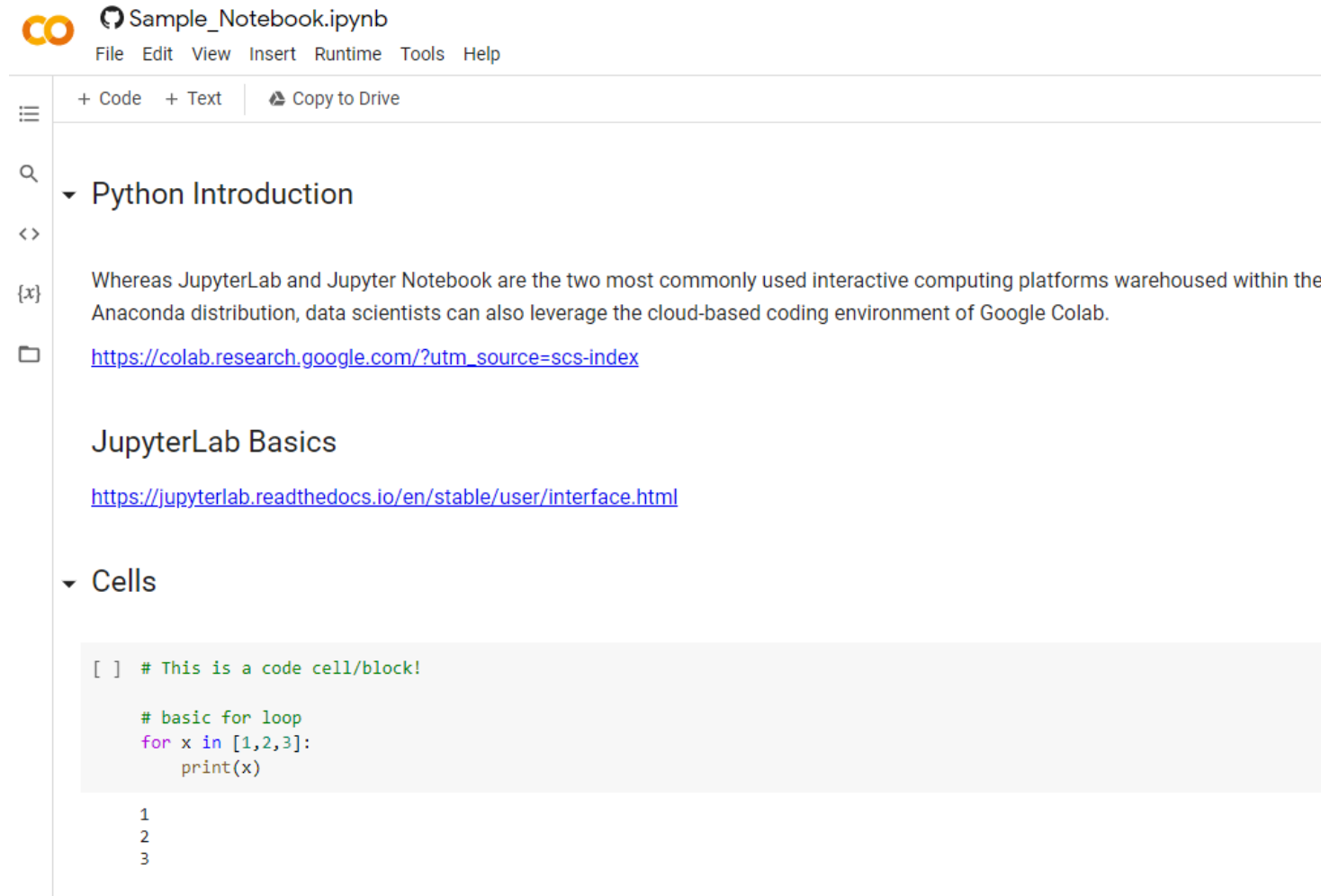
Path

Path	Search	Share
Case Study/.ipynb_checkpoints/Accidents_Data_Case_Study-checkpoint.i...	<input type="checkbox"/>	<input type="checkbox"/>
Case Study/Accidents_Data_Case_Study.ipynb	<input type="checkbox"/>	<input type="checkbox"/>
Python Session/Python_Session.ipynb	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

[New notebook](#) [Cancel](#)

Once populated, click on the search icon represented by the magnifying glass. 

Provided that this is a true and properly functioning link, this will immediately open up an instance of the notebook directly in Google Colab.



The screenshot shows a Google Colab notebook titled "Sample\_Notebook.ipynb". The interface includes a top menu bar with "File", "Edit", "View", "Insert", "Runtime", "Tools", and "Help". Below the menu, there are options to "+ Code", "+ Text", and "Copy to Drive". The notebook content is organized into sections:

- Python Introduction**: A text cell explaining that while JupyterLab and Jupyter Notebook are common, data scientists can also use Google Colab. It includes a link: [https://colab.research.google.com/?utm\\_source=scs-index](https://colab.research.google.com/?utm_source=scs-index).
- JupyterLab Basics**: A text cell with a link to the JupyterLab documentation: <https://jupyterlab.readthedocs.io/en/stable/user/interface.html>.
- Cells**: A code cell containing the following Python code:
 

```
[ ] # This is a code cell/block!

# basic for loop
for x in [1,2,3]:
    print(x)
```

 The output of the code cell shows the numbers 1, 2, and 3 on separate lines.

4. This cloud-based environment will have your standard `File, Edit, View, Insert, Runtime, Tools, and Help` menu items. However, be advised of the following important protocols for saving your work. Since you are accessing a GitHub repository directly through Google, you **CANNOT** simply navigate to `File` and then `Save`.
5. Conversely, you must click on `File` and then click on `Save a copy in Drive`. This will immediately save a backup copy to your account's Google Drive. Much like any other Google Document, your access privileges and naming convention changes will remain the same.

