Beginner's Guide To Google Colaboratory

Google Colab is a free cloud service that, in it's own words, "allows you to share Jupyter notebooks with others without having to download, install, or run anything on your own computer other than a browser!"

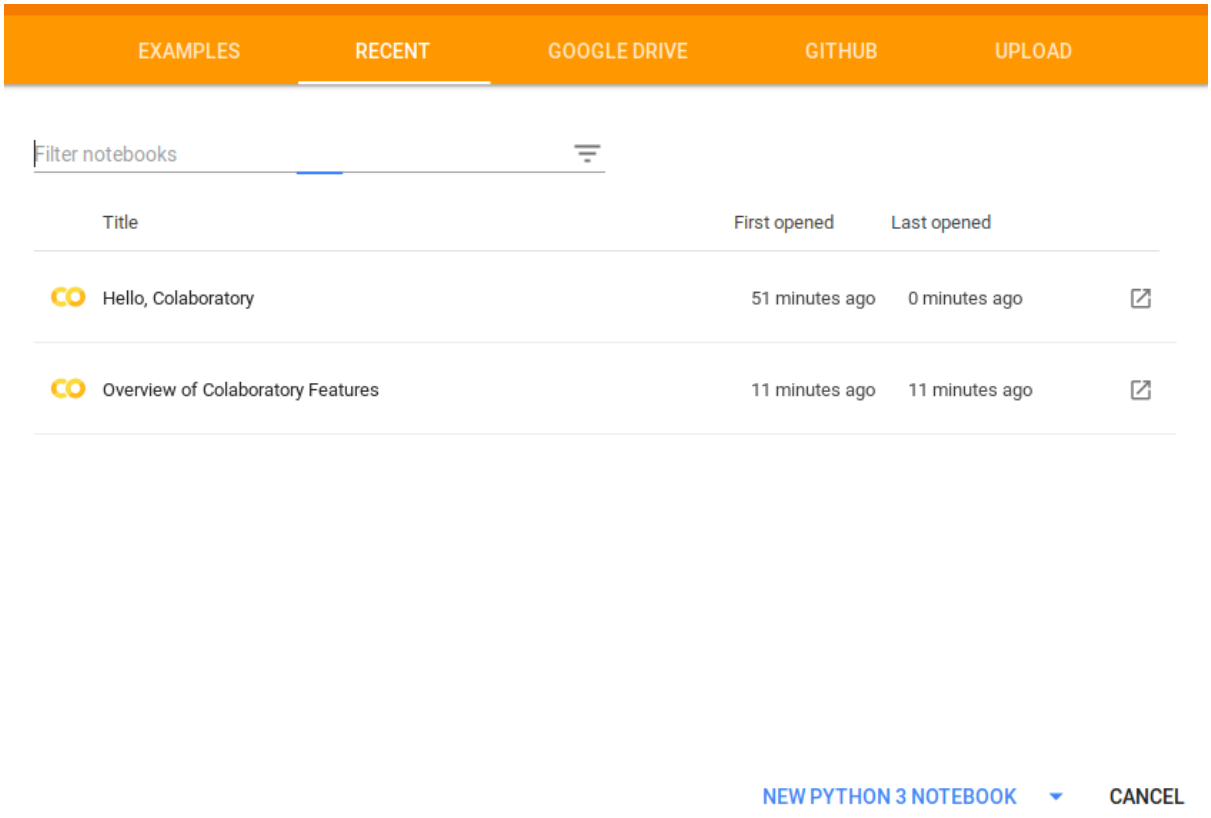
Now you may be asking,

What Are Jupyter Notebooks?

Jupyter Notebook is an open-source web application that gives you the power to create and share documents that have live code, equations, visualizations, and narrative text. Jupyter Notebook is an interactive notebook that has many applications. It supports over 40 programming languages including Python, R, Julia, Scala, and even more (meaning that it can run code written in all those languages) It's even been used for machine learning! Your Jupyter Notebooks are stored in somewhere aptly named as "my binder" which holds all those notebooks.

Getting Started!

To start using Google Colab, you need to make sure you have the latest version of Chrome or Firefox, since Colaboratory has been thoroughly tested with those desktop versions. You can install Chrome straight from Google here and you can install Firefox from Mozilla here. Once you have that done, you can head over to Colaboratory, where you will be greeted with this welcome page in your notebook.



Open up the "Hello, Collaboratory" Notebook. Don't worry about not understanding everything that it says, especially any of the TensorFlow stuff, as that is most likely not going to help you on *using* Notebooks but is for those who create Notebooks. Either way, you can run lots of languages on Notebooks, like I said before, and TensorFlow is not the only language that Jupyter Notebooks supports.

GPU/TPI Runtime Acceleration Support

Google Colaboratory supports GPU/TPU runtime acceleration support! TPU stands for “Tensor Processing Unit” which is a chip designed for Google’s math library (TensorFlow) which is used for machine learning (like neural networks). GPU stands for Graphics Processing Unit and is a card that your computer uses for graphics. GPU/TPU acceleration is using the GPU and CPU (Central Processing Unit) in your computer for tasks that use up a lot of power, like deep learning, analytics, and engineering applications. Google Colab supports the use of GPU/TPU in the applications in your Notebook, so you can run neural networks all without leaving your browser (Since you’ll be using Google’s TPU’s and CPU’s to run those applications, there’s a time limit to how long you can use them, which is around 12 hours) Google Colab also supports connecting to a Jupyter runtime on your local machine. For more info, check out Google Colab’s documentation.