

Quick Tutorial on Using Google Colaboratory

Google Colaboratory (Google Colab) is a cloud-based Jupyter notebook environment that allows you to write and execute Python code in your browser. Below is a step-by-step guide to get started.

Creating a Jupyter Notebook File

You can create a new notebook in two ways:

Method 1: From Google Drive

1. Open Google Drive (<https://drive.google.com>).
2. Click "New" → "More" → "Google Colaboratory".
3. A new Jupyter notebook (.ipynb file) will open in a new tab.

Method 2: From Google Colab Directly

1. Open Google Colab (<https://colab.research.google.com/>).
2. Click "File" → "New Notebook".
3. A new notebook will be created.

Creating a Text Cell and Basic Markdown Formatting

Adding a Text Cell

1. Click "+ Text" at the top-left of the notebook.
2. A text cell will appear where you can type explanations or documentation.

Basic Markdown Formatting

You can use Markdown for formatting text. Here are some common Markdown features:

Formatting	Markdown Syntax	Example
Bold	**Bold Text**	Bold Text
Italic	<i>*Italic Text*</i>	<i>Italic Text</i>
Code	<code>`Inline Code`</code>	<code>Inline Code</code>
Lists	<ul style="list-style-type: none">- Hello- World	<ul style="list-style-type: none">- Hello- World
Links	[Google](https://google.com)	Google
Headers	# Headers 1 ## Headers 2 ### Headers 3	Headers 1 Headers 2 Headers 3

Creating a Code Cell and Running It

Adding a Code Cell

1. Click "+ Code" at the top-left.
2. A new code cell will appear where you can enter Python code.

Writing and Running Code

Example:

```
# Simple Python print statement  
print("Hello, Google Colab!")
```

To run the code:

- Click the Play button ► on the left side of the cell.
- OR Press **Shift + Enter**.

Running and Restarting the Python Kernel

- **Run All Cells:** Click **Runtime** → **Run all** to execute all code cells.
- **Restart the Kernel:** Click **Runtime** → **Restart runtime** (useful if the notebook crashes).
- **Restart and Run All:** Click **Runtime** → **Restart and run all** to restart and execute from the beginning.

5. Exporting the Notebook to GitHub

1. Click "File" → "Save a copy in GitHub".
 2. A new window will pop up:
 - Select a GitHub repository where you want to save the file.
 - Enter a commit message (optional).
 - Click "OK".
 3. The notebook will be uploaded to your GitHub repository as a **.ipynb** file.
- ♦ If prompted, authorize Google Colab to access your GitHub account.