Getting Started with First Program in Google Colab

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How to write my first code in Python:

Usual languages are written in their script files e.g. .cpp or .R but python provides us some flexibility. We can write it as script file .py or notebook file as .pynb or internet notebook file as .ipynb. Notebooks are pretty popular these days. They provide us flexibility to write down the codes as well as texts in between hence making it a great presentation for someone (other than writer) who is reading it later on.

We can start working on python notebooks in either Google Colab or Jupyter Notebook. The Colab is the online platform hosted by Google which allows us to write codes which we or our collaborator can access online at any time or any place. While Jupyter notebook is offline and hosted in our local computer, it gives faster speed of running the programs. To know more about what Colab offers, one may like to read this file.

For the beginner, it is recommended to start with Google Colab. Jupyer notebook is also easy to use but requires installation in a local computer. However, all this is very easy relative to getting started with any other language, i.e. the learning curve is very easy here. Alternatively, one can work with .py files in Visual Basics.

Content that we should study in Python as Data Analyst:

There are tons of libraries in python and reading all of them is neither possible (in limited time) nor recommended. Here we talk about the content or type of functions/libraries that should be learned for the job of a data analyst. Some common packages for linear algebra, optimization, and data science are:

1. numpy (for linear algebra, numerical algorithms),
2. scipy (for scientific computing),
3. matplotlib (for visualization),
4. pandas (for data manipulation, relational data analyses), and
5. scikit-learn (for machine learning).
6. sqlite3 (interfacing SQL with python)

The first program : cute “Hello world”:

In any programming language the most popular first program that a programmer writes is Hello world. In Google Colab, we have two types of cells: code and text. We write *print("Hello, world!")* in the code cell to get the first program run. We can import the library that we want to use. If we write *import math* then the python will import it for us. We can now use the functions written in this library. For example, *math.pi* will give us the value of pi, the famous irrational number in math (the ratio of circumference to diameter).