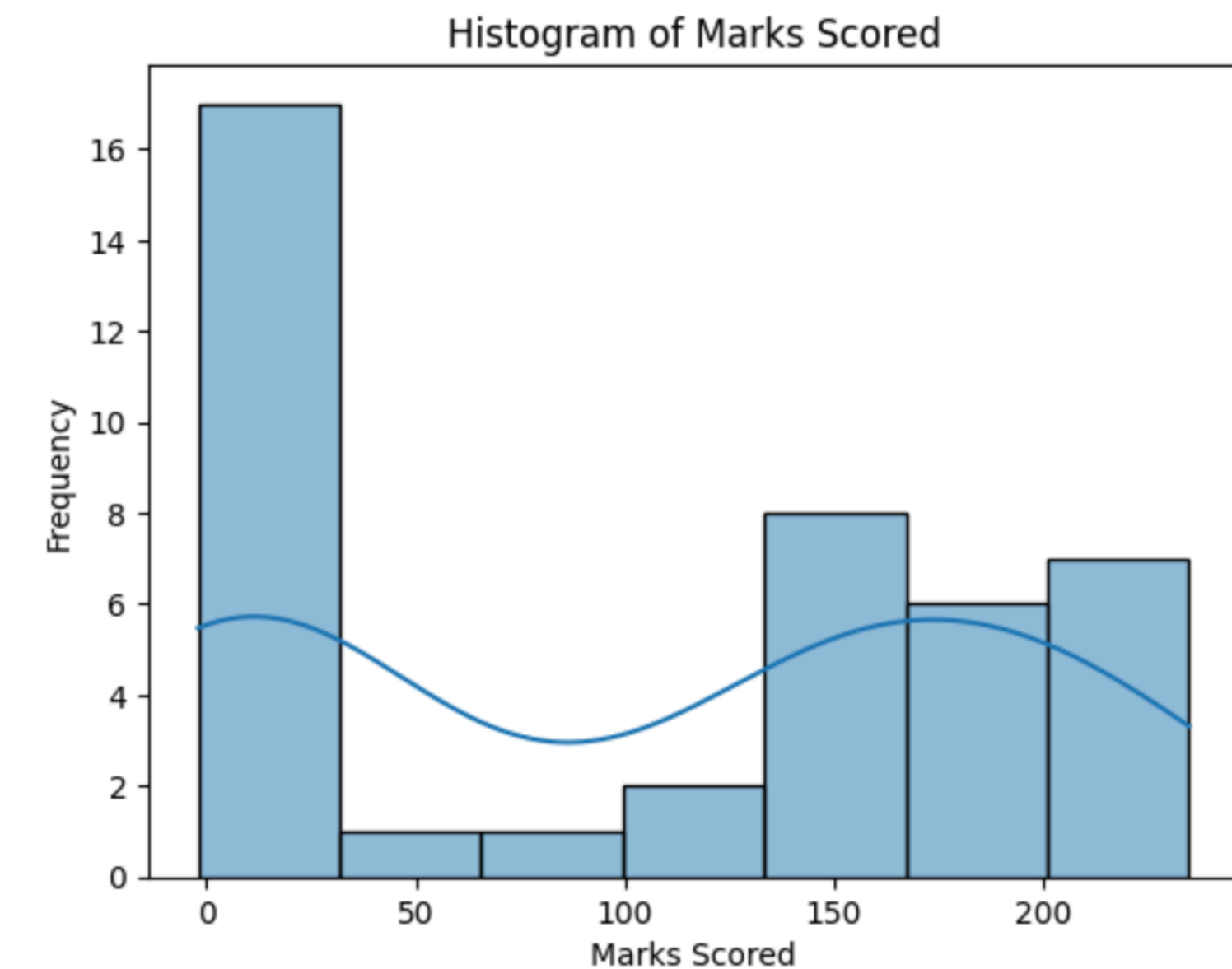# Python Starter

Colab Example

Surya, 20th Dec 2023

Motivation
Table of Contents

- What is Colab Environment?

- Simple Code Examples

- Connecting To Google Drive

- Uploading CSV

- Libraries; Why Local Environment Is Difficult To Handle

- CSV + Pandas Simple Examples

- Plotting; Seaborn + ChatGPT

Histogram of Marks Scored

Colab

What Is Colab Environment?

- colab.research.google.com

- Login with avantifellows google account.

- Has access to file system (both local and google drive).

- Has its own RAM, storage capacity.

- In crude terms, it is like your laptop.

Colab + Google Drive
Store and Access Data Easily

- Local Colab data doesn't persist for long. Once you close a window, the data is gone.

- Provide permission to access Google Drive (avantifellows account) so that all your data (say, AF google sheets) can be processed via code.

		uttarakhand_15dec_test_results			
	user_id	num_skipped	num_correct	num_wrong	marks_scored
0	3872084266	0	41	19	145
1	5879983904	0	44	16	160
2	2735391378	0	55	5	215
3	7869766368	0	39	21	135
4	2297630779	0	56	4	220
5	9461177880	60	0	0	0
6	1673659852	0	38	22	130
7	2276007204	60	0	0	0
8	4549807518	0	28	32	80
9	2570048858	0	51	9	195
10	5700834781	1	21	38	46
11	8617967703	56	4	0	16

Libraries
Easy Access to Libraries

- Well-maintained super-cool libraries are probably the biggest differentiators of Python language.

- Installing them locally takes time and effort.

- They are already installed on colab! No need to bother about versions and installations.

CSV + Pandas
Library Example

- Pandas library is used in making computations on csv files.

- Mean, Max, row updations, column updations, and many more — you will learn later on. For now, we look at a simple example.

- You can trust the library. It is an open source tool maintained by smart people.

Seaborn + ChatGPT
Plotting Data

- This is a simple example on how to integrate ChatGPT in your work.

  - Go to <u>chat.openai.com</u> and login with avantifellows google account

- Seaborn and Matplotlib libraries are useful for plotting.

- Give a descriptive prompt in chat window.

- Read the response carefully and take only the relevant parts of output code. ChatGPT's output code will likely not work without your careful intervention.

Happy Coding!