Assignment

Submission Deadline: 12.11.2023

Marks: 15

Task: Data Analysis using Statistical Techniques.

Instructions:

Submission File Name: ID\_SMP.ipynb (e.g., 190042102\_SMP.ipynb)

You are required to submit a Python notebook (in Google Colab) containing the following statistical analysis and data visualization plots:

* Box Plots
* Bar Charts
* Control Charts
* Scatter Plots
* Measures of Association
* Robust Correlation
* Linear Regression
* Robust Regression
* Multivariate Regression
* Principal Component Analysis (self-study)

Each of the items should have a text and code segment in the notebook. In the text segment, you should describe:

* when a specific technique should be used
* Are there any assumptions and/or limitations of each technique?

In the code segment, you will write a code that will be able to use a CSV file and perform the computation on that data.

You are free to choose any data however, software-related data is preferable.