# Project #1:

# **Explore the Data: Descriptive Statistics**

Before you start working with any dataset, it is important to explore the data using descriptive statistics. Descriptive statistics enable you to compare various measures across the different variables. These include mean, mode, standard deviation, etc. There are many kinds of graphical summary methods such as histograms, bar graphs, pie charts etc.

For this part of the assignment, you will be analyzing some data points describing the marks of students from a certain college. You will analyze the data and familiarize yourself with it, and tell a story about what you learned about that data.

As you work your way through the project instructions, keep the following questions in mind. Jotting down some notes related to each of them will help you to synthesize your findings into your project report.

## What you need to show in your project:

## **Discuss Overall Findings**

- 1. Where do most of the students come from?
- 2. Did marks obtained by students change with their gender?
- 3. What is the pattern of marks in different subjects? Are they similar or different? Was there a particular subject in which students performed better? Did students from a particular city perform well?
- 4. What additional types of analysis would be useful?

## **Descriptive Statistics**

- 1. What is a typical value in this dataset?
- 2. How widely do values in the dataset vary?
- 3. Are there any unusually high or low values in this dataset? (outliers)
- 4. What is the size of the dataset?

- 5. Is any observation repeating more frequently than others?
- 6. What is the central value of different subjects?
- 7. What is the variance of marks in different subjects and overall.
- 8. Create some storyline and relevant graphs to present your findings from the analysis that you have performed.

When you have completed the project, please submit your writeup for this project on the Discord .