JFreeChart Part 3

This project part 3 aims to perform statistical analysis and data visualization using external libraries (JARs). In particular, the Apache Commons Math library was used for descriptive statistics, while the JFreeChart library was used for graphical representations. I decided to stay with the same function I’ve been implementing across the board and that’s the the linear function y = 2 x + 1 evaluating it and creating a graphic to display the findings were all part of the project.

The setting up of the necessary dependencies was the first step in the implementation they were already set up for me once I implemented everything. Using the appropriate IDE setup VS code, JAR files for JFreeChart and Apache Commons Math were downloaded and added to the project. The Linear class was created to collect user input for the start, finish, and interval values of x. The program determined the corresponding y-values for the linear function using this input. To calculate summary statistics like mean and standard deviation, these results were plotted and examined using the descriptive statistics class. Additionally, the data was stored in a CSV file for future use, guaranteeing that the outcomes could be replicated.

We then used JFreeChart to create a PNG file of the displayed linear function to record the outcomes. The chart verified the accuracy of the function by successfully visualizing the relationship defined by y = 2 x + 1. To verify the results, we were told to take screenshots of the CSV file and the chart. All in all this part of the project wasn’t too bad once you got the implementation set up right which took me some time to figure out for sure.