**Task 8**

**Exploring graphs of Matplotlib**

Matplotlib is a versatile library for creating various types of data visualizations. The choice of which graphs to use for data analysis depends on the nature of your data and the specific insights you want to gain. Here are five important types of graphs commonly used in data analysis with Matplotlib

**Histograms:**

Histograms are used to visualize the distribution of a continuous variable.

They help you understand the data's central tendency, spread, and detect outliers.

Use plt.hist() to create histograms.

**Scatter Plots:**

Scatter plots are useful for visualizing the relationship between two continuous variables.

They can help identify patterns, trends, and correlations in the data.

Use plt.scatter() to create scatter plots.

**Bar Charts:**

Bar charts are effective for displaying and comparing categorical data.

They are used to visualize the distribution of data across categories.

Use plt.bar() or plt.barh() for vertical and horizontal bar charts, respectively.

**Box Plots:**

Box plots (box-and-whisker plots) are used to visualize the summary statistics of a dataset.

They show the median, quartiles, and potential outliers.

Use plt.boxplot() to create box plots.

**Line Charts:**

Line charts are suitable for showing trends and patterns in time series or ordered data.

They are often used for tracking changes over a continuous interval.

Use plt.plot() to create line charts.

Code:- https://github.com/rishabhgoyal0498/Task-8/tree/main

Your Task:- Your task is to understand and apply the above graphs to any of the data set you want and send me the file along with a report explaining what have you analyzed in these graphs and why you applied that particular graphs to the data.