

Assignment - 2

1. Given a dataset containing information about sales transactions, write Python code using Pandas to perform the following tasks:

- a. Load the dataset into a Pandas DataFrame.
- b. Display the first 5 rows of the DataFrame.
- c. Calculate the total sales amount.

2. Explain the anatomy of a Matplotlib plot and discuss its key components. Then, demonstrate how to customize the following aspects of a Matplotlib plot using Python code:

- a) Change the color and style of the plot lines.
- b) Add a title, labels to the x-axis and y-axis, and a legend to the plot.

3. Using a dataset of your choice (e.g., iris dataset), perform the following tasks:

- a) Load the dataset into a Pandas DataFrame.
- b) Explore the dataset to understand its structure and contents.

4. Write Python code to create a complex visualization using Matplotlib, incorporating the following elements:

- a. Multiple subplots are arranged in a grid layout.
- b. Different types of plots (e.g., line plot, bar plot, scatter plot) within each subplot.

5. Provide several visualizations generated from real-world datasets (e.g., housing prices over time, stock market trends, weather patterns), each created using Pandas and Matplotlib. For each visualization:

- a. Describe the dataset and the variables being visualized.

- b. Present the Python code used to generate the visualization.

