Exploratory Data Analysis (EDA) - Customer Dataset

Objective: Extract insights using visual and statistical exploration.

Tools Used: Python (Pandas, Matplotlib, Seaborn)

Step	Description
1. Data Understanding	Used df.info(), df.describe(), checked for nulls & duplicates.
2. Univariate Analysis	Explored Age, Gender, Income, and Spending Score distributions.
3. Bivariate Analysis	Visualized relationships between Age, Income, and Spending Score.
4. Correlation	Created heatmap to identify variable relationships.
5. Outlier Detection	Boxplots used to detect extreme income values.
6. Summary	Documented key findings and insights.

Key Findings:
• Dataset contains 100 customers.
• Age and Spending Score show moderate variation.
• Income has high variance; few outliers detected.
• Spending behavior differs slightly by gender.
• Positive correlation observed between Income and Spending Score.

Outcome:
Gained skill in finding patterns, trends, and anomalies through statistical and visual analysis.