Exploratory Data Analysis (EDA) Project Report

1. Introduction

This project was completed as part of a Data Analytics internship. The objective of this project is to perform Exploratory Data Analysis (EDA) on a structured dataset to understand data patterns, trends, and relationships.

2. Dataset Description

- Source: Kaggle
- Type: Structured tabular data
- Number of records:128975
- Number of features: 24

3. Tools & Technologies

- Python
- Pandas
- NumPy
- Matplotlib
- Seaborn
- Jupyter Notebook/ Google Colab

4. Data Cleaning & Preparation

- Handled missing values using appropriate techniques
- Removed duplicate records
- Corrected data types
- Treated outliers where necessary

5. Exploratory Data Analysis

- Performed univariate analysis to understand individual features
- Conducted bivariate analysis to identify relationships between variables
- Used statistical summaries and visualizations

6. Key Insights

- Identified major trends and patterns in the dataset

- Observed significant relationships between important variables

- Detected anomalies and outliers

- Visualized insights using charts and graphs

7. Conclusion

This project demonstrates practical knowledge of data cleaning, exploratory analysis, and data visualization. The insights generated can support data-driven decision-making.