E-commerce Sales Analysis Report

Introduction

This project focuses on analyzing e-commerce sales data to understand product performance, sales trends, and revenue distribution. Data visualization techniques are used to convert raw data into meaningful business insights.

Dataset Description

The dataset contains 100 records with the following columns: Date, Product, Quantity, Price, Customer_ID, Region, and Total_Sales. It represents transactional sales data across multiple products and regions.
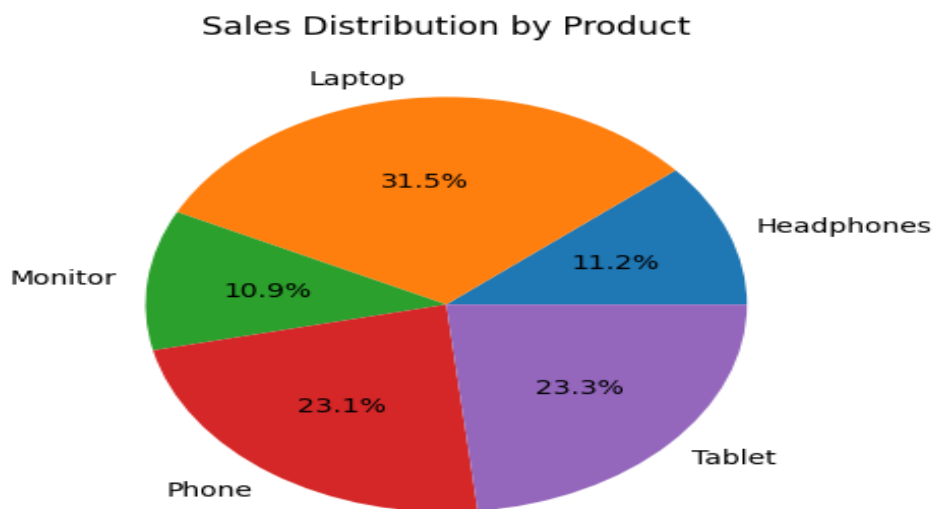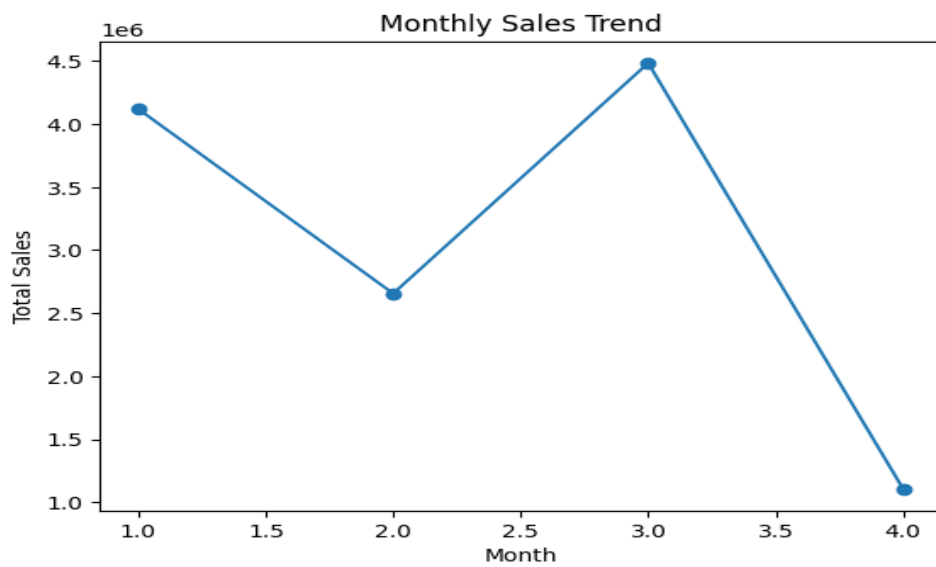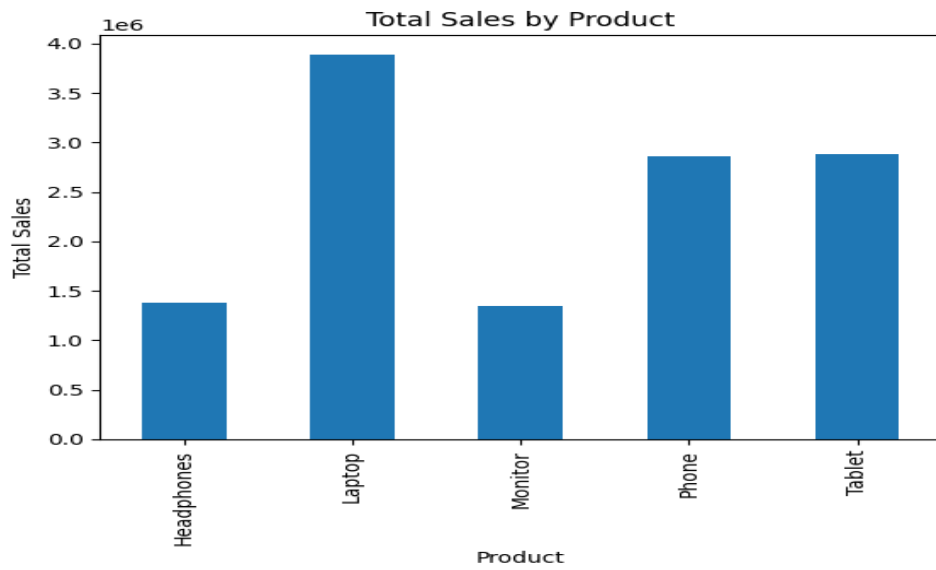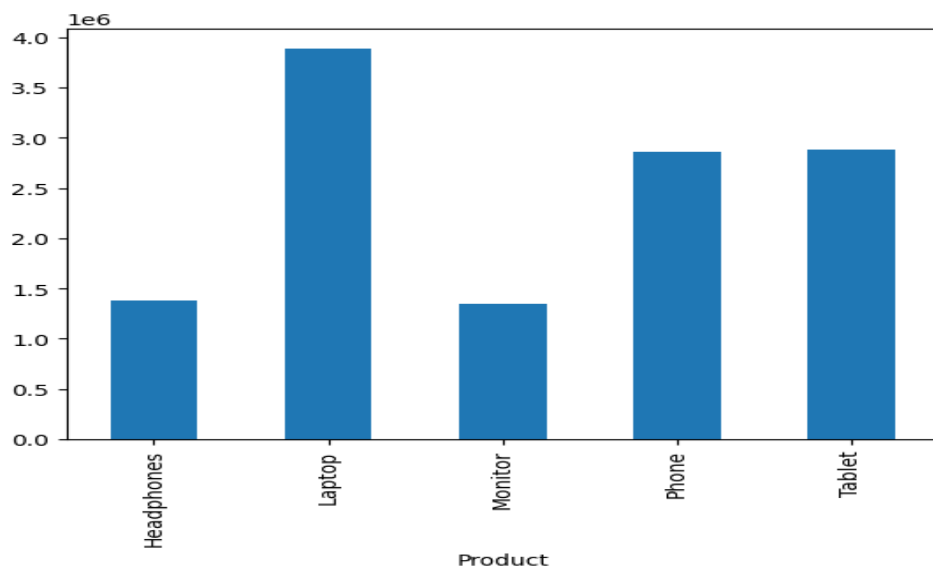
Data Cleaning Steps

The dataset was checked for missing values and data type inconsistencies. Date columns were converted to datetime format, and numerical columns such as Quantity, Price, and Total_Sales were validated to ensure accurate analysis.

Analysis Results

Key metrics such as total sales, average sales, and best-performing products were calculated. Product-wise and month-wise aggregations were performed to identify patterns and trends in sales performance.

Visualizations

Total Sales by Product

Monthly Sales Trend

Sales Distribution by Product

Insights & Conclusion

The analysis shows that laptops contribute the highest share of total sales, followed by tablets and phones. Monthly trends reveal variations in sales performance, indicating potential seasonal demand. Overall, data visualization played a crucial role in identifying actionable insights from raw sales data.