Comprehensive Data Analysis & Visualization Report
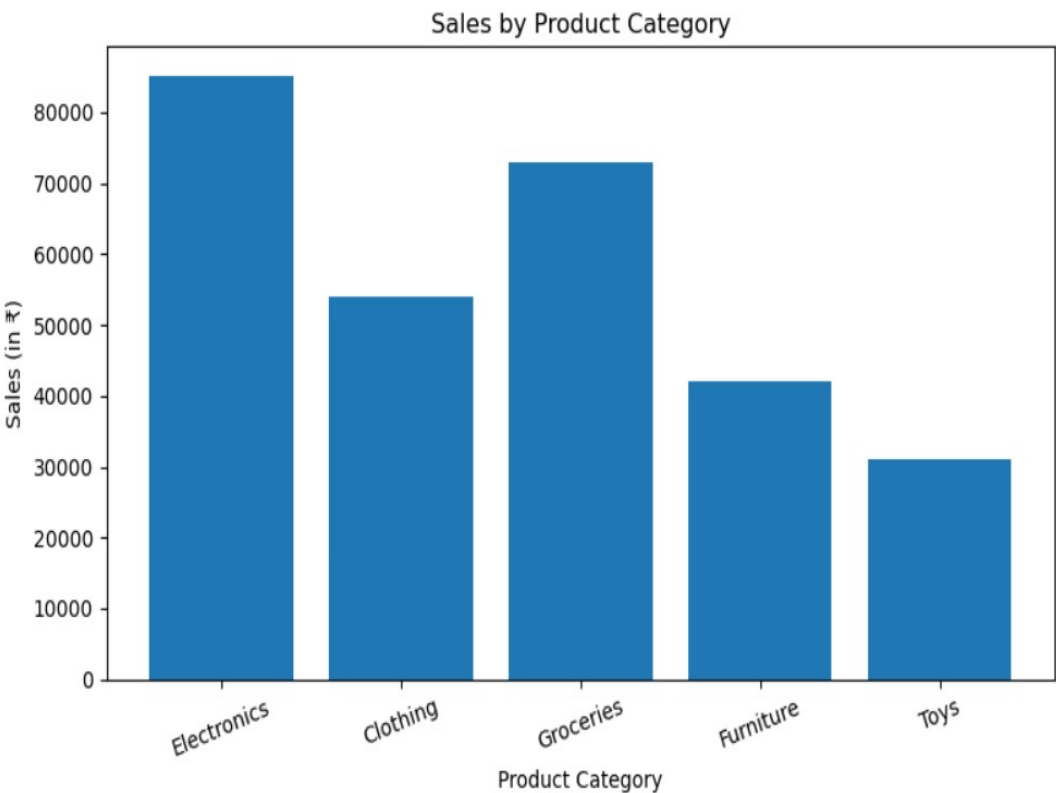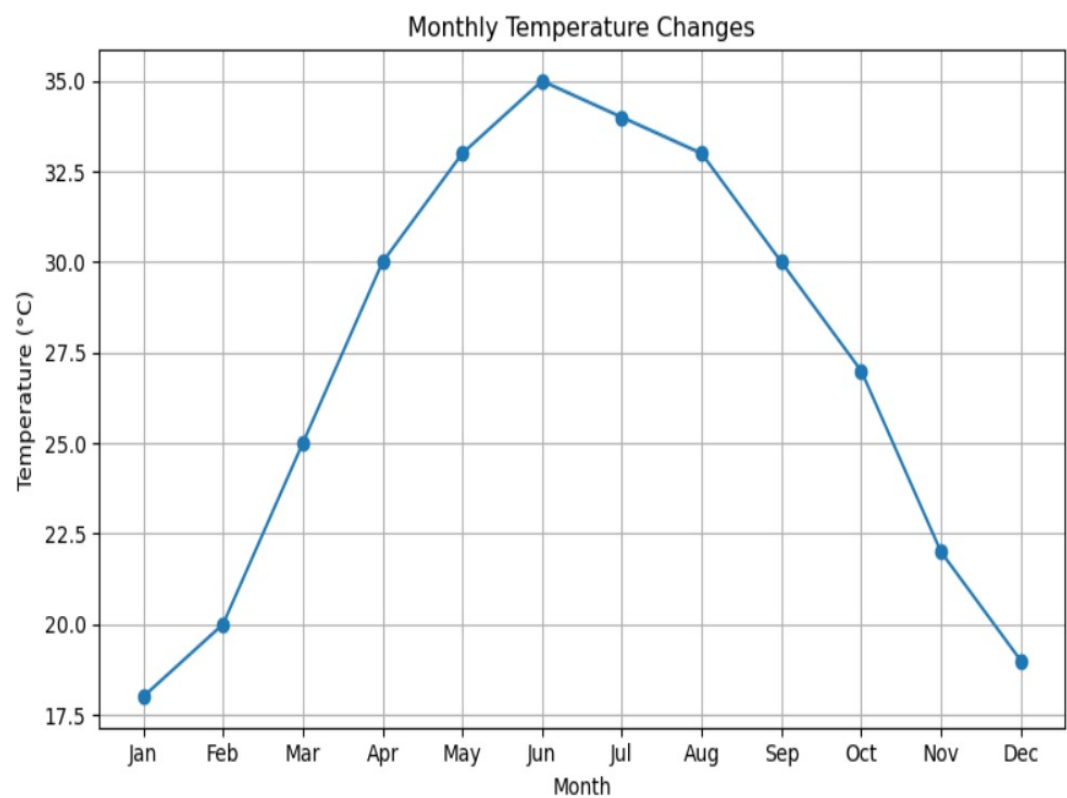
This report includes all five charts you provided along with detailed explanations for each one.
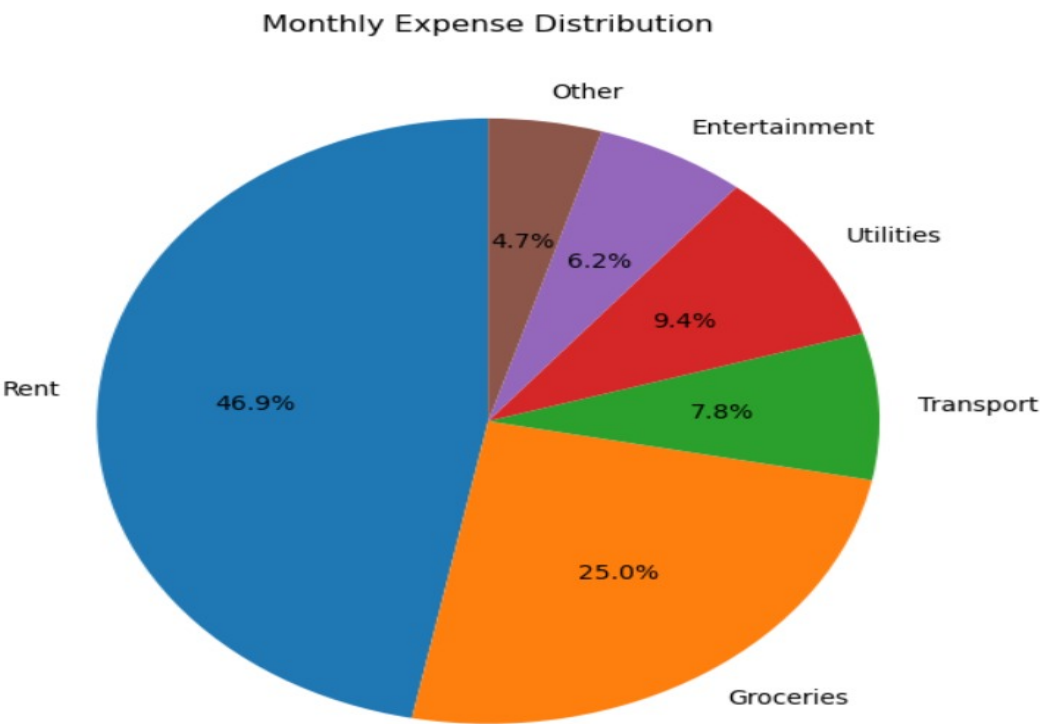
Sales by Product Category (Bar Chart)

This bar chart displays sales performance across five product categories: Electronics, Clothing, Groceries, Furniture, and Toys. Electronics show the highest sales, followed by Groceries. Toys have the lowest sales. This helps businesses identify high-performing and low-performing product lines for better decision-making.
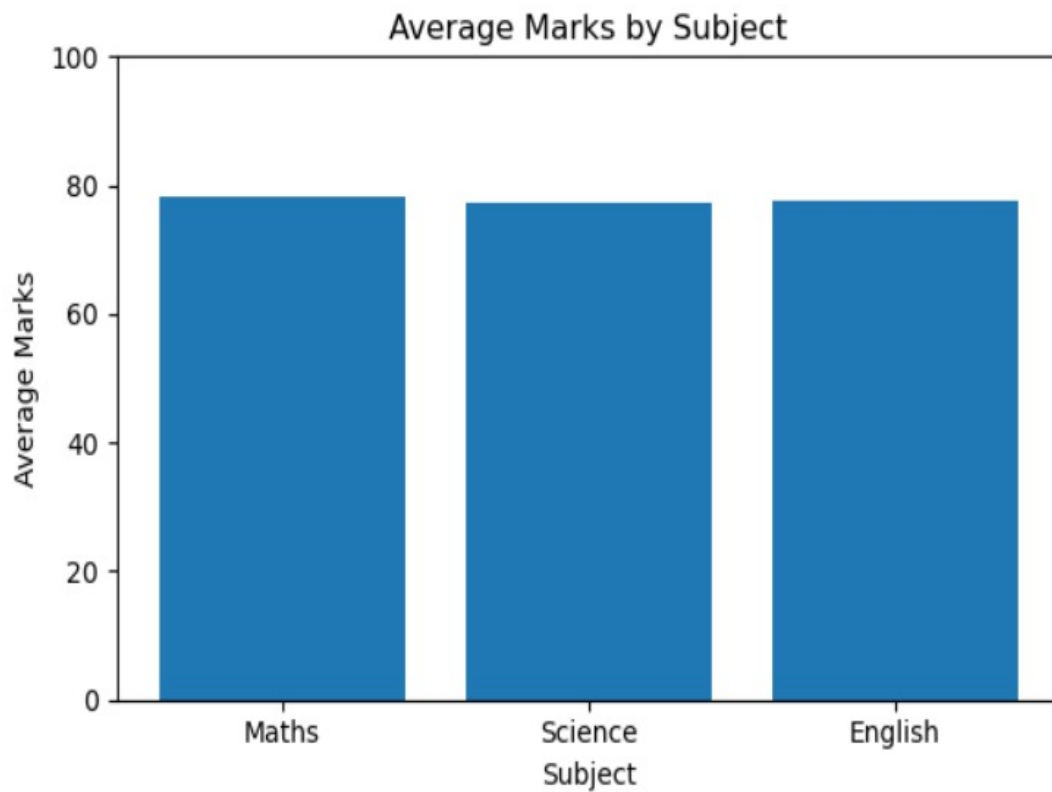
Monthly Temperature Changes (Line Chart)

This line chart illustrates the monthly temperature changes throughout the year. Temperatures rise gradually from January and peak in June. After June, temperatures steadily decline toward December. This type of analysis is helpful in climate study, energy planning, and agricultural forecasting.

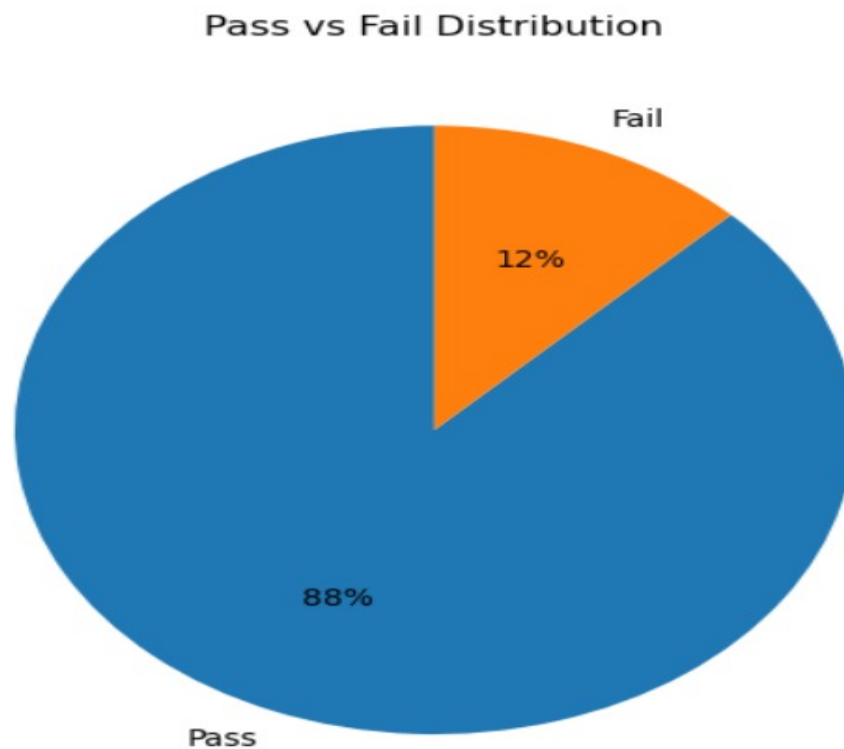# Monthly Expense Distribution (Pie Chart)

Monthly Expense Distribution

This pie chart represents the distribution of monthly expenses. Rent contributes nearly half of total monthly expenses, making it the largest component. Groceries form the next major share, followed by Utilities, Transport, Entertainment, and Others. This helps in understanding spending habits and budgeting effectively.

Average Marks by Subject (Bar Chart)

This bar chart compares average marks obtained in three subjects: Maths, Science, and English. The average scores are closely aligned, indicating that students performed consistently across all subjects. This helps teachers identify subjects that may require additional focus.

Pass vs Fail Distribution (Pie Chart)

Pass vs Fail Distribution

This pie chart shows the proportion of students who passed versus those who failed. A large majority of students passed, indicating overall good academic performance. The small failure percentage allows teachers to identify students needing additional support and intervention.