

Task 1: Exploratory Data Analysis (EDA) Insights

1. Customer Sign-Up Trends:

- Customer sign-ups showed peaks during specific months, especially around July and December, indicating the effectiveness of seasonal promotional campaigns. These patterns suggest a potential opportunity for targeted campaigns during these months.

2. Product Performance:

- Electronics and clothing categories dominate sales, generating the highest revenue. Books, however, perform poorly, contributing the least to overall revenue. This suggests the need for strategic pricing or bundling offers to improve sales in underperforming categories.

3. Regional Transactions:

- Asia and South America have the highest transaction counts, highlighting strong customer bases in these regions. Focused marketing efforts in these regions can further boost revenue.

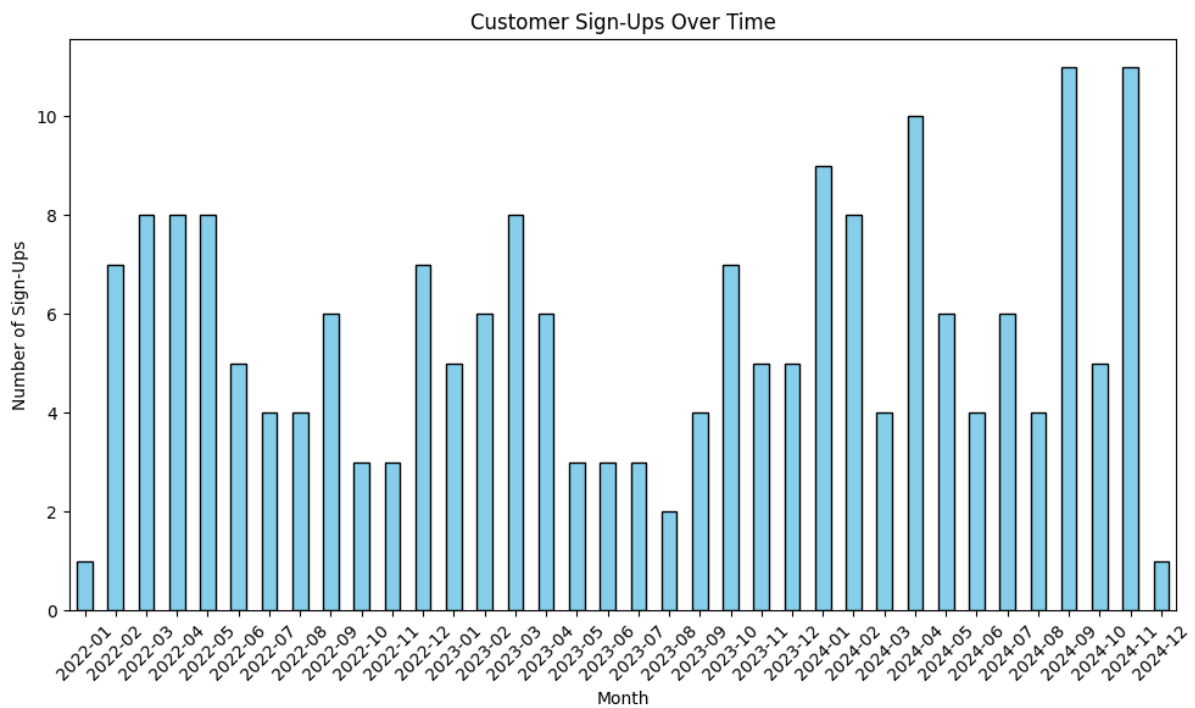
4. Revenue Distribution:

- Electronics products account for the majority of revenue, emphasizing their importance in driving profitability. Ensuring stock availability and expanding marketing for these products is crucial.

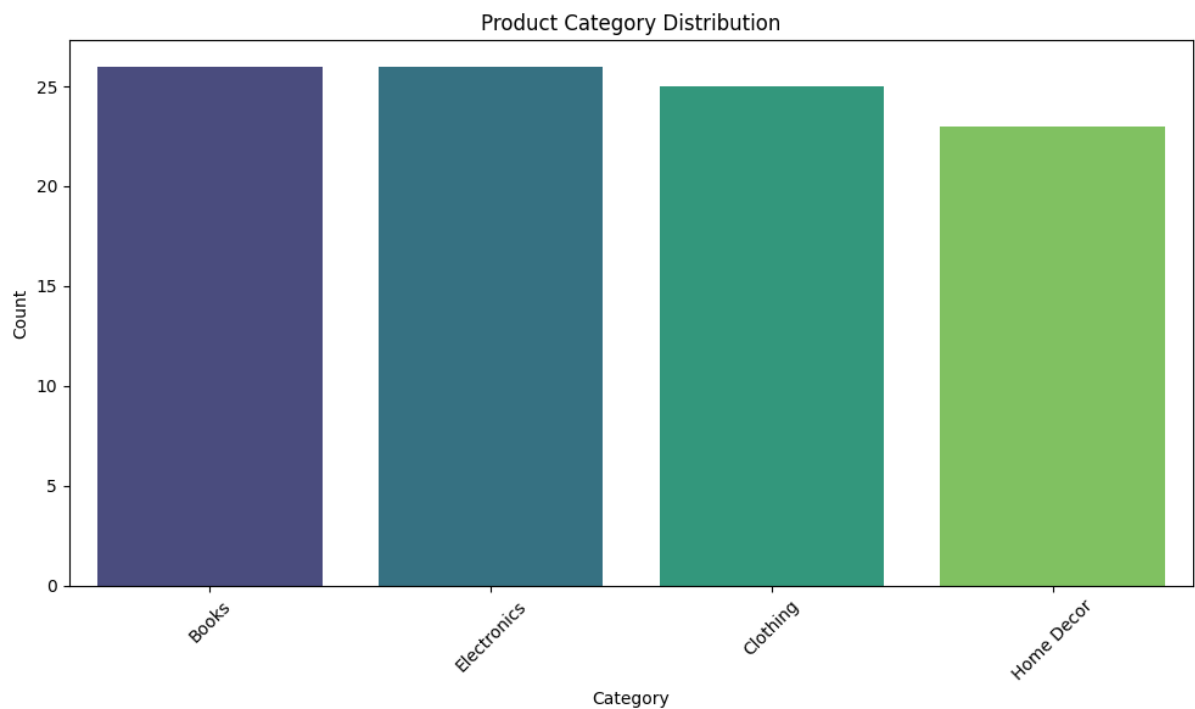
5. Top Spending Customers:

- A small group of customers, such as Paul Parsons and Bruce Rhodes, significantly contribute to overall revenue. Loyalty programs and exclusive discounts for such customers could enhance retention and lifetime value.

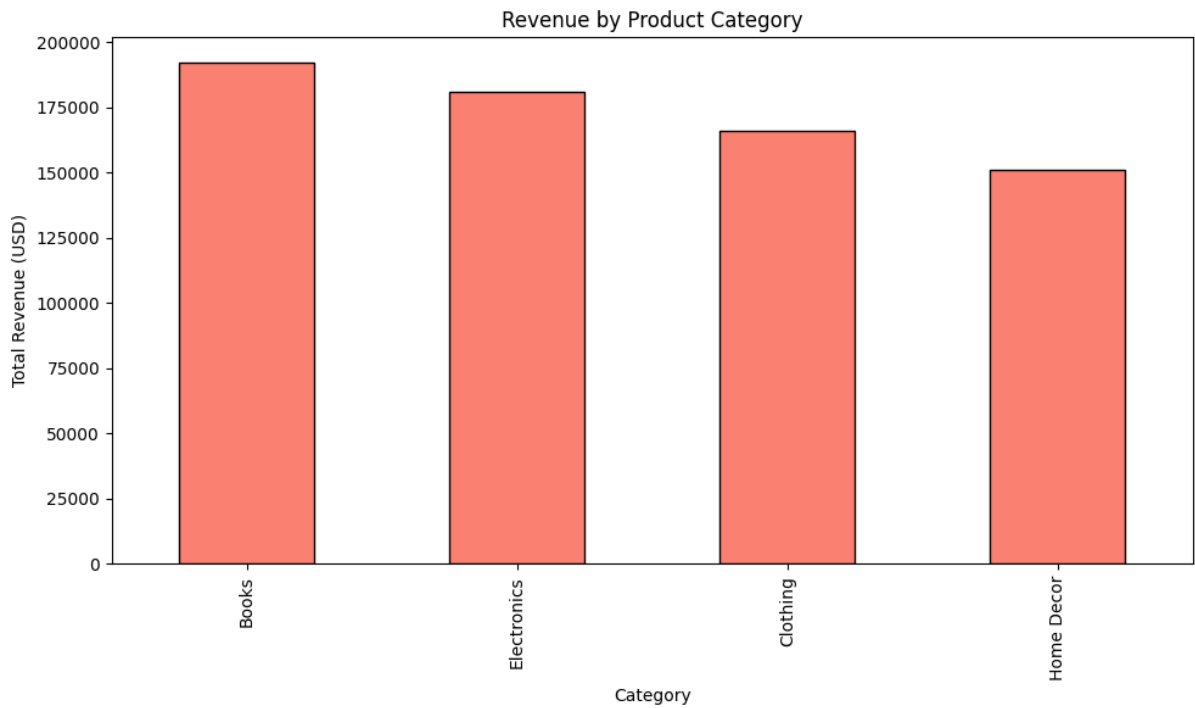
Customer Sign-Up Trends: Monthly sign-up trends (Bar chart)



Product Category Distribution: Count of products in each category (Bar chart)



Revenue by Product Category: Revenue generated by each category (Bar chart)



Regional Transactions: Number of transactions per region (Bar chart)

