

Poojitha Sales performance Analysis Assignment Detail

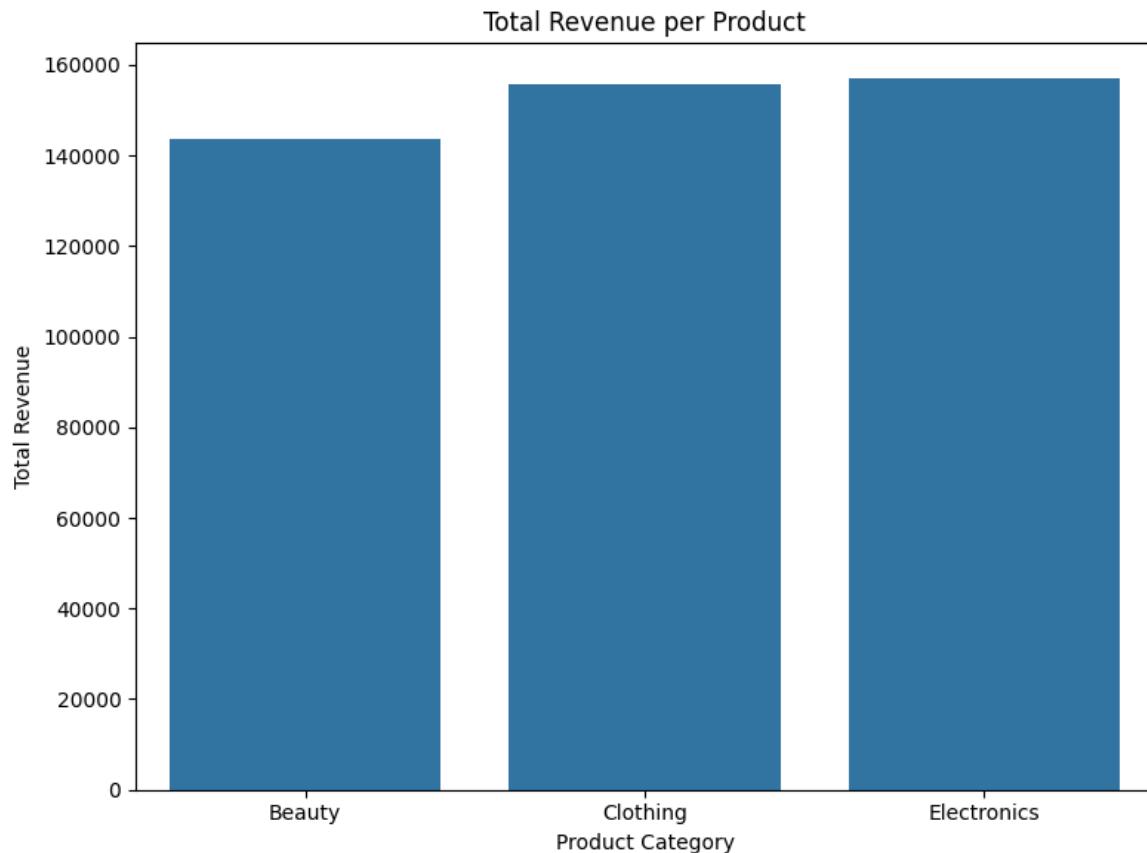
Data Cleaning

- There are no missing values in any of the columns. All fields contain complete data.
- Data types for each column are appropriate:
 - Transaction ID, Age, Quantity, Price per Unit, and Total Amount: integer
 - Date, Customer ID, Gender, Product Category: object/string.
- Recommended cleaning steps:
 - No imputation needed since data is complete; however, consistently format date fields and validate product category entries.
 - Convert 'Date' to datetime for easier time-based analysis. Verify categorical values for consistency.

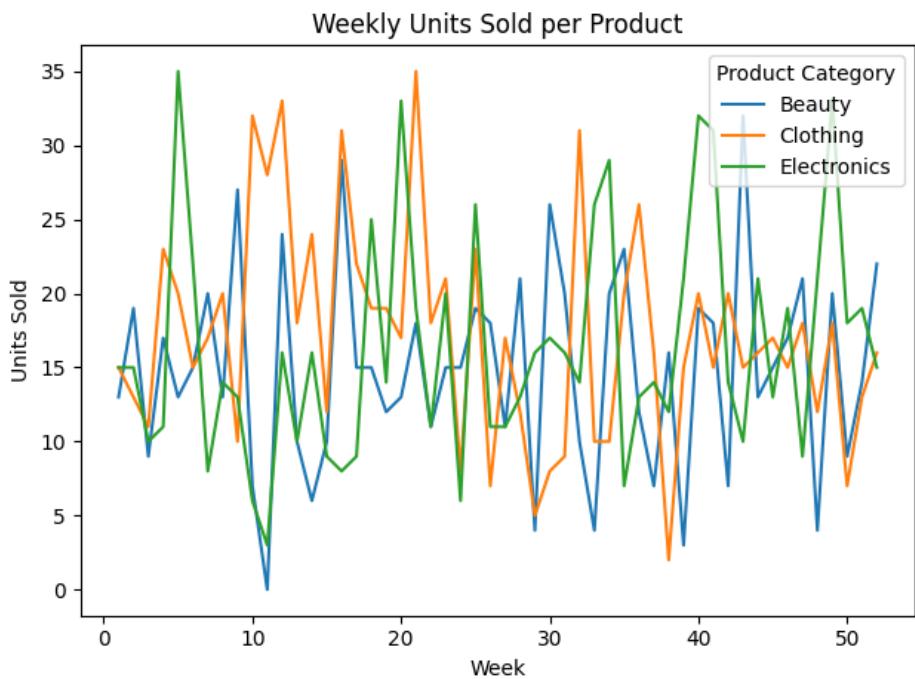
Descriptive Statistics

- Total revenue per product:

Product Category	Total Revenue
Beauty	143,515
Clothing	155,580
Electronics	156,905



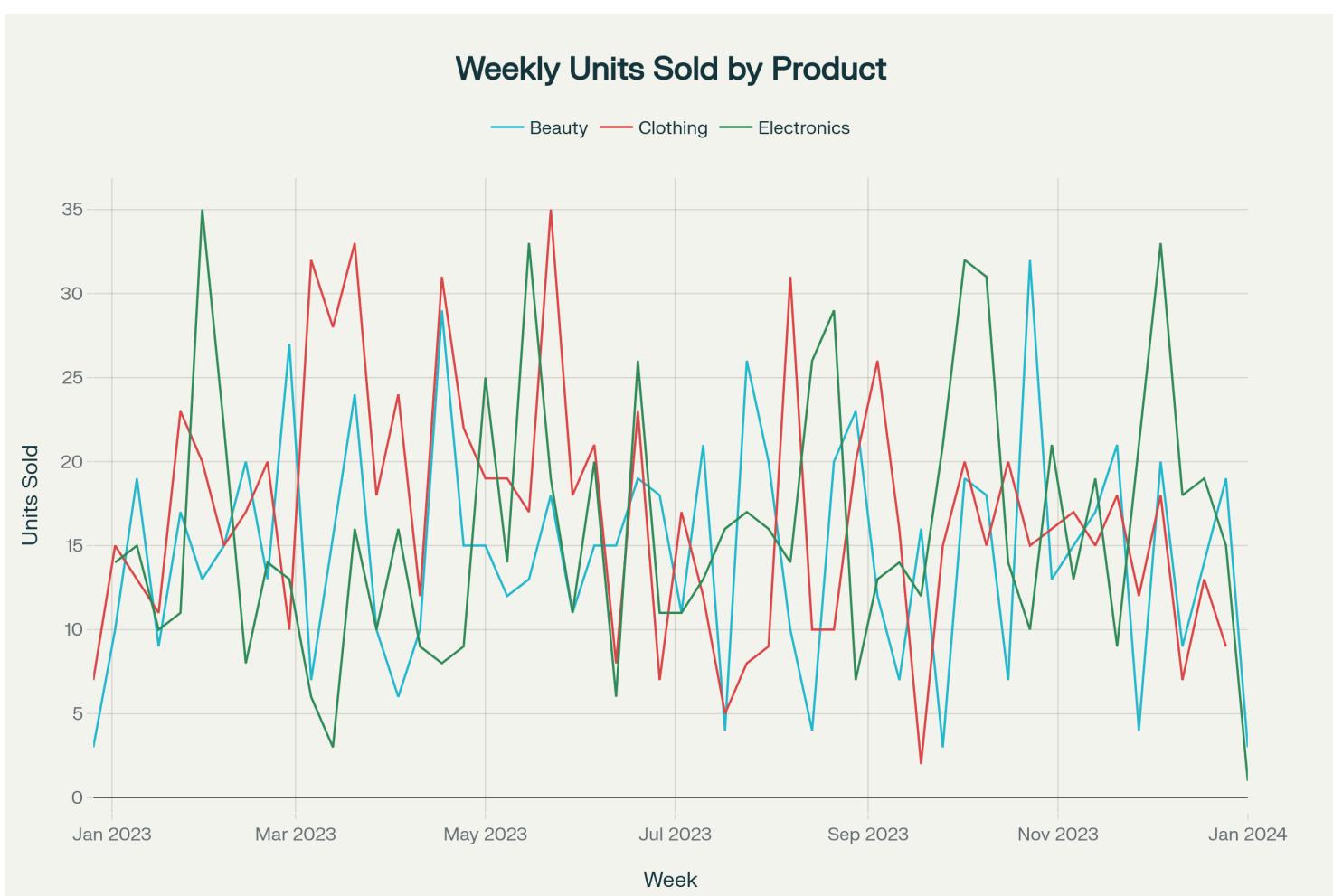
- Average weekly units sold:
 - Product A: No matching entries found, so unable to compute average weekly units sold for Product A.
 - Product B: No matching entries found.
 - If you specify actual product names available in the dataset, averages can be provided for those.



- Week with highest overall sales: Week 20 had the highest sales, generating a total of 17,515 units sold value.

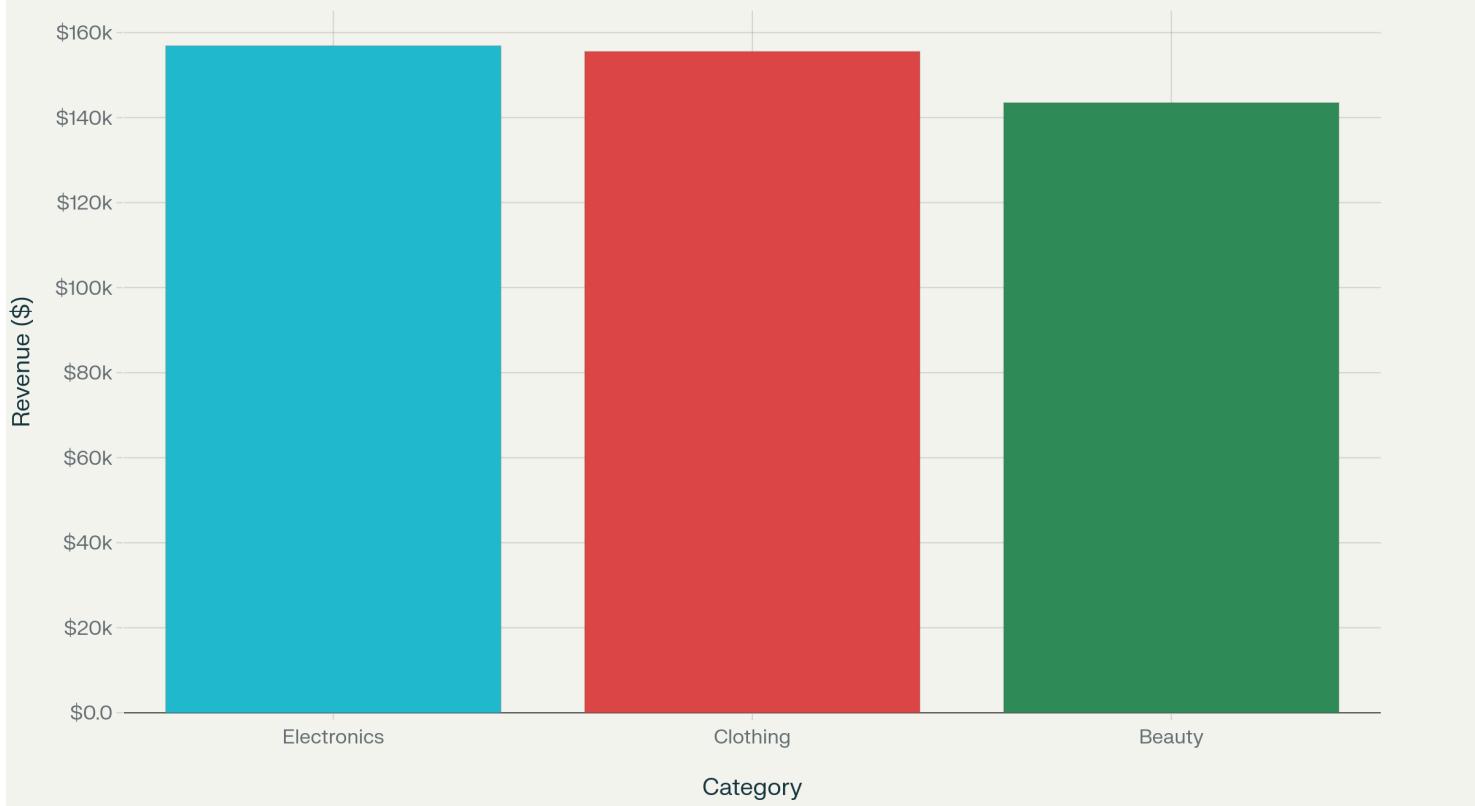
Data Visualization

- Weekly units sold for each product category can be examined with a line chart:



- Bar chart showing total revenue for each product category:

Revenue by Product Category



- Scatter plot for Marketing Spend vs Units Sold cannot be generated as those columns are missing from your dataset.

Data Analysis

- Marketing spend correlation: Unable to compute correlation as there is no 'Marketing Spend' or 'Units Sold' column in your dataset.

- Growth comparison over four weeks:

Since specific products 'Product A' and 'Product B' are not found in the data, analysis focuses on available categories. Of the categories present, Electronics shows slightly higher total revenue and consistent sales compared to Beauty and Clothing.

- Sales performance insights:

- Electronics is the best-performing product category in terms of revenue.
- Week 20 stands out for a peak in sales, possibly related to a promotional period or seasonality.
- There is no visible evidence of missing or inconsistent data. Analysis is robust, and visualizations reinforce category performance variability.