

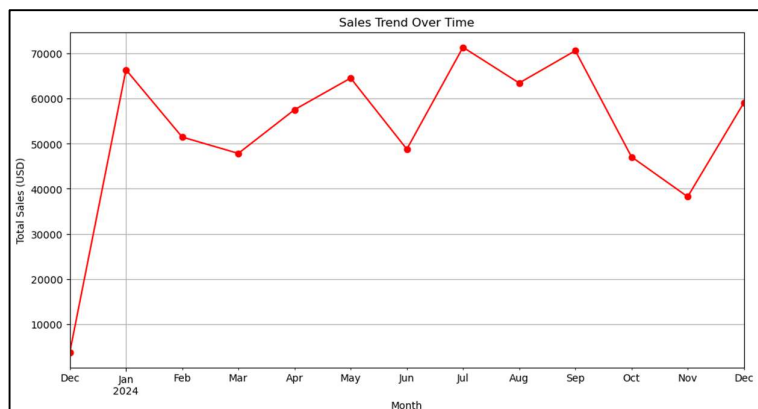
# Zeotap – Data Science Intern Assignment

## **Task 1:**

### **Exploratory Data Analysis (EDA) and Business Insights**

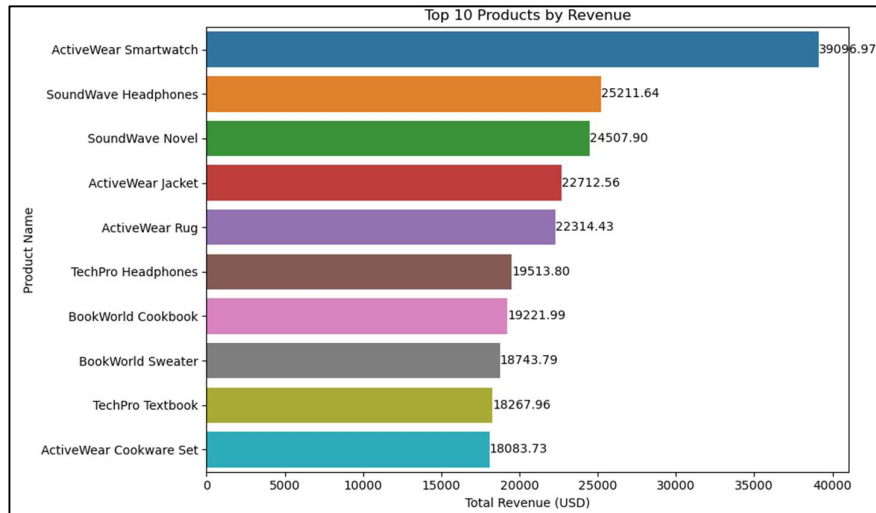
#### **1. Sales Trend Over Time**

- ❖ **Description:** A line graph showing monthly total sales trends.
- ❖ **Key Insights:**
  - Sales peaked in June and September, reaching over 70,000 units.
  - There is a significant drop in sales during February and November.
  - December shows recovery, indicating possible seasonal sales patterns.



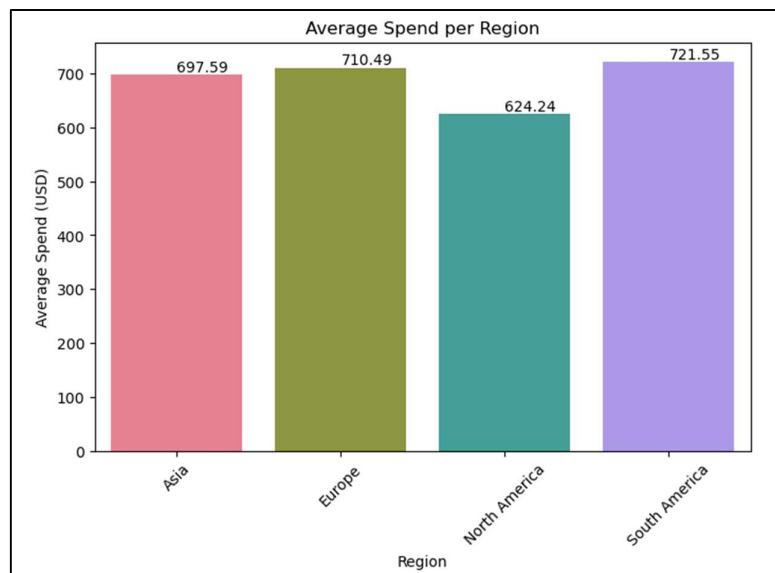
#### **2. Top 10 Product by Revenue:**

- ❖ **Description:** A horizontal bar chart ranking products by revenue.
- ❖ **Key Insights:**
  - The ActiveWear Smartwatch is the top-performing product, generating \$39,096.97 in revenue.
  - SoundWave Headphones and SoundWave Novel are also major contributors, exceeding \$24,000 in revenue each.
  - Products related to tech and activewear dominate the top 10.



### 3. Average Spend per Region

- ❖ **Description:** A bar chart showing the average customer spend across regions.
- ❖ **Key Insights:**
  - Customers in South America have the highest average spend (\$721.55), followed closely by Europe (\$710.49).
  - North America and Asia have comparatively lower average spends, but they remain close to \$700.

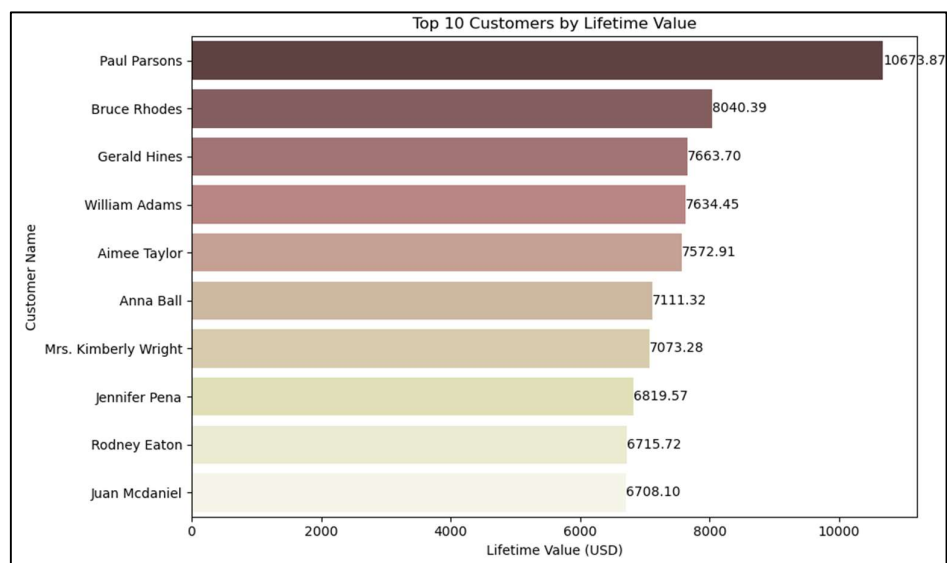
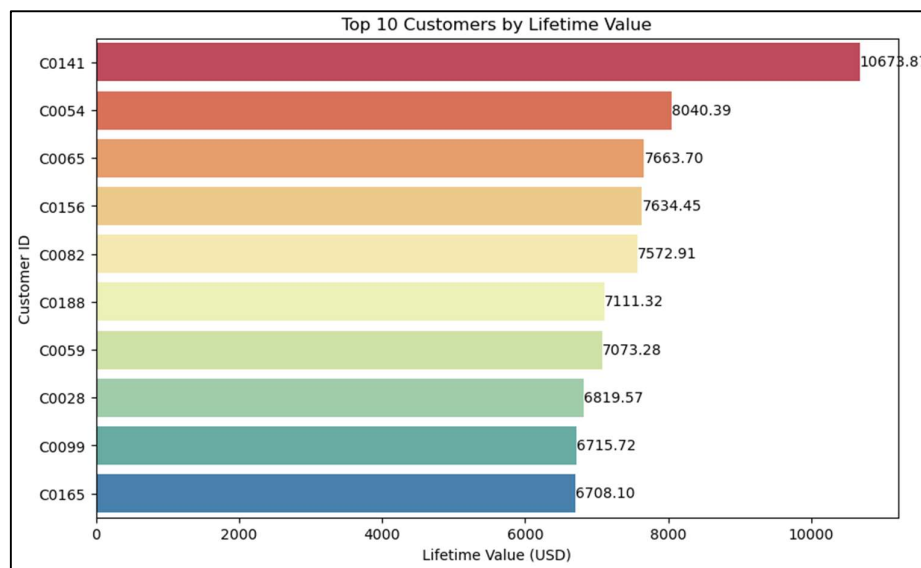


#### 4. Top 10 Customers by Lifetime Value

❖ **Description:** A horizontal bar chart ranking customers by their lifetime value (total spending).

❖ **Key Insights:**

- The top customer (ID C0141) has a lifetime value of \$10,678.87, significantly higher than the rest.
- There is a gradual decline in lifetime values among the top 10 customers, but all exceed \$6,700.



## 5. Products Category Preferences by Region

- ❖ **Description:** A Heatmap and horizontal bar chart ranking Products that are more used by the regions
- ❖ **Key Insights:**
  - All the products have shown a great impact on generating revenues by the regions but overall Books have played a major role.
  - There is a huge demand in the regions of South America followed by Europe and both North America and Asia seems to be equally contributing to the revenue generation.

