BUSINESS INSIGHTS FROM THE EXPLORATORY DATA ANALYSIS

1. Regional Revenue Distribution

The region with the highest revenue contribution is identified as South America, accounting for a significant share of total sales. This indicates a strong customer base and high product demand in this region. Expanding marketing efforts or introducing region-specific promotions here could boost overall revenue.

2. Top performing products

The top 5 revenue-generating products are ActiveWear Smartwatch, SoundWave Headphones, SoundWave Novel, ActiveWear Jacket, and ActiveWear Rug, with the ActiveWear Smartwatch leading at $39,096.97. This indicates a strong customer preference for tech-focused and lifestyle products. Investing in marketing these products or offering bundles with complementary items could drive further sales and customer retention.

3. Category-wise Revenue Insights

The **Books** category leads in revenue generation with $192,147.47, followed by **Electronics** at $180,783.50 and **Clothing** at $166,170.66. This highlights a diverse customer interest, with Books and Electronics being strong performers. Prioritizing inventory for these categories and running targeted promotions (e.g., discounts or combos) could further boost sales. Additionally, strategies to uplift the **Home Decor** category, which has the lowest revenue, may help balance overall performance.

4. Customer Spending Behaviour

The top customers (e.g., CustomerID C0141) have significantly higher average spending compared to others, showcasing their importance to the business. These high-value customers likely account for a

disproportionate share of total revenue. Implementing personalized marketing strategies, such as exclusive discounts, early access to new products, or loyalty programs, can help retain these customers and further increase their spending. Additionally, analysing their preferences can guide product recommendations and improve customer satisfaction.

Sales Trends Over Time

Sales show a seasonal pattern, with the highest revenue recorded in **July ($71,366.39)**, followed by **September ($70,603.75)**. This suggests increased customer activity during mid-year months, possibly due to seasonal promotions or holidays. The lowest revenue is observed in **November ($38,224.37)**, indicating a potential opportunity to boost sales through targeted marketing campaigns, discounts, or product launches during this period. Monitoring and leveraging these trends can optimize revenue throughout the year.