Task 1: Exploratory Data Analysis (EDA) and Business Insights

1. Regional Performance

- South America is the leading region in total sales, contributing approximately 219,352.56, which is significantly higher than other regions.
- Europe follows with total sales of 166,254.63, while North America and Asia contribute similarly, at 152,313.40 and 152,074.97, respectively.
- Action Point: Invest in regional marketing campaigns and promotions for South America to strengthen dominance and focus on increasing market share in Europe, North America, and Asia.

2. Top-Selling Products

- The Active Wear Smartwatch leads in sales volume, with 100 units sold, followed by Sound Wave Headphones at 97 units and Home Sense Desk Lamp at 81 units.
- The top 10 products collectively account for a significant portion of overall sales.
- Action Point: Prioritize inventory management for top-performing products to avoid stock outs and capitalize on their popularity by offering bundles or discounts.

3. Customer Spending Behavior

- The spending distribution indicates a small percentage of high-spending customers who contribute a large share of total revenue.
- The average transaction value is 689.99, with variations based on customer profiles and regions.
- Action Point: Implement loyalty programs and exclusive offers for high-spending customers to increase retention and encourage repeat purchases.

4. Seasonal Sales Trends

- Monthly sales trends reveal spikes during specific months, potentially indicating seasonal demand or the impact of promotions.
- Notably, months with peak sales can generate up to 20% more revenue than average months.
- Action Point: Align marketing efforts and promotional campaigns with peak sales periods to maximize revenue.

5. Category Contribution to Sales

- The Books category is the highest contributor, with total sales of 192,147.47, followed by Electronics at 180,783.50, Clothing at 166,170.66, and Home Decor at 150,893.93.
- Action Point: Focus on expanding the product line within the Books category and improve promotional efforts for underperforming categories to boost their sales.