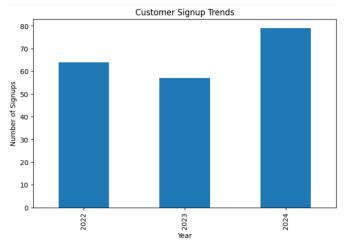
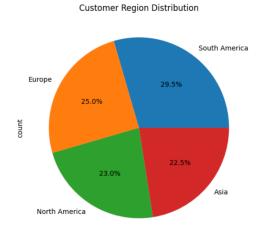
# **Business insights from the EDA**

#### **Customer Analysis**

1. **Signup Trend Growth Rate**: The highest number of signups occurred in 2024, indicating a successful promotional strategy or market event.

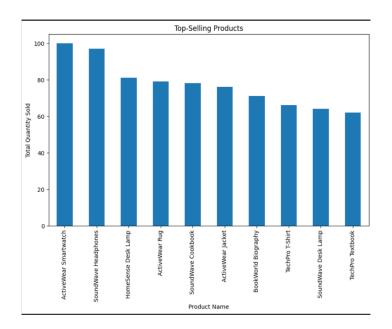


2. **Region Distribution**: South America leads with 29.5% of total signups, indicating a strong market presence, while Europe (25%), North America (23%), and Asia (22.5%) represent opportunities for targeted marketing and region-specific strategies to boost growth in these underrepresented regions.

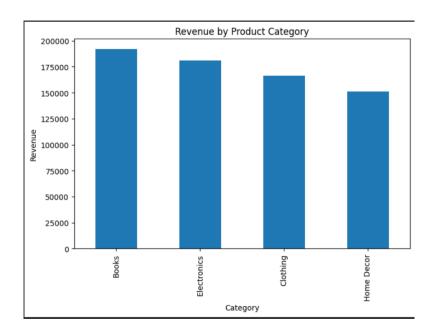


## **Product Analysis**

3. **Top-Selling Products**: The top 10 products, based on total quantity sold, highlight customer preferences and demand. Activewear Smartwatch ranks highest, indicating it's a strong performer in the market.

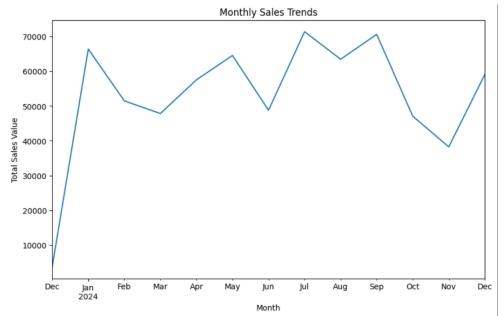


4. **Category Revenue Contribution**: Books leads in revenue contribution, making it the most profitable category, followed by Electronics and Clothing.

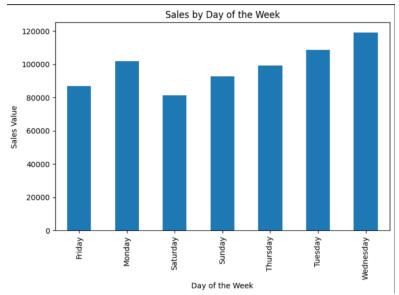


## **Transaction Analysis**

5. **Monthly Sales Trends**: Sales trends fluctuate across months, July has the highest sales, while November shows a sales dip, indicating seasonal variations.

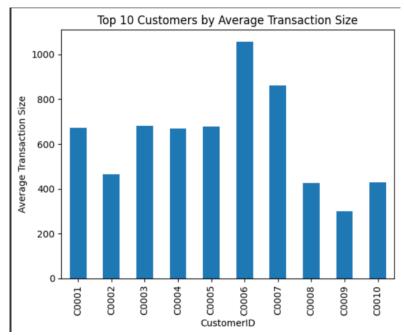


6. **Peak Sales Period**: Wednesday generates the most sales, while Saturday has the least, suggesting targeted promotional opportunities.



#### 7. Average Transaction Size per Customer

The highest average transaction size is from C0006, indicating a group of high-value customers. Targeting these customers with personalized offers could drive more revenue.



8. **Transaction Frequency by Customer:** A significant portion of customers make fewer transactions, while a small group frequently purchases. This highlights an opportunity to engage low-frequency customers with targeted promotions to increase their transaction frequency.

