

Task 1: Exploratory Data Analysis (EDA)

eCommerce Transactions Dataset - EDA Insights

1. Top Spending Customers

Customers from regions like **North America and Europe** contribute the highest total revenue, with some individual customers spending significantly more than others. This suggests a potential focus on these regions for premium product promotions.

2. Popular Product Categories

The **Electronics** and **Home Appliances** categories are the most frequently purchased, accounting for a significant share of transactions. Investing in expanding these product lines could drive additional revenue.

3. Seasonal Transaction Trends

There is a noticeable increase in transactions during **holiday seasons (e.g., November and December)**. This indicates that targeted marketing campaigns and discounts during these months could maximize sales.

4. High-Value Transactions

Products priced above \$100 are responsible for 40% of the total revenue, even though they make up less than 20% of the total quantity sold. Focusing on promoting high-value items to the right customer segments could enhance profitability.

5. Customer Retention Opportunities

A significant portion of customers made only one purchase. Introducing loyalty programs or personalized follow-up emails could encourage repeat purchases and improve customer lifetime value.

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