

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

Business Insights:

1. Top-Selling Product Categories

The dataset reveals that products in categories like Electronics, Books, and Clothing are the most frequently purchased, indicating high customer demand in these sectors. This insight can guide inventory stocking strategies.

2. Sales Concentration in Regions

Sales data indicates that regions such as South America and Europe contribute significantly to the overall revenue, suggesting targeted marketing campaigns in these areas to maximize sales.

3. Customer Behaviour

Customers who signed up earlier in 2024 tend to make more frequent purchases and have higher total spending compared to those who signed up later in the year. This suggests the importance of engaging new customers quickly to increase their activity and spending.

4. Seasonal Trends in Sales

Monthly analysis shows a peak in sales in January, July, and November, likely because of New Year shopping, mid-year offers, and holiday preparations. To boost revenue, businesses should focus on increasing stock and offering discounts during these months.

5. Price-Sales Relationship

A positive correlation is observed between product price and total value, meaning higher-priced products contribute more significantly to revenue. This indicates an opportunity to introduce premium product lines.