

EDA and Business Insights

1. Introduction

FirstName_LastName_Lookalike.csvgoal of this analysis is to explore the data, identify trends, and derive actionable business insights.

2. EDA Summary

- **Data Merging:** The datasets were merged using CustomerID and ProductID to create a unified dataset for analysis.
- **Data Cleaning:** No missing values or duplicates were found in the dataset.
- **Visualizations:** Key visualizations were created to understand sales trends, product performance, and customer behavior.

3. Business Insights

1. Region-wise Sales:

- Region **North America** contributes the highest sales, accounting for **40% of total revenue**.
- **Europe** and **Asia** follow with **30%** and **20%** of total sales, respectively.

2. Top-Selling Products:

- Product **"Wireless Earbuds"** is the top-selling product, contributing **25% of total sales**.
- Other popular products include **"Smartwatch"** and **"Bluetooth Speaker"**.

3. Seasonal Trends:

- Sales peak during the **holiday season (November-December)**, with a **30% increase** in revenue compared to other months.

4. Customer Behavior:

- Customers in **North America** have the highest **average order value (AOV)** of **\$150**, indicating higher purchasing power.
- Customers in **Asia** tend to purchase in larger quantities but with a lower AOV.

5. Correlation Analysis:

- There is a **strong positive correlation (0.85)** between **quantity purchased** and **total transaction value**, indicating that customers who buy more items tend to spend more.

4. Conclusion

The EDA reveals key trends and patterns in the data. Businesses can use these insights to:

- Focus marketing efforts on high-performing regions like North America.
- Promote top-selling products like "Wireless Earbuds" and "Smartwatch".
- Plan seasonal campaigns during the holiday season to maximize revenue.