Pranav Dhobi - EDA Report

1. Introduction

The goal of this task is to perform Exploratory Data Analysis (EDA) on an eCommerce dataset comprising three files: Customers.csv, Products.csv, and Transactions.csv. The objective is to analyze the data, identify patterns, and extract actionable insights that can improve business strategies.

2. Dataset Overview

1. Customers.csv:

- Contains customer information, including CustomerID, CustomerName, Region, and SignupDate.

2. Products.csv:

- Contains product details, including ProductID, ProductName, Category, and Price.

3. Transactions.csv:

- Contains transaction details, including TransactionID, CustomerID, ProductID, TransactionDate, Quantity, TotalValue, and Price.

3. Key Insights

1. Region-wise Customer Distribution:

- Top Region: South America has the highest number of customers (59 customers). This indicates that the business has a strong customer base in this region.

2. Top Product Category:

- Books is the most popular category, with 681 units sold. This highlights a strong customer interest in this product segment.

3. High-Value Customer:

- Customer C0141 has the highest total spending of $10,673.87, making them a key customer for targeted marketing and retention efforts.

4. Seasonal Trends:

- Peak Sales Month: Month 7 (July) records the highest total sales of $71,366.39. This suggests a seasonal sales spike, which could be leveraged for marketing campaigns.

5. Average Transaction Value:

- The average transaction value across all customers is $690.00, indicating that the business operates within a mid-to-high price range.