Customer Segmentation (Python)

Overview

This project applies clustering algorithms to segment customers based on purchase behavior. The segmentation allows companies to design targeted marketing campaigns.

Tools & Technologies

Python (Pandas, Matplotlib, Scikit-learn), Jupyter Notebook

Methodology

1. Loaded customer purchase history data.
2. Cleaned missing values and normalized data.
3. Applied K-Means clustering to group customers.
4. Visualized clusters using PCA.
5. Analyzed characteristics of each segment.

Findings & Insights

The analysis identified three main customer groups: high-value frequent buyers, occasional buyers, and discount-sensitive customers.

Conclusion

The segmentation helps businesses target promotions more effectively and retain high-value customers.