## **Customer Segmentation Analysis Report**

#### 1. Introduction

This project aims to analyze customer data to create meaningful segments that can enhance marketing strategies and personalization. By effectively segmenting customers, businesses can develop targeted campaigns, better offers, and personalized communication strategies.

## 2. Methodology

The methodology followed in this project consists of several key steps:

- 1. Data Collection: Gathering anonymized customer data from the CRM.
- 2. Data Cleaning: Handling missing values, detecting and treating outliers.
- 3. Exploratory Data Analysis (EDA): Using statistical methods and visualizations to understand data patterns.
- 4. Clustering: Applying K-Means clustering to segment customers based on similar attributes.
- 5. Evaluation: Using metrics like silhouette score and elbow method to determine the optimal number of clusters.

#### 3. Analysis and Results

The analysis identified several customer segments, each with distinct characteristics such as spending habits, demographics, and engagement levels. These segments provide valuable insights into customer behavior, enabling the development of targeted marketing campaigns.

#### **Key Insights:**

- Segment A: High-value customers with frequent purchases.
- Segment B: Mid-value customers with potential for upsell.
- Segment C: Low-value customers with sporadic purchases.

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### 4. Conclusions and Recommendations

Based on the customer segmentation, the following recommendations can be made:

- 1. Focus marketing efforts on high-value customers (Segment A) to increase retention and loyalty.
- 2. Develop targeted campaigns for mid-value customers (Segment B) to encourage upsells.
- 3. Implement re-engagement strategies for low-value customers (Segment C) to boost purchase frequency.