

Title: Lookalike Model for Customer Recommendation

1. Problem Definition

The goal of the Lookalike Model is to recommend similar customers based on their transaction history and demographic profile. The model generates similarity scores to help identify customers with similar purchasing behaviors.

2. Feature Engineering

We used the following features to define customer profiles:

- **Demographic features:** Region, signup date.
 - **Transactional features:** Total spend, quantity purchased, product categories.
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3. Model Overview

To calculate similarity, we used **Cosine Similarity** between customer vectors derived from transactional and demographic data. For each customer, we recommend the top 3 lookalike customers based on similarity scores.

4. Example of Lookalike Recommendations for Customers C0001 - C0020

CustomerID LookalikeCustomerID SimilarityScore

C0001	C0034	0.87
C0001	C0067	0.85
C0001	C0055	0.82
C0002	C0045	0.89
...

5. Insights

- The lookalike model helps businesses target similar customers for marketing campaigns, improving customer acquisition and retention.
- High similarity scores indicate customers with similar purchasing patterns, allowing for tailored recommendations.