

CDACL-002-Customer Segmentation

Based on purchase data from shoppers in the U.S. market, perform the following tasks:

- 1) Identify the product categories where discounts should be applied.
Provide your reasoning.
- 2) Identify card spending based on age and explore the impact of seasons and locations.

Perform clustering of the customers into 3 or more groups - identify which factors are dominant and arrive at targeted marketing campaigns based on the shopping trends.

About Dataset:

This dataset encompasses various features related to customer shopping preferences, gathering essential information for businesses seeking to enhance their understanding of their customer base. The features include customer age, gender, purchase amount, preferred payment methods, frequency of purchases, and feedback ratings. Additionally, data on the type of items purchased, shopping frequency, preferred shopping seasons, and interactions with promotional offers is included. With a collection of 3900 records, this dataset is a foundation for businesses looking to apply data-driven insights for better decision-making and customer-centric strategies.

Database Credentials:

<http://18.136.157.135/phpadmin/>

Host Name: localhost

Host User Name: root

Host password: 20sk!@MD\$@*1920!

Database: project_shopping_trends

Username: dm_team17

Password: 9o!etlr=itA

Attributes Information:

- **Customer ID** - Unique identifier for each customer
- **Age** - Age of the customer
- **Gender** - Gender of the customer (Male/Female)
- **Item Purchased** - The item purchased by the customer
- **Category** - Category of the item purchased
- **Purchase Amount (USD)** - The amount of the purchase in USD
- **Location** - Location where the purchase was made
- **Size** - Size of the purchased item
- **Color** - Color of the purchased item
- **Season** - Season during which the purchase was made
- **Review Rating** - Rating given by the customer for the purchased item
- **Subscription Status** - Indicates if the customer has a subscription (Yes/No)
- **Shipping Type** - Type of shipping chosen by the customer
- **Discount Applied** - Indicates if a discount was applied to the purchase (Yes/No)
- **Promo Code Used** - Indicates if a promo code was used for the purchase (Yes/No)
- **Previous Purchases** - The total count of transactions concluded by the customer at the store, excluding the ongoing transaction
- **Payment Method** - Customer's most preferred payment method
- **Frequency of Purchases** - Frequency at which the customer makes purchases (e.g., Weekly, Fortnightly, Monthly)

Cluster the customers based on their trends and write an analysis report. You can provide your inputs/solution as a PPT presentation and you can explain your project, record it, and send it with the PPT file.