Customer Personality Analysis

Customer personality analysis helps a business to modify its product based on its target customers from different types of customer segments. For example, instead of spending money to market a new product to every customer in the company’s database, a company can analyze which customer segment is most likely to buy the product and then market the product only on that particular segment.

**Attributes**

**People**

* ID: Customer's unique identifier
* Year\_Birth: Customer's birth year
* Education: Customer's education level
* Marital\_Status: Customer's marital status
* Income: Customer's yearly household income
* Kidhome: Number of children in customer's household
* Teenhome: Number of teenagers in customer's household
* Dt\_Customer: Date of customer's enrollment with the company
* Recency: Number of days since customer's last purchase
* Complain: 1 if the customer complained in the last 2 years, 0 otherwise

**Products**

* MntWines: Amount spent on wine in last 2 years
* MntFruits: Amount spent on fruits in last 2 years
* MntMeatProducts: Amount spent on meat in last 2 years
* MntFishProducts: Amount spent on fish in last 2 years
* MntSweetProducts: Amount spent on sweets in last 2 years
* MntGoldProds: Amount spent on gold in last 2 years

**Promotion**

* NumDealsPurchases: Number of purchases made with a discount
* AcceptedCmp1: 1 if customer accepted the offer in the 1st campaign, 0 otherwise
* AcceptedCmp2: 1 if customer accepted the offer in the 2nd campaign, 0 otherwise
* AcceptedCmp3: 1 if customer accepted the offer in the 3rd campaign, 0 otherwise
* AcceptedCmp4: 1 if customer accepted the offer in the 4th campaign, 0 otherwise
* AcceptedCmp5: 1 if customer accepted the offer in the 5th campaign, 0 otherwise
* Response: 1 if customer accepted the offer in the last campaign, 0 otherwise

**Place**

* NumWebPurchases: Number of purchases made through the company’s website
* NumCatalogPurchases: Number of purchases made using a catalogue
* NumStorePurchases: Number of purchases made directly in stores
* NumWebVisitsMonth: Number of visits to company’s website in the last month

### Target

Need to perform clustering to summarize customer segments.

**Milestones: Phase 1**

| **Milestone** | **Duration** | **Task start - End Date** |
| --- | --- | --- |
| Kick off and Business Objective discussion | 1 day | 23-05-2023 |
| Data set Details | 1 Week – 1 ½ week | 24-05-2023 |
| EDA | 1 Weeks – 1 ½ week | 30-05-2023, 31-05-2023 |
| Model Building | 1 Week – 1 ½ week | 06-06-2023, 07-06-2023 |
| Model Evaluation | 1 week | 13-06-2023, 14-06-2023 |
| Feedback |  |
| Deployment | 1 Week | 20-06-2023, 21-06-2023 |
| Final presentation | 1 day | 30-06-2023 |

Protocols:

1. All participants should add here to agreed timelines and timelines will not be extended
2. All the documentation – Final presentation and R/python code to be submitted before the final presentation day
3. All the participants must attend review meetings