**Hackathon Topic – Customer Intelligence**

**General Notes:**

1. Form your team of 2-3 members
2. If you are choosing the below given challenge, please make sure to answer all the questions asked to increase the points for the team.
3. Tools: Please select Qlik Sense/Power BI/Python/Databricks for the assignment.
4. Team has to built analytics dashboard for this assignment
5. Team must share the final QVFs and PBIX files with us on the last submission date mentioned. Post that team will have to present the dashboard as per their assigned slots.
6. Team should use and explore the new features of Qlik Sense/Power BI/Python/Databricks for the assignment and use the features in the dashboard for extra points.
7. Advanced dashboarding skill along with new features enhancement will increase the points for the teams.
8. All the best for the challenge.

**Topic: Customer Intelligence**

**Introduction to Dataset:**

**Problem Statement**

Customer Personality Analysis is a detailed analysis of a company’s ideal customers. It helps a business to better understand its customers and makes it easier for them to modify products according to the specific needs, behaviors and concerns of different types of customers.

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.

**Dataset Details:**

The dataset contains 1 file which contains all the sets of fields.

It has a total 29 columns.

Content

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

Link to dataset:

<https://www.kaggle.com/imakash3011/customer-personality-analysis>

**Questions to be answered:**

**Target :** Need to perform clustering to summarize customer segments.

The following questions need to be answered to gain maximum points.

1. To identify which customer segment is most likely to buy the product ?
2. Any correlations in the customer demographic data?
3. What are the most popular Products customers have taken out?
4. Identify the most popular place in which product purchase has been done?
5. Which was the most successful marketing campaign ?
6. The business team wants your dashboard to be aligned to the company design theme. What design changes will you make to the dashboard to meet this requirement ?