

# **CASE STUDY – CREDIT CARD SEGMENTATION**

## **DATA AVAILABLE:**

- CC GENERAL.csv

## **BUSINESS CONTEXT:**

This case requires trainees to develop a customer segmentation to define marketing strategy. The sample dataset summarizes the usage behavior of about 9000 active credit card holders during the last 6 months. The file is at a customer level with 18 behavioral variables. Expectations from the Trainees:

## **EXPECTATIONS FROM THE TRAINEES:**

- ✓ Advanced data preparation: Build an 'enriched' customer profile by deriving "intelligent" KPIs such as:
  - Monthly average purchase and cash advance amount
  - Purchases by type (one-off, installments)
  - Average amount per purchase and cash advance transaction,
  - Limit usage (balance to credit limit ratio),
  - Payments to minimum payments ratio etc.
- ✓ Advanced reporting: Use the derived KPIs to gain insight on the customer profiles.
- ✓ Identification of the relationships/ affinities between services.
- ✓ Clustering: Apply a data reduction technique factor analysis for variable reduction technique and a clustering algorithm to reveal the behavioural segments of credit card holders
- ✓ Identify cluster characteristics of the cluster using detailed profiling.
- ✓ Provide the strategic insights and implementation of strategies for given set of cluster characteristics

## **DATA DICTIONARY:**

**CUST\_ID:** Credit card holder ID

**BALANCE:** Monthly average balance (based on daily balance averages)

**BALANCE\_FREQUENCY:** Ratio of last 12 months with balance

**PURCHASES:** Total purchase amount spent during last 12 months

**ONEOFF\_PURCHASES:** Total amount of one-off purchases

**INSTALLMENTS\_PURCHASES:** Total amount of installment purchases

**CASH\_ADVANCE:** Total cash-advance amount

**PURCHASES\_FREQUENCY:** Frequency of purchases (Percent of months with at least one purchase)

**ONEOFF\_PURCHASES\_FREQUENCY:** Frequency of one-off-purchases

**PURCHASES\_INSTALLMENTS\_FREQUENCY:** Frequency of installment purchases

**CASH\_ADVANCE\_FREQUENCY:** Cash-Advance frequency

**AVERAGE\_PURCHASE\_TRX:** Average amount per purchase transaction

**CASH\_ADVANCE\_TRX:** Average amount per cash-advance transaction

**PURCHASES\_TRX:** Average amount per purchase transaction

**CREDIT\_LIMIT:** Credit limit

**PAYMENTS:** Total payments (due amount paid by the customer to decrease their statement balance) in the period

**MINIMUM\_PAYMENTS:** Total minimum payments due in the period.

**PRC\_FULL\_PAYMENT:** Percentage of months with full payment of the due statement balance

**TENURE:** Number of months as a customer