**Project Name – Credit Card Segmentation**

**Problem Statement** - This case requires trainees to develop a customer segmentation to define marketing strategy. The sample dataset summarizes the usage behaviour of about 9000 active credit card holders during the last 6 months. The file is at a customer level with 18 behavioural variables.

**Expectations from the student:**

1. Advanced data preparation. Build an ‘enriched’ customer profile by deriving ‘intelligent’ KPI’s such as monthly average purchase and cash advance amount, purchases by type (one-off, instalments), average amount per purchase and cash advance transaction, limit usage (balance to credit limit ratio), payments to minimum payments ratio etc.

2. Advanced reporting. Use the derived KPI’s to gain insight on the customer profiles.

3. 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

**Statements:**

1. The Code written is both R and Python.

Ans:

1. R-File - credit\_card\_segmentation.R
2. Python-File -credit\_card\_segmentation.py

2. Comprehensive Project Report with Data Visualization for explaining Features and its importance.

Ans: And a well-documented proof of concept in python credit\_card\_segmentation.ipynb

1. Instruction to deploy and run code.

Ans: Please install the necessary libraries for R and Python

For Python : numpy, pandas, matplotlib, sklearn, sklearn\_extra, scipy, seaborn, impyute

For R : DMwR, dplyr, ggplot2, fastDummies, FactoMineR, NbClust, cluster, normtest

Either you can run the python and R scripts from the command line or you can use ipython notebook for viewing the code structure of python.

1. Summarize the Understanding of How this project can help the business in achieving the strategic goals.

Ans: The project can help the company to segment the customer according to their similar characteristics and there buying behaviour based on which company can target customer with the similar kind of favourable offer and increase there sales and over all revenue.