Capstone Two: Project Proposal

(The Credit card Attrition/Churn prediction)

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Problem Identification:

Problem statement formation: Predict the credit card churn rate and find the potential churning customers by analyzing data for a specific period (last six month) of time to tackle churn rate by providing better service for company's growth and financial stability.

Context: Customer churn is a tendency of customers to abandon a brand and stop being a paying client of a particular business. The percentage of customers that discontinue using a company's products or services during a particular period is known as customer churn or attrition rate. A Churn rate is a health indicator for businesses whose customers are subscribers and paying for services on a recurring basis and a churn rate higher than a certain threshold can have both tangible and intangible effects on a company's business success. In order to get profit, keep the company's growth and financial stability, the company needs to find the possible churning customer to tackle the churning rate.

Criteria for success: The company needs to find the potential churning customer and the attributes affecting them to churn to provide them better services and turn customers' decisions in the opposite direction. By finding potential churners and making proactive efforts will help keep the company's growth and financial stability.

Scope of solution space: The main goal of this project is to predict the potential churning customer by analyzing data for a specific period of time. To do this accurately, I will use the binary classification algorithm to find the possible attrited customer.
Constraints: By analyzing the data, I have found that only 16.07% of customers have churned and there is a correlation between two attributes also. Thus, it will be a bit difficult to have high accuracy of getting churning customers.

Stakeholders: Bank CEO, Bank Manager

Data sources: Customer's credit card account data from a bank. The dataset link is provided below: https://www.kaggle.com/sakshigoyal7/credit-card-customers

Solution steps:

- To complete the project accurately, I will follow each and every step of the Data Science Methods including data wrangling, exploratory data analysis, preprocessing and training data development, modeling, and documentation.

- For the modeling step, I will use the different binary classification algorithms including Logistic Regression, k-Nearest Neighbors, Decision Trees, Support Vector Machine, Naive Bayes to find the best working models which will accurately identify the possible attrited customers.