Customer Churn Analysis in Banking Sector

Introduction:

Customer churn is when customers discontinue doing business with a company. Maintaining a strong client base is crucial for the success of any organization because it is significantly less expensive to keep an existing customer than to find a new one.

Banking consumers have several options, hence this sector has a relatively high rate of customer churn. Customers tend to have safe options, high returns, low rate of interest, and variety of benefits expected from the banks.

Banks offer a wide range of schemes to lure customers, but there are factors that might affect the customer acquisition. We will be working on a dataset related to bank customers.

Data Description:

Dataset: https://www.kaggle.com/code/kmalit/bank-customer-churn-prediction/data

Data set consists of 13 different attributes:

- CustomerId
- Surname
- Credit score
- Geography
- Gender
- Age
- Tenure
- Balance
- NumOfProducts
- HasCrCard
- IsActiveMember
- Estimated Salary
- Exited

Proposed Analysis:

We will be using this data, firstly we will categorize the data into tables(relational data base) like customer information, bank details , then perform exploratory data analysis to find out the factors which are effecting the churn rate and build models using machine learning algorithms to find the accuracy in prediction.

Analysis Methods:

In our project, we will use Linear Regression and Random Forest Regression analysis methods.

Milestones:
- Data Preprocessing
- Import data into Sql tables and normalization
- Exploratory Data Analysis
- Building model
- Prediction
- Visualization component development

References: https://www.kaggle.com/code/kmalit/bank-customer-churn-prediction/data