Predicting Churn for Bank Customers

BY

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Problem Description

Preventing bank customer churn is one of the most important things that the bank must take care to solve. By building a model to predict which customers may close their accounts using various machine learning algorithms, we can ideally nip the problem of unsatisfied customers in the bud.

Data Description

The data that will be used in this project has been taken from kaggle website (https://www.kaggle.com). It includes data such as: (CustomerId, CreditScore, Gender, etc.) for each bank customer. It includes 13 features, and below is the description of each one:

Features	Description
CustomerId	Customer Identifier
Surname	Customer last name
CreditScore	The range of credit score is (350 - 850)
Geography	Contain three countries: French, Spain and Germany
Gender	Female or Male
Age	The customer age
Tenure	The period the customer spends with the bank
Balance	Available money in the customer's account
NumOfProducts	The products that the customer used in the bank
HasCrCard	Is the customer having credit card or not (1 ==> has a credit ,0 ==> has not)
IsActiveMember	Is the customer an active person or not (1 if the customer active, 0 if not)
EstimatedSalary	The amount of salary that the client receives
Exited	When customer has churned the account, it represents as 1 and 0 otherwise.

Tools

- Technologies: Python, Jupyter notebook.
- Libraries: NumPy, Pandas, Matplotlib, Seaborn, Sklearn.