Customer Bank Churn Classification Proposal

By Asteway Kebede

Question/Need:

- What is the question behind your analysis or model and what practical impact will your work have?

This bank churn analysis is to predict if customers are likely to leave or stay with a banking institution. The analysis and model will give banking institutions an understanding of their customer behaviors and how to market to keep them.

- Who is your client and how will that client benefits from exploring this question or building this model/system?

The client is a banking institution that is interested to increase customer retention by understanding the characteristics of customers.

- What dataset(s) do you plan to use, and how will you obtain the data? Please include a link!

Downloading Churn for Bank Customers - Bank Customer Churn

- What is an individual sample/unit of analysis in this project? In other words, what does one row or observation of the data represent?

```
RangeIndex: 10000 entries, 0 to 9999
Data columns (total 14 columns):
 #   Column           Non-Null Count  Dtype  
---  ------           --------------  -----  
 0   RowNumber        10000 non-null  int64  
 1   CustomerId       10000 non-null  int64  
 2   Surname          10000 non-null  object 
 3   CreditScore      10000 non-null  int64  
 4   Geography        10000 non-null  object 
 5   Gender           10000 non-null  object 
 6   Age              10000 non-null  int64  
 7   Tenure           10000 non-null  int64  
 8   Balance          10000 non-null  float64
 9   NumOfProducts    10000 non-null  int64  
 10  HasCrCard        10000 non-null  int64  
 11  IsActiveMember   10000 non-null  int64  
 12  EstimatedSalary  10000 non-null  float64
 13  Exited           10000 non-null  int64  
```

- What characteristics/features do you expect to work with? In other words, what are your columns of interest?

Features such as Age, Credit Score, Balance, Tenure, Salary, Gender, Exited and Geography.

- If modeling, what will you predict as your target?

Target will be ‘Exited’ as a binary yes or no representing if customer stayed or left.

Tools:

- How do you intend to meet the tools requirement of the project?

Python for EDA, Modeling and Visualization

- Are you planning in advance to need or use additional tools beyond those required?

With any new skills learned from this class

MVP Goal:

- What would a minimum viable product (MVP) look like for this project?

Build a baseline classification model with several visualizations