Machine Learning

Project Proposal

**Team 5**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Sec** | **BN** | **ID** | **Email** |
| بموا عريان عياد | 1 | 17 | 9202391 | bemoi.tawadros00@eng-st.cu.edu.eg |
| مارك ياسر نبيل | 2 | 14 | 9203106 | mark.ibrahim00@eng-st.cu.edu.eg |
| بيتر عاطف فتحي | 1 | 18 | 9202395 | peter.zaki00@eng-st.cu.edu.eg |
| كريم محمود كمال | 2 | 12 | 9203076 | kairm.mohamed003@eng-st.cu.edu.eg |

# **Santander Customer Transaction Prediction**

## **Problem Definition:**

## The problem at hand is a binary classification task aimed at predicting whether a customer will make a specific transaction in the future. Given historical data on customer transactions, Santander seeks to develop a predictive model that can identify customers likely to engage in the specified transaction, regardless of the transaction amount.

## **Motivation:**

## Santander's motivation for addressing this problem stems from its mission to help people and businesses prosper by providing tailored financial solutions. By accurately predicting customer transactions, Santander can optimize its marketing strategies, offer targeted product recommendations, and enhance customer engagement. Additionally, by leveraging machine learning algorithms, Santander aims to improve the efficiency and effectiveness of its operations, ultimately leading to better customer outcomes and business performance.

## **Evaluation Metrics:**

## 1. Accuracy

## 2. Precision

## 3. Recall (Sensitivity)

## 4. F1 Score

## The choice of evaluation metric depends on the specific requirements and objectives of Santander's application.

## **Links to the Dataset and References:**

## - Dataset and References: Santander Customer Transaction Prediction

## Link: <https://www.kaggle.com/c/santander-customer-transaction-prediction/data>