**Name of our team:** Never Gonna Give You Up

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**Financial fraud type:** Credit Card Fraud

**Background:**

Digital payments are evolving, but so are cybercriminals. According to SMALL bank, more than 80 thousand records are reported of being stolen on a monthly basis, a concerning statistic that shows - fraud is still very common both for Card-Present and Card-not-Present type of payments. To protect the rights and interests of customers and the bank itself, detection of fraud is challenging.

We are the Financial Fraud Analysis unit in SMALL bank. SMALL bank recently released its credit card. A month later, we detected a lot of fraud cases. Our company has decided to develop a fraud detection model to prevent similar fraud cases in the company.

We retrieve the transaction records of these credit cards from the database of our company. After removing the confidential information, we get a table of eight columns that can be used to develop a fraud detection model.

**Scope of fraud data analytics:**

Detect frauds according to transaction records and evaluate the correlation between fraud and transaction information.

Use the developed model to identify future fraudulent credit cards payments using the corresponding transaction information.

**fraud scenarios:**

Card-present offline fraud: Copied or stolen Credit cards used in offline transaction.

Card-present online fraud: Copied or stolen Credit cards used in online orders.

Card-not-present fraud: Leaked credit card numbers with personal information used in online orders, leaked accounts tied to credit cards, abuse by contracted merchants.

**Plan to obtain of the dataset for building the fraud detection model:**

Search dataset that hasn’t been processed by PCA on Kaggle, in order to evaluate the correlation between the attributes of original transaction data and the fraud cases.