

Group 7

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Final Project Topic :- ML /AI (Machine Learning / Artificial Intelligence)

Stage 1 : Dataset Finalize

Dataset :- [IBM Transactions for Anti Money Laundering \(AML\)](#)

Problem Statement :- Develop and evaluate machine learning models to improve the accuracy of detecting money laundering transactions while reducing the rate of false positives and false negatives.

About Dataset :- This dataset contains synthetic financial transaction data designed to simulate a virtual world inhabited by individuals, companies, and banks. The transactions include various forms of interactions such as purchase of goods and services, payment of salaries, and repayment of loans. Some individuals and companies in the dataset engage in criminal activities like smuggling, illegal gambling, and extortion, generating illicit funds that they attempt to launder through a series of transactions.

There are 6 datasets here divided into two groups of three:

- Group HI has a relatively higher illicit ratio (more laundering).
 - 1a. **HI-Small_Trans.csv** Transactions
 - 1b. **HI-Small_Patterns.txt** Laundering Pattern Transactions
 - 2a. **HI-Medium_Trans.csv** Transactions
 - 2b. **HI-Medium_Patterns.txt** Laundering Pattern Transactions
 - 3a. **HI-Large_Trans.csv** Transactions
 - 3b. **HI-Large_Patterns.txt** Laundering Pattern Transactions
- Group LI has a relatively lower illicit ratio (less laundering).
 - 1a. **LI-Small_Trans.csv** Transactions
 - 1b. **LI-Small_Patterns.txt** Laundering Pattern Transactions
 - 2a. **LI-Medium_Trans.csv** Transactions
 - 2b. **LI-Medium_Patterns.txt** Laundering Pattern Transactions
 - 3a. **LI-Large_Trans.csv** Transactions
 - 3b. **LI-Large_Patterns.txt** Laundering Pattern Transactions

Transaction Data Description	
Column Names	Description
Timestamp	Date and time of the transaction (format: DD-MM-YYYY HH)
From Bank	Identifier for the bank sending the funds
From Account	Identifier for the account sending the funds
To Bank	Identifier for the bank receiving the funds
To Account	Identifier for the account receiving the funds
Amount Received	Amount of money received by the receiving account
Receiving Currency	Currency in which the amount was received
Amount Paid	Amount of money paid by the sending account
Payment Currency	Currency in which the amount was paid
Payment Format	Format of the payment (e.g., Cheque, ACH, Credit Card, Reinvestment)
Is Laundering	Binary indicator (0 or 1) showing if the transaction is laundering (1) or legitimate (0)