**Ihub loan transaction anomaly detection and reconciliation**

**Introduction:** In this notebook, we are analyzing and build models to detect anomaly and reconciliation for iHub loans current and historical transactions data in ihubloans dataset We'll explore the data, preprocess it, and apply several machine learning models to predict anomaly and reconciliation solution including Logistic Regression, Isolation Forest, and Local Outlier Factor.

The performance of these models will be evaluated using common classification metrics.

**How we build it**: This solution will take iHub loans transaction data as an input with as of date for current and historical data and we apply LLMs and algorithms like including Logistic Regression, Isolation Forest, and Local Outlier Factor and apply different level of predictions and provide anomaly detection and reconciliation suggestions and crate different charts like heatmaps etc and provide recommendations

**TechStack:**

* **Front End:** Kaggle/ goodle colab env to run python notebook
* 🔹 Backend: Python libraries Pandas, Numpy, sklearn etc
* 🔹 Database: CSV File
* 🔹 Other: linear\_model, ensemble, linear\_model, sklearn.preprocessing, seaborn, sklearn.model\_selection

## How to Run:

## 1. Open the provided solution file - ihub\_loans\_data\_anomaly\_detection.py in Kaggle / google code colab or any other python environment where we can run the python code

## 2. Upload iHubLoans.csv file in to the environment where the solution support to run

## 3. modify the iHubLoans.csv file path in the code

## 4. Run the code from startign to end (run all)

## 5. View the output of all sections

## Screen shots:

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