

# **Bank Fraud Detection and Prevention System**

## **Background**

As online banking grows, it is important for banks to safeguard their assets and customers' trust. In today's digital environment, online bank transactions are prone to fraud. This problem is solved by the bank fraud detection and prevention system, which analyzes and monitors large volumes of transaction data of users in real time and identifies suspicious behavior. Moreover, the bank fraud detection and prevention system generates fraud alerts when the threshold is exceeded and passes this data to the investigation team, where they will investigate the fraudulent transactions. This system helps to safeguard assets and maintain customer trust by enhancing transaction monitoring and supporting effective decision making.

## **Purpose**

- To stop fraudulent activities by implementing pre-defined actions like transactional holds, alerts to customers, blocking suspicious activities and establishing a set of rules.
- Strengthen security and build a database that continuously monitors and analyzes transaction data to identify suspicious behavior or patterns.
- Help financial organizations to quickly identify suspicious activities, risks, and frauds and take action accordingly.
- Create and maintain a scalable, adaptive database that can adapt new fraud detection techniques and financial fraud schemes.

## **Scope**

Bank Fraud detection and prevention system exclusively focuses on the data related to capturing, investigating and preventing banking fraudulent activities. There will be records denoting customer transactions, account details, set of rules to detect fraudulent transactions, fraud alerts (e.g., multiple withdrawals above \$10,000 in less than 30 minutes), and investigation of frauds. Rules and Limits will be applied to track unusual bank transactions and Fraud alert will be notified to the investigating team and later inspection will be done based on the transaction history. The investigation team will utilize key information such as customer transactions, device details, location, time, and amount to conduct their investigation. Banks can leverage these records to see potential frauds and enforce prevention measures to enhance the security of banking operations.