BANK LOAN APPROVAL DATA ANALYZE AND PREDICTION USING DATA SCIENCE TECHNIQUE

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ABSTRACT

Now a day's people have become less hesitant in applying for a loan, whether it's personal, vehicle, education, business, or home etc. To get loans with minimal paperwork, brief eligibility tests, and aggressive interest charges. They have got opened an online channel to use and put up files for the approval procedure. Machine learning is a subfield of artificial intelligence, as the capability of a machine to imitate intelligent human behavior. Every model has some variables known as predictors that are likely to influence future results. The prediction model helps the banks by minimizing the risk associated with the loan approval system. Anomaly detection is predicated on individual's behavior profiling and works with the aid of detecting any deviation from the norm. Due to the heterogeneous nature of transaction data, there lacks a uniform treatment of attribute values. Multiple datasets from different sources would be combined to form a generalized dataset, the data set collected for predicting give data is split into Training set and Test set. Distinct gadget gaining knowledge of algorithms might be carried out to extract patterns and to acquire consequences with maximum accuracy.

Keyword : - *Machine learning ,Training , Testing , Prediction and Accuracy etc….*

1. INTRODUCTION

Prediction of modernized mortgage approval device based on machine learning to known technique is a loan approval device from in which we can know whether or not the mortgage will skip or no longer. Once in a while inside the wake of overview the records, we are able to decipher the instance or pay attention statistics from the information. As the statistics are growing day by day because of digitization in the banking quarter, people want to use for loans

through the internet. Banks are dealing with a massive hassle within the approval of the loan maximum banks earn profit from the loan, but it's miles volatile to pick deserving clients from the range of customer applications. With the plenitude of statistics set handy, the interest for machine learning is in rise. As a coin has two sides, but, online banking is extra willing to fraudulent sports, and on-line banking fraud has turn out to be a serious financial crime that may want to cause massive losses. As a matter of truth, fraud detection is an everlasting issue for on line banking systems. The prevailing overwhelming worldview for ML is to run a ML calculation on an offered dataset to supply a model. That is valid for both supervised learning and unsupervised learning. So there is a classification machine learning system, in this system, a training set is hired to make the model and the classifier might also classify the facts items into their appropriate magnificence. A test dataset is created that trains the records and gives the ideal result thatis the client ability and may repay the loan.

1.1 OBJECTIVE

The goal is to develop a machine learning model for Bank Loan Approval Prediction, to potentially replace the updatable supervised machine learning classification models by predicting results in the form of best accuracy by comparing supervised algorithm.

1.2 SCOPE

The scope of this paper is to implement and investigate how different supervised binary classification methods impact default prediction. The model evaluation techniques used in this project are limited to precision, sensitivity, F1-score.

2. EXISTING SYSTEM

. Anomaly detection is predicated on people' behavior profiling and works by way of detecting any deviation from the norm. while used for online banking fraud detection, but, it in particular suffers from 3 disadvantages. First, for an character, the ancient behavior facts are often too constrained to profile his/her conduct pattern. 2nd, because of the heterogeneous nature of transaction data, there lacks a uniform treatment of different varieties of characteristic values, which becomes a ability barrier for version improvement and further usage. 1/3, the transaction facts are distinctly skewed, and it will become a challenge to utilize the label facts effectively. Anomaly detection often suffers from terrible generalization potential and a excessive false alarm rate. We argue that individuals limited historic information for behavior profiling and the fairly skewed nature of fraud facts could account for this illness

3. PROPOSED SYSTEM

The proposed system is used predict the loan approval process by using machine learning technology. There by reducing the manual management effort. The datasets are preprocessed and visual representation of dataset is generated for better understanding of a dataset. We compare four machine learning algorithms to obtain result with maximum accuracy.

- Logistic Regression
- Naive Bayes
- Random Forest
- Decision Tree Classifier

4. CONCLUSIONS

The analytical process started from data cleaning and processing, missing value, exploratory analysis and finally model building and evaluation. The best accuracy on public test set is higher accuracy score will be find out. This application can help to find the Prediction of Bank Loan Approval.

5. ACKNOWLEDGEMENT

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