SMART LENDER – APPLICANT CREDIBILITY PREDICTION FOR LOAN APPROVAL

MERLIN JONE J - **810019205062**

MOHAMMED KAIF S - **810019205064**

MUGUNTHAN R - **81001925068**

PARTHIBAN D - **810019205071**

INTRODUCTION:

The credit system governed by the banks is one of the most important factors which affect our country's economy and financial condition. Also, credit risk is one of the main functions of the banking community.

The prediction of credit defaulters is one of the difficult tasks for any bank. But by forecasting the loan defaulters, the banks definitely may reduce their loss by reducing their non-profit assets, so that recovery of approved loans can take place without any loss. Therefore, Machine Learning techniques are very crucial and useful in the prediction of these types of data. The pre-processed dataset will be trained and tested on with the ML algorithms. For this purpose, a best model is selected and used in the application.

LITERATURE SURVEY:

Ashwini S. Kadam, Shraddha R Nikam,Ankita A. Aher, Gayatri V. Shelke, Amar S Chandgude (2021)[1]. Our financial framework has a ton of merchandise to offer to banks, yet the principle kind of revenue for all banks is using a loan line. So, you can get the interest in advance. The bank's financing cost or misfortune is exceptionally reliant upon the loan, for instance, regardless of whether the client is reimbursing the advance. By prompting non-moneylenders, banks can lessen non-performing resources. This makes learning these things vital. Momentum research shows that there are numerous ways of concentrating on repayment. In any case, it is essential to concentrate on the construction in a manner that is not quite the same as contrasting, similarly as evident prediction is vital for benefit. Loan Assumptions (I) Data assortment, (ii) Data cleaning, (iii) Basic element examination strategies are utilized to concentrate on execution evaluation issues. Research tests have shown that the Naive Bayes model performs best in loan arranging.

Anuja Kadam, Pragati Namde, Sonal Shirke, Siddhesh Nandgaonkar, Dr.D.R Ingle (2021)[3]. Data mining algorithms are used to study the loan-approved data and exact patterns, which would help in predicting the reasonable defaulters, thereby helping the banks for making better choices in the future. Data Mining is the process of examining underlying and potentially useful patterns in big chunks of source data. For the packages of three algorithms (Logistic regression, Decision tree and Random Forest) were imported. The model was then defined and the accuracy score was evaluated. Logistic Regression was the best fit with the highest accuracy score 81.12%. The model was deployed in heroku.

Pidikiti Supriya , Myneedi Pavani , Nagarapu Saisushma , Namburi Vimala Kumari , K Vikas (2019)[4]. This Problem is done by mining the Big Data of the previous records of the people to whom the loan was granted before and on the basis of these records/experiences the machine was trained using the machine learning model which gives the most accurate result. The dataset collected for predicting loan default customers is predicted into a Training set and testing set. Generally, an 80:20 ratio is applied to split the training set and testing set. For predicting the loan defaulter and non-defaulter's problem, a Decision tree algorithm is used. The best accuracy on a public test set is 81.1%.

Kumar Arun, Garg Ishan, Kaur Sanmeet(2016) - With the enhancement in the banking sector, lots of people apply for bank loans but the bank has its limited assets which it grants to only limited people , so finding out to whom the loan can be granted is a typical process for the banks. So, in this paper , they tried to reduce this risk by selecting the safe person so as to save lots of bank efforts and assets. It was done by mining the previous records of the people to whom the loan was granted before and on the basis of these records the machine was trained using the machine learning model which gave the most accurate result. The main goal of this paper is to predict if loan assignment to a specific person will be safe or not. This paper has into four sections (i) Collection of data (ii) Comparing the machine learning models on collected data (iii) Training the system on most promising model (iv) Testing the system.

BIBLIOGRAPHY:

1. Ashwini S. Kadam, Shraddha R Nikam, Ankita A. Aher, Gayatri V. Shelke, Amar S. Chandgude, 2021, "Prediction for Loan Approval using Machine Learning Algorithm", No "Apr" / "2021".

2. Sivasree M S, Rekha Sunny T, (2015), "Loan Credibility Prediction System Based on Decision Tree Algorithm", No "September" / "2015".

3. Anuja Kadam, Pragati Namde, Sonal Shirke, Siddhesh Nandgaonkar, Dr.D.R Ingle, 2021, "Loan Credibility Prediction System using Data Mining Techniques" No "May" / "2021".

4. Pidikiti Supriya , Myneedi Pavani , Nagarapu Saisushma , Namburi Vimala Kumari , K Vikas, 2019, "Loan Prediction by using Machine Learning Models", No "April" / "2019".

5. https://medium.com/swlh/lending-club-data-web-app-ada56ff64cee

6. https://github.com/smartinternz02/SI-GuidedProject-48927-1652694502

7. https://www.academia.edu/77162007/BANK_LOAN_PREDICTION_USING_MACHINE_LEARNING