LITERATURE SURVEY

Date	19 September 2022
Team ID	PNT2022TMID30218
Project Name	Smart Lender - Applicant Credibility Prediction For Loan Approval

1. LOAN PREDICTION SYSTEM USING MACHINE LEARNING [Reshma Gulwani, Abhinav Shinde et al , 2022]

People's Need Increased, so demand for loans in banks also increased. Loan distribution is a vast process, It proceeds verification and validation to each and every applicant. Verifying the applicant's eligibility is very difficult and takes a long time to complete it and also may Cause loss to bank capitals when the selected applicant is wrong. As a result of analyzing this journal, Machine learning is an ideal for reducing all these cases. , when a set of rules and instruction is given then the work is done automatically. Using machine learning all these data will be collected and then the Verification and validation process takes place. So that it is possible to predict whether a particular applicant is safe for loan approval and then the further process takes place. This is exclusively for the bank and financial system so that they can safeguard capitals.

2. LOAN APPROVAL PREDICTION [Suraj Andhe, Siddhesh Parab et al 2022]

Today a lot of people/companies/organizations are applying for bank loans. The main objective of the banking sector is to give their assets in safe hands. But it takes a very

long time for the verification and validation process, but there is no surety that whether the applicant chosen will be deserving or not. To solve this problem, we are going to develop a system, so that we can predict whether the applicant chosen will be a deserving applicant for approving the loan or not. Credit risk is defined as, that borrowers will fail to meet their loan obligations. Manual process will be very difficult to predict whether the borrower will be good or bad. So, this can be done with the help of machine learning algorithms.The final conclusion reached was only those who have a good credit score, high income and low loan amount requirement will get their loan approved.

3. SURVEY ON PREDICTION OF LOAN APPROVAL USING MACHINE LEARNING TECHNIQUES [Ambika and Santosh Biradar , 2021]

The main objective of the Banking Sector is based on customer or client's Credits, Debits and loan purposes. In these Queries, the Banker wants to check the assets of the client or customer and then only he / she can move to the next step that someone wants to apply the loan, then the banker wants to predict the CIBIL Score of the particular client. The Loan distribution is the primary business of almost Every bank. In this project, We want to predict the credibility for the Loan appliers by some keywords like Machine learning (MI) using Data Science.

4. BANK LOAN APPROVAL PREDICTION USING DATA SCIENCE TECHNIQUES (ML) [Subhiksha R, Shalini B, et al , 2022]

Banks are making a major part of profit through loans. Loan approval is a very important process for banking organizations. It is very difficult to predict the Loans. The loan approval is based on cibil score. If the cibil score is less, then the customer is not approved for the loan process. For this problem we are going to predict the credibility for the loan applicant by using machine learning Data science.

5. AN APPROACH FOR PREDICTION OF LOAN APPROVAL USING MACHINE LEARNING ALGORITHM [Nashik, Kathe Rutika Pramod et al , 2021]

The main source of income of any bank is on its credit line. So the bank can earn from the interest of those loans which they credit. A bank profit or loss depends to a large extent on loans i.e whether the customers are paying back the loan or defaulting. The right predictions are very important for the maximization of profits, it is essential to study the nature of the different methods and their comparison. The Logistic regression model is used here. The models are compared on the basis of the performance measures such as sensitivity and specificity. The final results have shown that the model produces different results. Most of the time, applicants with high income sanctioning low amounts are more likely to get approved which make sense, more likely to pay back their loans. Some basic characteristic gender and marital status seems not to be taken into consideration by the company

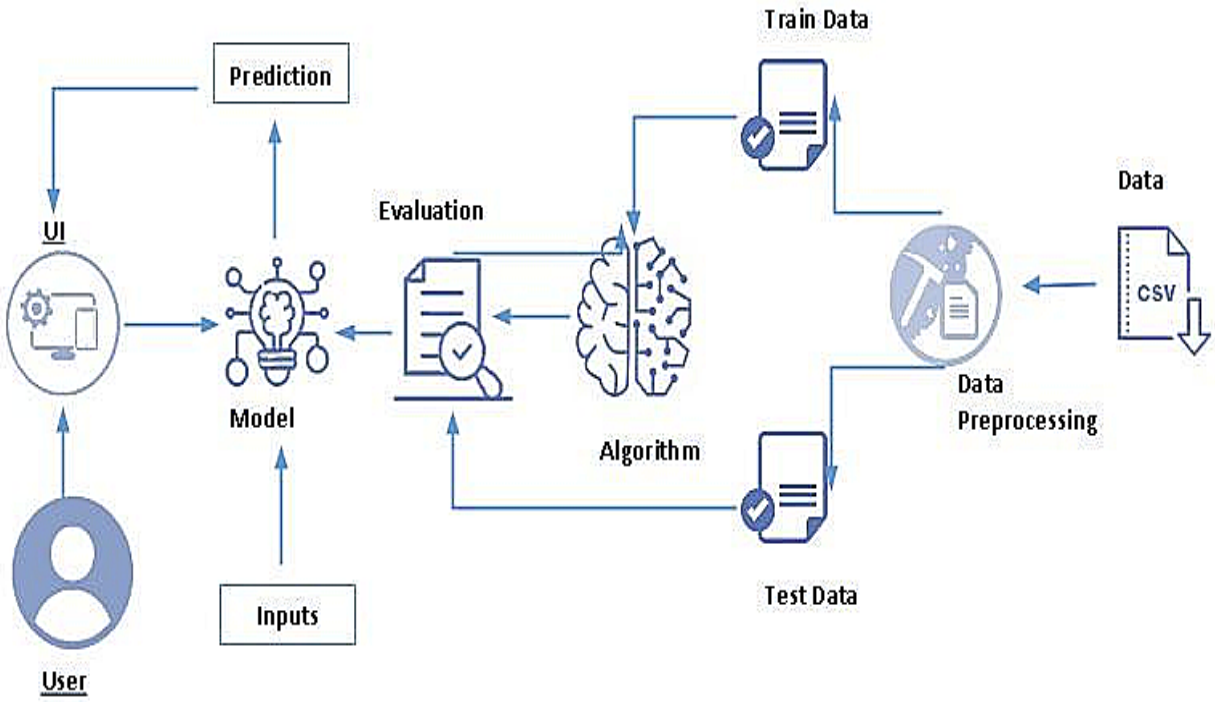
6. PREDICTION OF MODERNIZED LOAN APPROVAL SYSTEM BASED ON MACHINE LEARNING APPROACH [Vishal Singh, Ayushman Yadav et al, 2021]

Technology has boosted the existence of humankind and the quality of life they live. We have machines to support our lives and make us somewhat complete in the banking sector. The candidate gets proof/ backup before approval of the loan amount. The application approved or not approved depends upon the historical data of the candidate by the system. Every day lots of people apply for the loan in the banking sector but the Bank would have limited funds. In this case, the right prediction would be very beneficial using some classes-function algorithm. An example is the logistic regression. A Bank’s profit and loss depend on the amount of the loans. The improvement process plays an important role in the banking sector. The main objective of this paper is to predict whether a new applicant granted the loan or not using machine learning models trained

on the historical data set.

PROJECT DESCRIPTION

One of the most important factors which affect our country's economy and financial condition is the credit system governed by the banks. The process of bank credit risk evaluation is recognized at banks across the globe. "As we know credit risk evaluation is very crucial, there are a variety of techniques used for risk level calculation. In addition, 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 and it can play as the contributing parameter of the bank statement. This makes the study of this loan approval prediction important. Machine Learning techniques are very crucial and useful in the prediction of these types of data. We will be using classification algorithms such as Decision tree, Random forest, KNN, and xgboost. We will train and test the data with these algorithms. From this the best model is selected and saved in pkl format. We will be doing flask integration and IBM deployment.


Train Data
Prediction
Data
UI
Evaluation
CSV
Model
Algorithm
Data
Preprocessing
Test Data
Inputs
User