Smart Lender - Applicant Credibility Prediction for Loan Approval
Team Id - PNT2022TMID19191

Literature Survey

(1) Modern Approach for Loan Sanctioning in Banks Using Machine Learning
   Author: Golak Bihari Rath, Debasish Das, BiswaRanjan, Acharya

As the needs of people are increasing, the demand for loans in banks is also frequently getting higher every day. Usually, bank process the loan of any applicant after the verification and checking its eligibility which is a tough and time-taking process. Machine learning approach would be an ideal solution to reduce human efforts and effective decision making in the loan approval process by implementation of machine learning tools using classification algorithms to predict the deserving applicants for loan approval. In this paper, we build a system to construct a model by training the system with records and approval results of the previously applied loan applicants. Model building is done by classification algorithms on the basis of some predictive features that categorise an outcome value as approve or disapprove. We found the logistic regression model has the best performance in comparison with other models and can be used as a predictive model reducing the risk factor in selecting the deserving applicants for loan repayment saving a lot of bank efforts and assets. Further, this model can be implemented in the banking sector allowing faster processing of loans.

(2) Bank Loan Prediction System using Machine Learning.
   Author: AnshikaGupta, Vinay Pant, SudhanshuKumar, Pravesh Kumar Bansal

Technology has made a lot of improvements, and the banking industry is one among them. Daily the number of loan applications is rising. There are a few bank regulations that they must follow. While choosing a loan applicant ,these regulations are taken into account. Based on some parameters, the bank must determine the best option to provide the loan. Checking out every order manually is difficult and dangerous. It is also dangerous to propose the individual for loan approval. This work uses the machine learning technique that will predict the individual who can be trusted with a loan and a record of the customer to whom the loan is credited before. The main goal of this paper is to predict whether the authorization of a loan can be provided to a particular person or not.

(3) Design and Simulation of Loan Approval Prediction Model using AWS Platform.
   Author: Ramachandra H V, Balaraju G, Divyashree R

The application used in this book helps in anticipating the fate of credit and its status and relies upon the fact that it can be made in introductory long periods of advance. Banks can reduce the number of bad advances that cause cutoff losses by using the application described in this book. A

few AI calculations and bundles were used to set up the information and to fabricate the arrangement model. The AI bundle libraries aid in fruitful information examination and highlight determination. Using these techniques, banks can easily distinguish the required data from vast amounts of informational collections and help in fruitful advance forecasting to decrease the number of bad credit issues.

(4) An Approach for Prediction of Loan Approval using Machine Learning Algorithm.
 Author: Mohammad Ahmad Sheikh, Amit Kumar Goel, Tapas Kumar

The process of prediction starts with the cleaning and processing of data; imputation of missing values; experimental analysis of a data set; and then model building; evaluating the model and testing on test data. The best-case accuracy obtained on the original data set. In most cases, those applicants who have a high income and demand a lower amount of loan are more likely to get approved, which makes sense, and are more likely to pay back their loans. Some other characteristics, like gender and marital status, seem not to be taken into consideration by the company.

References:

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