Smart Lender - Applicant Credibility Prediction for Loan Approval

Ideation Phase – Literature Survey

S.NO	PAPER	WORK	TOOLS FOR ALGORITHM	FINDINGS
1	"Survey on Prediction of Loan Approval Using Machine Learning Techniques" - Ambika and Santosh Biradar/ Department of Computer Engineering, D. Y. Patil College of Engineering,Pune, India	To predict whether assigning the loan to particular person will be safe or not	Logistic Regression SVM Decision Tree Naive Bayes	The system is trained on old training dataset in future software can be made such that new testing date should also take part in training data after some fix time. Machine learning helps to understand the factors which affect the specific outcomes most. Other models like neutral network and discriminate analysis can be used individually or combined for enhancing reliability and accuracy prediction
2	"Process Evaluation and Improvement: A Case Study of The Loan Approval Process" - MAJA PUSNIK, KATJA KOUS, ANDREJ GODEC and BOASTJAN SUMAK, University of Maribor,	the research focuses primarily on the possibilities to optimize the business process by analyzing and evaluating the process activities	Algorithms, Naive Bayes, K Nearest Neighbor, Machine learning	As a proposal for optimization, using advanced IT support can optimize the credit approval process to some extent. However, traditional systems like banks are less prone to change, and use few of the available possibilities. Within the research, some potentially replaceable activities were highlighted where IT could be included.
3	"Loan Approval Prediction based on Machine Learning" - Kumar Arun, Garg Ishan, Kaur Sanmeet	To reduce this risk factor behind selecting the safe person so as to save lots of bank efforts and assets.	Decision Tree Support vector machine Neural Network	There have been numbers cases of computer glitches, errors in content and most important weight of features is fixed in automated prediction system, So in the near

				future the so –called software could be made more secure, reliable and dynamic weight adjustment .In near future this module of prediction can be integrate with the module of automated processing system. the system is trained on old training dataset in future software can be made such that new testing date should also take part in training data after some fix time.
4	"Loan Approval Prediction" - Shubham Nalawade, Suraj Andhe, Siddhesh Parab, Prof. Amruta Sankhe - Information Technology, Atharva College of Engineering, Mumbai	The purpose of predicting the loan approval status of the applied customer, we have chosen the machine learning approach to study the bank dataset	Approval Prediction Web Application Bank Algorithms, Random Forest, Naïve Bayes, Logistic Regression, K Nearest Neighbor, Decision Tree	These most important features are then used on some selected algorithms and their performance accuracy is compared with the instance of using all the features. This model can help the banks in figuring out which factors are important for the loan approval procedure. The comparative study makes us clear about which algorithm will be the best and ignores the rest, based on their accuracy.
5	"Predict Loan Approval in Banking System Machine Learning Approach for Cooperative Banks Loan Approval" - Amruta S. Aphale ,Prof. Dr. Sandeep. R. Shinde Department of Computer Science and Engineering Savitribai Phule Pune University Vishwakarma Institute of Technology, Pune	The idea of this project is to gather loan data from multiple data sources and use various machine learning algorithms on this data to extract important information	Machine learning, bank credit, classification, confusion matrix, predictive analysis	The experimental results showed no significance difference in their predictive accuracy and other metrics. linear regression, that composed of the most important features, for predicting customers credit worthiness. Predict loan approval in Banking system ,the most important features that determine credit worthiness of customers in order to formulate bank risk automated system.