SMART LENDER – APPLICANT CREDIBILITY PREDICTION FOR LOAN APPROVAL

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PROJECT DESIGN PHASE - I

Proposed Solution

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Proposed Solution Template

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	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. This problem occurs when the banks need to provide loans to the customers who are in need of the money. But by forecasting the loan defaulters, the banks definitely may reduce their loss by reducing their non-profit assets.
2.	Idea / Solution Description	This solution uses Machine Learning techniques which can be used to perform such classifications of the credit defaulters as they are very crucial and useful in the prediction of these types of data. Classification algorithms such as Decision tree, Random forest, KNN, Xgboost and SVM will be used. The data is trained and tested with these algorithms and finally, the best model is selected and saved in pkl format. Then, flask integration and IBM deployment will be done.
3.	Novelty / Uniqueness	The solution tries to use the best model from the mentioned five models and classify the applicants with least error.
4.	Social Impact / Customer Satisfaction	This application will help the bank employees to classify the credit defaulters accurately with minimum error. So, the non - profit losses of the banks have been reduced. Thus, they may recover the approved loans with minimum losses. They need not put much effort into making decisions for loan approvals rather can leave that part to the application. The customers(bankers) get satisfied by the results of the application. Thus, better the accuracy, better classification of the applicants and better the satisfaction.
5.	Business Model	The model can be implemented as a pay per month use model. The bank employees can pay the monthly or yearly subscription. Another option is to sell the model to the bank that pays the amount which is most profitable to developers.
6.	Scalability of the Solution	The front end of the application is modular. Python Web Framework is used to do so. The bank end uses the flask integration. Therefo different features can be implemented and new pages can be added easily.