Smart Lender - Applicant Credibility Prediction for Loan Approval
Proposed Solution

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S. No.	Heading	Details
1.	**Problem Statement**	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.

2.	**Proposed Solution/Idea**	We aim to make use of machine learning to make better financial predictions and understand the banking sector's lending applications and the creditworthiness of individuals and organizations. Machine Learning techniques are very crucial and useful in the prediction of these types of data.
3.	**Novelty/Uniqueness**	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. By using a testing approach we are to build a system that will be more accurate and produce better results by using ensemble methods (combining multiple methods to produce higher quality results by voting). By using IBM systems we are also likely to build a reliable and scalable solution for the end users.
4.	**Social Impact**	Using this system would significantly improve the banking ecosystem and reduce the loan defaulting rates that banks currently see. This would also allow the clients to borrow based on their past records and better understand their borrowing capacity.

5.	**Business Model**	This system would be used by both banks as well as the clients of the bank. It would reduce time and effort from both ends thus making it monetizable at both ends. The banks would spend to ensure that this process helps them screen loan applicants better and the customer could pay a nominal processing fee if his loan is approved after the screening done by our system.
6.	**Scalability**	The system, being dynamically and modularly developed, allows for much modification and large scalable operations. More data when made available can be processed and produce efficient results. This system is easily and efficiently scalable.