Project Initialization and Planning Phase

Date	23 September 2024
Team ID	LTVIP2024TMID24967
Project Title	SmartLender - Applicant Credibility Prediction for Loan Approval
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) report

The proposal report aims to transform loan approval using machine learning, boosting efficiency and accuracy. It tackles system inefficiencies, promising better operations, reduced risks, and happier customers. Key features include a machine learning-based credit model and real-time decision-making.

Project Overview	
Objective	The primary objective is to revolutionize the loan approval process by implementing advanced machine learning techniques, ensuring faster and more accurate assessments.
Scope	The project comprehensively assesses and enhances the loan approval process, incorporating machine learning for a more robust and efficient system.
Problem Statement	
Description	Addressing inaccuracies and inefficiencies in the current loan approval system adversely affects operational efficiency and customer satisfaction.
Impact	Solving these issues will result in improved operational efficiency, reduced risks, and an overall enhancement in the lending process, contributing to customer satisfaction and organizational success.
Proposed Solution	
Approach	Employing machine learning techniques to analyze and predict creditworthiness, creating a dynamic and adaptable loan approval system.
Key Features	- Implementation of a machine learning-based credit assessment model.

	- Real-time decision-making for quicker loan approvals. - Continuous learning to adapt to evolving financial landscapes.

Resource Requirements

Resource Type	Description	Specification/Allocation
Hardware		
Computing Resources	CPU/GPU specifications, number of cores	T4 GPU
Memory	RAM specifications	8 GB
Storage	Disk space for data, models, and logs	1 TB SSD
Software		
Frameworks	Python frameworks	Flask
Libraries	Additional libraries	scikit-learn, pandas, numpy, matplotlib, seaborn
Development Environment	IDE	Jupyter Notebook, pycharm
Data		
Data	Source, size, format	Kaggle dataset, 614, csv UCI dataset, 690, csv