Project Initialization and Planning Phase

Date	15th July 2024
Team ID	739924
Project Title	Auto Foresight : A Predictive Model for Streamlining Car Loan Repayment Planning
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) template

Vehicle loan repayment prediction refers to the process of predicting whether or not a borrower will default on their vehicle loan. Default occurs when the borrower is unable or unwilling to repay the loanamount as agreed with the lender, leading to financial losses for the lender. The prediction is based on various factors related to the borrower and the loan itself. Some of the key factors that can affect loan repayment include:
Income: The borrower's income is a key factor in determining their ability to repay the loan. Higherincome levels are associated with a lower risk of default.

Machine learning algorithms can be used to predict loan repayment status based on these and other relevant factors. The goal is to build a predictive model that can accurately classify borrowers as either likely to default or not likely to default. This can help lenders make informed decisions about loan approvals, risk management, and loan pricing.

Project Overview	
Objective	To develop an AI-powered system for predicting vehicle loan repayment outcomes to enable proactive measures in managing loan defaults and optimizing repayment plans.
Scope	Implementing machine learning algorithms to analyze borrower and loan-related data, generating accurate predictions of loan repayment outcomes to support financial institutions in reducing default rates and enhancing customer management.
Problem Statement	
Description	Auto Foresight seeks to address the challenge of predicting vehicle loan defaults by utilizing AI-powered tools to support financial institutions in making informed lending decisions, creating personalized repayment plans, and managing loan portfolios effectively.

Impact	By accurately predicting loan repayment outcomes, Auto Foresight helps reduce financial risks for lenders, improves customer satisfaction through tailored repayment plans, and supports sustainable lending practices, contributing to a more stable financial ecosystem.
Proposed Solution	
Approach	Utilize real-time data and machine learning models to predict vehicle loan repayment outcomes and provide actionable insights for lenders to optimize loan management and minimize defaults.
Key Features	Auto Foresight uses advanced AI algorithms to provide real-time, accuratepredictions of loan repayment outcomes by analyzing comprehensive borrower and loan data. This aids in proactive loan management, personalized repayment planning, and risk assessment for lenders.

Resource Requirements:

Resource Type	**Description**	**Specification/Allocation**
Hardware		
Computing Resources	CPU/GPU specifications, number of cores	e.g., 2 x NVIDIA V100 GPUs
Memory	RAM specifications	e.g., 8 GB
Storage	Disk space for data, models, and logs	e.g., 1 TB SSD
Software		
Frameworks	Python frameworks	e.g., Flask
Libraries	Additional libraries	e.g., tensorflow
Development Environment	IDE, version control	e.g., Jupyter Notebook, Git
Data		
Data	Source, size, format	e.g., Kaggle dataset, 10,000 images