

## Project Initialization and Planning Phase

Date	04 July 2024
Team ID	739898
Project Title	Anticipating Business Bankruptcy
Maximum Marks	3 Marks

### Project Proposal (Proposed Solution) report

The proposal report aims to predict business bankruptcy using machine learning, boosting efficiency and accuracy. It tackles system inefficiencies, promising better operations, reduced risks, and happier stake holders or business owners. Key features include a machine learning-based credit model and real-time decision-making.

Project Overview	
Objective	<ul style="list-style-type: none"> <li>- The primary objective of the proposal would be to leverage machine learning to predict business bankruptcy. This aims to enhance proactive financial management and minimize the risk of sudden business failures.</li> <li>- Provide actionable insights for stakeholders to mitigate risks and take proactive measures</li> </ul>
Scope	The project comprehensively assesses and enhances the prediction of risks and business failure process, incorporating machine learning for a more robust and efficient system.
Problem Statement	
Description	Addressing inaccuracies and inefficiencies in the Financial metric and operational and risk assessment performance adversely affects operational efficiency and business satisfaction.
Impact	Solving these issues will result in improved operational efficiency, risk mitigation, economic stability, competitive advantages, regular compliance and an overall enhancement in the lending process, contributing to business satisfaction and organizational success and continuous improvement.
Proposed Solution	
Approach	Employing machine learning techniques to analyze and predict business bankruptcy, creating a dynamic and adaptable prediction system for predicting risks and address evolving business and economic challenges.

Key Features	<ul style="list-style-type: none"><li>- Development of robust models trained on historical financial data.</li><li>- Integration of real-time data for continuous monitoring and adaptive predictions.</li><li>- Implementation of thresholds and alerts to notify stakeholders of potential bankruptcy risks.</li><li>- Interface: User-friendly interface for stakeholders to access insights and recommendations based on predictive analytics.</li></ul>
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	<ul style="list-style-type: none"> <li>- Real-time decision-making for .</li> <li>- Continuous learning to adapt to evolving financial landscapes.</li> </ul>
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## Resource Requirements

Resource Type	Description	Specification/Allocation
<b>Hardware</b>		
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
<b>Software</b>		
Frameworks	Python frameworks	Flask
Libraries	Additional libraries	scikit-learn, pandas, numpy, matplotlib, seaborn
Development Environment	IDE	Jupyter Notebook, pycharm
<b>Data</b>		
Data	Source, size, format	Kaggle dataset, 614, csv 1year dataset, 690, csv