Project Initialization and Planning Phase

Date	14 Feb 2026
Team ID	LTVIP2026TMIDS47450
Project Name	prosperity prognosticator: machine learning for startup success prediction
Maximum Marks	2 Marks

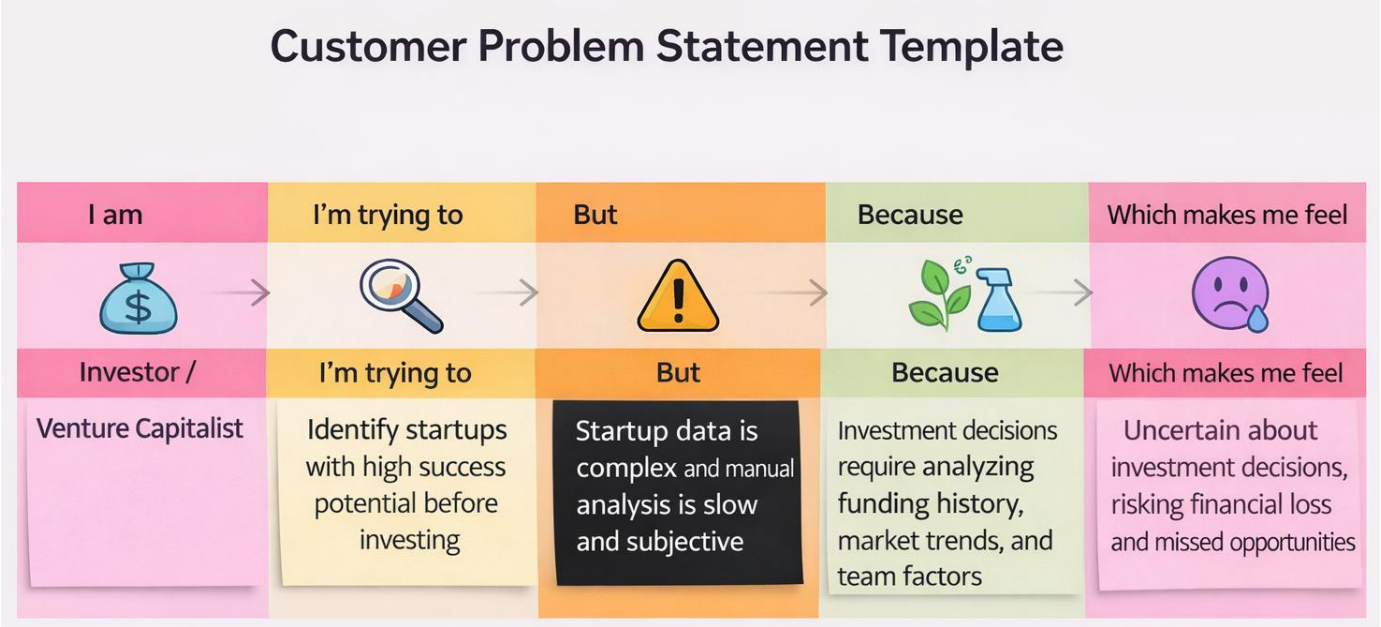
Define Problem Statements (Customer Problem Statement Template)

India's startup ecosystem is rapidly growing, with thousands of new ventures emerging across technology, finance, healthcare, and e-commerce sectors. However, identifying which startups are likely to succeed remains a major challenge for investors, entrepreneurs, and policymakers. Decisions are often based on intuition or limited analysis, which can lead to poor investments, failed business planning, and ineffective policy support.

Prosperity Prognosticator aims to address this challenge by using machine learning to predict startup success based on historical data such as funding patterns, industry category, location, and operational characteristics. By analysing these factors, the system provides data-driven insights that help stakeholders evaluate the potential growth and sustainability of startups.

The model uses supervised machine learning algorithms, with **Random Forest Classifier** as the primary model due to its ability to handle complex, non-linear relationships between features and reduce overfitting through ensemble learning. The system is trained on startup datasets and predicts whether a startup is likely to succeed (acquired) or fail (closed).

The solution is deployed through a user-friendly web interface built using **Flask**, where users can enter startup details and instantly receive success predictions. The application requires minimal system setup (Windows 8+ or equivalent, modern browser, basic internet connectivity) and does not require prior technical or machine learning knowledge.



Problem Statement	I am	I'm trying to	But	Because	Which makes me feel
PS-1 Investor / Venture Capitalist	An investor looking for promising startups	Identify startups with high success potential before investing	Startup data is complex, and manual analysis is slow and subjective	Investment decisions require analyzing market trends, funding history, and team strength	Uncertain about investment decisions, risking financial loss and missed opportunities
PS-2 Entrepreneur / Startup Founder	A startup founder planning business growth	Understand the chances of my startup's success	I don't clearly know which factors influence startup outcomes	Success depends on market conditions, funding, competition, and strategy	Unsure about planning decisions and worried about failure
PS-3 Policy Maker / Government Official	A policymaker supporting entrepreneurship	Identify factors that help startups succeed	Manual analysis of startup trends is difficult and time-consuming	Effective policies require data-driven insights from large datasets	Limited in designing targeted programs for economic growth
PS-4 Business Analyst / Data Analyst	A business analyst studying startup performance	Predict startup success using data-driven methods	Traditional analysis cannot capture complex relationships	Multiple factors interact in non-linear ways	Challenged to produce reliable insights without machine learning