Project Design Phase
Problems and Solutions

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

1. **Target Group / Customers**: Investors and venture capitalists evaluating startup opportunities. Startup founders and entrepreneurs planning business strategies. Policy makers supporting innovation and entrepreneurship ecosystems. Business analysts and data analysts studying startup performance. Educational institutions and researchers focusing on entrepreneurship analytics

2. **Problem:** Startup success prediction is a critical challenge in the modern entrepreneurial ecosystem. Investors, entrepreneurs, and policymakers often struggle to identify which startups are likely to succeed due to the complexity of factors such as funding history, market trends, team strength, and operational strategies. Decisions are frequently based on intuition or limited analysis, which can lead to poor investments, business failures, and inefficient allocation of resources. The lack of fast, affordable, and data-driven decision-support tools increases uncertainty and financial risk.

3. **Existing Alternatives**: Manual analysis of startup profiles and market reports. Expert consultation and investor intuition-based decisions. Traditional financial analysis methods. Basic analytics dashboards without predictive intelligence

4. **Problems With Existing Alternatives:**

- Time-consuming and data-intensive
- Highly dependent on human expertise and judgment
- Difficult to analyse large volumes of startup data
- Limited ability to identify complex patterns
- Lack of predictive insights for future outcomes
- Often subjective and inconsistent decision-making

Solution:

Prosperity Prognosticator is a machine learning–based system that predicts startup success using historical and market – related data. By applying supervised learning algorithms (primarily Random Forest Classifier), the system analyses startup characteristics and provides instant predictions on whether a startup is likely to succeed or fail. Users can input startup details through a simple web interface and receive data-driven predictions that support decision-making.

This solution reduces reliance on manual analysis and enables smarter, faster, and more informed decisions for stakeholders in the startup ecosystem.

Purpose:

1. **Enable Early and Accurate Startup Success Prediction**
   Help investors and entrepreneurs evaluate startup potential before making critical decisions.
2. **Support Data-Driven Decision Making**
   Provide insights based on historical patterns rather than intuition alone.
3. **Reduce Time and Cost**
   Offer fast prediction compared to manual research and consultancy analysis.
4. **Democratize Business Analytics**
   Make predictive analytics accessible to non-technical users through a simple web application.
5. **Encourage Learning and Strategic Planning**
   Help founders understand key factors influencing startup outcomes.
6. **Promote Smart Entrepreneurship Practices**
   Encourage the use of AI-driven tools for sustainable startup growth and innovation.

Problem and Solutions: