

## Project Initialization and Planning Phase

|               |  |
|---------------|--|
| Date          | 18 June 2025   |
| Team ID       | SWTID1749880888  |
| Project Title | Prosperity Prognosticator: Machine Learning for Startup Success Prediction |
| Maximum Marks | 3 Marks  |

### Project Proposal (Proposed Solution) template

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

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|--------------------------|--|
| <b>Project Overview</b>  |  |
| Objective                | To develop a machine learning model that predicts the success potential of startups based on key characteristics, funding history, and market trends.                            |
| Scope                    | The project targets early-stage startup evaluation, offering insights to investors, entrepreneurs, and policymakers for better decision-making and resource allocation.          |
| <b>Problem Statement</b> |  |
| Description              | Stakeholders face uncertainty and inconsistent data when evaluating startup viability, leading to poor investment decisions and weak strategic planning.                         |
| Impact                   | Solving this problem enables smarter investments, stronger startups, and more effective policy interventions driving innovation and economic growth.                             |
| <b>Proposed Solution</b> |  |
| Approach                 | Use supervised machine learning models trained on historical startup data to predict success likelihood, supported by data preprocessing, feature engineering, and model tuning. |
| Key Features             | Implementation of a machine learning based success prediction model<br>Real-time decision making for quicker investments   |

## Resource Requirements

| Resource Type           | Description                             | Specification/Allocation            |
|-------------------------|---|-------------------------------------|
| <b>Hardware</b>         |   |                                     |
| Computing Resources     | CPU/GPU specifications, number of cores | NVIDIA GeForce RTX 3050             |
| 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, joblib |
| Development Environment | IDE, version control                    | Jupyter Notebook, Git               |
| <b>Data</b>             |   |                                     |
| Data                    | Source, size, format                    | Kaggle dataset                      |