Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	14 Feb 2026
Team ID	LTVIP2026TMIDS47450
Project Name	prosperity prognosticator: machine learning for startup success prediction
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Enter Startup Data	Users can enter startup details (funding, category, location, operational features) through a web interface
FR-2	Model Training	Train machine learning models using startup datasets, primarily Random Forest Classifier.
FR-3	Prediction Output	Predict startup success (Success / Failure) based on user input data.
FR-4	Model Evaluation	Display Accuracy, Precision, Recall, F1-Score, Confusion Matrix for each model

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	User-friendly interface via Streamlit/Flask for investors, analysts, and entrepreneurs.
NFR-2	Security	Startup data is processed securely; no unnecessary external data exposure.

NFR-3	Reliability	Model trained and validated using cross-validation and multiple evaluation metrics.
NFR-4	Performance	Efficient preprocessing and fast prediction response for real-time usability.
NFR-5	Availability	Web application accessible anytime via local host or cloud deployment.
NFR-6	Scalability	Extendable with more startup features, larger datasets, and API integration support.