Project Design: Phase -II

TECHNOLOGY STACK

DATE	3 FEBRUARY
TEAM ID	LTVIP2026TMIDS86917
PROJECT NAME	**Prosperity Prognosticator: Machine Learning for Startup Success Prediction**
MAXIMUM MARKS	

TECHNICAL ARCHITECTURE

Technical Architecture

The technical architecture of the *Prosperity Prognosticator* system is designed to predict startup success using machine learning techniques integrated with a web application. The architecture follows a structured pipeline starting from data collection to prediction output.

Initially, startup datasets are collected in CSV format containing historical information such as funding details, market category, team size, and business metrics. These datasets are processed using Python-based data analysis tools. During preprocessing, missing values are handled, categorical attributes are encoded, and numerical features are normalized to ensure data consistency.

The preprocessed data is split into training and testing datasets. Machine learning models are trained using the training data with Scikit-learn algorithms, and model performance is evaluated using the test data. After validation, the finalized model is deployed within a Flask-based web application. Users provide startup inputs through the interface, and the system generates real-time predictions indicating the likelihood of startup success.

Technical Architecture