Project Design Phase
Proposed Solution Template

Date	29 June 2025
Team ID	LTVIP2025TMID38848
Project Name	cleantech: transforming waste management with transfer learning
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Liver cirrhosis is a life-threatening disease often diagnosed at late stages due to the lack of early screening tools. Traditional diagnostic methods are expensive, time-consuming, and require expert supervision.
2.	Idea / Solution description	This project proposes a web-based application that uses a trained Random Forest machine learning model to predict liver cirrhosis based on clinical test values (e.g., bilirubin, enzymes). Users can enter data through a simple form, and the backend will provide instant predictions.
3.	Novelty / Uniqueness	This project proposes a web-based application that uses a trained Random Forest machine learning model to predict liver cirrhosis based on clinical test values (e.g., bilirubin, enzymes). Users can enter data through a simple form, and the backend will provide instant predictions.
4.	Social Impact / Customer Satisfaction	This tool can significantly aid early diagnosis, reduce disease progression, and minimize treatment costs. It empowers both doctors and patients in rural or underserved areas to get predictive insights without needing a specialist.
5.	Business Model (Revenue Model)	The solution can be offered as a freemium model for patients and a subscription-based diagnostic support tool for clinics and labs. Hospitals can also integrate it into electronic health record (EHR) systems.
6.	Scalability of the Solution	The application is modular and can be scaled by integrating cloud storage, mobile apps, chatbot interfaces, or additional disease models (e.g., hepatitis, kidney disease) in future versions.