

**Project Design Phase-I**  
**Proposed Solution**

Date	19 September 2022
Team ID	PNT2022TMID52707
Project Name	Statistical Machine Learning Approaches To Liver Disease Prediction
Maximum Marks	2 Marks

**Proposed Solution :**

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The number of patients with liver disease has been steadily rising as a result of heavy alcohol usage, exposure to dangerous gases, and use of contaminated food. Health Care Professionals need to obtain patient samples to identify the liver disease, which could be expensive both money and time. The key problem is doctor cannot provide a diagnosis based on test variation results.
2.	Idea / Solution description	The application will accurately and quickly identify which individuals have liver disease and which ones do not by using patient records that include blood test report results.
3.	Novelty / Uniqueness	To predict the presence of Liver disease with high efficiency. Instead of using individual classifier algorithms, an ensemble model that combines KNN, DT, RF is used to increase accuracy. Model is deployed using Heroku cloud platform.
4.	Social Impact / Customer Satisfaction	The proposed system will make socially healthy living by decreasing mortality rate. It is also helpful for the doctors to get patients treated at the earliest.
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"><li>• Health Care Sector (Hospitals).</li><li>• Can generate revenue through direct customers.</li><li>• Can collaborate with health care sector and generate revenue from their customers.</li></ul>
6.	Scalability of the Solution	It is cost effective and user friendly.

