

**Project Design Phase**  
**Problem – Solution Fit Template**

Date	26 June 2025
Team ID	LTVIP2025TMID59671
Project Name	Revolutionizing Liver Care: Predicting Liver Cirrhosis Using Machine learning
Maximum Marks	2 Marks

**Problem – Solution Fit:**

Liver cirrhosis is a life-threatening condition caused by long-term liver damage, often going undetected until it reaches advanced stages. Due to the lack of early symptoms and the complexity of medical data, early diagnosis is challenging. Traditional diagnostic methods are time-consuming, expensive, and often unavailable in remote areas .

**Solution:**

To overcome these challenges, our team proposes a machine learning-based predictive model that can analyze clinical and biochemical data to detect early signs of liver cirrhosis. This model will help healthcare professionals identify at-risk patients quickly and accurately, enabling timely intervention and improved patient outcomes. The system aims to make liver disease prediction faster, more accessible, and cost-effective.

**Purpose:**

- ☒ To assist in the early detection of liver cirrhosis using machine learning.
- ☒ To improve accuracy and efficiency compared to traditional diagnostic methods.
- ☒ To reduce the burden on medical professionals by providing decision support tools.
- ☒ To make liver disease prediction accessible in remote or under-resourced areas.
- ☒ To enable timely treatment and improve patient survival rates through early diagnosis.