

Project Design Phase
Problem – Solution Fit Template

Date	29 June 2025
Team ID	LTVIP2025TMID59416
Project Name	Revolutionizing Liver Care: Predicting Liver Cirrhosis using Advanced Machine Learning Techniques
Maximum Marks	2 Marks

Problem – Solution Fit:


The people who are suffering with early symptoms of liver cirrhosis, should consult a doctor, and took a blood test for their health condition. Most of the people are can't affordable for the prices of the blood test and the hospital fee. To all of them, we've developed a model, which takes the symptom's values as input, and predicts whether the patient is suffering with liver cirrhosis disease of not. This model performs well on the new input data and retrains again and again and gives the effective outcome with highest accuracy

Purpose:

- ☐ To predict whether the patient is suffering with liver cirrhosis disease or not.
- ☐ Beating the old method, i.e., consulting a doctor and hospitalized for many days to cure the disease
- ☐ Decreasing the cost of taking blood test to know about our health condition

Template:

Problem-Solution fit canvas 2.0		Purpose / Vision	
Define CS, fit	1. CUSTOMER SEGMENT(S) Hospitals, Medical Institutions, and humans who are suffering with early symptoms are the major customers for our model	6. CUSTOMER CONSTRAINTS Dependence on technology, no cash, believing that the machines always not work properly.	5. AVAILABLE SOLUTIONS Prescribing a blood test from experienced doctors is the present available solution to check whether a patient is suffering with Live Cirrhosis or not
Focus on J&P, tap into BE,	2. JOBS-TO-BE-DONE / PROBLEMS 1. To make effective prediction whether a patient is suffering with liver Cirrhosis disease or not. 2. To give awareness for the patients who are facing the early symptoms	9. PROBLEM ROOT CAUSE Poor health maintenance, not taking a proper health diet, consumption of alcohol and smoking cigarette	7. BEHAVIOUR Getting tough to know about whether the patient is suffering with disease or not. He has to consult a doctor to know his condition
Identify strong TR & EM	3. TRIGGERS The customers will check out and get alert when they saw early symptoms in themselves or in their neighbors	10. YOUR SOLUTION Developing and deploying a model, which was built by using advanced machine learning technologies like RandomForest Algorithm, Ensemble Learning techniques, etc.,	8.CHANNELS of BEHAVIOUR 8.1 ONLINE Refers the online videos about liver cirrhosis disease and its precautions 8.2 OFFLINE Consults a best doctor to know about his/her health condition
	4. EMOTIONS: BEFORE / AFTER Before checking, they get tensed about the result. If the result is positive, they get worried or if the result is negative, they get relaxed and take precautions		
		Extract online & offline CH	



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