

**Project Title: Statistical Machine Learning Approaches
to Liver Disease Prediction**

Project Design Phase-I - Solution Fit

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Define CS, fit into CC	<div>1. CUSTOMER SEGMENT(S)<div>CS</div></div> <div>Our customers are the patients who are suffering from liver disease. Many diseases caused by drugs, poisons, or too much alcohol. Examples include fatty liver disease and cirrhosis.</div>	<div>6. CUSTOMER CONSTRAINTS<div>CC</div></div> <div>The following are the customer constraints:<ul style="list-style-type: none">• Scope• Cost• Time• Trust• Customer Satisfaction</div>	<div>5. AVAILABLE SOLUTIONS<div></div></div> <div>In earlier days, there is a traditional approach to diagnosing liver diseases are by using algorithms like<ul style="list-style-type: none">• Naïve Bayes Classifier• Support Vector Machines• Back Propagation Neural Network• Decision tree• Random tree etc.,</div>	Explore AS, differentiate
Focus on J&P, tap into BE, understand RC	<div>2. JOBS-TO-BE-DONE / PROBLEMS<div>J&P</div></div> <div>The problems encountered are,<ul style="list-style-type: none">• Accuracy• Identify• Risk InvolvedApplication should be user friendly and website crashes should be avoided.</div>	<div>9. PROBLEM ROOT CAUSE<div>RC</div></div> <div>Difficult to acquires proper dataset. Parameters should be able to predict any kind of liver disease. Model may require more real time data to improve its accuracy</div>	<div>7. BEHAVIOUR<div>BE</div></div> <div>→Customers avoid predictors if it is not user friendly. →They avoid the application if the results are not appropriate. →They may use other application which has better response.</div>	Focus on J&P, tap into BE, understand RC

<p>3. TRIGGERS TR</p> <p>→Web application is the one which is easily accessible as they don't like to download lots of apps in their mobile.</p> <p>→Cost Effective</p>	<p>10. YOUR SOLUTION SL</p> <p>→Try to develop the application with as many as possible to give more benefits to the consumer.</p> <p>→Try to develop the application with more accuracy.</p> <p>→An application accessible from anywhere at any time using their mobile or tablet or laptop.</p>	<p>8. CHANNELS of BEHAVIOUR CH</p> <p>8.1 ONLINE</p> <p>→Searching online for symptoms and treatments.</p> <p>→People may able to access the application in the browser.</p> <p>8.2 OFFLINE</p> <p>→Booking appointments in hospitals.</p> <p>→A group of blood tests called liver function tests can be used to diagnose liver disease.</p>
<p>4. EMOTIONS: BEFORE / AFTER EM</p> <p>→People can easily access the application and can be able to diagnose the liver disease in their house itself.</p> <p>→Ensure the security of the customer's record.</p> <p>→To trust the predicted result we concentrate more on the accuracy.</p>		