Project Title: Statistical Machine Learning Approaches to Liver Disease Prediction **Date:** 20 sept 2022

Project Design Phase-I - Solution Fit **Team ID:** PNT2022TMID24928

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

Who is your customer?
i.e. working parents of 0-5 y.o. k

patients are the customers, particularly who suffer for the leaver disease they are need this model to conform the disease with with high accuracy.

6. CUSTOMER CONSTRAINTS CC

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

Prescription - Customer must need a doctors report of leaver, that report contain the information about the customer leaver condition. That information are need for prediction.

Network - Network connection is must require for the disease, customer check the network connection

5. AVAILABLE SOLUTIONS AS

Which solutions are available to the customers when they face the problem
or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

In the initial stage, below traditional Approaches algorithms used to diagnosing liver disease

- Support Vector Machine
- Decision tree
- Naive Bayes Classifier
- Random Forest tree

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS J&P

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

Mainly 2 problems in this prediction

Information - User must enter the current information about liver, that wrong information leads to wrong prediction.

Accuracy - This model should acquire required accuracy because it involves the risk of life.

9. PROBLEM ROOT CAUSE RC

What is the real reason that this problem exists?
What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

-Initializing suitable dataset is very difficult.
-For the training and testing, we are using some parameters. The liver disease can be predict by this dataset and risks involved if the person is diagnosed with the particular disease like liver.

7. BEHAVIOUR BE

What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

- People avoid to use the predictors if it is no user-friendly
- Some time they stop using the application, if the predicted results are not accurate.
- User can handle the application easly.

Focus on J&P, tap into BE, understand RC

3. TRIGGERS

TR

- People wants to make their life easier for analyzing liver diseases with this model

4. EMOTIONS: BEFORE / AFTER

EM

- In current situation people think difficult to trust the Predicted results. So, our main goal is to work out this model with accuracy and change it.

10. YOUR SOLUTION

SL

Our solution to solve this problem is to develop

- This application which is accessible from any ware at anytime using their mobile or laptop that is possible use of cloud computing.
- To a developed application with a many possible to give more benefits to their patients.

8. CHANNELS of BEHAVIOUR

CH

8.1 ONLINE

- User can access the application in any ware and any time through the online.
- Promote application with the advertisement through the online

8.2 OFFLINE

- Take a prescription from the doctors