Project Design Phase-I - Solution Fit Template

Project Title: Statistical Machine Learning Approaches to Liver Disease Prediction

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

CS

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

- Cirrhosis is more common in adults ages 45 to 54. They have some symptoms which are: skin and eyes that appear yellowish (jaundice), abdominal pain and swelling, itchy skin, dark urine color, chronic fatigue and etc.,
- Most of the people these days look for their symptoms on the internet.
- They are our customers

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.

- The customer don't need to spent lot of money for the initial checkup itself
- We don't collect any money from customer, our ultimate aim is we want to give accurate results to customers.

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

https://liver-app.herokuapp.com/

- The above web application is the liver disease prediction by patients
- There is no need for improvement in accuracy of prediction of Liver Disease
- It does not provide correct and accurate results of the users

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.

- We to our customers we confirm over the phone whether liver disease is present or not and predict the results
- They don't need to go to the hospital for this, predicted by blood test results
- Thus customers can save their time and money.

7. BEHAVIOUR

RC

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)

- Most of the customers search the internet for the symptoms of the disease before going to the clinic to solve the problem
- If there is disease predictor on the internet, they check it
- We want to give them accurate results.

9. PROBLEM ROOT CAUSE

BE

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.

- Patients with Liver disease have been continuously increasing because of excessive consumption of alcohol, inhale of harmful gases, intake of contaminated food and drugs
- Mainly due to the large amount of alcohol consumption liver disease arises

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

3. TRIGGERS

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R

What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

When the affected person feels uncomfortable due to his/her illness when compare to the normal healthy person and they need their help to go to hospital for at early stages. Inorder to go to hospital for checkup, they can easily check disease by their mobile phones at home itself.

The easiest and smartest way of predicting at early stage will trigger them to use our web application.

4. EMOTIONS: BEFORE / AFTER

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M

How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

BEFORE :

- The customer need to go to hospital for checkup
- Most of the people are not interested to spent money on initial checkup
- Discovering the existence of liver disease at an early stage is a complex task for the doctors.

AFTER :

- If the customer have any symptoms regarding liver disease or anything similar to it. They can simply check it in their mobile phones at any stages
- It is very helpful for doctors to diagnose the disease and save their liver

10. YOUR SOLUTION

S

L

If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

- Due to affected this disease our body is more burden to digestion
- To rectify this problem and we collect the dataset, then train a machine learning model to classify them
- In this project, we are using the web application of Liver Disease prediction to predict automatically liver disease based on LFT report
- For perfect estimation, we collect some data from the user and analyze by using Machine learning to give more accurate result.

8. CHANNELS of BEHAVIOUR

CH

8.1 ONLINE

What kind of actions do customers take online? Extract online channels from #7

- The customer can check their result with online comparison using our platform.

8.2 OFFLINE

What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

- If the disease is affected (Based on our predicted results) the customers can go to consult the Doctors.