

## Project Design Phase-I Problem – Solution Fit

Date	05 OCTOBER 2022
Team ID	PNT2022TMID46390
Project Name	EARLY DETECTION OF CHRONIC KIDNEY DISEASE
Maximum Marks	2 Marks

### Problem – Solution Fit:

#### Purpose:

- ☐ Solve complex problems in a way that fits the state of your customers.
- ☐ Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- ☐ Sharpen your communication and marketing strategy with the right triggers and messaging.
- ☐ Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- ☐ Understand the existing situation in order to improve it for your target group.

#### Template:

Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> Customers those face mild to severe symptoms ranging from sudden weight loss, Poor Appetite, High Bp, High level of Creatine, shortness of breath, blood in your pee (urine) and insomnia that maybe an indication of a serious health issue like chronic kidney disease prediction.	<b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span> i. The suggested system even though it freely works on the computers, smartphones, and other electronic gadgets, which may be out of reach for the less fortunate members of the society. ii. Requires recent blood/urine test results, making this a requirement for the machine learning model before it can offer a forecast.	<b>5. AVAILABLE SOLUTIONS</b> <span>AS</span> The Foremost Treatments re modifications in diet, Lifestyle and doing physical exercises regularly to keep you as healthy as possible medications has to be followed to manage related issues like high blood pressure and high cholesterol, and dialysis. All using primary therapies may be avoided by quickly completing an early diagnostic	Explore AS, differentiate
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>J&amp;P</span> The following jobs are to be done: i. Identify the most important diagnostic data that can cause chronic kidney disease ii. Create an ML model that can predict the presence of chronic kidney disease iii. Design an interactive, simple and Effective freely available UI for communicating with the patients	<b>9. PROBLEM ROOT CAUSE</b> <span>RC</span> Kidney disease is most frequently brought on by high Bp, Diabetes. however heart diseases, obesity can also contribute to the harm that result in renal failure. long Term decline in the functionality of the kidney also brought on by problems with the urinary systems and inflammation in various kidney regions	<b>7. BEHAVIOUR</b> <span>BE</span> First, the frontend of the created system is to provide with test results of patients as an input. Based on this given input Machine learning model predicts the future. As it is Simple and free to use it incredibly beneficial to users.	
Identify strong TR & EM	<b>3. TRIGGERS</b> <span>TR</span> Patients are encouraged to get a kidney function test if they experience symptoms that point to potential renal issues. These signs and symptoms may include: unusual nausea and vomiting; blood in urine (hematuria) and painful urination (dysuria).	<b>10. YOUR SOLUTION</b> <span>SL</span> As we all know "prevention is better than cure" our suggested system will predict the early stages of kidney disease in order to avoid it in severe condition with the advancement of Machine Learning. The System successfully works without charging a fee by combining the Machine Learning model with an effective UI	<b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span> <b>8.1 ONLINE</b> In order for the machine learning model to produce predictions, the patients are required to provide the appropriate health check test results into the online application <b>8.2 OFFLINE</b> In order to complete the required health examination, patients must visit laboratories or hospitals, from which the information can be entered into the web application.	Extract online & offline CH of BE
	<b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span> Patients experience works on interacting with the suggested system. They will feel relieved and acquire a diagnosis after seeing the results.			