

PROJECT DESIGN PHASE-I

PROBLEM SOLUTION FIT







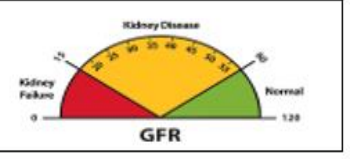




Date : 01 October 2022

Team ID : PNT2022TMID35483

Project Name : Early detection of Chronic Kidney Disease (CKD)

Max. Marks : 2 Marks

Problem-Solution fit canvas 2.0 Purpose / Vision : Early Detection of Chronic Kidney Disease using Machine Learning

<p>1. CUSTOMER SEGMENT(S)  CS</p> <p>Common people who have been affected by kidney disease</p> <p><i>Define CS, fit into CC</i></p>	<p>6. CUSTOMER CONSTRAINTS  CC</p> <p>Customers may be limited by the available lab facilities and testing infrastructure to detect the disease at an early date. Some common man cannot afford high rates charged by testing lab centres</p>	<p>5. AVAILABLE SOLUTIONS  AS</p> <p>Existing Solutions: Dialysis or high dosage of medicines to treat the disease. An alternative to dialysis for people with severely damaged kidney function is a kidney transplant</p> <p><i>Explore AS, differentiate</i></p>
<p>2. JOBS-TO-BE-DONE / PROBLEMS  J&P</p> <p>Existing GFR test may just tell kidney function but may not detect chronic kidney disease. Kidney transplant is very painful to both donor and receiver. In severe cases, CKD leads to fatalities which is a serious concern.</p> <p><i>Focus on J&P, tap into</i></p>	<p>9. PROBLEM ROOT CAUSE  RC</p> <p>Since CKD doesn't show any symptoms, finding a root cause is a difficult task. They would have not noticed or ignored it at an early stage. High Blood sugar, high blood pressure, anaemia, improper lifestyle and diet habits may be some of the root causes.</p>	<p>7. BEHAVIOUR  BE</p> <p>Customer may try other means of medical treatment. Lower GFR may result in kidney failure.</p>  <p><i>Focus on J&P, tap into C</i></p>
<p>3. TRIGGERS  TR</p> <p>They may see their friends going for GFR tests when they have high bp, blood sugar, anaemia etc. They may check-up when they get pain in abdomen.</p> <p>4. EMOTIONS: BEFORE / AFTER  EM</p> <p>Individuals may feel happy if problem is identified and cured at an early stage in a painless manner.</p> <p><i>Identify strong TR & EM</i></p>	<p>10. YOUR SOLUTION  SL</p> <p>Developing a machine learning algorithm to detect the chronic kidney disease at an earlier stage by statistical analysis of CKD using the various parameters which are given as input to the ML models.</p>	<p>8. CHANNELS of BEHAVIOUR  CH</p> <p>8.1 ONLINE</p> <p>In online, they will be enquiring about various lab centres to verify cost, equipment and testing quality, accurate results, etc.</p> <p>8.2 OFFLINE</p> <p>In offline, customer's behaviour can easily be understood so that a good guidance can be given.</p> <p><i>Extract online & offline CH of BE</i></p>