Project Design Phase-I - Solution Fit Template

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1. CUSTOMER SEGMENT(S)



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- The targeted customer group includes patients affected with chronic kidney disease (CKD).
- As seen in medical records CKD is also most common in people who are aged 65 years and older and it also affects the people of age group between 45-65.
- Diabetic patients are also prone to CKD. In addition, people with blood pressure (BP) are also taken into consideration.

6. CUSTOMER



What constraints prevent your customers from taking action or limit their choices of solutions?

- As this chronic kidney disease goes unnoticed over a period because many individuals are unaware of the basic symptoms and they also ignore them. And as a result of this they are not aware that they should get some medical tests done.
- There are also many people from lower economy who are not able to afford high billings charged by testing laboratories.

5. AVAILABLE SOLUTIONS

Which solutions are available to the customers when they face the problem?



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- There are certain types of scans like:
 - CT Scan
 - Ultrasound Scan

to detect some minor defects in the kidneys.

- In case if the CKD worsens there are many techniques like kidney dialysis which need to be done at regular intervals of time, and at a point where the complete kidney function fails to filter the waste from blood kidney transplant is done.
- Now the above-mentioned techniques have a very low life expectancy, so it is better to detect the CKD at early stages and provide appropriate treatments.

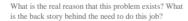
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2. JOBS-TO-BE-DONE /

Which jobs-to-be-done (or problems) do you address for your customers?

- As GFR tests are there to identify defects in the rate of filtration rate of kidneys, if not checked at early stages it leads to complications in the future.
- So, the most important medical test data should be collected which are main causes for causing CKD.
- Using these data create ML models which performs best and produces accurate results in a short range of time. Finally provide the best and feasible treatments to patients.

9. PROBLEM ROOT CAUSE



- For the root cause of this problem one must check for history of family disease for that particular individual, which is often not taken into consideration. Also, that CKD doesn't show any early symptoms, finding the root cause is a difficult task, even if found
- it is ignored by the people

 Best thing one could do is to maintain a healthy
 lifestyle and intake of water and proper balanced diet.
- For people with diabetes and BP should visit their doctor at regular intervals and keep them under check.

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7.

What does your customer do to address the problem and get the job done?

- The patients may take medical tests and get checked in the hospital.
- The basic test results can be utilized by the ML model and get accurate results in which the UI is user friendly and easily available.

3. TRIGGERS What triggers customers to act? checkup.

Some people may have prolonged abdomen pains and back pain at that point of time they go for a

Symptoms like nausea, hematuria, swelling of face. decreased urine output, loss of appetite are common and hence the patients go to hospital.

4. EMOTIONS: BEFORE / AFTER

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How do customers feel when they face a problem or a job and afterwards?

Once when people start to notice any symptoms, they would be anxious about getting checked with the doctor immediately and knowing their medical condition.

After diagnosis and getting the results for their tests patients would be happy that they got to know about their condition at very early stage and get cured in a painless way.

10. YOUR SOLUTION

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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.

- In our solution part we are building a machine learning (ML) model to predict the risk of patients getting affected with CKD at early stages so as to get treated and cured without putting the patient's lives at risk.
- This predicts the results in a much faster pace and provides with accurate results, ultimately it helps the patients to take proper treatments at the right time.

8. CHANNELS of BEHAVIOUR



8.1 ONLINE

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

People check with the symptoms and causes through surfing and they also check for laboratories which perform the medical tests. They would also like to get the results quickly without any delay.

8.2 OFFLINE

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

- > Most of the times the patients require a complete health examination and they should visit the hospital and get the prescribed medical tests done.
- The medical results can be used as the input to the ML model which is deployed as web application and they can get their