Project Design Phase-I - Solution Fit Template

Project Title: Detecting Parkinson's Disease Using Machine Learning   **Team ID:** PNT2022TMID18356

1. CUSTOMER SEGMENT(S)

Who is your customer?

Mostly the aged person and some youngsters have symptoms with include tremor, shaking, rigidity, slowness of movement and difficulty with walking, thinking and behavior change, depression and anxiety, loss of smell, some visionary problem, etc.,

Now a days most of the people can search their symptoms first in Google before visiting to the Doctor to confirm their doubts .

Those people are our Customer and we suggest the affected people with some Hospitals and Doctors with some advertisement and make revenue of it and provide free medication for literly symptoms person .

6. CUSTOMER CONSTRAINTS

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

The Customer don't need to spent lot of money for their initial checkup itself.

It will reduce transportation fees, hospital fees , medical test fees and they can maintain their Budgets .

We don't collect any Money from the customer.We make revenue by Advertisement from reputed hospitals .

The Customer not need to buy any external devices for check up themselves. They can easily check it with their mobile phones more accurately

5. AVAILABLE SOLUTIONS

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?

https://play.google.com/store/apps/details?id=com.silahealth.patana

→ The Above app is the world first app that uses real time pose estimation powered by Machine learning .

→ But this only used to analyse and measure the value of posture and gait only

It not intimate user whether they have Parkinson's disease or not

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.

If laterly predict will cause severe damage to the Patients and sometimes it result in death .

7. BEHAVIOUR   **BE**

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

According to Human psychology , We mostly prefer smart work than hardwork and now a days, we always ready to spent much time on Mobile phones .

9. PROBLEM ROOT CAUSE   **RC**

What is the real reason that this problem exists? What is the story behind the need to do this job?

○ Parkinson's disease (PD) is a long term degenerative disorder of the central

If the person have some symptoms and he/she need to clarify whether they have Parkinson's disease or not . They need not go to Hospital for Check up.

They simply check it by their mobile phone itself , it save their time , money etc.,

If they didn't have Parkinson's Disease , the self predict it and suggest proper healthy forever .

Early predict will save their life. We offer some special discounts and cashback offer to attract the customer and make a connection between reputed well hospitals and affected patients.

There already a app to predict the Parkinson's disease in which that application doesn't tell the details to the customers

It does not suggest any medication and best hospitals nearby to that customer.

Our ultimate aim is to build a web application in a user friendly manner in which it detailly explain about the symptoms and disease along with some proper medication.

We also suggest some best reputed hospitals nearby to the Customers.

Our Web Application is cost free for Consumers and we make revenue through advertisement only

nervous system that mainly affects the motor system.

- It happen due to Aging
- Now a days it affects young people due to some bad habits .
- The Junk f ood eaten may result in Parkinson's Disease
- The Environmental changes maybe a cause for parkinson's Disease

3. TRIGGERS

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What triggers customers to act?

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 their 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

EM

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

BEFORE OUR APPLICATION EXISTS :

The Customer need to go to Hospital for check up . Most of the people are not interested to spent money on initial check up. They feel the seriousness at final stage and visit Hospitals for their treatment which result in the treatment requires high cost and makes it impossible to cure at that stages.

AFTER OUT APPLICATION EXISTS:

If the customer have any symtomps regarding parkinson's disease or anything similar to it . They can simply check it in their mobile phones at any stages . If they affected by Parkinson's disease , we recommend best Doctors and Hospitals with some special cashback offer and attract the

pe   ople to use our appAnd they can lication for their checkup and treatmeasily check about their improvement   ent of Curing from Parkinson's Disease without going to Hospitals .Which save their time and money which become their most favoriable application incase of affected by Parkinson's Disease.

10. YOUR SOLUTION

SL

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.

- → *Due to tremors and rigidity in muscles ,making it difficult to draw smooth spirals and waves.*
- → *The drawing speed was slower and the pen pressure is lower among Parkinson's patients.*
- → *Our goal is to quantify the visual appearance of these drawings and then train a machine learning model to classify them*
- → *In this project, we are using, Histogram of Oriented Gradients (HOG) image descriptor along with a Random Forest classifier to automatically detect Parkinson's disease in hand drawm images.*
- → *For perfect estimation, we collect some data from the user and analyse by using Machine learning to give more accurate result.*

8. CHANNELS of BEHAVIOUR

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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 predicted the customer need to go to Hospital for Treatment in offline mode