Project Title: Deep Learning Fundus Image Analysis For Early Detection Of Diabetic Retinopathy

Project Design Phase-I - Solution Fit Template

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Define CS,

1. CUSTOMER SEGMENT(S)

Hospitals--> Sugar patients



6. CUSTOMER CONSTRAINTS

Highly confidential persons are allowed to access

Knowledge to access

5. AVAILABLE SOLUTIONS

CC

The available solution is that predicting diabetic retinopathy using deep learning algorithms and with comparitively less accuracy

Identify

strong

TR &

EM

2. PROBLEMS

- Severe vision loss
- Difficulty driving, especially at night, and trouble reading

9. PROBLEM ROOT CAUSE

- Over time, too much sugar in your blood can lead to the blockage of the tiny blood vessels that nourish the retina, cutting off its blood supply.
- cause damage to your eyes that can lead to poor vision or even blindness.

7. BEHAVIOUR

- The patients can take medical tests and get checked in the hospital
- The test results can be utilized by the deep learning model

on J&P, tap into BE

plore AS, differentiate

3. TRIGGERS

and the less controlled your blood sugar is, the more likely you are to develop this eye complication.

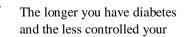
10. YOUR SOLUTION

Diabetic Retinopathy(DR) is a common complication of diabetes mellitus, which causes lesions on the retina that effect vision. If it is not detected early, it can lead to blindness. Many Artificial-Intelligence-powered methods have been proposed by the research community for the detection and classification of diabetic retinopathy on fundus retina images. Moreover, it

8. CHANNELS of BEHAVIOUR

ONLINE

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





4. EMOTIONS: BEFORE / AFTER

BEFORE:

-->Anxious about getting checked with doctor immediately and knowing their medical condition.

AFTER:

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

could also improve patient recruitment for clinical trials targeting DR.

SL

OFFLINE

✓ Most of the times the patients require a complete health examination and they should visit the hospital and get the prescribed medical tests done.