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, fit into CC

1. CUSTOMER SEGMENT `CS`

The evaluation of the Diabetic retinopathy is associated with peoples having Diabetes. The evaluation will bebased on the fundus or retinal images of the diabetic patients eye. This project will be best for the diabetic patients forthe earlier detection of diabetic retinopathy.

6. CUSTOMER CONSTRAINT

Diabetics patients are not aware of the complications of the diabetics so they fail to notice these serious diseases. Diabetic retinopathy doesn't have any specific symptoms other than blurred vision so many people will fail to notice the illness and the adverse reaction of the diabetic retinopathy.

5. AVAILABLE SOLUTIONS `AS`

The treatments are depend on the severity of the disease. The treatments aremostly focus on slowing or stopping the progression of diabetic retinopathy. Thereare so many solutions available for diabetic retinopathy some of them are Injecting medications on to the eye, Photocoagulation, Pan-retinal photocoagulation , Vitrectomy. Laser treatment is best at treating the growth of new blood vessels.

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS `J&P`

Diabetic retinopathy is one of the serious consequence of diabetics, earlier detection of diabetic retinopathy will help the patients to recover from the disease effectively. Advising Diabetic patients not to intake high level of sugars and to maintain a normal blood pressure and cholesterol in order to prevent them from diabeticretinopathy.

9. PROBLEM ROOT CAUSE `RC`

The root cause of the diabetic retinopathy is because of high sugar level in the blood due to diabetics. And one of the main cause of diabetic retinopathy is people fail to notice the illness and that cause the adverse reaction .This project will help them to detect diabetic retinopathy at the earlier stage and it can be treated easily.

7. BEHAVIOUR `BE`

As diabetic retinopathy progresses it blocks the tiny blood vessels that nourish the retina and cut off its blood supply.

This project will help to detect diabetic retinopathy at the early stage by analysing Fundus images. This will provide the result with better accuracy and saves the time and cost of the patient. This will helps the patient to recover from the diabetic retinopathy in a better way.

Focus on J&P, tap into BE, understand RC

3.TRIGGERS `I'R`

Diabetic retinopathy may cause mild symptoms but it can trigger blindness

It can cause blured vision or Fluctuating vision

The patient can also see some spots or strings floating on the vision

These triggers will trigger the patient to check their eyes.

4.EMOTIONS: BEFORE/AFTER `EM`

Before: They will have a blurred vision and theyfeel anxious about their vision.

After: They will feel relieved that they done a rightchoice of checking the fundus image in deep learning fundus image analysis for the early detection of diabetic retinopathy model.

The patient will feel hopeful that they will be recover soon from diabetic retinopathy that it had been detected at the earlier stage.

10. YOUR SOLUTION `SL`

Our solution is that the diabetic patients should aware of the consequence of the diabetics and should monitor their health frequently.

And the DEEP LEARNING FUNDUS IMAGE ANALYSIS FOR EARLY DETECTION OF DIABETIC RETINOPATHY will help

To diagnose the diabetic retinopathy at the early Stage and it can be easily treated.

This model will give them the better accuracy and saves the patient's time and cost

8.CHANNELS OF BEHAVIOUR `CH`

The diabetic patient should have a regular check on their blood sugar level and blood pressure level and they should try to maintain it normal

They should have a immediate eye checkup when they have any problem on their vision

The diabetic patients have to take the eye examination in the regular interval of time. Then only diabetic retinopathy can be detected earlier and proper treatment can be done