**Project Title: Deep learning fundus image for early detection of Diabetic Retinopathy**

**Project Design Phase-I - Solution Fit Template**

**Team ID:** PNT2022TMID24469

**1. CUSTOMER SEGMENT(S)** CS

Diabetic Patients

**6. CUSTOMER CONSTRAINTS** CC

Because the system has to be reliable if not it leads to blindness which cannot be reversed.

**5. AVAILABLE SOLUTIONS** AS

At present this detection is done through the manual process which is prone to human error and misdiagnosis. It is also a time consuming process and

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

To create a reliable automated Diabetic Retinopathy detection system, which overcomes the problems that manual diagnosis faces.

**9. PROBLEM ROOT CAUSE** RC

It is caused due to the lesions on retina which leads to blindness.

**7. BEHAVIOUR** BE

Deep Learning will be helpful to raise the accuracy of product and also its reliability.

### 3. TRIGGERS    TR

As it leads to blindness if it is not detected and hearing from other patients. These things triggers patients.

### 4. EMOTIONS: BEFORE / AFTER    EM

It is normal for people to doubt an automated detection system so they did. And doubted its sensitivity in detecting the changes in retina.

They looked happy after coming to know about its promising result.

### 10. YOUR SOLUTION    SL

Here we are presenting an automated Diabetic Retinopathy detection system using deep learning and fundus images analysis which can detect the disease early and avoid loss of vision.

### 8. CHANNELS of BEHAVIOUR    CH

**8.1 ONLINE**
It can be also used as like Telemetry. Patient can get diagnosis through online.

**8.2 OFFLINE**
It can be used in government and private Hospitals to avoid loss of vision cases.