Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID08044
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetes Retinopathy.
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	A Diagnosis center of eye care has come up with a problem where the patients suffering from Diabetes are in large scale. To detect the Diabetes Retinopathy is a time consuming process and the tools used for detecting the eye is costly and even after the detection is done due to the long process, the patient could obtain the severity if he/she is suffering from Diabetes Retinopathy.
2.	Idea / Solution description	To avoid the situation of long term detection an application can be build with the data collection of fundus images where this could be an early detection process of Diabetes Retinopathy. The model will be trained to detect the Diabetes Retinopathy at earlier stage and give the precautions to be followed by the patient .
3.	Novelty / Uniqueness	The existing solution includes the training of the dataset whereas the proposed solution is Transfer Learning technique, here the data is pre trained and the prediction can be made on past output or experience.
4.	Social Impact / Customer Satisfaction	The product can be easier to use where the application developed will be user-friendly and also cost efficient.
5.	Business Model (Revenue Model)	The Business Model is defined as the usage of the product by the client or customer . Here the business model can be paid as per the usage of the application .
6.	Scalability of the Solution	The solution includes training of the model with Transfer Learning techniques which includes Inception V3,Resnet50,Xception V3 that are more widely used in medical image analysis and they are highly effective. Here the Data can be trained not only for the particular output but also for similar output of the previous or experienced data.