Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID13018
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Early Detection of Diabetic Retinopathy using Deep Learning
2.	Idea / Solution description	By the use of a hybrid model that perfectly unites different computations, processes, or procedures from equivalent or different spaces of data or areas of usage fully intended to enhance each other.
3.	Novelty / Uniqueness	Hard and soft exudates, as well as other diverse situations like haemorrhage and microaneurysms individually, are not distinguished by any system. Models like RESNET-50, Xception etc., which are pre-trained and are highly complex.
4.	Social Impact / Customer Satisfaction	● Early detection of the disease ● Efficient prediction mechanism with faster results. ● Easy to use and understand
5.	Business Model (Revenue Model)	● Data analytics ● Statistics ● Future prediction
6.	Scalability of the Solution	The model is scalable from the architecture and dataset training perspective. We can train huge amounts of image data by converting them into .npy / .npz file format which would facilitate easy storing, retrieving and processing.