Project Design Phase-I
Proposed Solution Template

Date	5 October 2022
Team ID	PNT2022TMID27696
Project Name	Project - Deep Learning Fundus Image Analysis For Early Detection Of Diabetic 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)	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. Development on larger and more diverse datasets, such an algorithm could enable early diagnosis and referral to a retina specialist for more frequent monitoring and even consideration of early intervention. Moreover, it could also improve patient recruitment for clinical trials targeting DR.
2.	Idea / Solution description	Many Artificial-Intelligence-powered methods have been proposed by the research community for the detection and classification of diabetic retinopathy on fundus retina images.
3.	Novelty / Uniqueness	This work considers a deep learning methodology specifically a Convolutional Neural Network(CNN), which is applied for the early detection of diabetic retinopathy.
4.	Social Impact / Customer Satisfaction	Regular dilated eye examinations are an effective approach to detecting and treating vision-threatening diabetic retinopathy. They can help prevent blindness, and they are cost-effective. This application satisfying their requirements without spending any cost.
5.	Business Model (Revenue Model)	This can be converted as a bussiness model because it helps to prevent blindness of affected patient. Most of the common people and the hospitals will use this application.
6.	Scalability of the Solution	This application will be scalable. Once the image is classified under the five category of diabetic retinopathy then the suitable diagnosis and the health tips(integrated with their daily life style) will be displayed.