Project Design
Phase-II

Solution Requirements (Functional & Non-functional)

Date	15 October 2022
Team ID	PNT2022TMID28495
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Identify and selecting dataset	The appropriate dataset to enhance the model's performance is the necessary to select.
FR-2	Training	It is required to import the libraries needed for the training of the model.
FR-3	Diagnosis	The training should ensure proper diagnosis and make sure to identify the true and false of the medicalcondition [Diabetic Retinopathy].
FR-4	Analysis	Based on the training the model should analyse the medical condition [DR] in order to predict/detect the disease accurately.
FR-5	Testing	The trained model is tested with different data to ensureit has trained well to predict/detect the medical condition [DR].
FR-6	Reporting	The result of the experiment gives the medical report of the disease [DR] so that the patient can understand thelevel of the disease.
FR-7	Treatment	The testing of the model gives us the level of the medical condition so that we can go for the required treatment.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	User with basic understanding of the medical condition and computer knowledge can operate thesystem. User friendly interface that can be accessed with ease by users.
NFR-2	**Reliability**	There is a chance of hardware failure or false positives when the testing data is more of different than the training dataset. Permission granted only by the administrator of the system
NFR-3	**Performance**	If the system update fails or bugs in the code even though the system can roll back to its initial state. The performance of the model is meant to give speedy results for the patients.
NFR-4	**Availability**	The treatment should be available at low cost so that everyone with DR can find it beneficial.
NFR-5	**Scalability**	By processing more datasets for the reference of DR detection