Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	10 October 2022
Team ID	PNT2022TMID03873
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	Determine and choose the dataset	To improve the performance of the model, the right dataset must be used.
FR-2	Training	The libraries required for the model's training
FR-3	Diagnosis	The training should make sure to recognise the actual and misleading symptoms of the medical condition (Diabetic Retinopathy) and ensure correct diagnosis.
FR-4	Analysis	In order to accurately forecast or detect the disease, the model should analyse the medical state [DR] based on the training data.
FR-5	Testing	To make sure the trained model has learned how to predict or detect the medical condition
FR-6	Reporting	The experiment's findings are presented in the disease report (DR) so that the patient
FR-7	Treatment	The model's testing enables us to determine the severity of the illness so that we can seek the appropriate treatment..

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The system can be used by anyone with a basic understanding of the medical condition and computer skills.
NFR-2	**Reliability**	When the testing data differs substantially from the training dataset, there is a risk of hardware failure or false positives.
NFR-3	**Performance**	The model's performance is intended to provide patients with quick results.
NFR-4	**Availability**	The model is designed to be accessible at all times and locations.
NFR-5	**Scalability**	Future technologies may make the model more scalable, which will improve its performance and may have an impact on its dependability as test data sets grow.