Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	03 October 2022
Team ID	PNT2022TMID29261
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	It is necessary to select the appropriate dataset to enhance the model's performance.
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 medical condition [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 ensure it 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 the level 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 the system.
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.
NFR-3	**Performance**	The performance of the model is meant to give speedy results for the patients.
NFR-4	**Availability**	The model is made to be available at anytime and anywhere.
NFR-5	**Scalability**	The scalability of the model can be enhanced with future technologies so that the performance of the model can be improved and might affect the reliability when the data given for testing is increased.