Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	03 October 2022
Team ID	PNT2022TMID33204
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	Identifying and selecting dataset	The appropriate dataset to enhance the model's performance is necessary to select.
FR-2	Invitation and information	Invite the full cohort for screening ,supplying information tailored appropriately for different groups to enable informed choice to participate.
FR-3	Training	It is required to import the libraries needed for training the model.
FR-4	Diagnosis	Diagnosis true cases and identify the false solution.
FR-5	Testing	Conduct screening tests with different data to test if the model is trained well to predict the medical condition.
FR-6	Reporting and treatment	Report the outcomes to identify false negetive and improve effectiveness of the screening program. The testing of the model helps us to identify 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**	Users with basic understanding of the medical condition and computer knowledge can operate the system.User friendly interface that can be accessed with ease by users.
NFR-2	**Security**	Deep learning AI can be more precise around sensitive organs and tissues ,reduce blood loss,risk of infection,and pain during detection.
NFR-3	**Reliability**	There is a chance of hardware failure or false positives when the testing data is more different

		than the training dataset.Permission granted only by the administrator of the system.
NFR-4	**Performance**	If the system update fails or bugs in the code even though the system can rollback to its initial state.The performance of the model is meant to give speed results for the patients.
NFR-5	**Availability**	The treatement should be available at low cost so that everyone with DR can find it beneficial.
NFR-6	**Scalability**	By processing more datasets for the reference of DR detection.