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

Date	03 October 2022
Team ID	PNT2022TMID52888
Project Name	Project - 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	Identification of eligible candidates for screening	Use registries to ensure that people's details are collected and updated, and decide which group needs to be tested based on the best available evidence.
FR-2	Invitation and information	Invite the entire group to the testing, and provide information that is appropriate for each group.
FR-3	Testing	Conduct screening test(s) using recommended methods
FR-4	Referral of screen positives and reporting of screen-negative results	Make sure to forward all screening-positive results to the proper services, and make sure to inform individuals of any screening-negative results so they can continue with the screening programme.
FR-5	Diagnosis	Diagnose true cases and identify false positives
FR-6	Treatment/follow up	treat cases appropriately; in some circumstances, surveillance or follow-up will also be necessary
FR-7	Reporting of outcomes	Identify false negatives and increase the performance and cost-efficiency of the screening programme by gathering, analysing, and reporting results.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	provides cutting-edge results for precisely classifying images in accordance with clinical five-grade diabetic retinopathy, as well as innovative results for five separate screening and clinical grading systems for diabetic retinopathy.
NFR-2	Security	AI-powered deep learning can be more accurate when working with delicate organs and tissues and can also lessen discomfort, blood loss, and the danger of infection.
NFR-3	Reliability	The ability of Deep Learning is to perform pattern Recognition by creating complex relationships based

		on input data and then comparing it with Performance standard s is a big step.
NFR-4	**Performance**	When a task is completed primarily by a computer or a robot, with little to no assistance from humans, that is what artificial intelligence refers to. The accuracy of recording retinal findings using standard templates should be improved.
NFR-5	**Availability**	Health care affordability, quality, and accessibility Can be amplified using this technology.
NFR-6	**Scalability**	In order to make high-quality systematic diabetic retinopathy screening a universal Offer to all persons with diabetes, it is possible to expand on existing systems and adopt a stepwise approach to enhancing the effectiveness of present techniques.