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

Date	10 October 2022
Team ID	PNT2022TMID39692
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	User Registration	The user can register to the website through either email id or phone number with new password for their account.
FR-2	User Login	The existing user can directly login to the site by giving the Login credentials.
FR-3	Admin Login	The Admin can login to the site where he/she can find the analysis to the predicted data.
FR-4	Upload Image	The user can upload the eye retina image in the dropdown box from various resources like(google drive, gallery etc.,)

FR-5	Data collection	Collect the dataset related to the DR from source to Train the Model.
FR-6	Creating Model	Create the model and Train the model from the dataset for prediction.
FR-7	Test the Model	Test the model for prediction.
FR-8	Diagnosis	Get diagnosis result on the application and follow up with treatments.

Non-functional Requirements:

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

NFR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The product must be easily usable by any type of users(literate and illiterate),the people how are old and affected by DR can also use this tool for Diagnosis.
NFR-2	**Security**	Data security is important to store the customer data in the secured manner. The information should not be leaked outside.

NFR-3	**Reliability**	Should provide novel results for five different screening and clinical grading systems for diabetic retinopathy including state-of-the-art results for accurately classifying images according to clinical five-grade diabetic retinopathy.
NFR-4	**Performance**	The ability of Deep Learning is to perform pattern recognition by creating complex relationships based on input data and then comparing it with performance standards is a big step also to diagnosis in short time.
NFR-5	**Availability**	Healthcare affordability, quality, and accessibility is made easier using this technology and The product must be available to all kinds of users.
NFR-6	**Scalability**	The product must hold stable even when multiple users are using it at the same times.