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

Date	15 October 2022
Team ID	PNT2022TMID02120
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	Registration of the user can take place via website either by email or phone number with password for their account.
FR-2	User login	The existing user can login through the website by giving appropriate login credentials.
FR-3	Admin login	An Admin login is provided for changes in the website for future and see analysis on the predicted data periodically.
FR-4	Upload Image	The user can upload the eye retina image through various resources like google drive,files.
FR-5	Data Collection	Collect the dataset from various dataset resources like kaggle to train the model. And preprocess the data and visualize it.
FR-6	Creating Model	Create the model and train the model for prediction
FR-7	Testing Model	Test the model for prediction and validate it.
FR-8	Diagnosis	The diagnosis result will be presented to user via website and based on result user can get treatment.

Non-functional Requirements: Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Users can easily access the product since the user interface is easily understandable for even illiterate people.
NFR-2	**Security**	Since this is personal data , security of the user data is more important.
NFR-3	**Reliability**	Should provide novel results for diabetic retinopathy including state-of-the-art results for accurately classifying images.
NFR-4	**Performance**	To diagnose the diabetic retinopathy even in a short time using deep learning techniques.
NFR-5	**Availability**	The product is available to all kind of users and hospital affordability and accessibility made this easier.
NFR-6	**Scalability**	The product should be stable even if multiple users access the website.