Project Design Phase - 2

Solution Requirements (Functional & Non-functional)

Date	17 October 2022
Team ID	PNT2022TMID36211
Project Name	Deep Learning Fundus Image Analysis for Detection of Diabetic Retinopathy
Maximum Mark	4 Mark

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

FR 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