

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

Date	15 October 2022
Team ID	PNT2022TMID53189
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 through Form Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Separate login for doctor and patients along with username and password
FR-3	Contact details	The contact details of the health care specialists are displayed.
FR-4	Input	User will be able to upload the image from there personal system into the website
FR-5	Output	The accuracy of the situation and the relevant information is displayed according to the obtained result from the prediction
FR-6	Training	The model should be able to be trained with new datasets to increase the accuracy.
FR-7	Image processing accuracy	The prediction accuracy should be correct and there should not be any discrepancy.
FR-9	Feedback input	The feedback from the user of the system is required to make the system more efficient.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The website must built with simple English vocabulary so that the users can understand  The input dialog box should mention the type of image and maximum size of the image which is permitted to be uploaded
NFR-2	<b>Security</b>	Only the admin should have the permission to access the whole system and have the privilege to update the model with datasets.

NFR-3	<b>Reliability</b>	<p>All the data should be securely stored in the cloud for backup</p> <p>Should be available even during update or rollback phases.</p>
NFR-4	<b>Performance</b>	<p>The loading time for each page should be less than 2 sec to provide the user a better experience</p> <p>The prediction time should be less and the be able to achieve better accuracy.</p>
NFR-5	<b>Availability</b>	<p>New module deployment mustn't impact website pages availability and mustn't take longer than one hour to be live.</p> <p>The pages that may experience problems must display a notification with a timer showing when the system is going to be up again.</p>
NFR-6	<b>Scalability</b>	<p>The database size should be able to be increased without affecting the existing records.</p> <p>The website should be able to handle up to 5000 users at a time</p>