

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

Date	03 October 2022
Team ID	PNT2022TMID28486
Project Name	Project - AI Based Localization and Classification of Skin Disease with Erythema
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	Application Building	Create an HTML page for registration, prediction, and logout. The real-time object detection algorithm YOLOV3 detector identifies the objects in an image. Computer vision is able to comprehend images very well.
FR-2	User registration	Using a phone, laptop, or computer, you can register using your Gmail account.
FR-3	User confirmation	Confirmation via Email. Confirmation via OTP.
FR-4	User interface	User login form. Admin login form.
FR-5	Database	Each type of skin disease has at least 50 images collected and organised in a folder. utilising a Chrome extension that allows you to search for and download images from Chrome, such as batch downloader.
FR-6	Data server	The data server, which is installed to run as a service and is deployed in an IBM cloud instance, connects data from Chrome and the application to the cloud.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The dermatologist can determine whether or not a patient has a skin condition with the aid of the YOLO trainer model. Images can be annotated for understanding using the Visual Object Tagging Tool (VOTT).
NFR-2	Security	Throughout the process, it guarantees patient safety. Consider carefully which image you upload or use to detect images of your damaged skin.

NFR-3	Reliability	Good network connectivity and ease of use. Precision reduced time commitment Cost Efficient
NFR-4	Performance	The development of a model with an application can be very beneficial to those who are affected by skin diseases. When compared to reality, the trained model can predict an accurate outcome and took less time.
NFR-5	Availability	Even when there are numerous skin image samples, the detection is simple and precise. gives patients the right care at the right time, allowing them to heal more quickly. Use the app whenever you want as long as you follow the right instructions.
NFR-6	Scalability	Using this method, accurate information about patients' skin conditions is guaranteed. The condition of the patient need not worry them.