

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

Date	17 October 2022
Team ID	PNT2022TMID33185
Project Name	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	Create Dataset	Splitting the dataset into training set and testing set so that it can be used for detecting the disease.
FR-2	Annotate Image	It is the task of labelling digital images, involving user's input. It will identify the changes in the user images.
FR-3	Training YOLO	Installing YOLO. It will help to collect the user images and annotate that user images. It will divide the images into number of grids. Each number of grids is responsible for the detection and localization of the object it contains.
FR-4	Cloudant DB	Then the Convolution Neural Network (CNN) model is deployed on the IBM. By using the convolution neural network the images taken by the training yolo will be detected the skin. Need to import the cloudant library.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	It is easy to use. This application will be used by the user at any time. User with no understanding of language must be able to use this application.
NFR-2	Security	Security is one of the parts which protected against attacks or unauthorised access. Stored data is encrypted.
NFR-3	Reliability	It will give correct message to the user without any failure.
NFR-4	Performance	It cannot be buffered. So user doesn't get stressed because of that. When the disease is detected the alerting message will be sent to the user. So they will get aware of it.
NFR-5	Availability	These requirements are mostly easy to use. Storage based backup is available. It is available for user at any time so user can make use of it.

NFR-6	Scalability	It is simple and fast. It does not require expensive equipment's other than mobile phone. It can be used by dermatologist when they found difficulty in diagnosing the skin disease and may require expensive laboratory tests to correctly identify the type and stage of the skin disease.
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