

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

Date	13 May 2023
Team ID	NM2023TMID03654
Project Name	Project - Covid Vision: Advanced COVID-19 Detection from Lung X-Rays with Machine Learning or Deep Learnings

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 Username and password Registration through E-Mail
FR-2	User Confirmation	Confirmation via OTP Confirmation via Aadhar
FR-3	Image Format	The image should be taken from the app. If the source image is directly uploaded it must be DICOM or PNG format.
FR-4	User Data	The user has to provide details like which doctor they are consulting and from where the Xray is taken and relatedly

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	This application can be used with any age group people as per their needs. Mostly the person's who needs to get the result very quickly can use this.
NFR-2	Security	This application has the security feature, which allows a specific user to login to their dashboard and perform the test. This never allows other people to enter into some other person's dashboard without credentials. So, this maintains security.
NFR-3	Reliability	This system has the ability to tolerate fault and errors, if the user is trying to upload any wrong format of image it never allows the user to do and alerts him regarding the same.
NFR-4	Performance	The system is capable of performing very good with a speed of 1 minute or 1 minute and 30 seconds for predicting the image. But it is based on the plan the

		customer had chosen. If they chosen lighter plan the performance will be slower a little bit.
NFR-5	Availability	This application is deployed on the IBM Watson cloud which is a vast clous which is capable of allowing several users to work on the same time. So, this application will be available to each and every person all the time. The trial version is only available for the user for a single time there after the user must get the premium version of the application in order to pursue with it.
NFR-6	Scalability	This application has the tendency to control the traffic density which means that based on the level of the premium a user had taken the performance will be. If the higher-level premium user has requested the results and there isn't enough resources then the system will allocate the resources to the high level premium user.