

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

Date	10 October 2022
Team ID	PNT2022TMID19588
Project Name	Project – A Gesture- Based Tool for Sterile Browsing of Radiology Images
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	<ul style="list-style-type: none">• Registration through Form• Registration through Gmail• Registration through LinkedIn
FR-2	User Confirmation	<ul style="list-style-type: none">• Confirmation via Email• Confirmation via OTP
FR-3	User Preferences	<ul style="list-style-type: none">• Perform adjustment according to user's dominant hand.• Accurate detection in all environment lightings.
FR-4	Object Location	<ul style="list-style-type: none">• Upon detection, the system shall be able to compute the location of the object.
FR-5	Skin Colour Detection	<ul style="list-style-type: none">• Filter out all object do not contain the colour of the skin.• Focuses on hand detection and gesture recognition by eliminating background objects.
FR-6	User Satisfaction	<ul style="list-style-type: none">• Satisfaction by High success rate.• User friendly and ensure easy handling.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	<ul style="list-style-type: none">• It is used by all technical and non-technical users as it is easily understandable with minimal instructions.
NFR-2	Security	<ul style="list-style-type: none">• Access is permissible only in secure network, so there is less chance of insecurity.
NFR-3	Reliability	<ul style="list-style-type: none">• This model shall be operable in all lighting conditions.• Detect user's hand at long distance.
NFR-4	Performance	<ul style="list-style-type: none">• Reducing the memory requirements and computation complexity by using CNN gives better performance.
NFR-5	Availability	<ul style="list-style-type: none">• Gesture recognition is an active research field, it is easily available.
NFR-6	Scalability	<ul style="list-style-type: none">• Model is scaled by data augmentation and gesture recognition using CNN.