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

Date	03 October 2022
Team ID	PNT2022TMID06155
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	Image uploading	User can be upload the radiology images.
FR-2	Gesture recognition testing	User can test the application by giving some gesture and verify the recognition is right, otherwise the user can calibrate the settings.
FR-3	Gesture recognition	The hand gesture of the user is captured and some image processing is done.
FR-4	Gesture prediction	The processed hand gesture image is predicted as any of the predefined gesture using CNN model.
FR-5	Action on radiology images	As per the predicted gesture the specific action on the radiology images is performed.
FR-6	Showing the image to the user	Finally the radiology image with some action performed is shown to the user through the web UI built with frameworks like Flask.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	It helps to browse radiology images in a system(computer) without touching devices(keyboard, mouse etc) and it is user friendly.
NFR-2	**Security**	This software is build with various security mechanisms which is very secure.
NFR-3	**Reliability**	It is highly reliable in which user can show their hand gesture recognition from specific distances It is operable under all lightening conditions.
NFR-4	**Performance**	Responses and interactions between the user and software is very fast and eliminates some human errors.
NFR-5	**Availability**	This application is available to use in medical fields by a surgeon.
NFR-6	**Scalability**	This can be extended to use with more number of gestures. Additional gestures can be added easily.