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

Date	19 October 2022
Team ID	PNT2022TMID03497
Project Name	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	Hand detection	Hand detection is a crucial pre-processing procedure for many human hand related computer vision tasks, such as hand pose estimation, hand gesture recognition, human activity analysis.
FR-2	Skin detection	Filter the objects of non skin-coloured. This method uses six prominent skin detection criteria as sources of information
FR-3	Filtered object detection	Read and recognize clusters skin coloured objects.
FR-4	Hand calibration	Perform adjustment according to user's dominant hand.
FR-5	Browsing gesture control mode	Hand gesture recognized for commands.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Easy to use for all users with minimal instruction. It is understandable by non-technical users.
NFR-2	**Security**	Application will be permissible to used only in secure Networks and less feasibility of insecurity.
NFR-3	**Reliability**	It is operable in all lighting conditions. Regardless, of the brightness level in user's operating environment.
NFR-4	**Performance**	Minimize the number of calculation to perform hand gesture detection and to improve image quality resolution.
NFR-5	**Availability**	This application supports recognition of gesture only through internet connection.

| NFR-6 | **Scalability** | Scalable to support future developments and shall be at least 50% extensible to allow new gesture recognition features to be added to the systems. |