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

Date	11 October 2022
Team ID	PNT2022TMID07214
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	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Add image option	Add image through Device Add image through Drive
FR-4	Predict button	The predict route is used for prediction and it contains all the codes which are used for predicting our results. Firstly, inside launch function we are having the following things: • Getting our input and storing it • Grab the frames from the web cam. • Creating ROI • Predicting our results • Showcase the results with the help of OpenCV • Finally run the application
FR-5	Help button	It has a guide that helps you practice on your gestures.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	This software shall be easy to use for all users with minimal instructions. 100% of the languages on the graphical user interface (GUI) shall be intuitive and understandable by non-technical users.
NFR-2	**Security**	The user of the system should be provided the surety that their account details are secure. The system will provide security against cross site request forgery.
NFR-3	**Reliability**	The HGR software shall be operable in all lighting conditions. Regardless of the

		brightness level in user's operating environment, the program shall always detect user's hands.
NFR-4	**Performance**	This software shall minimize the number of calculations needed to perform image processing and hand gesture detection. Each captured video frame shall be processed within 350 milliseconds to achieve 3 frames per second performance.
NFR-5	**Extensibility**	The software shall be extensible to support future developments and add-ons to the HGR software. The gesture control module of HGR shall be at least 50% extensible to allow new gesture recognition features to be added to the system.
NFR-6	**Portability**	The HGR software shall be 100% portable to all operating platforms that support Java Runtime Environment (JRE). Therefore, this software should not depend on the different operating systems.