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

Date	06 November 2022
Team ID	PNT2022TMID20740
Project Name	Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation
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 Mobile Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via Mobile (OTP)
FR-3	User Login	Login via registered User Id and password
FR-4	Contact Details	Contact details of nearby healthcare specialized is shown
FR-5	Information about CVDs	The information regarding the CVDs and its types is shown
FR-6	Input	The input box must allow images in pc to be uploaded to the site effectively
FR-7	Output	Accurate prediction of the given situation and suitable information must be shown
FR-8	Devices	The website must be smoothly working on all types of devices without any problem
FR-9	Image processing accuracy	The website must show the accuracy of the prediction
FR-10	Training	The website should increase the accuracy of prediction by constantly training the model with new datasets
FR-11	Precautions	The precautions suggested by a professional for a particular type of CVD must be shown.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The website must be composed of simple English vocabulary so that the users can understand The input box should mention the type of image and maximum size permitted to upload

		The users can clear doubt about the particular CVD from the healthcare professional contact that is suggested below the output
NFR-2	**Security**	Only data administrator has permission to access the system and train the model with datasets User Id, password, OTP altogether needed to access the database
NFR-3	**Reliability**	All the datasets are securely stored in cloud for backup The database update process must roll back all related updates when any update fails.
NFR-4	**Performance**	Each page load time must be no more than 2 seconds for users with stable internet connection. The output or prediction should be displayed within 4 seconds from the time of giving input
NFR-5	**Availability**	New module deployment mustn’t impact website pages availability and mustn't take longer than one hour to be live. The pages that may experience problems must display a notification with a timer showing when the system is going to be up again.
NFR-6	**Scalability**	The website traffic limit must be scalable enough to support 10,000 users at a time. The size of the database can be increased to accommodate more datasets without affecting the performance