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

Date	14 October 2022
Team ID	PNT2022TMID35734
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 Email
FR-2	User Confirmation	Confirmation via Email
FR-3	User Profile	Display personal details and medical history of users. Access ECG images saved, along with the classification results.
FR-4	User Input	Upload image as jpeg/png format.
FR-5	Process Image	The trained CNN model processes the input image to classify the Arrhythmia.
FR-6	Generate Result	Display the classification label on the screen.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	It is a user friendly application which allows a user to upload ECG image to classify Arrhythmia.
NFR-2	**Security**	Data is not used for any other purposes other than processing. Only users can view their profile and personal information.
NFR-3	**Reliability**	The application is defect free, deployed with high accuracy CNN model which provides the correct prediction for the given input.
NFR-4	**Performance**	High accuracy models are used for classification thereby increasing the performance of the application.
NFR-5	**Availability**	The application can be accessed anytime from anywhere with an internet connection.
NFR-6	**Scalability**	The system must be scalable to process multiple images. Multiple users must be able to access the system simultaneously without traffic.