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

Date	03 October 2022
Team ID	PNT2022TMID52879
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 App.
FR-2	User confirmation	Confirmation done through sms or email.
FR-3	User uploads	Upload the ecg images via the user interface.
FR-4	User data Analysis	Analyze the user data using the given model.
FR-5	Display the results	Results of the analysis are displayed.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	We apply AI algorithms in this application to quickly understand ECG readings, making it incredibly user-friendly.
NFR-2	**Security**	Only user-uploaded images are categorised and shown by the model. The user interaction information is safeguarded.
NFR-3	**Reliability**	It reduces the risk of misclassification and provides consistency in the analysis and detection of arrhythmia.
NFR-4	**Performance**	Fast and quick detection and classification of Arrhythmia and error percentage is less.
NFR-5	**Availability**	Web app can be loaded anytime and used for the detection and classification. Internet connectivity is required.
NFR-6	**Scalability**	This project can be further made to improve on the speed and accuracy of the classification and identification of other diseases from the ECG like cardiomyopathy and coronary heart disease.