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

Date	16 October 2022
Team ID	PNT2022TMID01315
Project Name	Classification of Arrhythmia 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 Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Get User Input	Upload image as jpeg Upload image as png
FR-4	Image Pre-processing	ECG image is pre-processed to analyze image more efficiently and quickly.
FR-5	Feature Extraction	After image pre-processing , Feature extraction is done to achieve better classification of Arrhythmia.
FR-6	Arrhythmia Type Prediction	After feature extraction , According to the given ECG image the type of arrhythmia is predicted.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The application should have user friendly Graphics User Interface.
NFR-2	**Security**	Only authorized users can view the data so that user data is secured.
NFR-3	**Reliability**	User data should not be shared to any third-party applications.
NFR-4	**Performance**	The application should detect Arrythmia as fast as possible with more accuracy.
NFR-5	**Availability**	The software should be available for multiple user access simultaneously.
NFR-6	**Scalability**	The application should be scalable to upload multiple images at a time for detection.