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

Date	16 October 2022
Team ID	PNT2022TMID02236
Project Name	Project -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 Form Registration through Gmail.
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 understand image more efficiently and quickly.
FR-5	Feature Extraction	After image pre-processing , Feature extraction is done to extract detailed patter from image for better classification of Arrhythmia.
FR-6	Arrhythmia Type Prediction	After feature extraction , According to the given ECG image input the type of arrhythmia condition 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 UI/UX design.
NFR-2	**Security**	User data is secure since only approved users can access it.
NFR-3	**Reliability**	The model is reliable because of its higher accuracy.
NFR-4	**Performance**	Arrhythmia should be more accurately and quickly detected by the application.
NFR-5	**Availability**	The software should be accessible to several users at once.
NFR-6	**Scalability**	The application should be scalable to upload multiple images at a time for detection.