

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

Date	15 November 2022
Team ID	PNT2022TMID34634
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	Register through Email.
FR-2	User Confirmation	Confirmation via Email.
FR-3	User Details	Give basic details about the user.
FR-4	User Login	Login via registered User Id and the password.
FR-5	Input	We can able to upload images in pc to the site effectively .
FR-6	Output	Accurate prediction of the given situation and suitable information must be displayed.
FR-7	Devices	The website must be smoothly working on all types of devices without any problem.
FR-8	Image processing accuracy	The website can be display the accuracy of the prediction.
FR-9	Training	The website should increase the accuracy of prediction by constantly training the model with new datasets.
FR-10	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 process easily. The input box should mention the type of image and maximum size permitted to upload by the user.
NFR-2	Security	Only data administrator has permission to access the system and train the model with datasets

		<p>User Id, password, OTP altogether needed to access the database.</p> <p>The informations are highly securable and not share with anyone .</p>
NFR-3	Reliability	<p>All the datasets are securely stored in cloud for backup.</p> <p>The database update process must roll back all related updates when any update fails.</p>
NFR-4	Performance	<p>Each page load time must be no more than 2 seconds for users with stable internet connection.</p> <p>The output or prediction should be displayed within 5-10 seconds from the time of giving input .</p>
NFR-5	Availability	<p>New module deployment mustn't impact website pages availability and mustn't take longer than one hour to be live.</p> <p>The pages that may experience problems must display a notification with a timer showing when the system is going to be up again.</p>
NFR-6	Scalability	<p>The size of the database can be increased to accommodate more datasets without affecting the performance .</p>