

## Project Design Phase-II

### Solution Requirements (Functional & Non-functional)

Date	10 NOVEMBER 2022
Team ID	PNT2022TMID44136
Project Name	Classification Of Arrhythmia bt Using 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 Input	We can declare a two-dimensional integer array say 'x' of size 10,20 as: <b>int x[10][20]</b> ; Elements in two-dimensional arrays are commonly referred to by x[i][j] where i is the row number and 'j' is the column number.
FR-2	Model	A two-dimensional array is a <b>data structure that contains a collection of cells laid out in a two-dimensional grid</b> , similar to a table with rows and columns although the values are still stored linearly in memory.
FR-3	Prediction	<b>Load your data into a Dataset instance and then in a DataLoader . Make your predictions with the data. Calculate metrics on the results.</b>
FR-4	Evaluation	Create an operand stack. Step .If the character is an operand, push it to the operand stack. Step .If the character is an operator, pop two operands from the stack, operate and push the result back to the stack. Step .After the entire expression has been traversed, pop the final result from the stack.

#### Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Usability is a non-functional requirement, because in its essence <b>it doesn't specify parts of the system functionality, only how that functionality is to be perceived by the user</b> , for instance how easy it must be to learn and how efficient it must be for carrying out user tasks.
NFR-2	<b>Security</b>	A security requirement is a <b>goal set out for an application at its inception</b>
NFR-3	<b>Reliability</b>	Reliability is <b>the extent to which the software system consistently performs the specified functions without failure.</b>
NFR-4	<b>Performance</b>	<b>The website's load time should not be more than one second for users.</b> Reliability: Applicants can access their resume 98% of the time without failure.

NFR-5	<b>Availability</b>	Availability Requirement is <b>any requirement that is not a functional, data or process requirement concerned with defining the periods when the solution can be used..</b>
NFR-6	<b>Scalability</b>	Scalability is <b>the ability of the application to handle an increase in workload without performance degradation, or its ability to quickly enlarge.</b>