**Project Design Phase-II**

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

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| Date | 18 October 2022 |
| Team ID | PNT2022TMID31222 |
| 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.

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| --- | --- | --- |
| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | ECG Image Data | Upload in Platform |
| FR-2 | Train Model | Using Pre-Existing Data |
| FR-3 | Test Data | Using various algorithms |
| FR-4 | Evaluation | Evaluate the Data and Classify it according to type. |

**Non-functional Requirements:**

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

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| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | People with no understanding of predicting arrhythmia types using a Model should be able to use the product. |
| NFR-2 | **Security** | Access permissions for the images of ECG may only be changed or uploaded by the system’s data administrator. |
| NFR-3 | **Reliability** | The database update process must roll back all related updates when any update fails. |
| NFR-4 | **Performance** | It must not take more than 10 seconds for the data to be analysed and the type of arrhythmia to be classified. |
| NFR-5 | **Availability** | In case new images are uploaded or more t=kinds of arrhythmia classification is to be done, the website should not fail or a message stating that it is in maintenance has to be displayed. |
| NFR-6 | **Scalability** | More than 20000 people must be able to use the website at a time. |