**Project Design Phase-II**

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

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| Date | 13 October 2022 |
| Team ID | PNT2022TMID21704 |
| 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.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration through Gmail |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | Image upload | The user should be able to upload the image on  the web application |
| FR-4 | Results | The user should be able to view the results i.e,the type  of arrythmia when they upload the image of ECG. |
| FR-5 | Authentication | The web application should authenticate the users once they signup. |
| FR-6 | Data preprocessing | The data should be preprocessed. |

**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** | The web app should be easy to learn, navigate, use and it should be user-friendly and error tolerant. |
| NFR-2 | **Security** | The web app should be secure enough to protect the images uploaded by the users and should secure the personal information provided by the users when they signup. |
| NFR-3 | **Reliability** | The web app should be consistent in the results over time between users and it should provide the accurate results to every user. |
| NFR-4 | **Performance** | The web page should load within 3 seconds and should be able to display the results within 2/3 seconds after the images are uploaded by the users and also it should many number of users. |
| NFR-5 | **Availability** | The web app should be able to display results 24 \* 7. It should be available to anyone anywhere across the world. |
| NFR-6 | **Scalability** | The web app should be able to handle when there is an increase in the number of users. |