**Project Design Phase-II**

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

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| Date | 15 October 2022 |
| Team ID | PNT2022TMID36404 |
| 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 Form  Registration through Gmail |
| FR-2 | User Registration Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | User Login | Login through Form  Login through Gmail |
| FR-4 | User Login Confirmation | Redirect to Home page |
| FR-5 | Upload ECG Graph Pictures | Capture the ECG and upload  Directly upload from Files |
| FR-6 | Prediction by Model | Result is based on the classification of the Arrhythmia disease read from the prediction |

**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 UI is designed in such a way that the user can easily use it and easy to understand |
| NFR-2 | **Security** | Since the model is hosted online, security is little less but the security is high when the web app is made as a mobile application. |
| NFR-3 | **Reliability** | The model is reliable in such a way that it can identify the classification between the arrhythmias |
| NFR-4 | **Performance** | Since it is used online, the performance is based on the internet speed connected to the device |
| NFR-5 | **Availability** | Since it is hosted online, it is available on all devices like PC, Laptop, Mobile phones etc. |
| NFR-6 | **Scalability** | The scalability of the model is excepted likely to be high as the performance of the model is good. |