**Project Design Phase-II**

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

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| Date | 16 October 2022 |
| Team ID | PNT2022TMID19105 |
| Project Name | Smart Farmer-IOT Enabled Smart Farming Application |
| 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  Registration through phone number |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP  Confirmation via verification link sent to registered mail id |
| FR-3 | Roles and service | Choose roles (ex: farmer, student etc.)  Enter the personal details.  Choose the type of service or options (ex: irrigation, pest management, crop management etc.) |
| FR-4 | Terms and conditions | Accepts the terms and condition for the chosen role and options |
| FR-5 | Details of farm and plans | Enter the details of farming land and vegetation.  Choose the crop you want to plant  Choose the types of plans (ex: regular and premium) |
| FR-6 | Details according to farm information | Check the weather information  Enter the soil nutrient and pH value  Click SAVE  Soon the details will share to registered mail  Exit |

**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 | A system is built for monitoring the crop field with the help of sensors and automating the irrigation system and helps the farmer to understand the important aspects. |
| NFR-2 | Security | Applications must be designed with the security of their use in mind. This includes personal data and their user’s well-being. |
| NFR-3 | Reliability | It allows farmers to maximize yields using minimum resources such as water, fertilizers, seeds etc. |
| NFR-4 | Performance | It increases efficiency and reduce the environmental impacts and to implement technology properly to minimize cost. |
| NFR-5 | Availability | This concept focused on providing the agricultural industry with the infrastructure to leverage advanced technology. |
| NFR-6 | Scalability | It provides the recognition of each object that makes up a solution and ensure communication. The system must remain operational regardless. |