**Project Design Phase-II**

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

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| --- | --- |
| Date | 31-10-2022 |
| Team ID | PNT2022TMID12291 |
| 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.*** |