Project Design Phase-II

Solution Requirements (Functional & Non-functional)

|  |  |
| --- | --- |
| Date | 15 October 2022 |
| Team ID | PNT2022TMID08745 |
| Project Name | Project - SmartFarmer-IOT Enabled Smart Farming  Application |
| Maximum Marks | 4 Marks |

# Functional Requirements:

Following are the functional requirements of the proposed solution.

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration through Form Registration through Gmail  Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | User Login | Login with Email Id and password  Check Credentials. |
| FR-4 | Sensor Data | To display all the data from different sensors like  temperature sensor, humidity sensor etc. |
| FR-5 | Weather Info | To show the climatic weather conditions of the location  in real-time and other data using a weather API. |
| FR-6 | Calendar and Notes | Add information about the plants and add remainder in  the calendar. |
| FR-7 | Alerts and Notification | Checks for any abnormalities and alerts the user. |
| FR-8 | Logout | After checking all the details, user can exit. |

# Non-functional Requirements:

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

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | Easy and effective to use  Easy to learn and clean UI |
| NFR-2 | **Security** | All the details are protected from unauthorized access.  Detection and identification of any malfunction of sensors. |
| NFR-3 | **Reliability** | It gives the accurate results. |
| NFR-4 | **Performance** | It requires low power consumption and low data  transmission rates. |
| NFR-5 | **Availability** | With minimum internet connectivity it is accessible  all time and all the data are synced to the cloud. |
| NFR-6 | **Scalability** | It supports third party sensors and can be easily  scalable for large scale farming. |