

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	23 October 2022
Team ID	PNT2022TMID31852
Project Name	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	Sign Up with help of Gmail and the password as a user
FR-2	User Confirmation	User gets a confirmation Mail once he/she has successfully Signed Up.
FR-3	Login	Login Credentials are checked at the time of Logging in.
FR-4	Dashboard	Once the credentials are checked, dashboard will be visible. It has the details of Atmospheric Temperature, Humidity, Soil Moisture and Motor ON/OFF function.
FR-5	Sensor function	Measure Temperature, humidity and soil moisture.
FR-6	Logout	When user clicked the log out button the user will be signed out.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Simplicity in accessing the details of temperature sensor measure, humidity sensor measure and weather conditions by the farmer. Easy controlling of the motor and irrigation system through application.
NFR-2	Security	Only the authenticated user can access the irrigation system and monitor the crop. Information of one user will not be shared to the other user or any other persons.
NFR-3	Reliability	This crop monitoring, Irrigation control and weather monitoring results in better trade-off between cost and reliability. It reduces time and yields more profit to the farmers.
NFR-4	Performance	The concept of integrating sensors with environment, soil and farming parameters will be more efficient for overall supervision.

NFR-5	Availability	The details of all the sensors will be displayed in the application at any time.
NFR-6	Scalability	Scalability is an important for IOT platforms. It has been demonstrated that different architectural choices of IoT platforms affect system scalability and that automatic real-time decision making is possible in an environment composed of thousands of devices