

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

Date	03October2022
Team ID	PNT2022TMID41476
Project Name	SmartFarmer-IoT Enabled Smart Farming Application
Maximum Marks	4Marks

**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	<b>Usability</b>	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	<b>Security</b>	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	<b>Reliability</b>	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	<b>Performance</b>	The concept of integrating sensors with environment, soil and farming parameters will be more efficient for overall supervision.

NFR-5	<b>Availability</b>	The details of all the sensors will be displayed in the application at any time.
<i>NFR-6</i>	<b>Scalability</b>	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