

Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	30 October 2022
Team ID	PNT2022TMID54503
Project Name	Project – Smart Farmer IOT Enabled Smart Farming Application
Maximum Mark	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 Visibility	Senses the temperature, humidity and soil moisture level using Arduino sensor
FR-2	User Reception	Sends the data to the IOT for live monitoring
FR-3	User Understanding	Based on the sensor data sends the alerts on mobile and monitor the parameters
FR-4	User Action	Due to usage of this system, adequate water is pumped and the farmers can know the values of humidity, temperature and soil moisture and if the DC motor is ON through the mobile

Non-functional Requirements:

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

FR No	Non-Functional Requirements	Description
NFR-1	Usability	Mobile support. Users must be able to interact in the same roles & tasks on computers & mobile devices where practical, given mobile capabilities.
NFR-2	Security	Data requires secure access to must register and communicate securely on devices and authorized users of the system who exchange information must be able to do.

NFR-3	Reliability	Accuracy of data and information is reliable
NFR-4	Performance	Must provide instant response to users regardless of the volume of data that is stored and the analytics that occurs in background. Real-time alert system must be supported. This requirement is to support industrial and device protocols at the edge.
NFR-5	Availability	IoT solutions and domains are highly available for 24x7 operations. It is not a critical production application, which means that production remains the same all the time.
NFR-6	Scalability	System must handle expanding load and must be able to do efficient monitoring all over the entire farm. It should be implemented such a way that most part of the land is monitored properly.