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

Date	03 October 2022
Team ID	PNT2022TMID23571
Project Name	Smart Farmer 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	Actual and forecasted field conditions	1. Sensor networks for data transfer 2. Current weather on field level 3. Forecast on regional level 4. Soil and canopy moisture 5. Precipitation, temperature and wind speed
FR-2	Optimal fertilising schedule	1. Amount of nutrients per site (NPK) 2. Expected time of executing fertilising operations 3. Expected rate to be applied
FR-3	Farmland and livestock monitoring	1. Sensor networks for data transfer 2. Imageries data acquisition with automated interpretation
FR-4	Smart Irrigation System	1. Scheduled irrigation based on sensory values(Water level, humidity). 2. Manual operation of motor pumps via application

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Multilingual and User-friendly application for customers
NFR-2	**Security**	The system data is kept secure, stores data, and responds to attacks with the help of Transport Layer Security Protocol
NFR-3	**Reliability**	Tolerant to failures and has the better application uptime
NFR-4	**Performance**	The system provides better speed and efficiency irrespective of the workload.
NFR-5	**Availability**	Minimal downtime of the application(The app is available 99.98% of the time every month)
NFR-6	**Scalability**	The system can respond to changes in demand