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

Date	15 October 2022
Team ID	PNT2022TMID20174
Project Name	Smart Farmer – 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	Solution description	To track and message expenses on a daily basis in the form of web application. Users can get an analysis in graphical form
FR-4	Strength	With the implementation of IoT in agriculture, Processes are managed more effectively in the field
FR-5	Specifications	With the aid of sensors, it is possible to monitor soil quality, humidity, temperature, automate the irrigation process, and others
FR-6	Benefits	IoT makes farm management smarter by enabling farmers to improve efficiency through wise resource consumption

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	IoT sensors. placed in the field, send real-time data to a central gateway that then automatically switches on a water pump whenever moisture or temperature values are outside the predetermined range
NFR-2	**Security**	The entire smart irrigation system can be managed by an end user through a custom cloud-based platform or mobile application
NFR-3	**Reliability**	Cost savings due to minimized water waste. Reduced human efforts. A unified view of soil characteristics, including moisture and nutrient contents. Smart notifications in case of abnormalities. Better long-term landscape health
NFR-4	**Performance**	Precision mapping also helps agribusinesses drive smart farming by optimizing costs and gaining deep insights
NFR-5	**Availability**	Reusable maps that bring together data from sensors and images from satellites and drones enable farmers to keep an eye on critical land characteristics
NFR-6	**Scalability**	Performance and speed do not slow down even if large number of users access the application at the same time