V S B ENGINEERING COLLEGE, KARUR

Department of Electronics and Communication Engineering

IBM NALAIYA THIRAN

FUNCTIONAL REQUIREMENT

TITLE : Smart Farmer – IoT Enabled Smart Farming Application

DOMAIN NAME : Internet of Things

LEADER NAME : Balaji B

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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 Gmail* ✓ *Registration through phone number*
FR-2	❖ *User Confirmation*	✓ *Confirmation via Email* ✓ *Confirmation via OTP* ✓ *Confirmation via verification link sent to registered mail id*
FR-3	❖ *Roles and service*	✓ *Choose roles (ex: farmer, student etc.)* ✓ *Enter the personal details.* ✓ *Choose the type of service or options (ex: irrigation, pest management, crop management etc.)*
FR-4	❖ *Terms and conditions*	✓ *Accepts the terms and condition for the chosen role and options*
FR-5	❖ *Details of farm and plans*	✓ *Enter the details of farming land and vegetation.* ✓ *Choose the crop you want to plant* ✓ *Choose the types of plans (ex: regular and premium)*

FR-6	❖ ***Details according to farm information***	✓ ***Check the weather information*** ✓ ***Enter the soil nutrient and pH value*** ✓ ***click SAVE*** ✓ ***Soon the details will share to registered mail*** ✓ ***EXIT***

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	❖ ***Usability***	✓ ***A system is built for monitoring the crop field with the help of sensors and automating the irrigation system and helps the farmer to understand the important aspects.***
NFR-2	❖ ***Security***	✓ ***Applications must be designed with the security of their use in mind. This includes personal data and their user's well-being.***
NFR-3	❖ ***Reliability***	✓ ***It allows farmers to maximize yields using minimum resources such as water, fertilizers, seeds etc.***
NFR-4	❖ ***Performance***	✓ ***It increases efficiency and reduce the environmental impacts and to implement technology properly to minimize cost.***
NFR-5	❖ ***Availability***	✓ ***This concept focused on providing the agricultural industry with the infrastructure to leverage advanced technology.***
NFR-6	❖ ***Scalability***	✓ ***It provides the recognition of each object that makes up a solution and ensure communication. The system must remain operational regardless.***