Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	03 October 2022
Team ID	PNT2022TMID28405
Project Name	Estimation of crop yield and data analytics.
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 Requirement	Knowledge of seeds , crops ,mechanism ,soil ,climate & agriculture science. Right use of resources like soil andwater. Time management .Market demand drive production.
FR-2	User Business rules	Three laws - the farmers produce trade and commerce(promotion and facilitation)act ,the farmers agreement of price assurance and farm services act and the essential commodities act
FR-3	User Factors	Crop prediction is highly sensitive to climate. It is affected by long-term trend in average rainfall and temperature, interannual climate variability, shocks during specific phonological stages and extreme weather events.
FR-4	User Importance	Crop yield estimates constituted a particular importantproductivity metric, both an aggregate level as well asin plot-level productivity analysis and impact evaluations of new technologies and policy interventions.
FR-5	User Objectives	Formulation and implementation of policies and programmed aimed at achieving rapid agricultural growth through optimum utilization of land, water, soil and plant resources of the state.
FR-6	User Improvement	It becomes necessary to increase the crop variety to produce disease-resistance offspring of the crops. It also helps in providing better and superior varieties based on the quality and quantity of the yield.

Non-functional Requirements:

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

FR No	Non-Functional Requirement	Description
NFR-1	**Usability**	To empower farmers and to increase the productivity there is need to provide the best dissemination tool for their farming activities.
NFR-2	**Security**	The developed ICT agriculture tools focus on very important agricultural services such as crop
		detection ,crop predictor will help farmers to make decision in future.
NFR-3	**Reliability**	This will remove multilingual issues and bridge the gap between farmers and technology.Effective tool that all farmers can use for management of all kind of crops
NFR-4	**Performance**	Multiple technologies and services that will improve the usability in agricultural activities.
NFR-5	**Availability**	Both website and mobile application interface and developed in local language and the content is available in localized language
NFR-6	**Scalability**	i)Increased productivity from warm temperature ii) Decreased moisture stress iii)Possibility of growing new crops iv)Productivity of soil and water