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

Date	15 October 2022
Team ID	PNT2022TMID22029
Project Name	Estimate the Crop Yield Using 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 Requirements	Knowledge of seeds,crops,mechanism,soil,climate & agriculture.Right use of resources like soil and water.Time management.Market demand drive production.
FR-2	User Business roles	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 yield is influenced by climate and temperature,plant and water management,and soil nutrient management factors.Good genetics and the ability to manipulate and optimize the plants environment results in the highest yields
FR-4	User importance	Crop yield is referred to as agricultural output.Crop yield data is vital to measure if crops that are produced can adequately provide enough food for nation's food supply,livestock feed and energy sources.
FR-5	User Objectives	Formulation and implementation of policies and programmes aimed at achieving rapid agricultural growth .In modern agriculture,maximizing and sustaining crop yields are the main objectives.
FR-6	User improvement	The crop variety can be improved through cross breeding and hybridization.It is necessary to increase the crop variety to produce disease resistance offsprings of the crops.

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 focus on important agricultural service such as crop.
NFR-3	**Reliability**	It removes the issues and acts as a bridge between farmers and technology.
NFR-4	**Performance**	Crop performance analytics quantify the yield potential and environmental impact of food production at field,farm and catchment scales.Multiple technologies and services that will improve the usability in agricultural activities.
NFR-5	**Availability**	Both website and mobile application 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