

Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	11 October 2022
Team ID	PNT2022TMID54027
Project Name	Estimate the crop yield using data analytics
Maximum Marks	4 Marks

Functional Requirements:

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	<ul style="list-style-type: none">Registration through WebsiteRegistration through GmailRegistration through LinkedIn
FR-2	User Confirmation	<ul style="list-style-type: none">Confirmation via EmailConfirmation via OTP
FR-3	User Login	Login using the user registered id and password
FR-4	User Profile	It consists of all the user information such as Name, Email, Phone number and Region.
FR-5	Input Data	The required input crop yield data is uploaded into the account.
FR-6	Prepare the Data	The crop yield data needs to be prepared before starting the analysis. In here the cleaning of the data takes place.
FR-7	Data Exploration	The crop yield data needs to be explored to discover and analyze the data. We can also find out the hidden relationships and identify the patterns.
FR-8	Data Visualization	Different types of charts, graphs can be formed with the help of the insights taken.
FR-9	Dashboard Creation	<ul style="list-style-type: none">With the help of the crop yield visualization charts an interactive dashboard can be created which is very easy to understand by everyone.It helps farmers to take better decisions like which crop can be grown, at which climatic conditions it can be grown etc.
FR-10	Present the data	The crop yield data can be presented in different ways such as dashboard, reports and stories.

Non-functional Requirements:

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	<ul style="list-style-type: none">• It is very easy to navigate.• It can be used by anyone as the instructions are provided very clearly.• Different charts can be easily made i.e we can easily pick and drop these charts.• An interactive dashboard is created which provides the best decision that should be taken• It requires a very less amount of time.
NFR-2	Security	<ul style="list-style-type: none">• The user data is securely stored in the IBM cloud.• Access to the resources through the two factor authentication.• The passwords are securely managed.• The user's information are authenticated.• To authorize and monitor the use of the anonymous accounts and to remove them.
NFR-3	Reliability	<ul style="list-style-type: none">• The Quality of the services provided are trustworthy.• It can handle a lot of users at a single time.• It can process and initialize most functions.
NFR-4	Performance	<ul style="list-style-type: none">• It performs very faster and it is very easy to use.• It provides the user with good interaction to make them understand the hidden patterns.
NFR-5	Availability	<ul style="list-style-type: none">• It should be made available to access to anyone at any time.• It should be able to work at any place where the user is present.• It should be made compatible to work in all the devices.
NFR-6	Scalability	<ul style="list-style-type: none">• To expand the server capacity, memory or disc space so that more people can use this at a time.• It should be able to hold large datasets.