

PROJECT DESIGN PHASE-II
Solution Requirements (Functional & Non-functional)

Date	17-October-2022
Team ID	PNT2022TMID30075
Project Name	Exploratory Analysis of Rainfall Data in India for Agriculture
Maximum Marks	4 Marks

Functional Requirements:

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Registration Process	Registration through Phone Number.
FR-2	Confirmation	Confirmation via OTP Message.
FR-3	Updating Profile	Enter the Personal Details.
FR-4	Home Page	Able to view the ❖ Profile. ❖ Rainfall prediction. ❖ Crop details.
FR-5	Rainfall Prediction	❖ Enter the Month. ❖ Enter the Year. ❖ Click on Predict.
FR-6	ML Model	The user data is sent to the Machine learning model.
FR-7	Preprocessing data	❖ Data Exploration. ❖ Feature Selection. ❖ Missing Values. ❖ Feature Scaling. ❖ Splitting of Train and Test Data.
FR-8	Building ML Model	❖ Random forest algorithm is applied ❖ Train the model using training data ❖ The model is evaluated with the test data.
FR-9	Result	Shows the predicted rainfall data.

Non-functional Requirements:

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	It's a user-friendly application which enable people to use without any technical knowledge.
NFR-2	Security	User data will be protected from unauthorised access and the data are secured.
NFR-3	Reliability	The application will operate effectively without causing any failure and errors, so maintance won't be big problem.
NFR-4	Performance	Overall performance of system is efficient to predict the rainfall with much speed without delay.
NFR-5	Availability	The availability of the application is that it will be active and available to all the users.
NFR-6	Scalability	The scalability of our system is one that can handle rapid changes to workloads and user demands.