

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

Date	18 October 2022
Team ID	PNT2022TMID09651
Project Name	EXPLORATORY ANALYSIS OF RAINFALL DATA IN INDIA FOR AGRICULTURE
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 Registration	Registration through Form
FR-2	User Confirmation	Confirmation via E-mail
FR-3	Dataset details	Data is collected and uploaded followed by data pre-processing
FR-4	Build a Machine Learning Model	Train the model using training data and find the best algorithm which has a good accuracy
FR-5	Prediction Model	Forecast weather conditions for a particular region and generate alerts for excessive or low rainfall
FR-6	Testing	Test the model using various performance metrics
FR-7	Application	Develop an interactive web app to display and visualize the weather forecast of the region to the concerned user.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Nationwide deployment, Easy and Understandable User Interface for everyone
NFR-2	Security	Data collected is very minimal and the web application is encrypted properly. In addition proper security measures are followed. Eg. SQL Injection prevention
NFR-3	Reliability	Globally Accessible with a good Internet connection of 20Mbps

NFR-4	Performance	Ability to provide finite results on a real time basis.
NFR-5	Availability	Semi Open source project with subscription which gives access to premium features
NFR-6	Scalability	Highly scalable, with improved accuracy results in more accurate results