Requirements Analysis [Functional & Non-functional]

Date	23 October 2022
Team ID	PNT2022TMID10697
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 via form or email ID and password creation
FR-2	User Confirmation	Confirmation via Email or OTP
FR-3	User Login	Using the registered email ID and password as login credentials
FR-4	Profile Dashboard	Viewing the profile, changing the password and pages navigation
FR-4	Searching	Searching for results and information by place and region
FR-5	Visualization	Visualizing the user-specific data in different forms
FR-6	Prediction	Giving inputs to get the prediction on rainfall using an ML-based model
FR-7	User tracking	Maintaining the history of the user's search operations
FR-8	Feedback & Support	Collecting feedback against the accuracy of the prediction for further improvement and feature inclusion in other modules or functionalities

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	• The system should administer a quality attribute that assesses how easy *user interfaces* are to use • The system doesn't expect any technical pre-requisites from the user's side
NFR-2	Security	• User details and login credentials should be safe and secure • The confirmation of a valid user is required for authentication
NFR-3	Reliability	• Portable and cross-platform independent • The application should be subjected to an experiment, test, or measuring procedure that yields the same results on repeated trials • Easy to use and flexible
NFR-4	Performance	• The system should handle the traffic efficiently and service requests while consuming less bandwidth • The accuracy of the result of a measurement, calculation, or specification should be dependent the datasets • The page should not take a lot of time to load the contents and display them
NFR-5	Availability	• The version of the application should be available even at the time of maintenance and updating • The system should run 24 hours a day, 7 days a week *[24/7 available]*
NFR-6	Scalability	• The application should be in the way of adding new functionalities or modules without affecting the existing functionalities • The system should be able to manage numerous users at a time and be less prone to errors