

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

Date	13 October 2022
Team ID	PNT2022TMID05406
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.

<b>FR No.</b>	<b>Functional Requirement [Epic]</b>	<b>Sub-Requirement [Story / Sub-Task]</b>
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
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### Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	<ul style="list-style-type: none"> <li>The system should administer a quality attribute that assesses how easy user interfaces are to use</li> <li>The system doesn't expect any technical pre-requisites from the user's side</li> </ul>
NFR-2	Security	<ul style="list-style-type: none"> <li>User details and login credentials should be safe and secure</li> <li>The confirmation of a valid user is required for authentication</li> </ul>
NFR-3	Reliability	<ul style="list-style-type: none"> <li>Portable and cross-platform independent</li> <li>The application should be subjected to an experiment, test, or measuring procedure that yields the same results on repeated trials</li> <li>Easy to use and flexible</li> </ul>

NFR -4	Performance	<ul style="list-style-type: none"> <li>• The system should handle the traffic efficiently and service requests while consuming less bandwidth</li> <li>• The accuracy of the result of a measurement, calculation, or specification should be dependent the datasets</li> <li>• The page should not take a lot of time to load the contents and display them</li> </ul>
NFR -5	Availability	<ul style="list-style-type: none"> <li>• The version of the application should be available even at the time of maintenance and updating</li> <li>• The system should run 24 hours a day, 7 days a week <i>[24/7 available]</i></li> </ul>
NFR -6	Scalability	<ul style="list-style-type: none"> <li>• The application should be in the way of adding new functionalities or modules without affecting the existing functionalities</li> <li>• The system should be able to manage numerous users at a time and be less prone to errors</li> </ul>