**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| --- | --- |
| Date | 31 October 2022 |
| Team ID | PNT2022TMID40687 |
| Project Name | Project -  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** | Import necessary packages | Importing packages like NumPy, pandas, seaborn, etc |
| **FR-2** | Download and load dataset | Download the dataset  Load the Appropriate dataset |
| **FR-3** | Pre-processing of data | Making data suitable for building a good model |
| **FR-4** | Building Machine learning model | Choose the best algorithm.  Check for the best optimised result. |
| **FR-5** | Train the data | Train the model using training data. |

**FR-6** Test the model Test the model for the best evaluation and analysing.

**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 be easy to use. |
| **NFR-2** | **Security** | Security is given over the model, so the user can use this with full trust. The system should protect the data and information related to the farms. |
| **NFR-3** | **Reliability** | Good connectivity and a supporting device .  The system should be reliable and not crash when using it. |
| **NFR-4** | **Performance** | The system should output results of different inputs in a reasonable time.. |
| **NFR-5** | **Availability** | Any person can use this and this is an open-source model. |

**NFR-6 Scalability** Farmers, Vegetable sellers, citizens can use this, prediction of data is accurate.