**Project Design Phase-II**

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

TEAM ID: PNT2022TMID12095

PROJECT NAME: PREDICTING THE ENERGY OUTPUT OF WIND TURBINE BASED ON WEATHER CONDITION

**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 Email |
| FR-3 | Essentiality | * City name * Wind speed * Wind direction * Weather condition |
| FR-4 | Output | Energy Predicated in KWh |

**Non-functional Requirements:**

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

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | * Easy to learn  User friendly * Efficient |
| NFR-2 | **Security** | Privacy - User can have Own accounts to secure their data. |
| NFR-3 | **Reliability** | Wind Energy is reliable because it is both unlimited and domestic |
| NFR-4 | **Performance** | Accuracy is high due to combination of multiple ML models to predict the output . |
| NFR-5 | **Availability** | This is a web based application so we can access in any device that have a web browser with good Internet facility. |
| NFR-6 | **Scalability** | It can be extended further to provide API which can be used by third party organisations such as  Industries, Power suppliers , Governmental ,etc. |