

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

Date	25 October 2022
Team ID	PNT2022TMID12853
Project Name	Predicting the energy output of wind turbine based on weather condition
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 (For App and webpage)	Registration through E-Mail or Mobile number.
FR-2	User Confirmation	Confirmation message sent to registered E-Mail id or mobile number.
FR-3	Essential details	<ul style="list-style-type: none"><li>○ City name</li><li>○ Wind speed</li><li>○ Wind direction</li><li>○ Temperature</li><li>○ Humidity</li></ul>
FR-4	Output	Wind Energy will be shown in KW/hr

### 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>○ User-friendly.</li><li>○ Need not any special knowledge.</li></ul>
NFR-2	Security	<ul style="list-style-type: none"><li>○ Data provided by the user will be protected from the unauthorized access.</li><li>○ Datas are secured in cloud.</li></ul>
NFR-3	Reliability	<ul style="list-style-type: none"><li>○ Weather Information are up to date because it uses weather API for weather prediction.</li><li>○ It will provide the consistency in output.</li></ul>
NFR-4	Performance	<ul style="list-style-type: none"><li>○ Website activity is quite faster and reliable.</li><li>○ Output values are so accurate.</li></ul>
NFR-5	Availability	<ul style="list-style-type: none"><li>○ Supports most of the device configurations.</li><li>○ Anyone can access the website with proper internet connection.</li></ul>
NFR-6	Scalability	<ul style="list-style-type: none"><li>○ Often improving in technology and generating large amount of data, the website features also changes over a period.</li></ul>