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

Date	16 October 2022
Team ID	PNT2022TMID41192
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.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration and logging inby entering their username and password.	Registration through Form.
FR-2	User Confirmation by validatingthe username with respect to the password	Confirmation via pop-up Message.
FR-3	Displaying the further information about theapplication.	By selecting the about button the details of theapplication will be displayed.
FR-4	Validating the city name.	System checks whether the city entered by the user ispresent or not. If present it will collect the further details else it will display the pop-up message as errorin the city.
FR-5	Checking the data type of the value.	System checks for the data type of the value entered by the user.
FR-6	Validating all required fields.	Before predicting the output the system checks whether all the values are entered by the user and checks whether all values are correct.
FR-7	Displaying weather conditionsfor a given city.	It displays the weather of the city which have beenselected.
FR-8	Displaying predicted energyoutput power.	The predicted output will be displayed as amount ofwind energy power generated.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The system satisfies the user goals and the application is easy to use.
NFR-2	Security	The data provided to system will be protected from attacks and unauthorized access
NFR-3	Reliability	The system will provide the consistency in output without producing an error.
NFR-4	Performance	The performance will never degrade even the workload is increased.
NFR-5	Availability	The application is available for 24*7
NFR-6	Scalability	The system can be used as web application as wellas mobile application with a sufficient internet availability.