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

Date	13 May 2023
Team ID	NM2023TMID22579
Project Name	Automated Weather Classification Using Transfer Learning

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 Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Problem Statement	Report the Problem Statement through Form
FR-4	Data Collection	Gather a dataset of weather images or weather-related sensor readings along with their corresponding weather labels or categories.
FR-5	Training for the model	Select an appropriate AI model, such as a convolutional neural network (CNN) or recurrent neural network (RNN), and train it using the preprocessed weather data.
FR-6	Model Evaluation	Calculate metrics such as accuracy, precision, recall, or F1-score to measure how well the model classifies different weather conditions.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Provide user-friendly interfaces for accessing weather predictions, displaying results, and managing system settings.
NFR-2	**Security**	Ensure that weather data, models, and user information are securely stored and protected from unauthorized access or tampering.
NFR-3	**Reliability**	The system should achieve a high level of accuracy in classifying weather conditions to ensure reliable predictions.
NFR-4	**Performance**	The system should provide fast and efficient weather classification predictions, ensuring low latency for real-time inference.
NFR-5	**Availability**	The system can be available at 24/7 hours.
NFR-6	**Scalability**	The system should be designed to handle large-scale weather datasets, increasing data volumes, and growing user demands.