Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	15 October 2022
Team ID	PNT2022TMID51318
Project Name	Predicting the energy output of wind turbine based on weather contition
Maximum Marks	4 Marks

Technical Architecture:

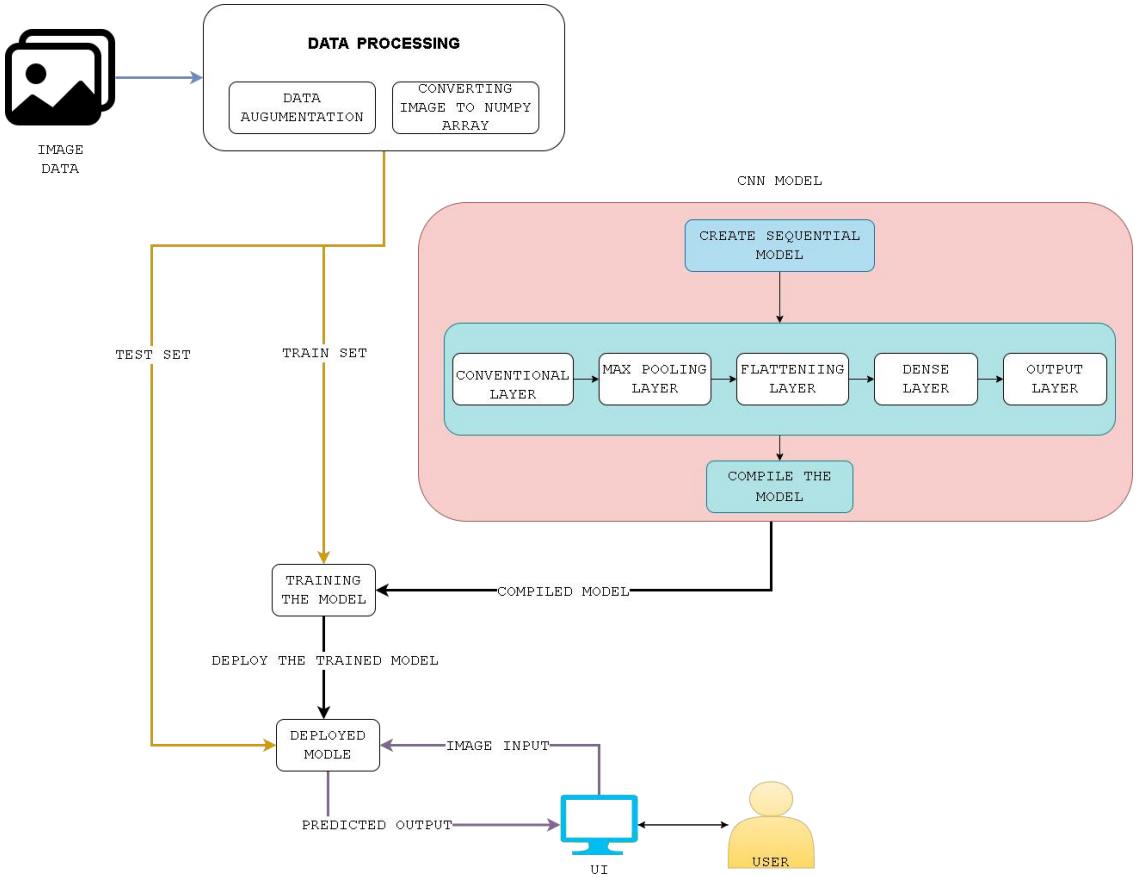

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI or Website.	HTML, CSS, JavaScript
2.	Application Logic-1	Image upload	Java / Python
3.	Application Logic-2	Display search Result.	Python, HTML, Flask, IBM Cloud
4.	Image Recognition Model	To predict the species through the image provided	CNN
5.	Infrastructure (Server/Cloud)	Application Deployed on cloud server	IBM Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-Source frameworks for data preprocessing, web application and model training	Keras, Python Flask, Tensorflow, CNN, scikit-learn and matplotlib.
2.	Security Implementations	Capacity of the application to handle growth, especially in handling more users.	IBM Cloud
3.	Availability	Without near 100% availability, application reliability and the user satisfaction will affect the solution.	IBM Cloud
4.	Performance	How the application is functioning and how responsive the application is to the end-users depending on the performance of IBM cloud platform.	IBM Cloud