Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	15.10.2022
Team ID	PNT2022TMID33022
Project Name	Predicting the energy output of wind turbine based on weather condition
Maximum Marks	4 Marks

Technical Architecture:

Table-1: Components & Technologies

S.No	Components	Description	Technology
1.	User Interface	Mobile Application User Interface	HTML, Python, Python-Flask
2.	Application Logic-1	Logic for a process in the application	Python / R
3.	Application Logic-2	Logic for a process in the application	IBM Watson Assistant
4.	Application Logic-3	Logic for a process in the application	IBM Cloud
5.	Cloud Database	Database Service on Cloud	IBM Cloud
6.	File Storage	File storage requirements	Local File System
7.	Machine Learning Model	Auto Regressive Model	ANN model
8.	Infrastructure(Server/Cloud)	Application Deployment on Local System	Local, Cloud Foundry, Kubernetes

Table-2:Application Characteristics

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Numpy , Pandas , Matplotlib , Scikit-kit , Flask	Python Framework
2.	Security Implementations	List all the security / access controls ,use of firewalls	Encryption
3.	Scalability	Scalable Model	Statistical and Physical Model
4.	Availability	Use of Cloud and Database	IBM Cloud IBM Watson Assistant
5.	Performance	Data Pre-Processing and CNN	Python