

## **Project Design Phase-I Solution Architecture**

Date	21 October 2022
Team ID	PNT2022TMID38491
Project Name	Predicting the energy output of wind turbine based on weather condition
Maximum Marks	4 Marks

### Architectural Workflow:

#### User View:

- User enters weather condition details for a wind turbine in the UI
- Entered input is sent to the regression model deployed through IBM Watson
- The model predicts the energy output of the wind turbine and send it to the UI
- The predicted value is displayed at the frontend

#### Model View:

- The dataset is pre-processed for handling missing values/categorical values
- Feature extraction is performed
- The data is split into dependent and independent variables
- The dataset is split as train and test set
- A random forest classifier is built and is trained with the training data
- The model is evaluated using the testing data
- The trained model is deployed in IBM Watson

