

## Project Design Phase - I

### Solution Architecture

Date	01 October 2022
Team ID	PNT2022TMID21777
Project Name	Predicting the energy output of wind turbine based on weather condition
Maximum Marks	4 Marks

#### Architectural Workflow:

##### User View:

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

##### Model View:

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

