## Project Design Phase - I Solution Architecture

## **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

