**Project Design Phase-II**
**Data Flow Diagram & User Stories**

| | |
|---|---|
| Date | 04-11-2022 |
| Team ID | PNT2022TMID42592 |
| Project Name | Predicting the energy output of wind turbine based on weather condition |
| Maximum Marks | 4 Marks |

**Data Flow Diagrams:**

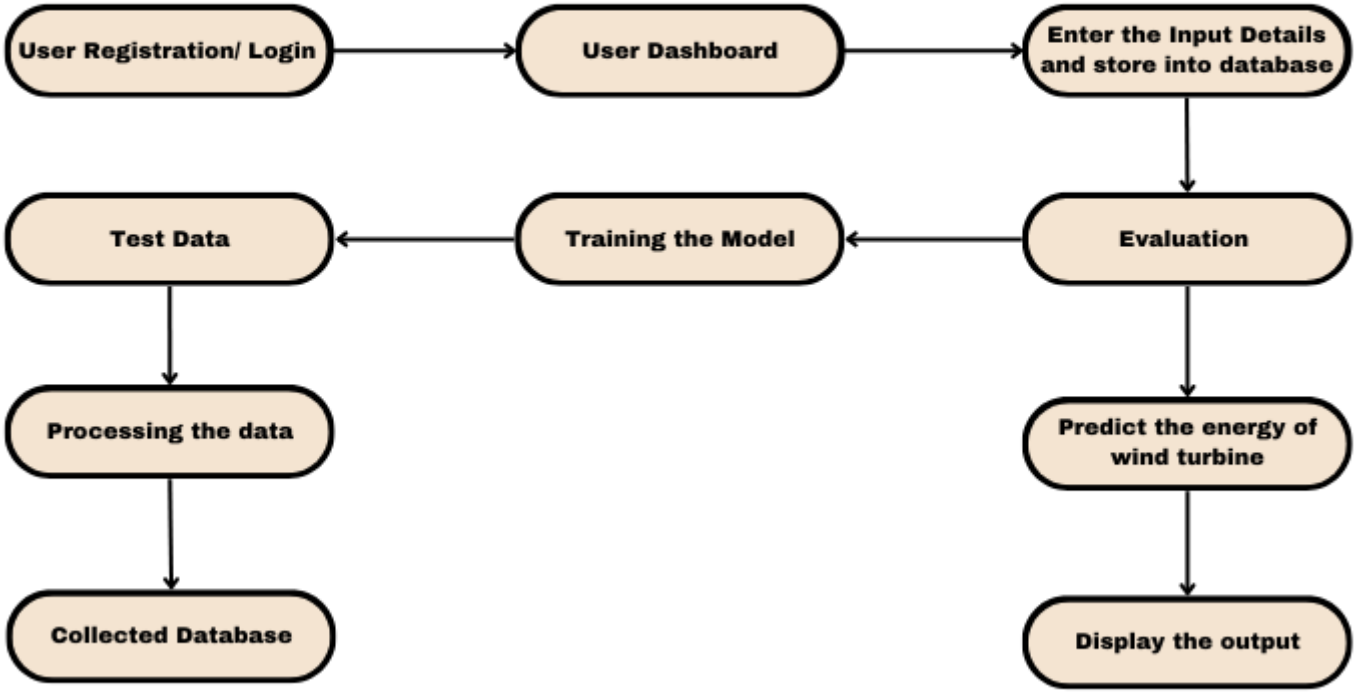
**1, The user should register on web application using mail ID and password**

**2. The user should enter the wind details such as wind speed, wind direction and temperature**

**3. The data given by the forecaster is taken as the input and will get stored in IBM cloud database**

**4. The application is build to predict the energy that produces by wind turbine based on weather condition.**

# FLOW CHART


User Registration/ Login
User Dashboard
Enter the Input Details and store into database
Evaluation
Training the Model
Test Data
Predict the energy of wind turbine
Processing the data
Display the output
Collected Database

## User Stories

Use the below template to list all the user stories for the product.

| User Type | Functional Requirement (Epic) | User Story Number | User Story / Task | Acceptance criteria | Priority | Release |
|---|---|---|---|---|---|---|
| Admin | Data set | USN-1 | Gather the information needed to make the wind energy prediction value | Enough data has been gathered to train the model | High | Sprint-1 |
| | Data Pre-processing | USN-2 | Perform data cleaning to optimize the dataset | Clean Dataset enough to make accurate predictions | High | Sprint-1 |
| | Training & Building Model | USN-3 | Building the model using linear regression algorithms to classify the data | Model should be used for predicting exact valuation of the wind energy. | High | Sprint-1 |
| | Deploy the model | USN-4 | Deployment of ML model using IBM Cloud | Model should be working fine from the cloud | High | Sprint-2 |
| | Integrate the web application with the IBM model | USN-5 | Use flask for the integration purpose | The model ought to be simple to use and reliable on the web application. | High | Sprint-2 |
| Meteorologist | Home page | USN-6 | Information on the application and the process for wind energy prediction. | We can get an idea about how to use these model | Medium | Sprint-2 |
| | Registration | USN-7 | As a user, I can register for the application by entering my email, password, and confirming my password | User can access my account / dashboard | High | Sprint-3 |
| | Login | USN-8 | As a user, I can log into the application by entering email & password | User can login to my account | High | Sprint-3 |
| | Dashboard | USN-9 | User can enter the details and get the prediction values. | User can add input values | Medium | Sprint-4 |
| | Output | USN-10 | As a user, I can be able to access the predicted output value of wind energy | Predicted values must be displayed depending on the data provided by the user. | Medium | Sprint-4 |