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| Date | 14 November 2022 |
| Team ID | PNT2022TMID45948 |
| Project Name | Predicting the energy output of wind turbine based on weather condition |

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| Building the python flask :  46 lines (36 sloc) 1.29 KB | |
| 1 | import numpy as np |
| 2 | from flask import Flask, request, jsonify, render\_template |
| 3 | import joblib |
| 4 | import requests |
| 5 |  |
| 6 | app = Flask( name ) |
| 7 | model = joblib.load("power\_prediction.sav") |
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| 10 |  |
| 11 | @app.route('/windapi',methods=['POST']) |
| 12 | def windapi(): |
| 13 | city=request.form.get('city') |
| 14 | apikey="d377e14318fb678ccad77358918c544f" |
| 15 | url=["http://api.openweathermap.org/data/2.5/weather?q="](http://api.openweathermap.org/data/2.5/weather?q)+city+"&appid="+apikey |
| 16 | resp = requests.get(url) |
| 17 | resp=resp.json() |
| 18 | temp = str(resp["main"]["temp"])+" °C" |
| 19 | humid = str(resp["main"]["humidity"])+" %" |
| 20 | pressure = str(resp["main"]["pressure"])+" mmHG" |
| 21 | speed = str(resp["wind"]["speed"])+" m/s" |
| 22 | return render\_template('predict.html', temp=temp, humid=humid, pressure=pressure,speed=speed) |
| 23 |  |
| 24 | @app.route('/') |
| 25 | def home(): |
| 26 | return render\_template('intro.html') |
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| 28 | | @app.route('/predict') | |
| 29 | | def predict(): | |
| 30 | | return render\_template('predict.html') | |
| 31 | |  | |
| 32 | | @app.route('/y\_predict',methods=['POST']) | |
| 33 | | def y\_predict(): | |
| 34 | | ''' | |
| 35 | | For rendering results on HTML GUI | |
| 36 | | ''' | |
| 37 | | x\_test = [[float(x) for x in request.form.values()]] | |
| 38 | |  | |
| 39 | | prediction = model.predict(x\_test) | |
| 40 | | print(prediction) | |
| 41 | | output=prediction[0] | |
| 42 | | return render\_template('predict.html', prediction\_text='The energy predicted is {:.2f} KWh'.fo | |
| 43 | |  | |
| 44 | |  | |
| 45 | | if name == " main ": | |
| 46 | | app.run(debug=True) | |
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