Weather Report Console Application

PYTHON PROJECT

USING OPENWEATHERMAP API

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Introduction

▶ This project is a Python console-based application.

▶ It fetches real-time weather data for a given city using OpenWeatherMap API.

Objectives

- ▶ • Fetch real-time weather data

- ▶ • Use API GET request

- ▶ • Apply Object-Oriented Programming

- ▶ • Display formatted weather report

Technologies Used

- • Python
- • OpenWeatherMap API
- • Requests library
- • JSON data parsing

Object Oriented Programming

▶ Weather Class:

▶ • Stores API key and city

▶ • Fetches weather data

▶ • Displays weather report

API Working

- ▶ • User enters city name
- ▶ • API request sent using requests.get()
- ▶ • JSON response received
- ▶ • Required data extracted and displayed

Exception Handling

- • Handles invalid city name

- • Handles network errors

- • Prevents program crash

Sample Output

```
===== Weather Report Console App =====
Enter city name: bhopal

⛅ Weather Report
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City        : Bhopal, IN
Temperature : 24.13 °C
Feels Like  : 23.25 °C
Humidity    : 25 %
Pressure    : 1015 hPa
Condition   : Haze
Wind Speed  : 2.06 m/s
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PS C:\Users\Acer\Desktop\Weather Report Console App>
```

Conclusion

▶ This project demonstrates practical use of APIs,

▶ JSON parsing, OOP, and exception handling in Python.