

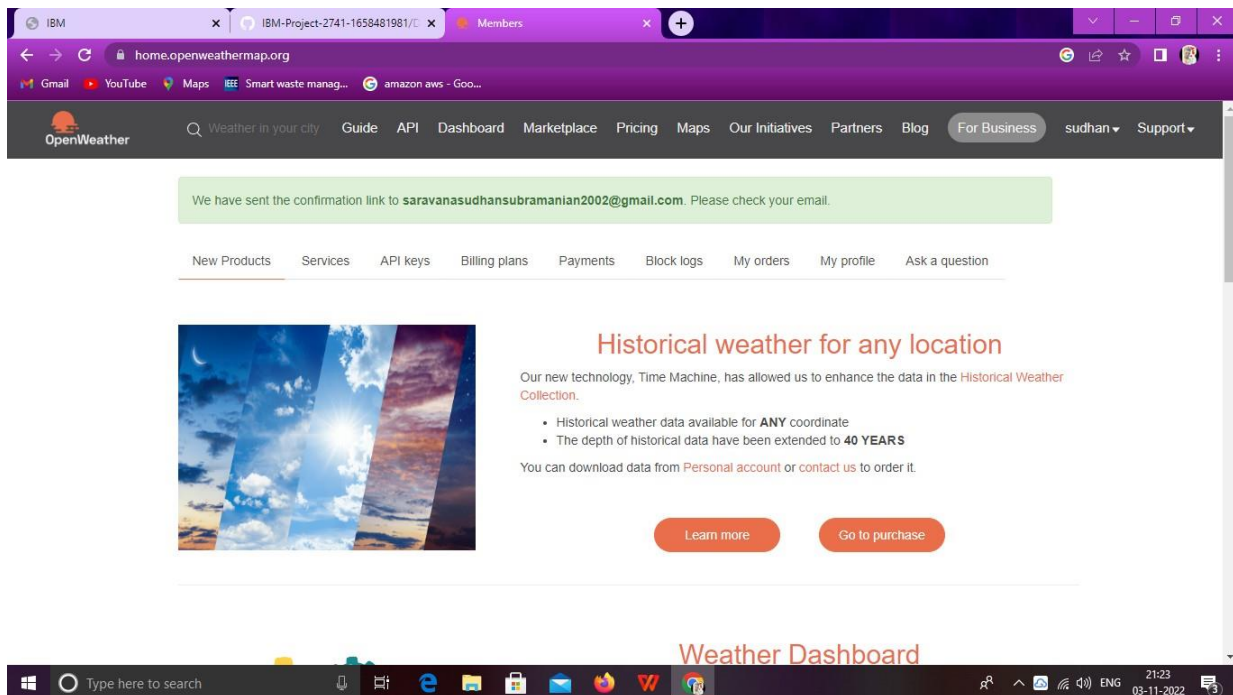
## Develop a Python script

Date	14 November 2022
Team ID	PNT2022TMID13514
Project Name	Gas Leakage Monitoring & Alerting System for Industries
Maximum Marks	4 Marks

### Gas Leakage Monitoring & Alerting System for Industries

Create a code snippet using python to

1. Extract weather data from OpenWeatherMap using APIs
2. Send the extracted data to the cloud
3. Receive data from the cloud and view it in the python compiler



IBM IBM-Project-2741-1658481981/C Find - OpenWeatherMap



openweathermap.org/find?utf8=✓&q=chennai

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## Weather in your city

chennai Search

 **Chennai, IN**  **light intensity drizzle**

**25°C** temperature from 25 to 25 °C, wind 1.54 m/s, clouds 75 %, 1012 hpa

Geo coords [13.0878, 80.2785]

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## Historical weather for any location

Our new technology, Time Machine, has allowed us to enhance the data in the **Historical Weather Collection**.

- Historical weather data available for **ANY** coordinate
- The depth of historical data have been extended to **40 YEARS**

You can download data from **Personal account** or **contact us** to order it.

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## Weather Dashboard

The **OpenWeather Dashboard** is a lightweight and flexible visual tool for our customers who would like to be notified weather events to make informed decisions and plan actions based on the weather input.

- Track the main weather parameters: temperature, wind speed, precipitations
- Weather data are updated every hour
- Global coverage - Choose any location on the globe
- Email notifications

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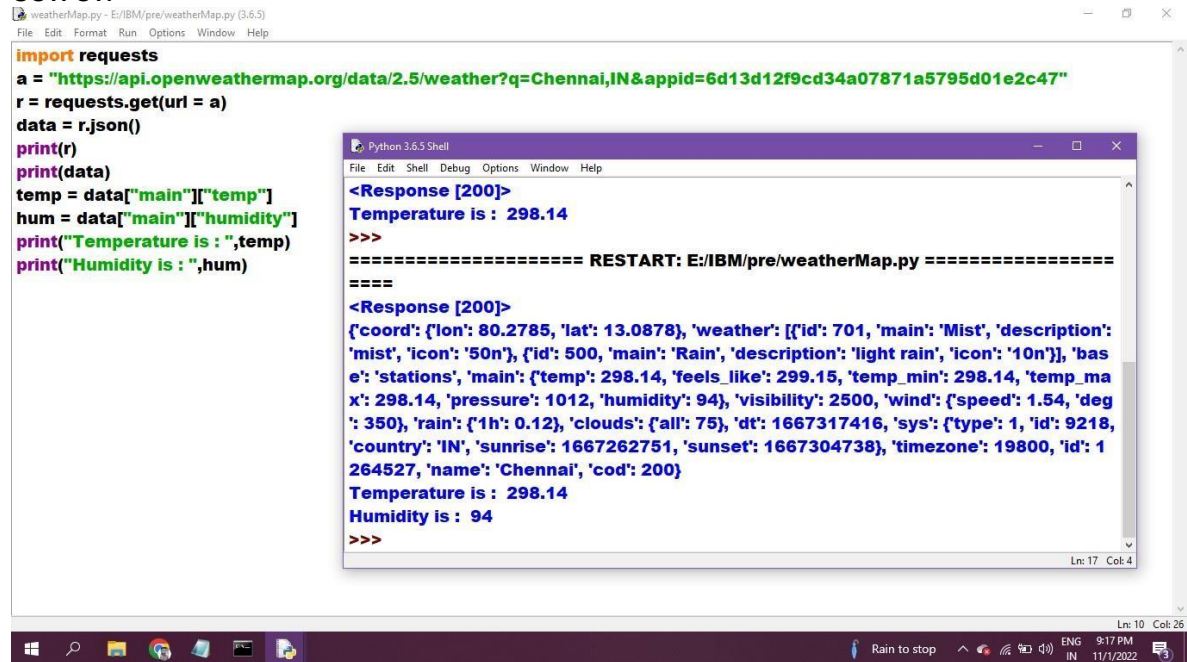
### Weather Dashboard

The OpenWeather Dashboard is a lightweight and flexible visual tool for our customers who would

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21:39 03-11-2022

## OUTPUT:



The image shows a Python script in a text editor and its execution output in a shell window. The script uses the requests library to fetch weather data from the OpenWeatherMap API for Chennai, India. The output shows the raw JSON response and the extracted temperature and humidity values.

```
weatherMap.py - E:/IBM/pre/weatherMap.py (3.6.5)
File Edit Format Run Options Window Help

import requests
a = "https://api.openweathermap.org/data/2.5/weather?q=Chennai,IN&appid=6d13d12f9cd34a07871a5795d01e2c47"
r = requests.get(url = a)
data = r.json()
print(r)
print(data)
temp = data["main"]["temp"]
hum = data["main"]["humidity"]
print("Temperature is : ",temp)
print("Humidity is : ",hum)
```

```
Python 3.6.5 Shell
File Edit Shell Debug Options Window Help

<Response [200]>
Temperature is : 298.14
>>>
===== RESTART: E:/IBM/pre/weatherMap.py =====
=====
<Response [200]>
{'coord': {'lon': 80.2785, 'lat': 13.0878}, 'weather': [{'id': 701, 'main': 'Mist', 'description': 'mist', 'icon': '50n'}, {'id': 500, 'main': 'Rain', 'description': 'light rain', 'icon': '10n'}], 'base': 'stations', 'main': {'temp': 298.14, 'feels_like': 299.15, 'temp_min': 298.14, 'temp_max': 298.14, 'pressure': 1012, 'humidity': 94}, 'visibility': 2500, 'wind': {'speed': 1.54, 'deg': 350}, 'rain': {'1h': 0.12}, 'clouds': {'all': 75}, 'dt': 1667317416, 'sys': {'type': 1, 'id': 9218, 'country': 'IN', 'sunrise': 1667262751, 'sunset': 1667304738}, 'timezone': 19800, 'id': 1264527, 'name': 'Chennai', 'cod': 200}
Temperature is : 298.14
Humidity is : 94
>>>
```

Ln: 10 Col: 26

Windows taskbar: Rain to stop, 9:17 PM, 11/1/2022