

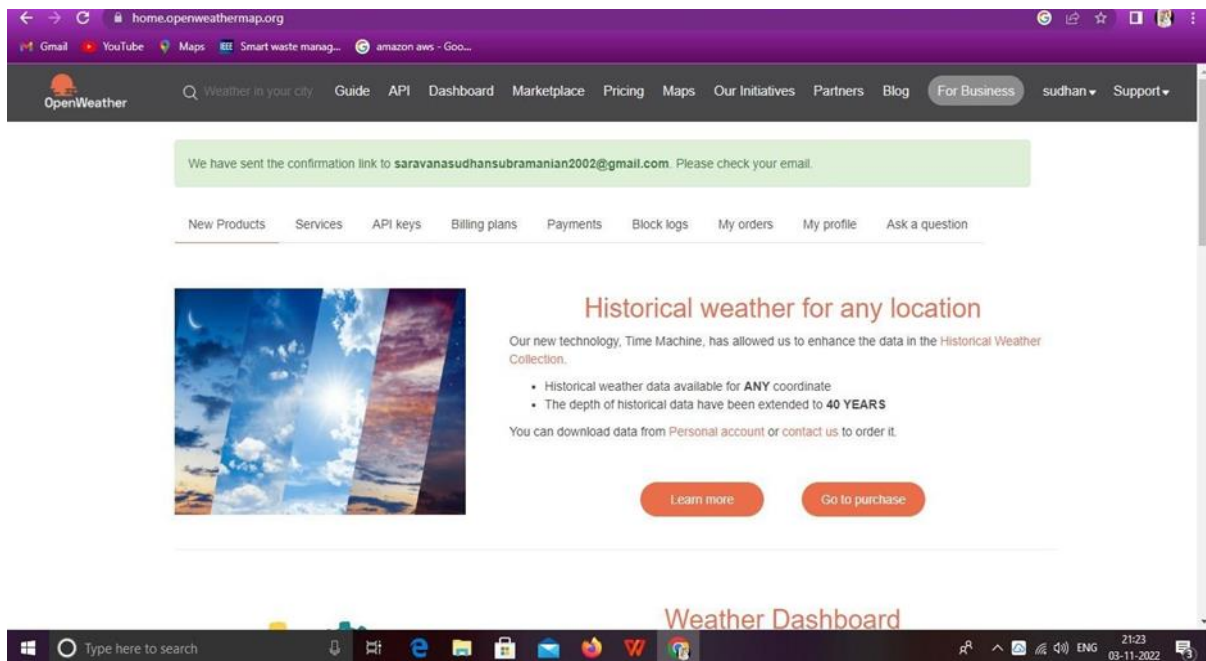
Develop a Python script

Date	12 November 2022
Team ID	PNT2022TMID05343
Project Name	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITIAN CITIES
Maximum Marks	4 Marks

SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITIAN CITIES

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




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

OpenWeather

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

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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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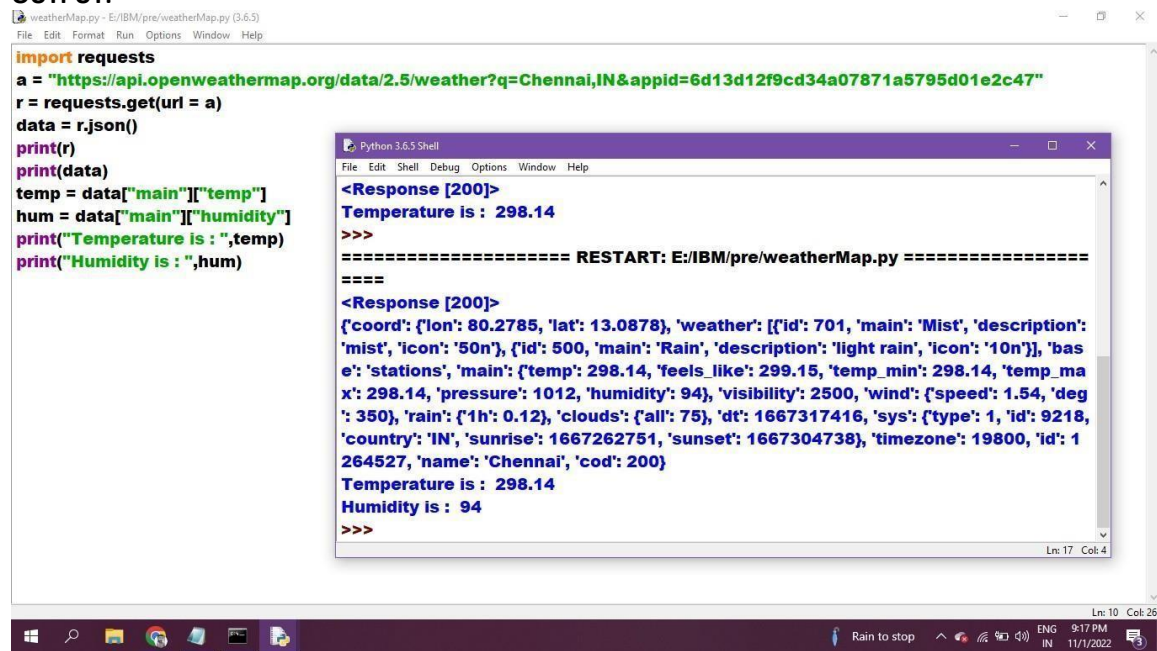
Weather Dashboard

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 screenshot of a Windows desktop environment. In the foreground, a file explorer window titled 'weatherMap.py - E:/IBM/pre/weatherMap.py (3.6.3)' is open. It displays a Python script that uses the 'requests' library to fetch weather data from the OpenWeatherMap API for Chennai, India. The script prints the raw JSON response and then extracts and prints the temperature and humidity values.

```
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)
```

In the background, a 'Python 3.6.3 Shell' window shows the output of the script. It displays the raw JSON response, followed by a restart of the script, and then the extracted temperature and humidity values.

```
<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
>>>
```

The Windows taskbar at the bottom shows the system clock as 9:17 PM on 11/1/2022, with the language set to English (IN). A notification for 'Rain to stop' is visible on the right side of the taskbar.