

Develop a Python script

Team ID	PNT2022TMID31725
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 Open Weather Map using APIs
2. Send the extracted data to the cloud
3. Receive data from the cloud and view it in the python compiler

The screenshot shows the OpenWeatherMap website in a web browser. The address bar displays 'home.openweathermap.org'. A green notification box at the top center says 'Signed in successfully.' Below it, a pink banner states: 'You have to verify your email to use OpenWeatherMap services. Please [click here](#) to get an email with the confirmation link.' The main navigation bar includes links for 'New Products', 'Services', 'API keys', 'Billing plans', 'Payments', 'Block logs', 'My orders', 'My profile', and 'Ask a question'. The main content area features a large image of a sunset and the heading 'Historical weather for any location'. Below this, it mentions 'Our new technology, Time Machine, has allowed us to enhance the data in the Historical Weather Collection.' and lists two bullet points: 'Historical weather data available for ANY coordinate' and 'The depth of historical data have been extended to 40 YEARS'. At the bottom, it says 'You can download data from Personal account or [contact us](#) to order it.' and provides two buttons: 'Learn more' and 'Go to purchase'. The browser's taskbar at the bottom shows the Windows logo, a search bar, and various application icons, along with system information like '30°C Cloudy' and the date '08-11-2022'.

Find - OpenWeatherMap x +

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



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Weather in your city

Search

 **Madurai, IN**  haze

30°C temperature from 30 to 30 °C, wind 3.6 m/s, clouds 40 %, 1013 hpa

Geo coords [9.9333, 78.1167]

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30°C Cloudy 12:13 08-11-2022

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home.openweathermap.org

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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.

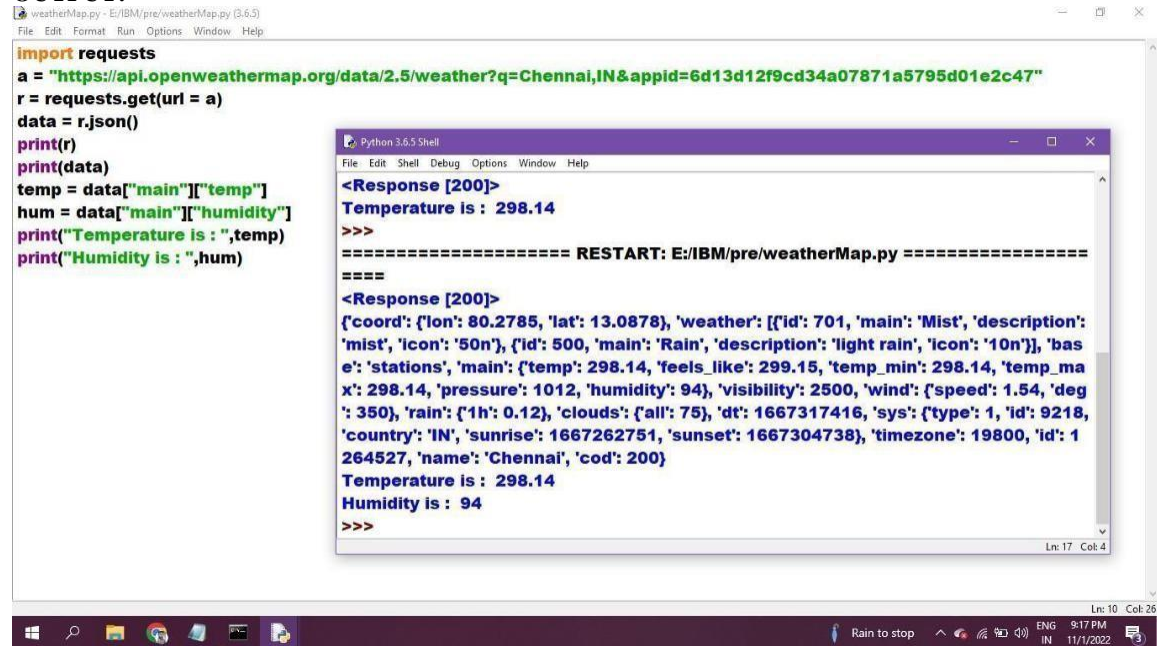
[Learn more](#) [Go to purchase](#)

Weather Dashboard

Type here to search

30°C Cloudy 12:16 08-11-2022

OUTPUT:



The image shows a screenshot of a Python script and its output. The script, located at `E:/IBM/pre/weatherMap.py`, uses the `requests` library to fetch weather data for Chennai, India. The output, displayed in a `Python 3.6.5 Shell` window, shows the raw JSON response and the extracted 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)
```

```
<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 taskbar at the bottom shows the system time as 9:17 PM on 11/1/2022, with the language set to English (IN). A notification for "Rain to stop" is visible.