

Develop a Python script


Team ID	PNT2022TMID05287
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

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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**

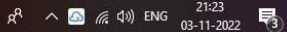
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Weather Dashboard

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 21:23
03-11-2022

IBM Project-2741-1658481981/D 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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Weather Dashboard

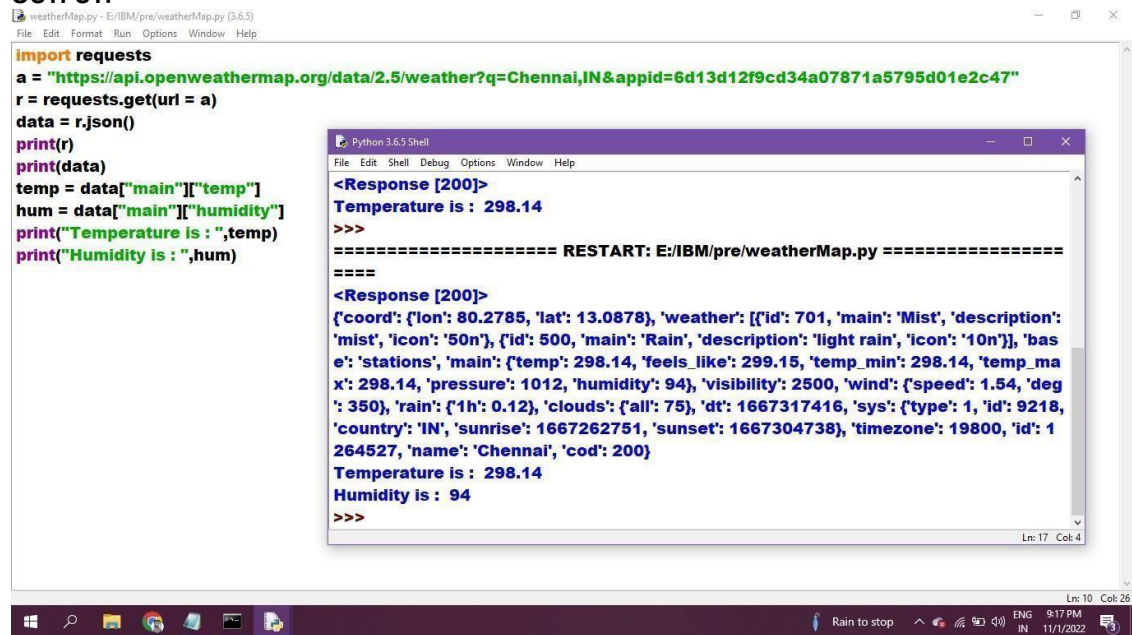
The OpenWeather Dashboard is a lightweight and flexible visual tool for our customers who would like to be notified weather events to make informed decisions and plan actions based on the weather input.

- 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

Type here to search

21:29 03-11-2022

OUTPUT:



The image shows a screenshot of a Windows desktop environment. In the foreground, a text editor window titled 'weatherMap.py - E:/IBM/pre/weatherMap.py (3,6,5)' contains a Python script. The script imports the 'requests' module, defines a URL 'a' for the OpenWeatherMap API, sends a GET request, and prints the JSON response. The script is as follows:

```
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 3.6.5 Shell' window displays the output of the script. It shows the raw JSON response from the API, followed by a restart command, and then the formatted output: 'Temperature is : 298.14' and 'Humidity is : 94'.

```
<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).