

Develop a Python script

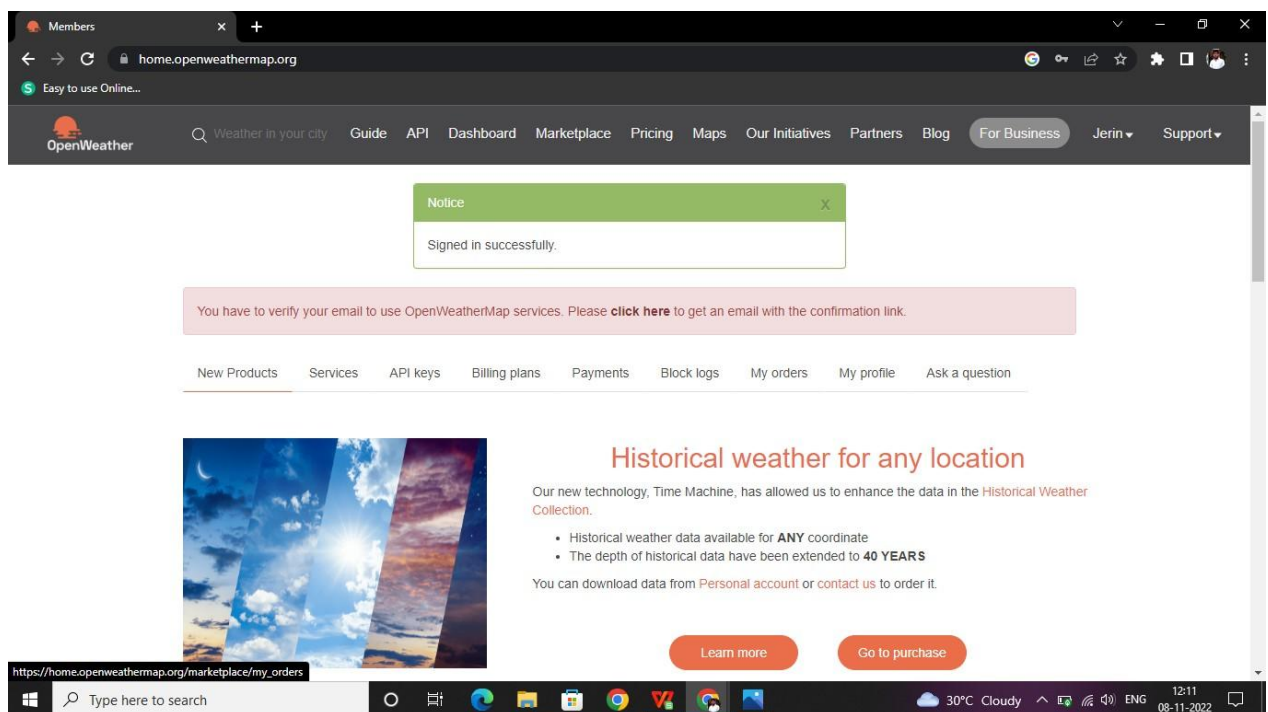
Team ID	PNT2022TMID41040
Project Name	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITIAN CITIES
Maximum Marks	4 Marks

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

NIJANTHAN S



Find - OpenWeatherMap

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

Easy to use Online...

OpenWeather

Weather in your city

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Weather in your city

Madurai

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

MANGAIYARKARASI

Members

home.openweathermap.org

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We have sent the confirmation link to harishsaran2102@psnacet.edu.in. Please check your email.

New Products Services API keys Billing plans Payments Block logs My orders My profile Ask a question



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.

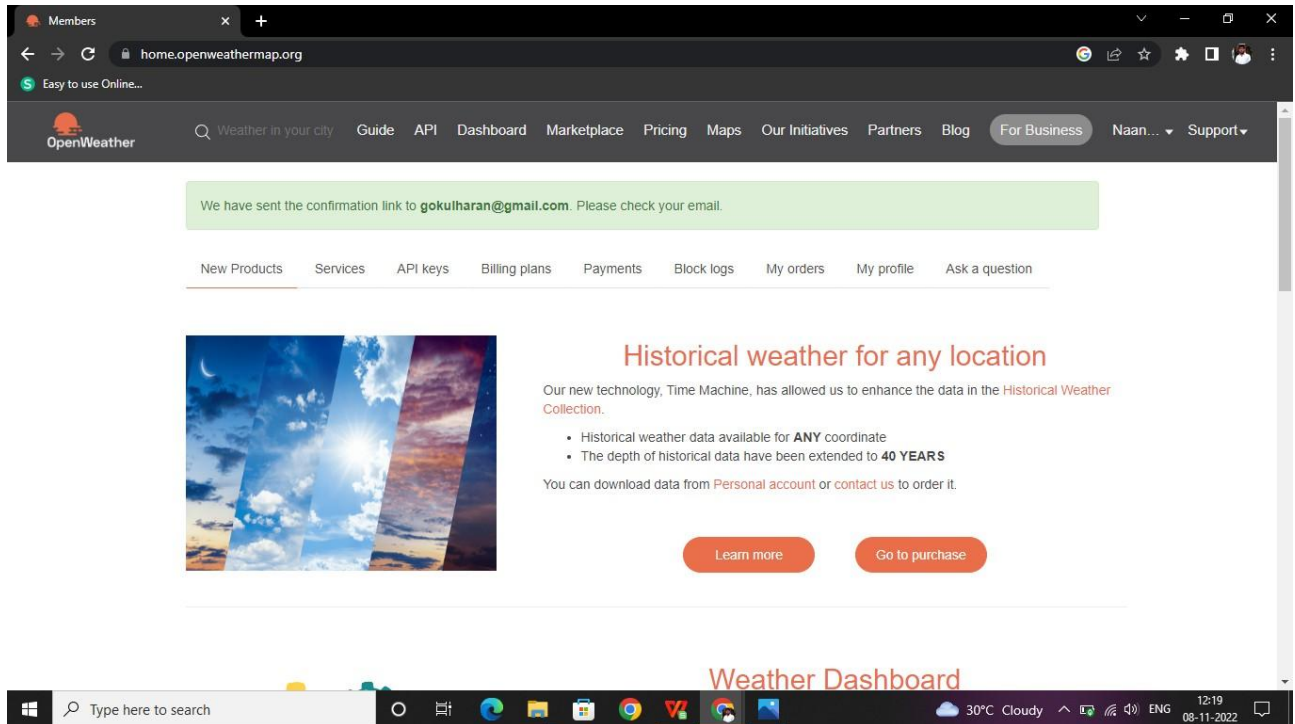
Learn more Go to purchase

Weather Dashboard

Type here to search

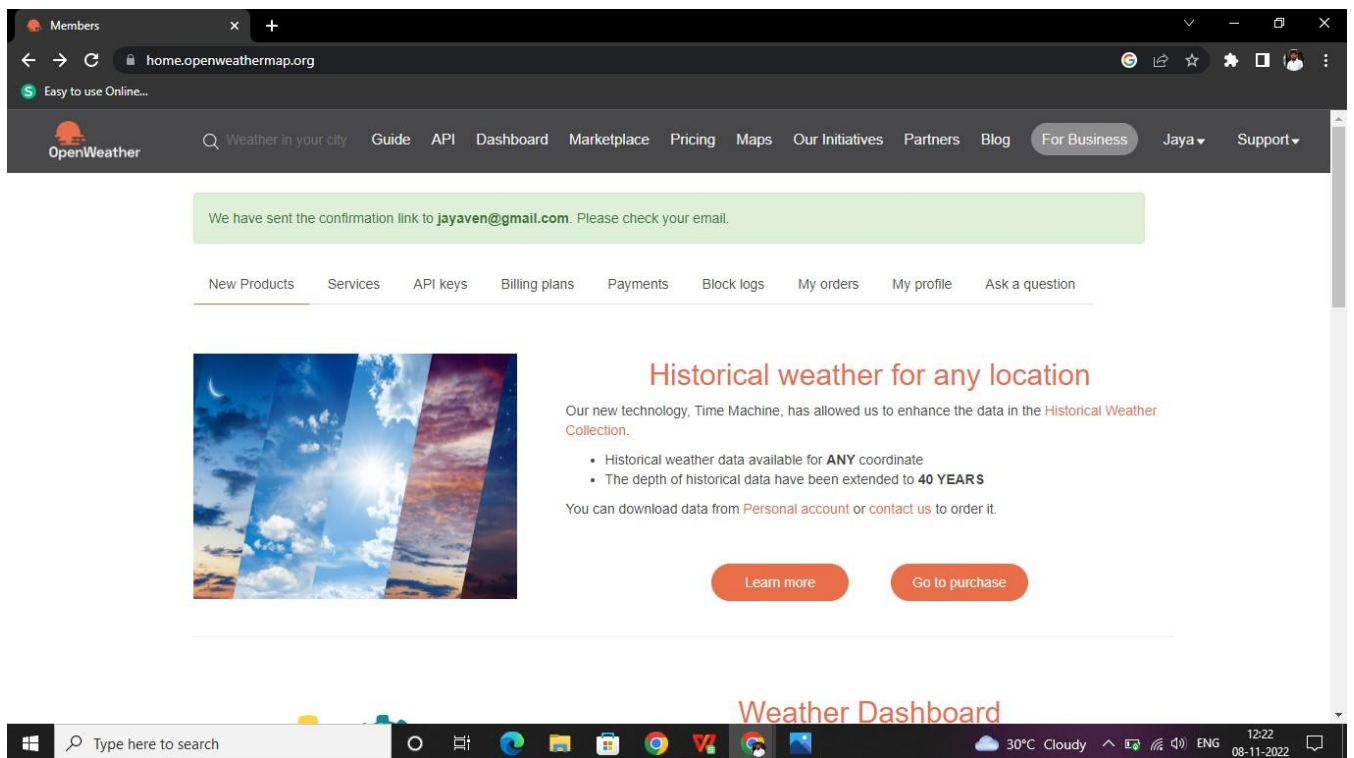
30°C Cloudy 12:16 08-11-2022

SANDHIYA



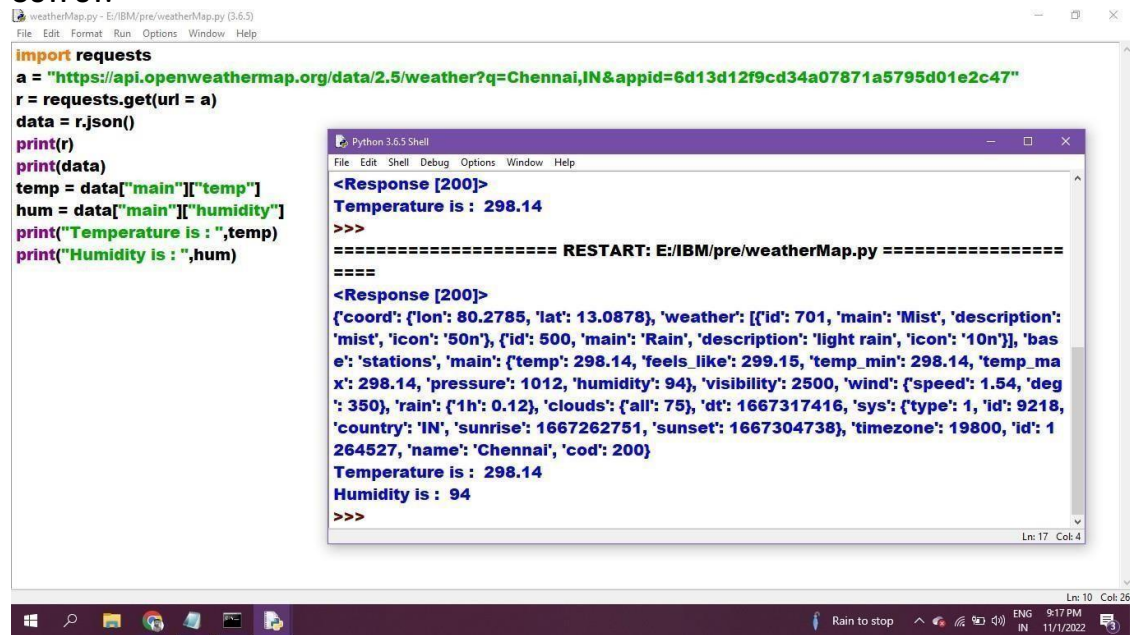
The screenshot shows the OpenWeatherMap website in a web browser. The address bar displays 'home.openweathermap.org'. The navigation bar includes links for 'Weather in your city', 'Guide', 'API', 'Dashboard', 'Marketplace', 'Pricing', 'Maps', 'Our Initiatives', 'Partners', 'Blog', 'For Business', 'Naan...', and 'Support'. A green confirmation message states: 'We have sent the confirmation link to **gokulharan@gmail.com**. Please check your email.' Below this, a horizontal menu lists: '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 sky with clouds and a sun. To the right of the image, the heading 'Historical weather for any location' is displayed. Below the heading, a paragraph states: 'Our new technology, Time Machine, has allowed us to enhance the data in the **Historical Weather Collection**.' This is followed by a bulleted list: '• Historical weather data available for **ANY** coordinate' and '• The depth of historical data have been extended to **40 YEARS**'. Below the list, a line of text says: 'You can download data from **Personal account** or **contact us** to order it.' At the bottom of the main content area, there are two orange buttons: 'Learn more' and 'Go to purchase'. The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates '30°C Cloudy', 'ENG', and the date '08-11-2022'.

JEYAKUMAR



The screenshot shows the OpenWeatherMap website in a web browser. The address bar displays 'home.openweathermap.org'. The navigation bar includes links for 'Weather in your city', 'Guide', 'API', 'Dashboard', 'Marketplace', 'Pricing', 'Maps', 'Our Initiatives', 'Partners', 'Blog', 'For Business', 'Jaya', and 'Support'. A green confirmation message states: 'We have sent the confirmation link to **jayaven@gmail.com**. Please check your email.' Below this, a horizontal menu lists: '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 sky with clouds and a sun. To the right of the image, the heading 'Historical weather for any location' is displayed. Below the heading, a paragraph states: 'Our new technology, Time Machine, has allowed us to enhance the data in the **Historical Weather Collection**.' This is followed by a bulleted list: '• Historical weather data available for **ANY** coordinate' and '• The depth of historical data have been extended to **40 YEARS**'. Below the list, a line of text says: 'You can download data from **Personal account** or **contact us** to order it.' At the bottom of the main content area, there are two orange buttons: 'Learn more' and 'Go to purchase'. The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates '30°C Cloudy', 'ENG', and the date '08-11-2022'.

OUTPUT:



```
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