

Develop a Python script

Date	10 November 2022
Project Name	Project – Smart solution for railways
Maximum Marks	4 Marks

Smart solution for railways

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 displays the OpenWeatherMap website interface. At the top, a navigation bar includes links for Weather in your city, Guide, API, Dashboard, Marketplace, Pricing, Maps, Our Initiatives, Partners, Blog, For Business, casv..., and Support. A green notification banner states: "We have sent the confirmation link to casvaish2001@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 section titled "Historical weather for any location" with a sub-header "Our new technology, Time Machine, has allowed us to enhance the data in the Historical Weather Collection." It lists two bullet points: "Historical weather data available for ANY coordinate" and "The depth of historical data have been extended to 40 YEARS". Below this, it says "You can download data from Personal account or contact us to order it." There are two buttons: "Learn more" and "Go to purchase".

Below the historical weather section is a "Weather Dashboard" section with the text "The OpenWeather Dashboard is a lightweight and flexible visual tool for our customers who would".

The bottom section is titled "Weather in your city" and features a search bar with the text "chennai" and a "Search" button. A dropdown menu is open, showing options: "My services", "My API keys", "My payments", "My profile", and "Logout".

Below the search bar, the weather for "Chennai, IN" is displayed as "scattered clouds" with a temperature of "31°C". It also shows "temperature from 31 to 31 °C, wind 4.63 m/s, clouds 40 %, 1010 hpa" and "Geo coords [13.0878, 80.2785]".

At the bottom, there is a section for "Plesk Control & Simplify your WebOps" with a "SIGN UP" button.

```
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