

## Develop a Python script

Team ID	PNT2022TMID44729
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. The top 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 confirmation message states: "We have sent the confirmation link to casvaish2001@gmail.com. Please check your email." Below this, a menu lists: New Products, Services, API keys, Billing plans, Payments, Block logs, My orders, My profile, and Ask a question.

The main section is titled "Historical weather for any location" and features a large image of a sunset. Text describes the "Time Machine" technology and lists features: "Historical weather data available for ANY coordinate" and "The depth of historical data have been extended to 40 YEARS". Buttons for "Learn more" and "Go to purchase" are present.

Below this is the "Weather Dashboard" section, which is partially obscured by a Windows taskbar. The taskbar shows the Start button, search bar, and several open applications including IBM Cloud, Jira, and various browser tabs.

The bottom section is titled "Weather in your city" and shows a search bar with "chennai" entered. 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: "scattered clouds", "31°C", 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 Plesk advertisement with the text "Control & Simplify your WebOps" and 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