

## Develop a Python script

Date	10 November 2022
Team ID	PNT2022TMID07171
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 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 section titled "Historical weather for any location" features a large image of a sunset and text describing the "Time Machine" technology. It 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. The "Weather Dashboard" section is also visible. The bottom part of the screenshot shows the "Weather in your city" section with a search bar containing "chennai". A dropdown menu is open, showing options: "My services", "My API keys", "My payments", "My profile", and "Logout". The weather for Chennai, IN is displayed as "scattered clouds" with a temperature of 31°C. The footer includes a Plesk advertisement and a Windows taskbar at the bottom.

Search engine is very flexible. How it works:

- To make it more precise put the city's name, comma, 2-letter country code (ISO3166). You will get all proper cities in chosen country. The order is important - the first is city name then comma then country. Example - London, GB or New York, US.

Plesk  
Control & Simplify your WebOps  
SIGN UP

```
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'}], 'bas
e': 'stations', 'main': {'temp': 298.14, 'feels_like': 299.15, 'temp_min': 298.14, 'temp_ma
x': 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': 1
264527, 'name': 'Chennai', 'cod': 200}
Temperature is : 298.14
Humidity is : 94
>>>
```

Ln: 10 Col: 26

Ln: 17 Col: 4

Windows taskbar: Rain to stop, 9:17 PM, 11/1/2022