

## Develop a Python script

Date	12 September 2022
Team ID	PNT2022TMID06046
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 OpenWeatherMap 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 shows the OpenWeatherMap website. At the top, there's a navigation bar with links like 'Weather in your city', 'Guide', 'API', 'Dashboard', 'Marketplace', 'Pricing', 'Maps', 'Our Initiatives', 'Partners', 'Blog', 'For Business', and 'Support'. A green notification box states: 'We have sent the confirmation link to yogeshk0333@gmail.com. Please check your email.' Below this, there's a section titled 'Historical weather for any location' with a description of the 'Time Machine' technology and a list of features: 'Historical weather data available for ANY coordinate' and 'The depth of historical data have been extended to 40 YEARS'. There are buttons for 'Learn more' and 'Go to purchase'. At the bottom, there's a 'Weather Dashboard' section with a description: 'The OpenWeather Dashboard is a lightweight and flexible visual tool for our customers who would'. The Windows taskbar is visible at the bottom.

The screenshot shows the OpenWeatherMap website with the 'Weather in your city' section. The search bar contains '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. The description includes: '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's a Plesk advertisement with the text 'Control & Simplify your WebOps' and a 'SIGN UP' button. The Windows taskbar is visible at the bottom.

```
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: 25

Ln: 17 Col: 4

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