

## Develop a Python script

Team ID	PNT2022TMID35116
Project Name	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 interface. The browser's address bar displays the URL: `openweathermap.org/find?utf8=✓&q=chennai`. The website header includes the OpenWeather logo and navigation links: Weather in your city, Guide, API, Dashboard, Marketplace, Pricing, Maps, Our Initiatives, Partners, Blog, For Business, and Support. A dropdown menu for 'yoge...' is open, showing options: My services, My API keys, My payments, My profile, and Logout. The main content area features a large orange banner with the text 'Weather in your city' and a search bar containing 'chennai'. Below the banner, the weather for Chennai, IN is displayed as 'scattered clouds' with a temperature of 31°C. Additional details include: temperature from 31 to 31 °C, wind 4.63 m/s, clouds 40 %, 1010 hpa, and Geo coords [13.0878, 80.2785]. A section titled 'Search engine is very flexible. How it works:' provides instructions on using the search engine with city names and country codes. At the bottom, there is a Plesk advertisement with the text 'Control & Simplify your WebOps' and a 'SIGN UP' button. The Windows taskbar at the bottom shows the system clock as 02:14 PM on 04-11-2022.

```
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

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