

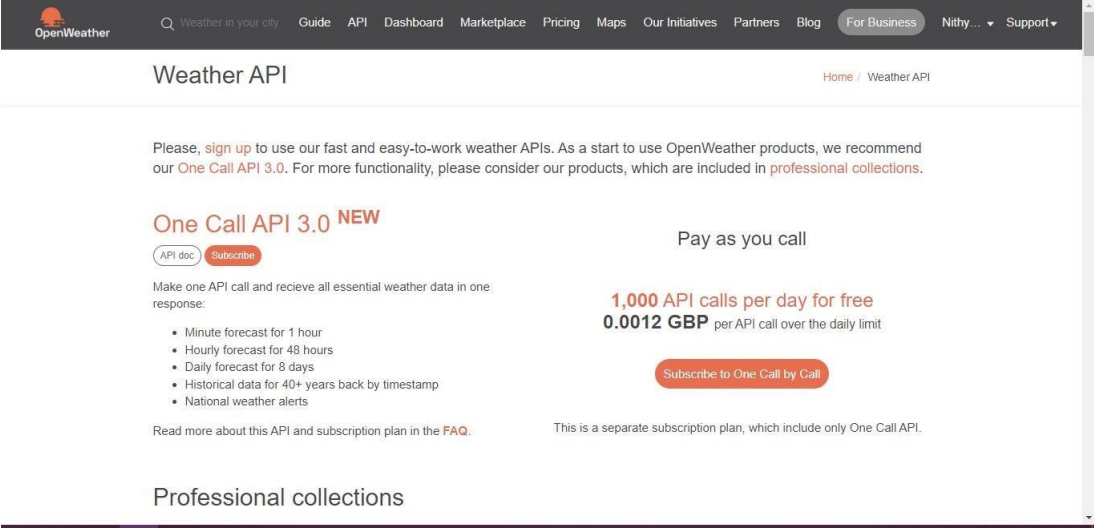
Develop a Python script

Team ID	PNT2022TMID52316
Project Name	Signs with smart connectivity for Better road safety

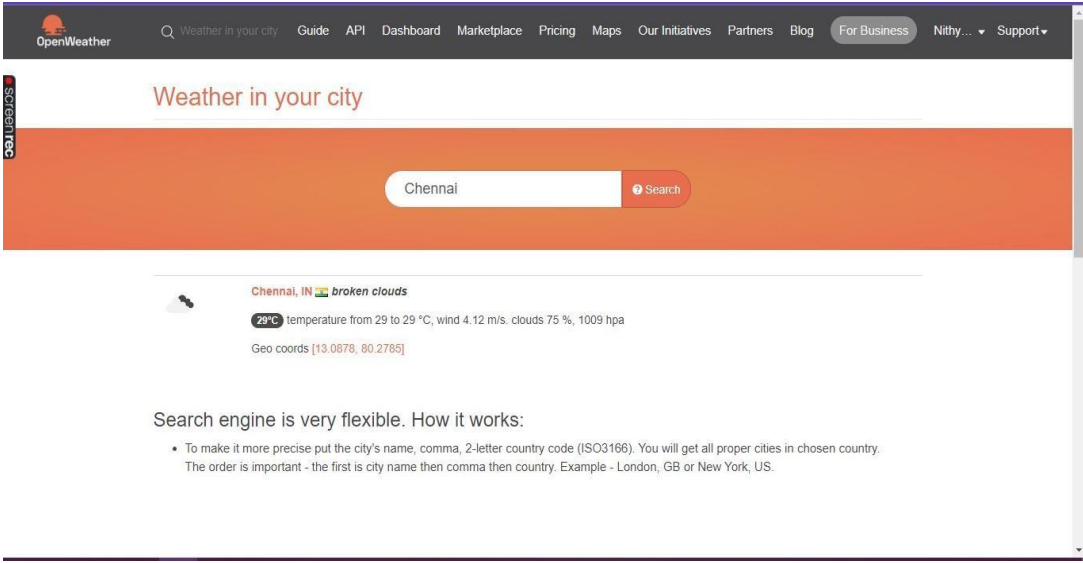
Signs with smart connectivity for Better road safety

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 OpenWeather API page. The header includes the OpenWeather logo, a search bar, and navigation links: Guide, API, Dashboard, Marketplace, Pricing, Maps, Our Initiatives, Partners, Blog, For Business, Nithy..., and Support. The main heading is "Weather API". Below it, a paragraph explains that users should sign up to use the fast and easy-to-work weather APIs. It recommends the "One Call API 3.0" for more functionality. A "Pay as you call" section highlights "1,000 API calls per day for free" and "0.0012 GBP per API call over the daily limit". A "Subscribe to One Call by Call" button is present. A list of features for the One Call API includes: Minute forecast for 1 hour, Hourly forecast for 48 hours, Daily forecast for 8 days, Historical data for 40+ years back by timestamp, and National weather alerts. A "Professional collections" section is also visible at the bottom.



The screenshot shows the OpenWeather "Weather in your city" page. The header is identical to the previous screenshot. The main heading is "Weather in your city". Below it, a search bar contains the text "Chennai" and a "Search" button. The results show "Chennai, IN" with a weather icon of broken clouds. The temperature is "29°C" and the description is "temperature from 29 to 29 °C, wind 4.12 m/s, clouds 75 %, 1009 hpa". The geo coordinates are "[13.0878, 80.2785]". A "Search engine is very flexible. How it works:" section follows, with a bullet point stating: "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."

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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)
```

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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
>>>
```

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