

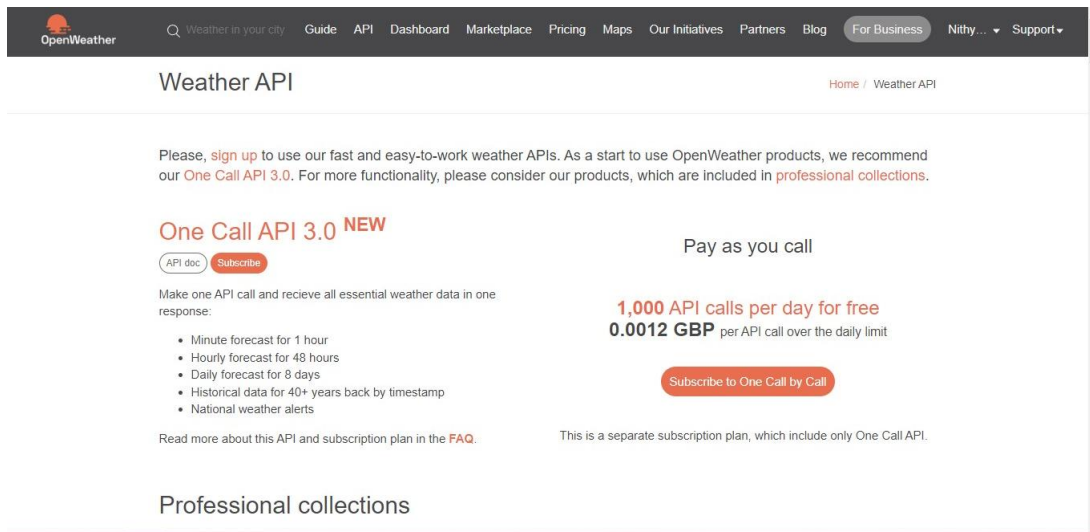
Develop a Python script

Team ID	PNT2022TMID38240
Project Name	Signs with smart connectivity for better road safety
Maximum marks	4

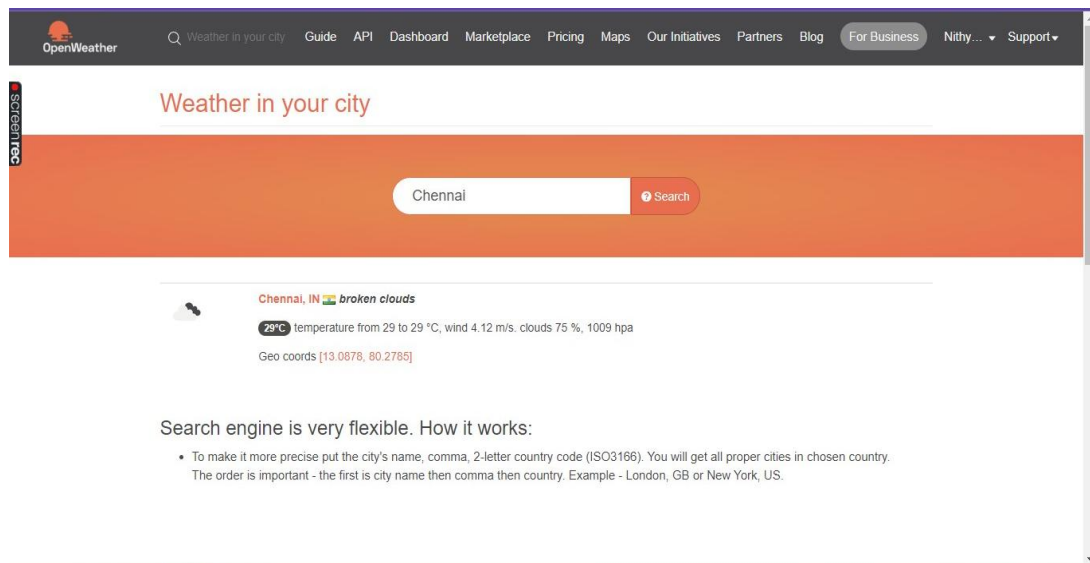
Signs with smart connectivity for Better road safety

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 documentation page. The header includes the OpenWeather logo and navigation links: Weather in your city, Guide, API, Dashboard, Marketplace, Pricing, Maps, Our Initiatives, Partners, Blog, For Business, Nitty..., and Support. The main heading is "Weather API" with a breadcrumb "Home / Weather API". The text 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 "Subscribe" button is visible. Below this, it lists the features of the One Call API: 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 "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", with a "Subscribe to One Call by Call" button. A "Professional collections" section is also mentioned.



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 the heading is a search bar with "Chennai" entered and a "Search" button. The search results show "Chennai, IN" with a weather icon of a cloud with rain and the text "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]". Below the search results, there is a section titled "Search engine is very flexible. How it works:" with a bullet point explaining that users can put the city's name, comma, 2-letter country code (ISO3166), and that the order is important: the first is city name then comma then country. Example - London, GB or New York, US.

```
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
>>>
```