

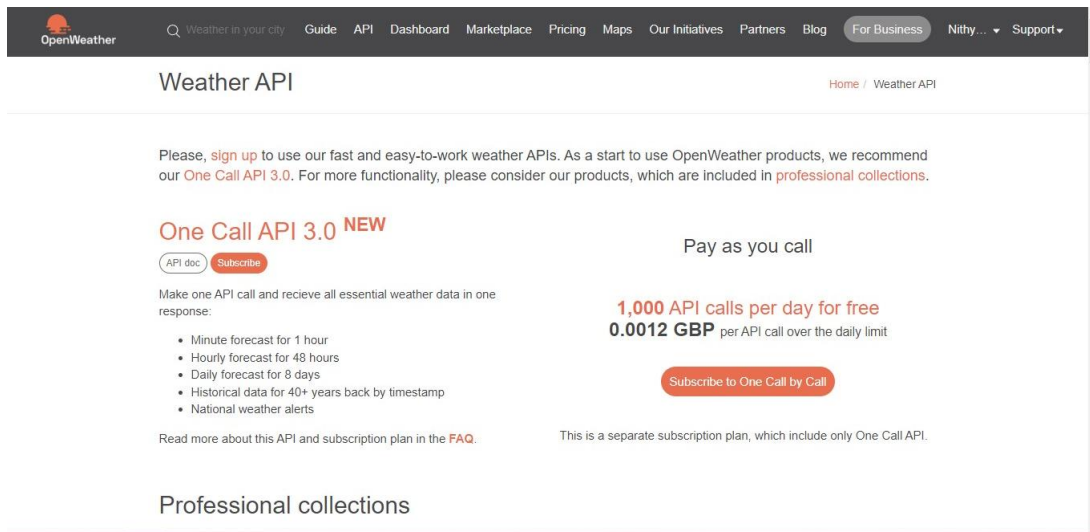
Develop a Python script

| | |
|--------------|--|
| Date | 16 October 2022 |
| Team ID | PNT2022TMID52558 |
| Project Name | Project - Signs with smart connectivity for Better road safety |

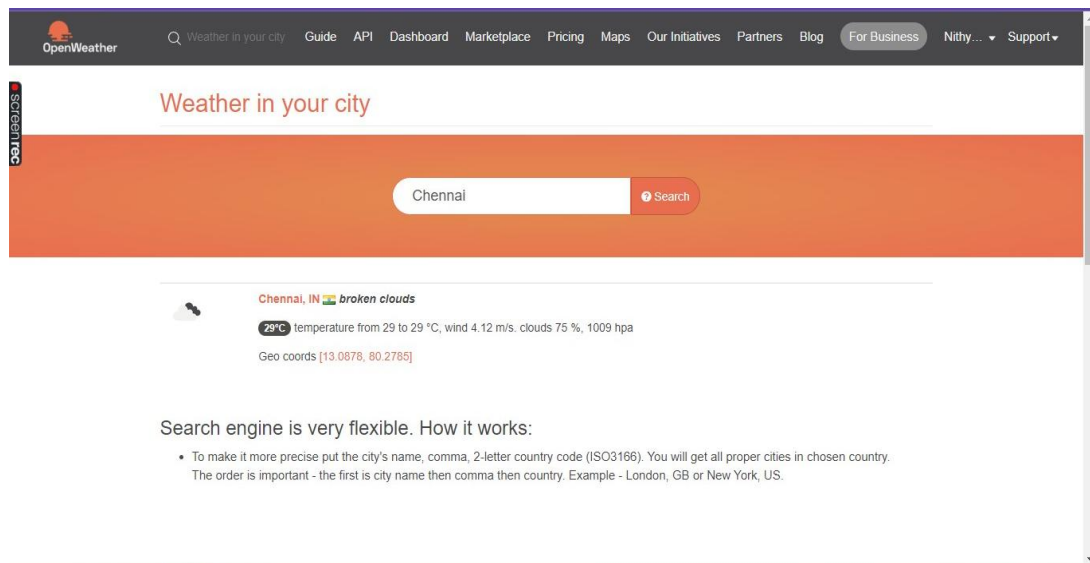
Signs with smart connectivity for Better road safety

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 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 invites users to sign up for fast and easy-to-work weather APIs, recommending the "One Call API 3.0". A "Subscribe" button is visible. Below, it lists 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 partially visible at the bottom.



The screenshot shows the "Weather in your city" page on the OpenWeather website. The header is identical to the previous screenshot. The main heading is "Weather in your city". Below it is a search bar with "Chennai" entered and a "Search" button. The results for Chennai, IN show "broken clouds" with a temperature of 29°C. The text indicates the temperature is from 29 to 29 °C, with wind at 4.12 m/s, clouds at 75 %, and 1009 hpa. The geo coordinates are [13.0878, 80.2785]. A section titled "Search engine is very flexible. How it works:" explains that users can put the city's name, comma, 2-letter country code (ISO3166), and that the order is important (city name then comma then country). Examples given are 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
>>>
```