

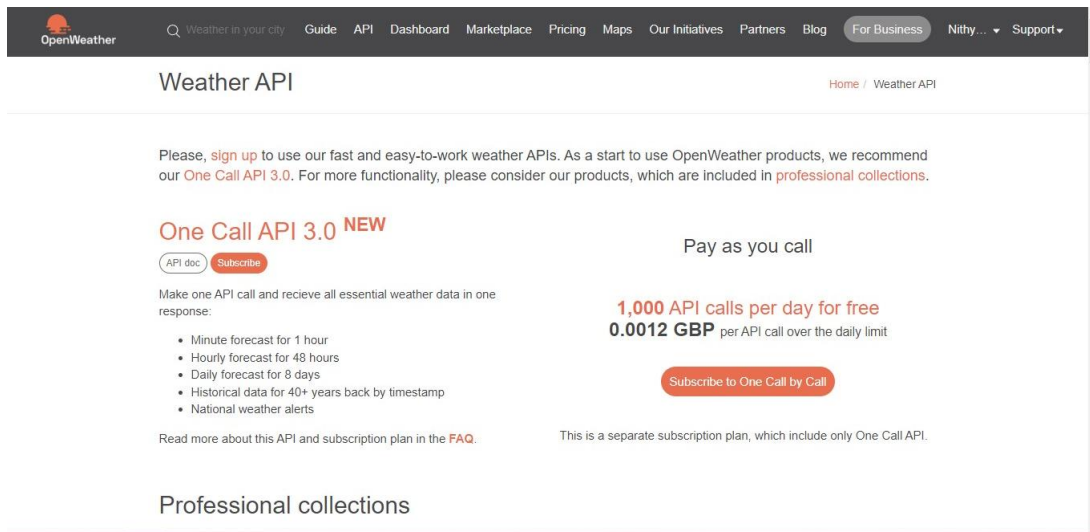
Develop a Python script

Date	31 October 2022
Team ID	PNT2022TMID38493
Project Name	Project - Signs with smart connectivity for Better road safety

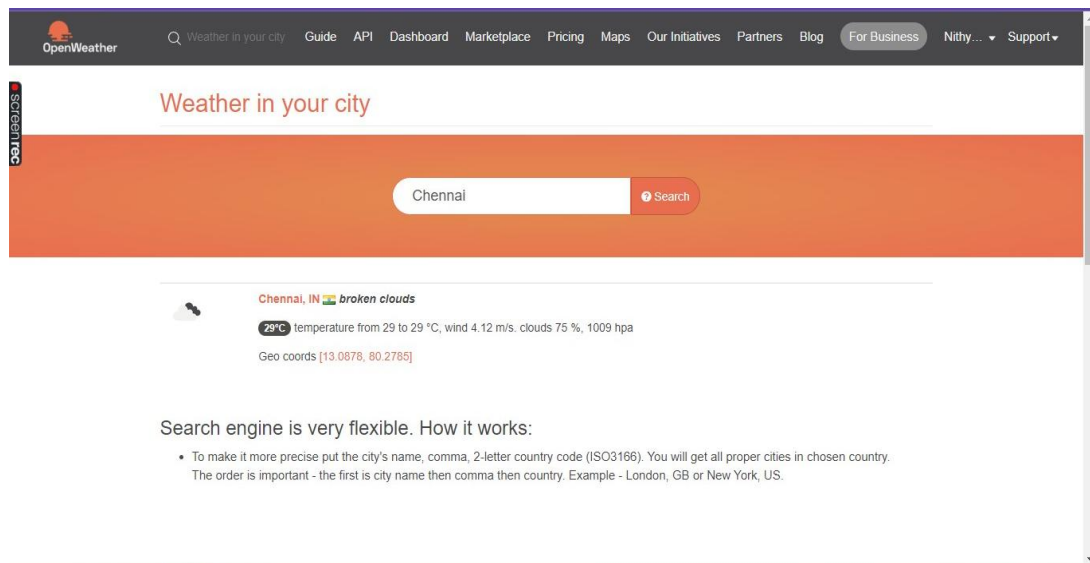
Signs with smart connectivity for Better road safety

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 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 pricing section titled "Pay as you call" offers "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 note mentions that this is a separate subscription plan including only One Call API. The page also links to "API doc", "Subscribe", and "FAQ". The section "Professional collections" 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. Additional details include: temperature from 29 to 29 °C, wind 4.12 m/s, clouds 75 %, 1009 hpa, and Geo coords [13.0878, 80.2785]. A section titled "Search engine is very flexible. How it works:" explains that users can specify city names and country codes (ISO3166) for more precise results, with an 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
>>>
```