

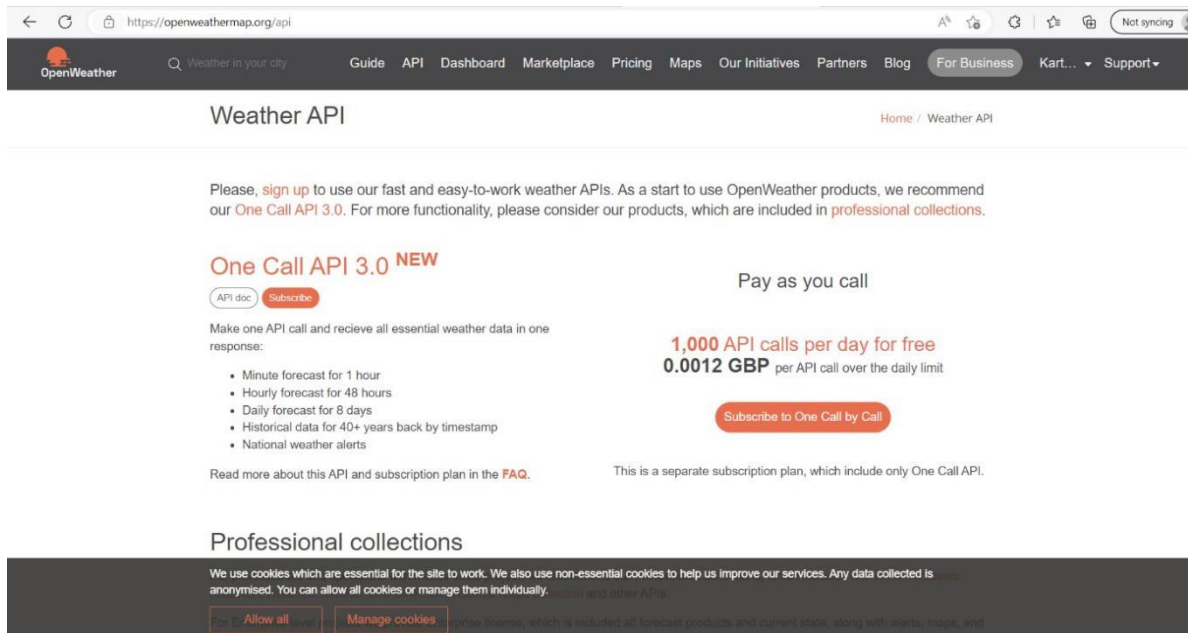
# Develop a python Script

Date	13 November 2022
Team ID	PNT2022TMID07843
Project Name	Signs with smart connectivity for Better road safety
Maximum Marks	4 Marks

## Create a code snippet using python compiler

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

### 1. Extract weather data from OpenWeatherMap using APIs:



The screenshot shows the OpenWeatherMap API page in a web browser. The URL is https://openweathermap.org/api. The page has a dark navigation bar with the OpenWeather logo and various links like Guide, API, Dashboard, Marketplace, Pricing, Maps, Our Initiatives, Partners, Blog, For Business, Kart..., and Support. The main heading is "Weather API". Below it, there's a paragraph encouraging users to sign up for the fast and easy-to-work weather APIs. It recommends the "One Call API 3.0" for more functionality. There are two main sections: "One Call API 3.0 NEW" and "Pay as you call". The "One Call API 3.0" section includes a list of features: 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. It also mentions that users can read more about this API and subscription plan in the FAQ. The "Pay as you call" section offers 1,000 API calls per day for free and 0.0012 GBP per API call over the daily limit. There is a "Subscribe to One Call by Call" button. At the bottom, there's a "Professional collections" section and a cookie consent banner.

Weather API

Please, [sign up](#) to use our fast and easy-to-work weather APIs. As a start to use OpenWeather products, we recommend our [One Call API 3.0](#). For more functionality, please consider our products, which are included in [professional collections](#).

**One Call API 3.0 NEW**

[API doc](#) [Subscribe](#)

Make one API call and receive all essential weather data in one response:

- Minute forecast for 1 hour
- Hourly forecast for 48 hours
- Daily forecast for 8 days
- Historical data for 40+ years back by timestamp
- National weather alerts

Read more about this API and subscription plan in the [FAQ](#).

**Pay as you call**

**1,000 API calls per day for free**  
**0.0012 GBP** per API call over the daily limit

[Subscribe to One Call by Call](#)

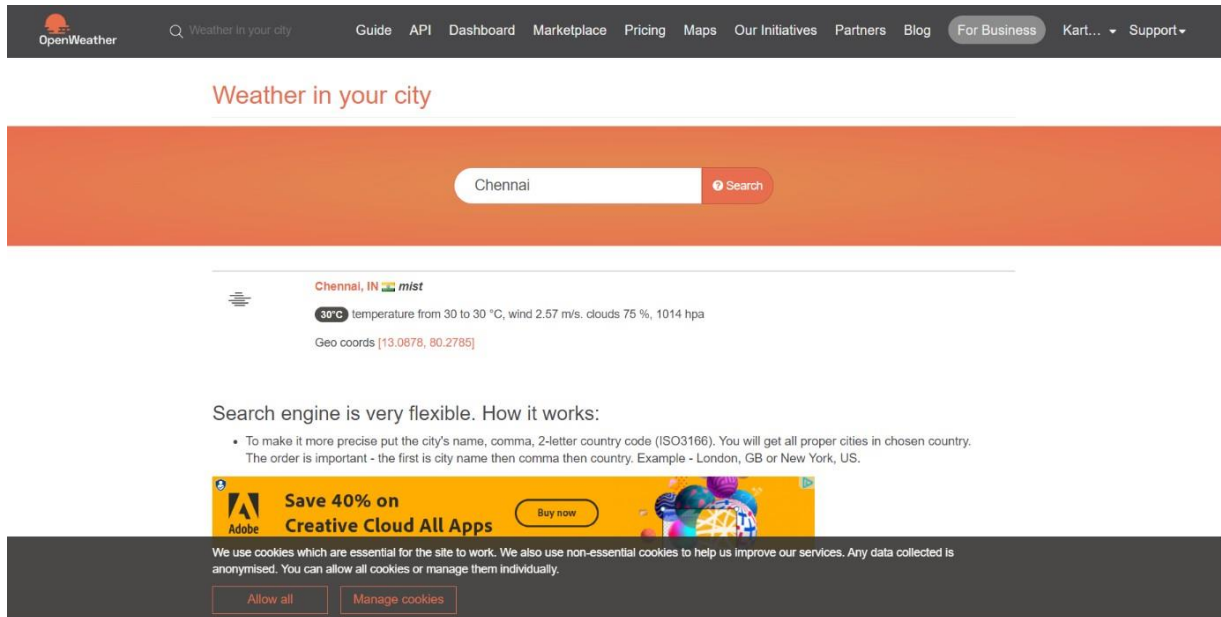
This is a separate subscription plan, which include only One Call API.

**Professional collections**

We use cookies which are essential for the site to work. We also use non-essential cookies to help us improve our services. Any data collected is anonymised. You can allow all cookies or manage them individually. [Learn more](#)

[Allow all](#) [Manage cookies](#)

## 2. Send the extracted data to the cloud:



## 3. Receive data from the cloud and view it in the python compiler:

```
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
>>>
```