

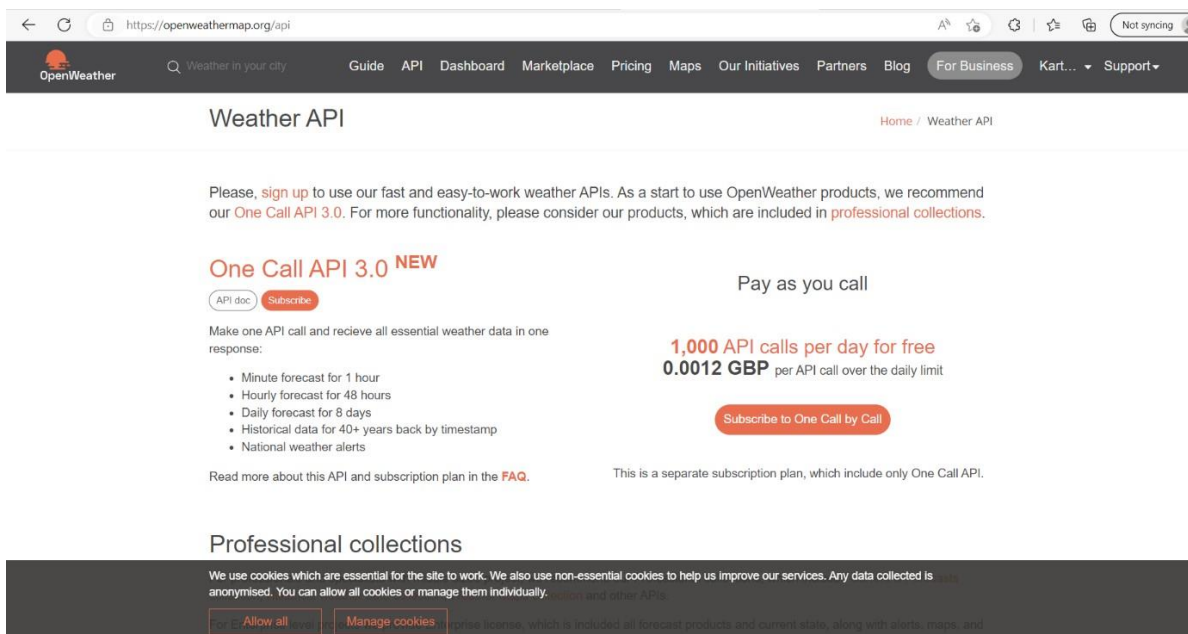
Develop a python Script

Date	14 November 2022
Team ID	PNT2022TMID29156
Project Name	Signs with smart connectivity for Better road safety
Maximum Marks	4 Marks

Create a code snippet using python compiler

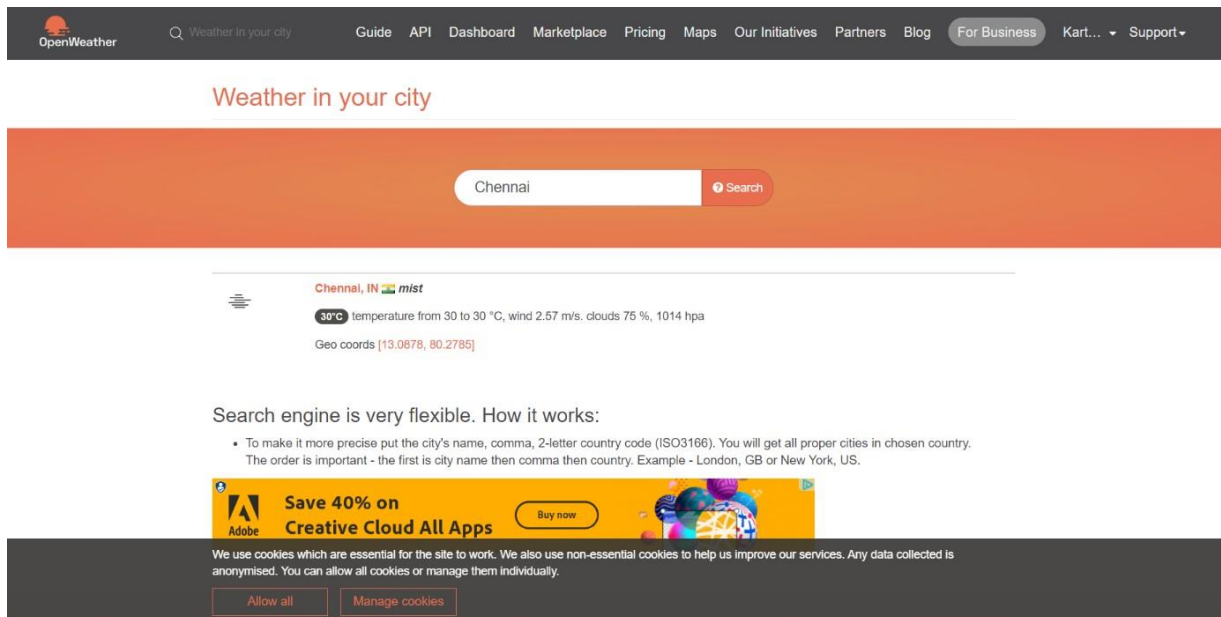
1. Extract weather data from Open Weather Map using APIs
2. Send the extracted data to the cloud
3. Receive data from the cloud and view it in the python compiler

1. Extract weather data from OpenWeatherMap using APIs:



The screenshot shows the OpenWeatherMap API page. The browser address bar displays 'https://openweathermap.org/api'. The page header includes the OpenWeather logo, a search bar, and navigation links: Guide, API, Dashboard, Marketplace, Pricing, Maps, Our Initiatives, Partners, Blog, For Business, Kart..., and Support. The main heading is 'Weather API'. Below this, a paragraph encourages signing up for the fast and easy-to-work weather APIs, recommending the 'One Call API 3.0' and mentioning 'professional collections'. The 'One Call API 3.0' section is highlighted with a 'NEW' tag and includes a 'Subscribe' button. It lists 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. A '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', with a 'Subscribe to One Call by Call' button. A footer section titled 'Professional collections' mentions a separate subscription plan. At the bottom, a cookie consent banner is visible with 'Allow all' and 'Manage cookies' buttons.

2. Send the extracted data to the cloud:



The screenshot shows the OpenWeather website interface. At the top, there's a navigation bar with links like 'Guide', 'API', 'Dashboard', 'Marketplace', 'Pricing', 'Maps', 'Our Initiatives', 'Partners', 'Blog', 'For Business', 'Kart...', and 'Support'. Below the navigation bar, the main heading is 'Weather in your city'. A search bar contains the text 'Chennai' and a 'Search' button. Below the search bar, the weather data for Chennai, IN is displayed, including a temperature of 30°C, a description of 'mist', and geo-coordinates [13.0878, 80.2785]. A note mentions 'Search engine is very flexible. How it works:' followed by a bullet point explaining the search format. At the bottom, there's an advertisement for Adobe Creative Cloud All Apps with a 'Buy now' button. A cookie consent banner is also visible at the very bottom.

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
>>>
```