

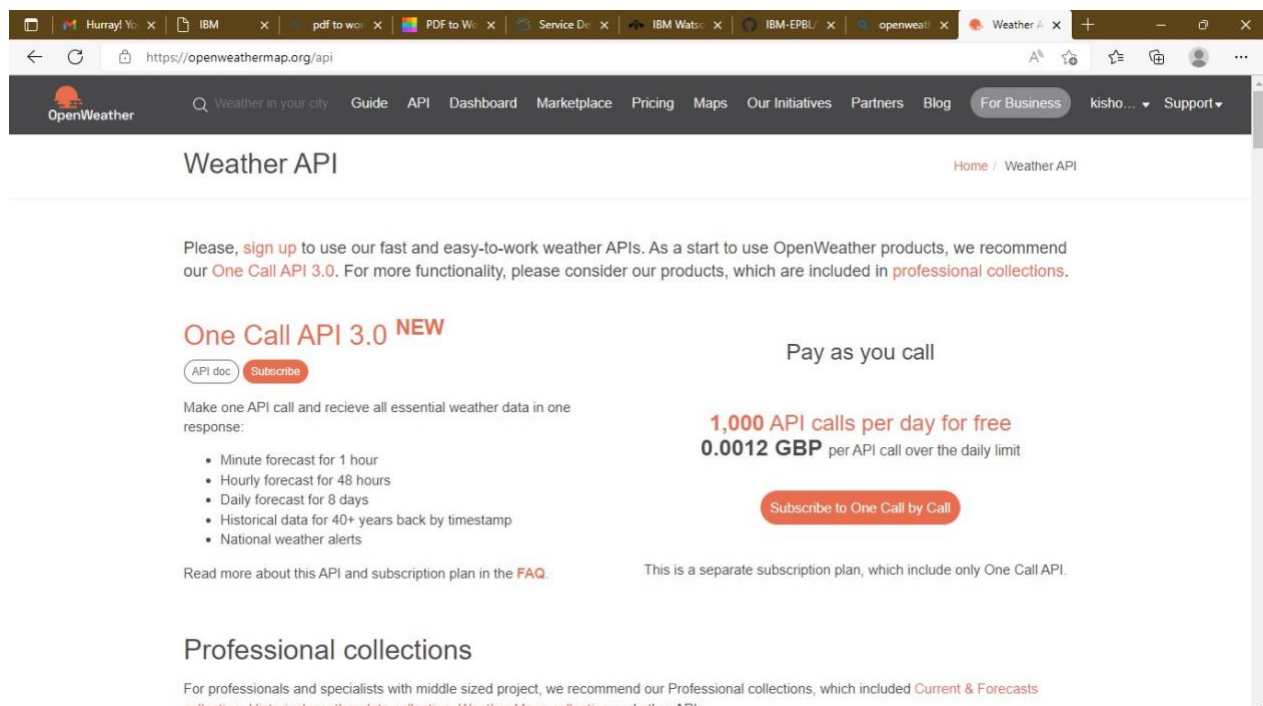
Develop a Python script

Date	19November2022
Team ID	PNT2022TMID50198
Project Name	Project - IoT Based Safety Gadget for Child Safety Monitoring & Notification
Maximum Marks	4 Marks

Safety Gadget for Child Safety Monitoring & Notification

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 OpenWeatherMap API page in a web browser. The browser's address bar displays 'https://openweathermap.org/api'. The page features a dark navigation bar with the OpenWeather logo and various menu items like 'Weather in your city', 'Guide', 'API', 'Dashboard', 'Marketplace', 'Pricing', 'Maps', 'Our Initiatives', 'Partners', 'Blog', 'For Business', 'kisho...', and 'Support'. The main content area is titled 'Weather API' and includes a breadcrumb 'Home / Weather API'. A paragraph explains that users should sign up to use the fast and easy-to-work weather APIs, recommending the 'One Call API 3.0' for more functionality. Below this, the 'One Call API 3.0' is highlighted as 'NEW'. There are buttons for 'API doc' and 'Subscribe'. A list of features is provided: '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'. To the right, under the heading 'Pay as you call', it states '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. At the bottom, the 'Professional collections' section is introduced, recommending professional collections for middle-sized projects, including 'Current & Forecasts collection', 'Historical weather data collection', 'Weather Maps collection', and 'other APIs'.

Weather API Home / 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 includes only One Call API.

Professional collections

For professionals and specialists with middle-sized projects, we recommend our Professional collections, which include [Current & Forecasts collection](#), [Historical weather data collection](#), [Weather Maps collection](#) and [other APIs](#).

Weather in your city

chennai Search

Chennai, IN **mist**
 25°C temperature from 25 to 25 °C, wind 1.03 m/s, clouds 75 %, 1012 hpa
 Geo coords [13.0878, 80.2785]

Search engine is very flexible. How it works:

- To make it more precise put the city's name, comma, 2-letter country code (ISO3166). You will get all proper cities in chosen country. The order is important - the first is city name then comma then country. Example - London, GB or New York, US.

requests

```
a = "https://api.openweathermap.org/data/2.5/weather?q=Chennai,TN&appid=6d13d12f9cd34a07871a5795d01e2c47"
r = requests.get(us = a)
data = r.json()
print(r)
print(data)
temp = data["main"]["temp"]
hum = data["main"]["humidity"]
print("Temperature is : ",temp)
print("Humidity is : ",hum)
```

```
<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', 'icons': '50n'}],
{'id': 500, 'main': 'Rain', 'description': 'Tight rain', 'icons': '10n'}], 'base': 'stations', 'main': {'temp': 298.14,
feels like: 299.15, 298.14,
z: 298.14, 'pressure': 1012, 'humidity': 94}, 'visibility': 2500, 'wind': {'speed': 1.54, 'deg': 350}, 'clouds': {'all': 75}, 'dt': 1667317416, 'sys': {'type': 1, 'id': 9218,
'country': 'TN', 'sunrise': 1667262751, 'sunset': 1667304738}, 'timezone': 19800, 'id': 1264527, 'name': 'Chennai', 'cod': 200}
temperature is : 298.14
Humidity is : 94
```