

SPRINT - 01

Date :	30 October 2022
Team ID :	PNT2022TMID37707
Project Name	SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY

SPRINT GOALS:

1. Create and initialize accounts in various public APIs like Open Weather API.
2. Write a Python program that outputs results given the inputs like weather and location.

The screenshot shows the OpenWeather API website. The browser's address bar displays 'openweathermap.org/api'. The website's navigation bar includes links for 'Weather in your city', 'Guide', 'API', 'Dashboard', 'Marketplace', 'Pricing', 'Maps', 'Our Initiatives', 'Partners', 'Blog', 'For Business', 'Deep...', and 'Support'. The main heading is 'Weather API'. Below this, 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 a start, with more functionality available in 'professional collections'. The 'One Call API 3.0' is marked 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. 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 note states that this is a separate subscription plan including only the One Call API. The 'Professional collections' section is partially visible at the bottom. The Windows taskbar at the bottom shows the time as 6:15 AM on 11/18/2022.

openweathermap.org/api

OpenWeather

Weather in your city Guide API Dashboard Marketplace Pricing Maps Our Initiatives Partners Blog For Business Deep... Support

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

Built-in API request by city name

You can call by city name or city name, state code and country code. Please note that searching by states available only for the USA locations.

API call

```
https://api.openweathermap.org/data/2.5/weather?q={city name}&appid={API key}
```

```
https://api.openweathermap.org/data/2.5/weather?q={city name},{country code}&appid={API key}
```

```
https://api.openweathermap.org/data/2.5/weather?q={city name},{state code},{country code}&appid={API key}
```

Parameters

q required City name, state code and country code divided by comma, Please, refer to [ISO 3166](#) for the state codes or country codes.

You can specify the parameter not only in English. In this case, the could be returned in the same language as the

Call current weather data

How to make an API call

Bulk downloading

Weather fields in API response

JSON

XML

List of condition codes

Min/max temperature in current weather

API and forecast API

Other features

Geocoding API

Built-in geocoding

[Built-in API request by city name](#)

[Built-in API request by city ID](#)

[Built-in API request by ZIP code](#)

Format

Units of measurement

Multilingual support

Call back function for JavaScript code

https://openweathermap.org/current#name

```
{
  "coord": {
    "lon": 80.2785,
    "lat": 13.0878
  },
  "weather": [
    {
      "id": 701,
      "main": "Mist",
      "description": "mist",
      "icon": "50n"
    }
  ],
  "base": "stations",
  "main": {
    "temp": 300.14,
    "feels_like": 302.33,
    "temp_min": 300.14,
    "temp_max": 300.14,
    "pressure": 1011,
    "humidity": 74,
    "visibility": 4000,
    "wind": {
      "speed": 2.06,
      "deg": 30
    },
    "clouds": {
      "all": 20
    },
    "dt": 1668780906,
    "sys": {
      "type": 1,
      "id": 9218,
      "country": "IN",
      "sunrise": 1668731942,
      "sunset": 1668773353,
      "timezone": 19800,
      "id": 1264527,
      "name": "Chennai",
      "cod": 200
    }
  }
}
```

CHENNAI – WEATHER API

```
{ "coord": { "lon": 80.2785, "lat": 13.0878 }, "weather": [ { "id": 701, "main": "Mist", "description": "mist", "icon": "50n" } ], "base": "stations", "main": { "temp": 300.14, "feels_like": 302.33, "temp_min": 300.14, "temp_max": 300.14, "pressure": 1011, "humidity": 74 }, "visibility": 4000, "wind": { "speed": 2.06, "deg": 30 }, "clouds": { "all": 20 }, "dt": 1668780906, "sys": { "type": 1, "id": 9218, "country": "IN", "sunrise": 1668731942, "sunset": 1668773353 }, "timezone": 19800, "id": 1264527, "name": "Chennai", "cod": 200 }
```

SPRINT 01

<https://api.openweathermap.org/data/2.5/weather?q=Chennai,IN&appid=83b76984e68a9673cadf6ae071a53b0c>

PYTHON CODE

```
import requests
api_data =
"https://api.openweathermap.org/data/2.5/weather?q=Chennai,IN&appid=83b76984e68a9673cadf6ae071a53b0c"
rec=requests.get(url=api_data)
data= rec.json()
print(data)
temp = data['main']['temp']
print("\nTemperature is : ", temp)
humidity = data['main']['humidity']
print("Humidity is : ", humidity)

// This code execution will be done in sprint 02
```

Thank you