

Develop a python script

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| Team ID | PNT2022TMID48891 |
| Project Name | Signs With Smart Connectivity For Better Road Safety |

Signs with smart connectivity for Better road safety

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 compilers

The screenshot shows the OpenWeatherMap API website. The browser address bar displays 'openweathermap.org/api'. The website header includes the OpenWeather logo, a search bar, and navigation links: Guide, API, Dashboard, Marketplace, Pricing, Maps, Our Initiatives, Partners, Blog, For Business, and Support. The main content area is titled 'Weather API' and includes a breadcrumb trail 'Home / Weather API'. A message encourages users to sign up for the fast and easy-to-work weather APIs, recommending the 'One Call API 3.0'. Below this, the 'One Call API 3.0' section is highlighted with a 'NEW' tag. It features a 'Pay as you call' pricing model: '1,000 API calls per day for free' and '0.0012 GBP per API call over the daily limit'. A list of features for the One Call API 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 'Subscribe to One Call by Call' button is visible. The 'Professional collections' section is also shown, recommending professional collections for middle-sized projects, including Current & Forecasts collection, Historical weather data collection, Weather Maps collection, and other APIs. For enterprise-level projects, an Enterprise license is mentioned, which includes all forecast products and current state, along with alerts, maps, and other products. The Windows taskbar at the bottom shows the search bar, task view button, and several open applications including Edge, File Explorer, Mail, and Chrome. The system clock indicates 10:31 AM on 11/16/2022.

openweathermap.org/api

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

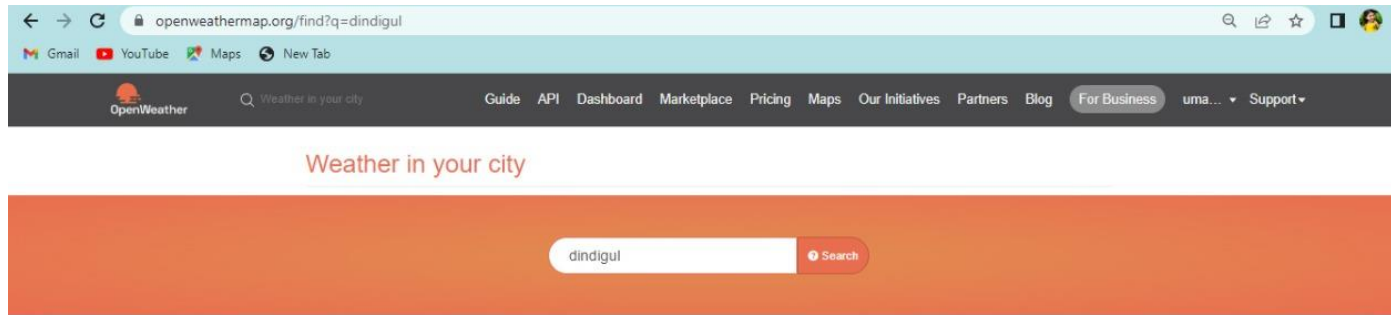
[Subscribe to One Call by Call](#)

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

Professional collections

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

For Enterprise level projects we provide Enterprise license, which is included all forecast products and current state, along with alerts, maps, and other products. [Learn more](#)



Dindigul, IN broken clouds
25.5°C temperature from 25.5 to 25.5 °C, wind 2.29 m/s, clouds 77 %, 1015 hpa
Geo coords [10.35, 77.95]

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.



```
WeatherMap.py - C:/Users/HP/AppData/Local/Programs/Python/Python37/WeatherMap.py (3.7.0)
File Edit Format Run Options Window Help

import requests
a = "https://api.openweathermap.org/data/2.5/weather?q=Dindigul,%20IN&appid=1d87f4200b69d2d45dc5beefb28e0f70"
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 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/HP/AppData/Local/Programs/Python/Python37/WeatherMap.py =
<Response [200]>
{'coord': {'lon': 77.95, 'lat': 10.35}, 'weather': [{'id': 804, 'main': 'Clouds', 'description': 'overcast clouds', 'icon': '04n'}], 'base': 'stations', 'main': {'temp': 296.31, 'feels_like': 296.98, 'temp_min': 296.31, 'temp_max': 296.31, 'pressure': 1014, 'humidity': 88, 'sea_level': 1014, 'grnd_level': 984}, 'visibility': 10000, 'wind': {'speed': 1.26, 'deg': 60, 'gust': 1.71}, 'clouds': {'all': 92}, 'dt': 1668529671, 'sys': {'country': 'IN', 'sunrise': 1668472993, 'sunset': 1668514948}, 'timezone': 19800, 'id': 1272543, 'name': 'Dindigul', 'cod': 200}
Temperature is : 296.31
Humidity is : 88
>>>
```