

# DEVELOP THE PYTHON SCRIPT

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Project Name - SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY

## Create a code snippet using python to

- Extract weather data from OpenWeatherMap using APIs
- Send the extracted data to the cloud
- Receive data from the cloud and view it in the python compiler

The screenshot shows the OpenWeatherMap API keys management interface. At the top, there's a navigation bar with links like Guide, API, Dashboard, Marketplace, Pricing, Maps, Our Initiatives, Partners, Blog, For Business, Rek..., and Support. Below this, a sub-navigation bar includes New Products, Services, API keys (selected), Billing plans, Payments, Block logs, My orders, My profile, and Ask a question. A message states: "You can generate as many API keys as needed for your subscription. We accumulate the total load from all of them." Below this is a table with columns: Key, Name, Status, Actions, and Create key. The table lists two keys: one with a long alphanumeric key and name "034eb913344a8e17365", and another with a shorter key and name "Default". Both are "Active". To the right of the table is a "Create key" section with an input field for "API key name" and a "Generate" button. At the bottom, there are three sections: "Product Collections" (Current and Forecast APIs, Historical Weather Data, Weather Maps, Weather Dashboard, Widgets), "Subscription" (How to start, Pricing, Subscribe for free, FAQ), and "Company" (OpenWeather is a team of IT experts and data scientists that has been practising deep weather data science since 2014. For each point on the globe, OpenWeather provides historical, current and forecasted weather data via light-speed APIs. Headquarters in London, UK).

The screenshot shows the "Weather in your city" search interface. It features a search bar with the text "namakkal" and a "Search" button. The background is a solid orange color.

The screenshot shows the weather details for Namakkal, India. It includes a cloud icon, the text "Nāmakkal, IN 🇮🇳 scattered clouds", a temperature of "28°C", and a description: "temperature from 28 to 28 °C, wind 1.59 m/s, clouds 49 %, 1013 hpa". It also shows the geo coordinates "[11.2213, 78.1652]".

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.

File Edit Format Run Options Window Help

```
import requests
api_data="https://api.openweathermap.org/data/2.5/weather?q=Namakkal"
rec=requests.get(url=api_data)
data=rec.json
print(data)
```

>>' and the output of the script: '===== RESTART: D:/Python/Python310/own.py =====' and a JSON object representing weather data for Namakkal." data-bbox="58 479 924 784"/>

```
IDLE Shell 3.10.8
File Edit Shell Debug Options Window Help
Python 3.10.8 (tags/v3.10.8:aaaf517, Oct 11 2022, 16:50:30) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/Python/Python310/own.py =====
{'coord': {'lon': 78.4744, 'lat': 17.3753}, 'weather': [{'id': 721, 'main': 'Haze', 'description': 'haze', 'icon': '50d'}], 'base': 'stations', 'main': {'temp': 301.38, 'feels_like': 303.07, 'temp_min': 301.38, 'temp_max': 301.88, 'pressure': 1017, 'humidity': 61}, 'visibility': 5000, 'wind': {'speed': 3.6, 'deg': 90}, 'clouds': {'all': 40}, 'dt': 1666335428, 'sys': {'type': 1, 'id': 9214, 'country': 'IN', 'sunrise': 1666312830, 'sunset': 1666354845}, 'timezone': 19800, 'id': 1269843}
>>>
```