

DEVELOP THE PYTHON SCRIPT

Develop a Python Script

Team ID : PNT2022TMID31413

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 displays the OpenWeatherMap API keys management interface. At the top, there's a navigation bar with the OpenWeather logo and various links like 'Guide', 'API', 'Dashboard', etc. Below the navigation bar, a message states: 'You can generate as many API keys as needed for your subscription. We accumulate the total load from all of them.'

The main content area features a table of existing API keys and a 'Create key' form on the right.



Key	Name	Status	Actions
957d6dff14bdd5b40fab25e1cbc88eb	Default	Active	
7104ae33bdb59fa2eb3fe66c927ffb9b	bala	Active	
18be5d23371885fe67b38a4c491a814d	arun	Active	
2163bfeaf3c0fe943d52df9c3dce8393	aakash	Active	
09bb74d33d9f4743859d5e24aeffa816	manoj	Active	

On the right, the 'Create key' form includes a text input field labeled 'API key name' and a 'Generate' button.

The bottom of the screenshot shows a Windows taskbar with the date and time as 11:24 AM on 11/15/2022.

Weather in your city

coimbatore Search

 **Coimbatore, IN**  **haze**

27.9°C temperature from 27.9 to 29.7 °C, wind 3.09 m/s, clouds 40 %, 1016 hpa

Geo coords [11, 76.9667]

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.

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```
{"coord":{"lon":78.4744,"lat":17.3753},"weather":[{"id":701,"main":"Mist","description":"mist","icon":"50d"}],"base":"stations","main":
{"temp":301.38,"feels_like":303.58,"temp_min":301.38,"temp_max":301.88,"pressure":1017,"humidity":65},"visibility":5000,"wind":{"speed":4.12,"deg":80},"clouds":
{"all":75},"dt":1666333196,"sys":{"type":1,"id":9214,"country":"IN","sunrise":1666312830,"sunset":1666354845},"timezone":19800,"id":1269843,"name":"Hyderabad","cod":200}
```

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```
owm.py - D:/Python/Python310/owm.py (3.10.8)
File Edit Format Run Options Window Help
import requests
api_data="https://api.openweathermap.org/data/2.5/weather?q=Hyderabad,IN&appid=1
rec=requests.get(url=api_data)
data=rec.json()
print(data)
```

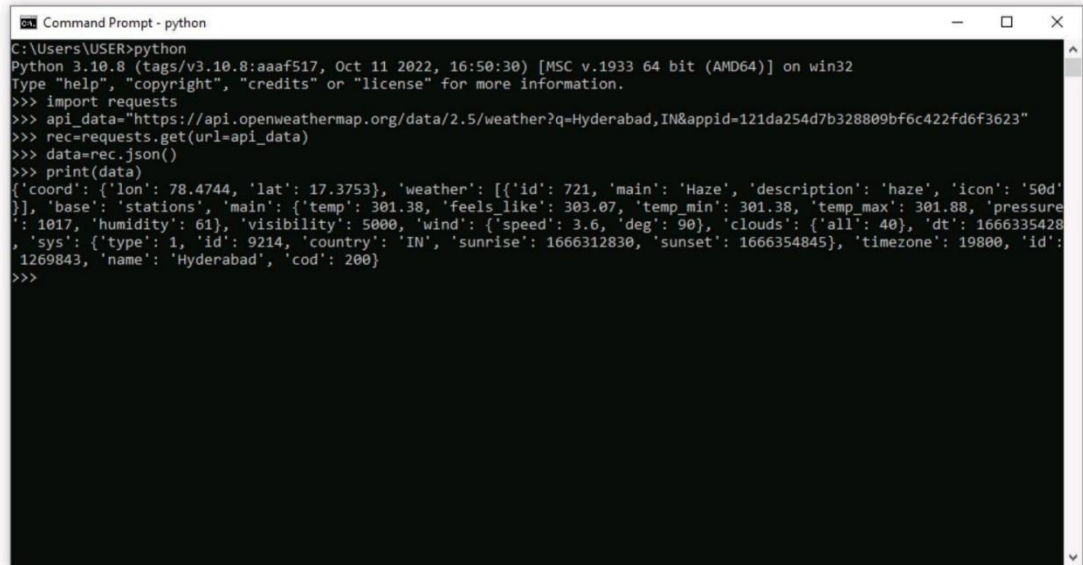
IDLE Shell 3.10.8

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/owm.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, 'name': 'Hyderabad', 'cod': 200}}
>>>
```

```
{"coord":{"lon":78.4744,"lat":17.3753},"weather":[{"id":701,"main":"Mist","description":"mist","icon":"50d"}],"base":"stations","main":{"temp":301.38,"feels_like":303.58,"temp_min":301.38,"temp_max":301.88,"pressure":1017,"humidity":65,"visibility":5000,"wind":{"speed":4.12,"deg":80},"clouds":{"all":75},"dt":1666333196,"sys":{"type":1,"id":9214,"country":"IN","sunrise":1666312830,"sunset":1666354845},"timezone":19800,"id":1269843,"name":"Hyderabad","cod":200}}
```



```
Command Prompt - python
C:\Users\USER>python
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.
>>> import requests
>>> api_data="https://api.openweathermap.org/data/2.5/weather?q=Hyderabad,IN&appid=121da254d7b328809bf6c422fd6f3623"
>>> rec=requests.get(url=api_data)
>>> data=rec.json()
>>> print(data)
{'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, 'name': 'Hyderabad', 'cod': 200}}
>>>
```