

DEVELOP THE PYTHON SCRIPT

Develop a Python Script

Date : 21 October 2022

Team ID : PNT2022TMID37707

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

home.openweathermap.org/api_keys

You have to verify your email to use OpenWeatherMap services. Please [click here](#) to get an email with the confirmation link.

New Products Services **API keys** Billing plans Payments Block logs My orders My profile Ask a question

You can generate as many API keys as needed for your subscription. We accumulate the total load from all of them.

Key	Name	Status	Actions
121da254d7b328809bf6c422fd6f3623	Default	Active	
83b76984e68a9673cadf6ae071a53b0c	chennai	Active	

Create key

API key name

Product Collections Subscription Company

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28°C Cloudy 11:59 PM 10/20/2022

Weather in your city

hyderabad

Search



Hyderabad, IN haze

28.2°C temperature from 28.2 to 28.7 °C, wind 4.12 m/s, clouds 75 %, 1017 hpa

Geo coords [17.3753, 78.4744]



Hyderabad, PK clear sky

32.6°C temperature from 32.6 to 32.6 °C, wind 1.69 m/s, clouds 0 %, 1016 hpa

Geo coords [25.3924, 68.3737]



Hyderabad, IN mist

28.1°C temperature from 27.6 to 28.1 °C, wind 4.12 m/s, clouds 40 %, 1017 hpa

```
{
  "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
    }
  }
}
```

class | x IBM x IBM-EI x IoT-B6 x IOT-B6 x IoT-B6 x sketch x Find - x https:// x GitHub x IBM W x +

api.openweathermap.org/data/2.5/weather?q=Hyderabad,IN&appid=121da254d7b328809bf6c422fd6f3623

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```
{
  "coord": {
    "lon": 78.4744,
    "lat": 17.3753
  },
  "weather": [
    {
      "id": 701,
      "main": "Mist",
      "description": "mist",
      "icon": "50d"
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  ],
  "base": "stations",
  "main": {
    "temp": 301.38,
    "feels_like": 303.58,
    "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
  }
}
```

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=121da254d7b328809bf6c422fd6f3623"
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}}
>>>
```

Type here to search 28°C Cloudy 12:00 AM 10/21/2022

class | x IBM x IBM-EI x IoT-B6 x IOT-B6 x IoT-B6 x sketch x Find - x https:// x GitHub x IBM W x +

api.openweathermap.org/data/2.5/weather?q=Hyderabad,IN&appid=121da254d7b328809bf6c422fd6f3623

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    "lat": 17.3753
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    "temp_max": 301.88,
    "pressure": 1017,
    "humidity": 61,
    "visibility": 5000,
    "wind": {
      "speed": 3.6,
      "deg": 90
    }
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  "clouds": {
    "all": 40
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  "dt": 1666335428,
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    "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}}
>>>
```

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