

DEVELOP THE PYTHON SCRIPT

Date : 08 November 2022

Team ID : PNT2022TMID07704

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 the OpenWeather logo and a search bar containing 'hydrabad'. The main content area has a pink notification bar stating: 'You have to verify your email to use OpenWeatherMap services. Please [click here](#) to get an email with the confirmation link.' Below this is a tabbed interface with 'API keys' selected. A light blue box informs: 'You can generate as many API keys as needed for your subscription. We accumulate the total load from all of them.' The 'API keys' table lists two keys:

Key	Name	Status	Actions
121da254d7b328809bf6c422fd6f3623	Default	Active	[Toggle] [Edit] [Delete]
83b76984e68a9673cadf6ae071a53b0c	chennai	Active	[Toggle] [Edit] [Delete]

To the right of the table is a 'Create key' section with an input field for 'API key name' and a 'Generate' button. The bottom of the page shows a footer with 'Product Collections', 'Subscription', and 'Company' links. The Windows taskbar at the very bottom shows the time as 11:59 PM on 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

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"
    }
  ],
  "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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```
{
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  },
  "weather": [
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      "main": "Mist",
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      "icon": "50d"
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  ],
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  "main": {
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    "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,
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    "name": "Hyderabad",
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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=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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    "temp_min": 301.38,
    "temp_max": 301.88,
    "pressure": 1017,
    "humidity": 61
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    "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
  }
}
```

```
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}}
>>>
```

Type here to search 28°C Cloudy 12:03 AM 10/21/2022