

DEVELOP THE PYTHON SCRIPT

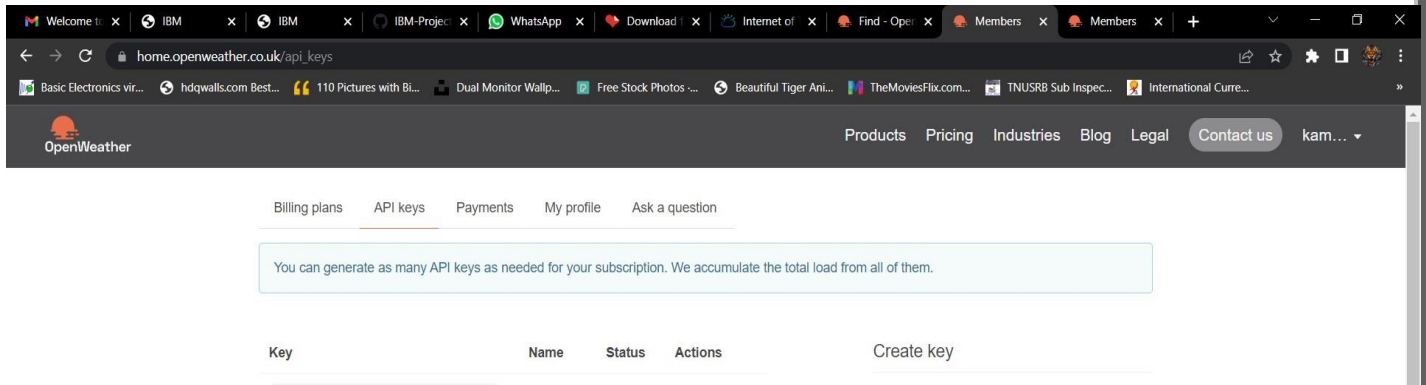
Develop a Python Script

Team ID : PNT2022TMID31446

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 a web browser window with multiple tabs. The active tab is 'home.openweathermap.co.uk/api_keys'. The page header includes the OpenWeather logo and navigation links: Products, Pricing, Industries, Blog, Legal, Contact us, and a user profile dropdown. Below the header, there are tabs for Billing plans, API keys (selected), Payments, My profile, and Ask a question. A light blue box contains the text: 'You can generate as many API keys as needed for your subscription. We accumulate the total load from all of them.' Below this, there is a table with columns: Key, Name, Status, Actions, and a 'Create key' button.

Key	Name	Status	Actions	Create key
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Weather in your city

hyderabad

Search



Hyderabad, IN *mist*

23.2°C temperature from 23.2 to 24.7 °C, wind 2.57 m/s, clouds 75 %, 1018 hpa

Geo coords [17.3753, 78.4744]



Hyderabad, PK *clear sky*

29.1°C temperature from 29.1 to 29.1 °C, wind 4.51 m/s, clouds 2 %, 1015 hpa

Geo coords [25.3924, 68.3737]



Hyderabad, IN *mist*

24.1°C temperature from 22.6 to 24.1 °C, wind 2.57 m/s, clouds 75 %, 1018 hpa

Geo coords [17.25, 78.5]

```
{
  "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
    }
  }
}
```

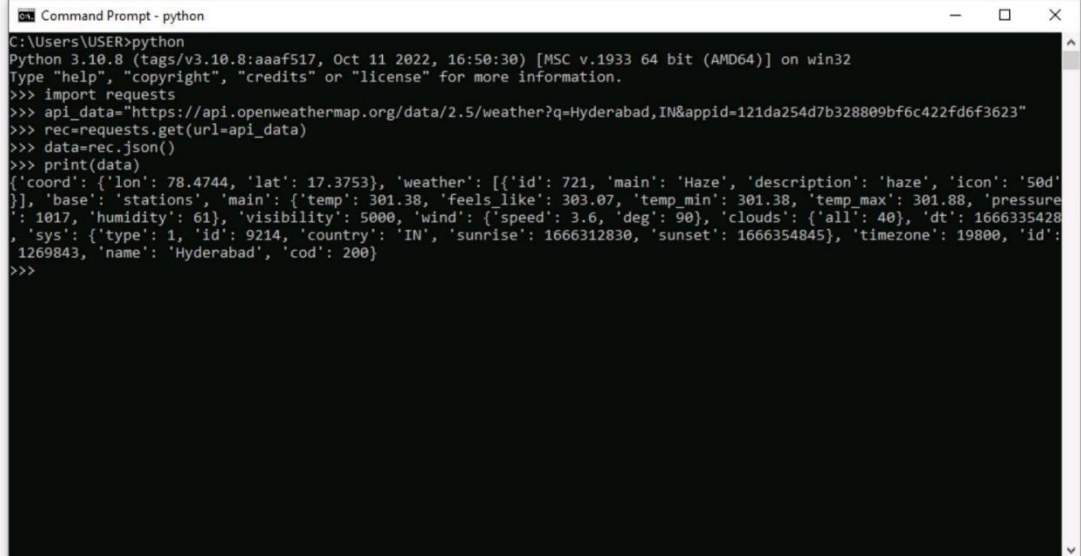
```
{
  "coord": {
    "lon": 78.4744,
    "lat": 17.3753
  },
  "weather": [
    {
      "id": 701,
      "main": "Mist",
      "description": "mist",
      "icon": "50d"
    }
  ],
  "base": "stations",
  "main": {
    "temp": 301.38,
    "feels_like": 303.58,
    "temp_min": 301.38,
    "temp_max":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

```
import requests
api_data="https://api.openweathermap.org/data/2.5/weather?q=Hyderabad,IN&appid=1269843"
rec=requests.get(url=api_data)
data=rec.json()
print(data)
```

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}
>>>
```