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**

Bottom browser window:

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

{"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","descripti
{"temp":301.38,"feels_like":303.58,"temp_min":301.38,"temp_max":301.88,"pressure":10
{"all":75},"dt":1666333196,"sys":{"type":1,"id":9214,"country":"IN","sunrise":166631

owm.py - D:/Python/Python310/owm.py (3.10.8)

File Edit Format Run Options Window Help

```python
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}
```
```
>>>
```

28°C Cloudy 12:00 AM 10/21/2022

{"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}
```
```
>>>
```

28°C Cloudy 12:03 AM 10/21/2022