

PROJECT DEVELOPMENT – DELIVERY OF SPRINT – 2

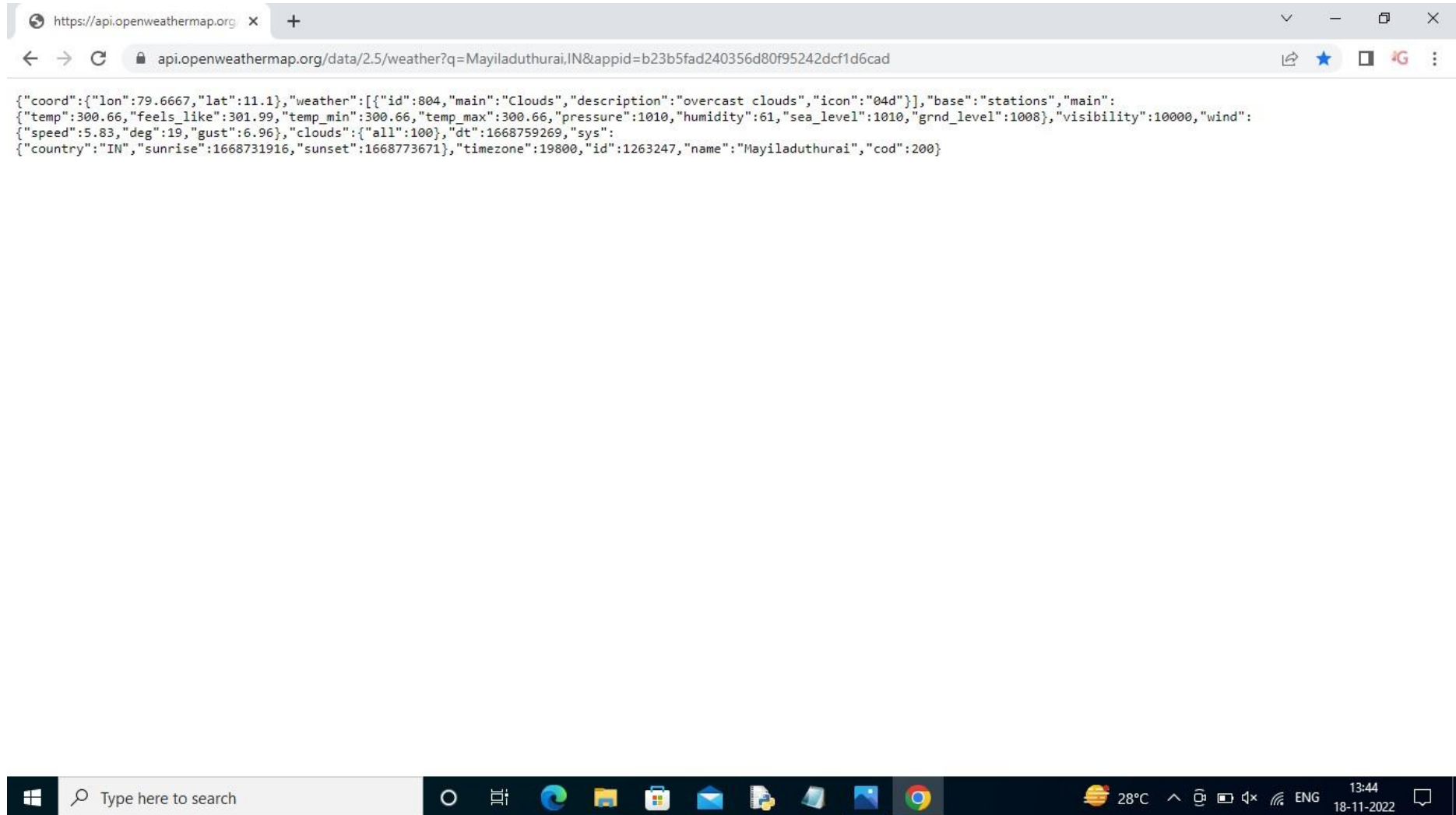
Date	31 October 2022
Team ID	PNT2022TMID25683
Project Title	Signs With Smart Connectivity for Better RoadSafety

SPRINT-2 (USN - 3)

Develop a python script to retrieve data from API. Push the code from Sprint 1 to cloud so it can be accessed from anywhere.

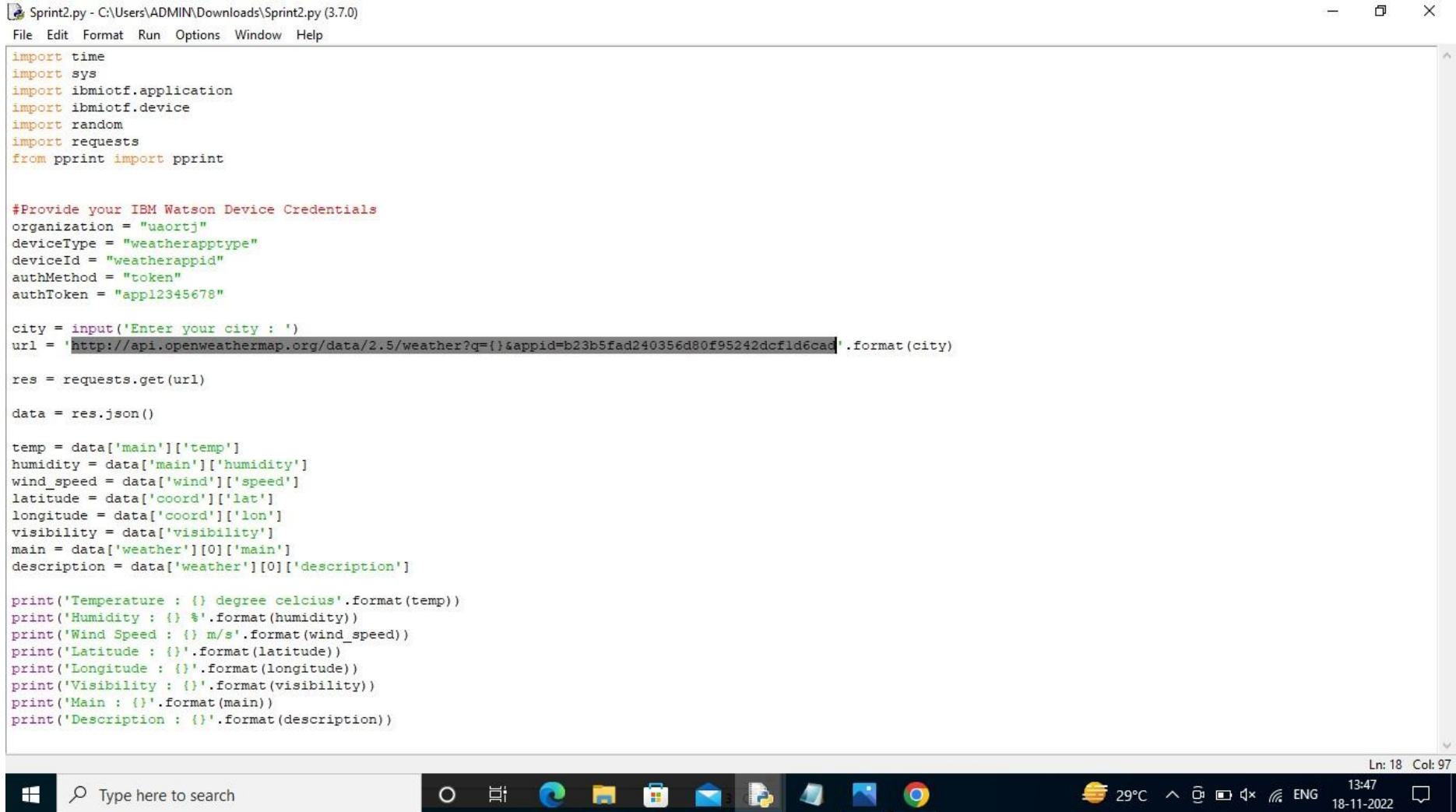
Getting the URL from Open Weather API

STEP 1:



Developing a Python Script which connects with the URL created using Open Weather API.

STEP 2:



```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
import requests
from pprint import pprint

#Provide your IBM Watson Device Credentials
organization = "uaortj"
deviceType = "weatherapptype"
deviceId = "weatherappid"
authMethod = "token"
authToken = "app12345678"

city = input('Enter your city : ')
url = 'http://api.openweathermap.org/data/2.5/weather?q={}&appid=b23b5fad240356d80f95242dcf1d6cad'.format(city)

res = requests.get(url)

data = res.json()

temp = data['main']['temp']
humidity = data['main']['humidity']
wind_speed = data['wind']['speed']
latitude = data['coord']['lat']
longitude = data['coord']['lon']
visibility = data['visibility']
main = data['weather'][0]['main']
description = data['weather'][0]['description']

print('Temperature : {} degree celcius'.format(temp))
print('Humidity : {} %'.format(humidity))
print('Wind Speed : {} m/s'.format(wind_speed))
print('Latitude : {}'.format(latitude))
print('Longitude : {}'.format(longitude))
print('Visibility : {}'.format(visibility))
print('Main : {}'.format(main))
print('Description : {}'.format(description))
```

Ln: 18 Col: 97

Getting the corresponding weather details for the city we have chosen as input.

STEP 3:

The image shows a Windows desktop with two windows. The left window is a text editor titled 'Sprint2.py - C:\Users\ADMIN\Downloads\Sprint2.py (3.7.0)'. It contains a Python script that uses the 'requests' library to fetch weather data from the OpenWeatherMap API. The script prompts the user for a city and then prints the temperature and humidity. The right window is a 'Python 3.7.0 Shell' showing the execution of the script. It displays the program's output for three different cities: Patna, Mayiladuthurai, and London, showing temperature, humidity, wind speed, latitude, longitude, visibility, and a main weather description.

```
File Edit Format Run Options Window Help
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data = res.json()

temp = data['main']['temp']
humidity = data['main']['humidity']

wind_speed = data['wind']['speed']

latitude = data['coord']['lat']
longitude = data['coord']['lon']

visibility = data['visibility']

main = data['weather'][0]['main']
description = data['weather'][0]['description']

print('Temperature : {} degree celcius'.format(temp))
print('Humidity : {} %'.format(humidity))
```

Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51)
MSC v.1914 64 bit (AMD64) on win32
Type "copyright", "credits" or "license()" for more info
>>>
===== RESTART: C:\Users\ADMIN\Downloads\Sprint2.py =====
Enter your city : Patna
Temperature : 298.11 degree celcius
Humidity : 44 %
Wind Speed : 0 m/s
Latitude : 25.6
Longitude : 85.1167
Visibility : 2500
Main : Haze
Description : haze
>>>
===== RESTART: C:\Users\ADMIN\Downloads\Sprint2.py =====
Enter your city : Mayiladuthurai
Temperature : 299.4 degree celcius
Humidity : 67 %
Wind Speed : 5.88 m/s
Latitude : 11.1
Longitude : 79.6667
Visibility : 10000
Main : Clouds
Description : overcast clouds
>>>
===== RESTART: C:\Users\ADMIN\Downloads\Sprint2.py =====
Enter your city : London
Temperature : 281.43 degree celcius
Humidity : 83 %
Wind Speed : 6.17 m/s
Latitude : 51.5085
Longitude : -0.1257
Visibility : 10000
Main : Clouds
Description : overcast clouds
>>>

Ln: 1 Col: 0 | Ln: 36

Windows taskbar: 26°C Haze, 10:19, 18-11-2022