

# Python Programming

## 웹 데이터 활용(JSON)



권기웅

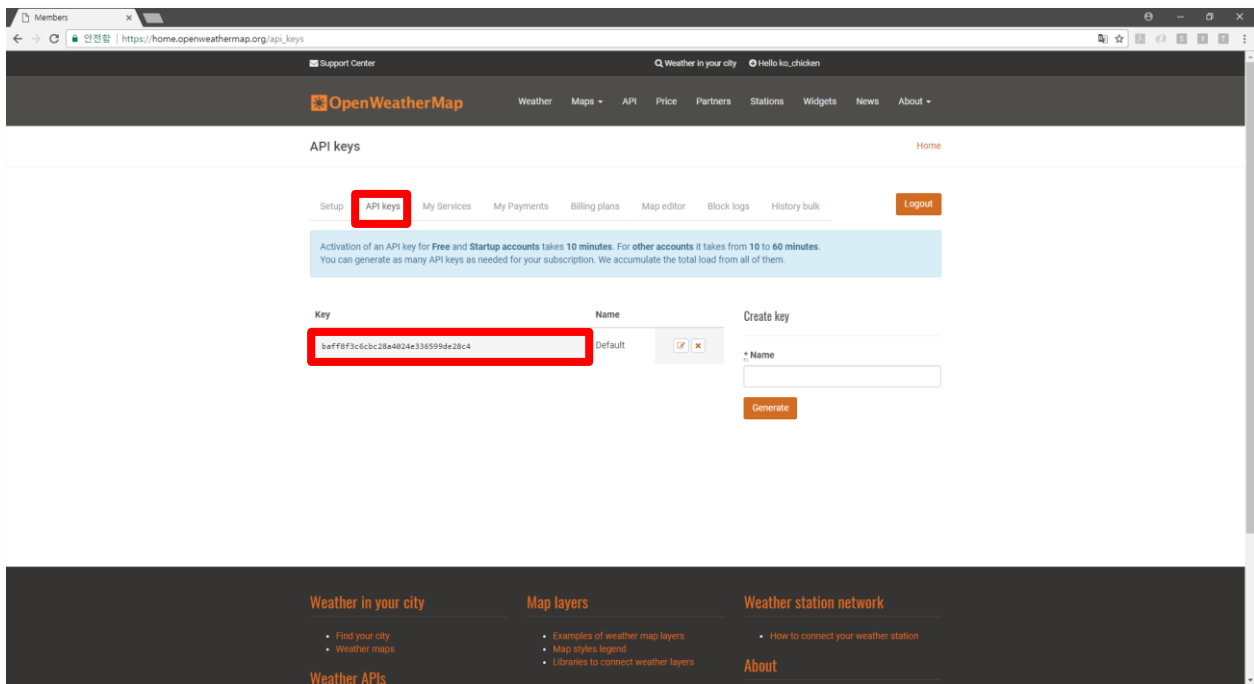


# 1. JSON 구하러

## 1.1 http://openweathermap.com/

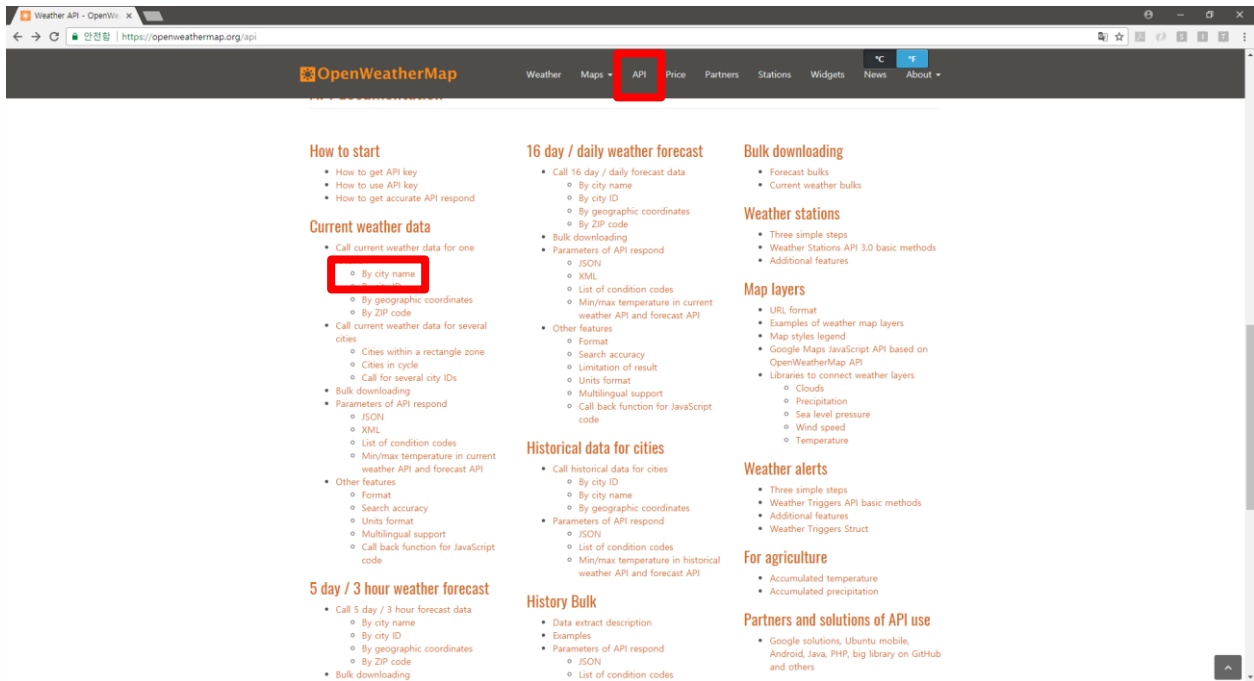
### 1.1.1 API Key

가입, 로그인 후 **API Keys** 로 가서 키값 보관

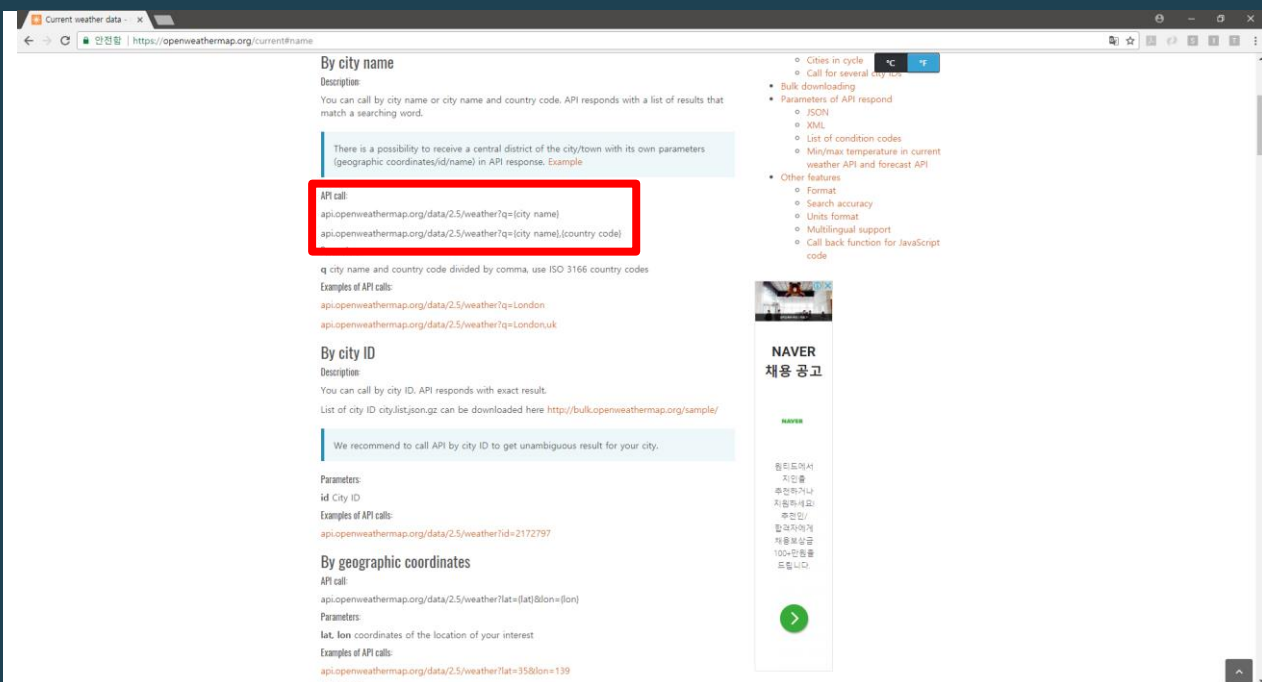


## 1.1.2 도시명으로 날씨 찾는 API 가지러

### API – Current weather data – By city name



## 1.1.3 요청주소 확인



[http://api.openweathermap.org/data/2.5/weather?q=\[도시명\]&appid=\[APIKey\]&units=metric](http://api.openweathermap.org/data/2.5/weather?q=[도시명]&appid=[APIKey]&units=metric)



## 1.2 도시 이름 입력받아 JSON 응답받기

```
Python 3.6.3 Shell
File Edit Shell Debug Options Window Help
Python 3.6.3 (v3.6.3:2c5fed8, Oct 3 2017, 18:11:49) [MSC v.1900 64 bit (AMD64)]
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/workspacePython/weather.py =====
City Name : seoul
b'{"coord":{"lon":126.98,"lat":37.57},"weather":[{"id":800,"main":"Clear","descrip
se":"stations","main":{"temp":1.37,"pressure":1022,"humidity":37,"temp_min":0,"te
{"speed":6.2,"deg":340},"clouds":{"all":1},"dt":1510980960,"sys":{"type":1,"id":70
sunrise":1510956894,"sunset":1510993153},"id":1835848,"name":"Seoul","cod":200}'
>>>
```

```
weather.py - D:/workspacePython/weather.py (3.6.3)
File Edit Format Run Options Window Help
import http.client

cityName = input("City Name : ")

con = http.client.HTTPConnection("api.openweathermap.org")
con.request("GET", "/data/2.5/weather?q="+ cityName + "&appid=baff8f3c")
res = con.getresponse()
resBody = res.read()
print(resBody)
```



## 2. JSON Parsing

### 2.1 JSON Parsing

```
weather.py - D:/workspacePython/weather.py (3.6.3)
File Edit Format Run Options Window Help

import http.client
import json # 모듈 import

cityName = input("City Name : ")
con = http.client.HTTPConnection("api.openweathermap.org")
con.request("GET", "/data/2.5/weather?q="+ cityName + "&appid=baff8f3c6cbc28a4024e336599de28c4&units=metric")
res = con.getresponse()
resBody = res.read()

j = json.loads(resBody) # json인식

weather = j["weather"][0]["main"] + "(" + j["weather"][0]["description"] + ")"
temp = str(j["main"]["temp"]) + "°C"
humidity = str(j["main"]["humidity"]) + "%"

print("Weather : " + weather)
print("Temperature : " + temp)
print("Humidity : " + humidity)
```

### 2.2 결과

```
*Python 3.6.3 Shell*
File Edit Shell Debug Options Window Help

Python 3.6.3 (v3.6.3:2c5fed8, Oct 3 2017, 18:11:49) [MSC v.1900 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/workspacePython/weather.py =====
City Name : seoul
Weather : Clear(clear sky)
Temperature : 1.37°C
Humidity : 37%
>>>
===== RESTART: D:/workspacePython/weather.py =====
City Name : sidney
Weather : Drizzle(drizzle)
Temperature : 7.56°C
Humidity : 56%
>>> |
```

