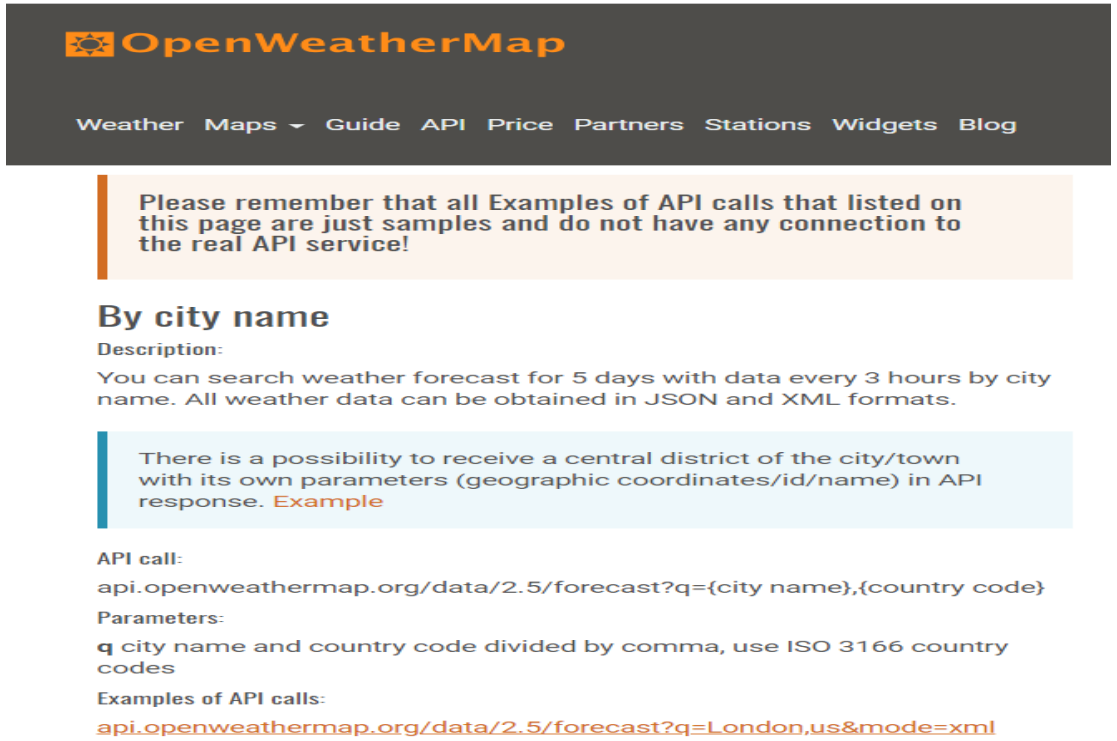
openAPI를 활용한 응용개발

XML 자료 활용

XML 활용: openAPI

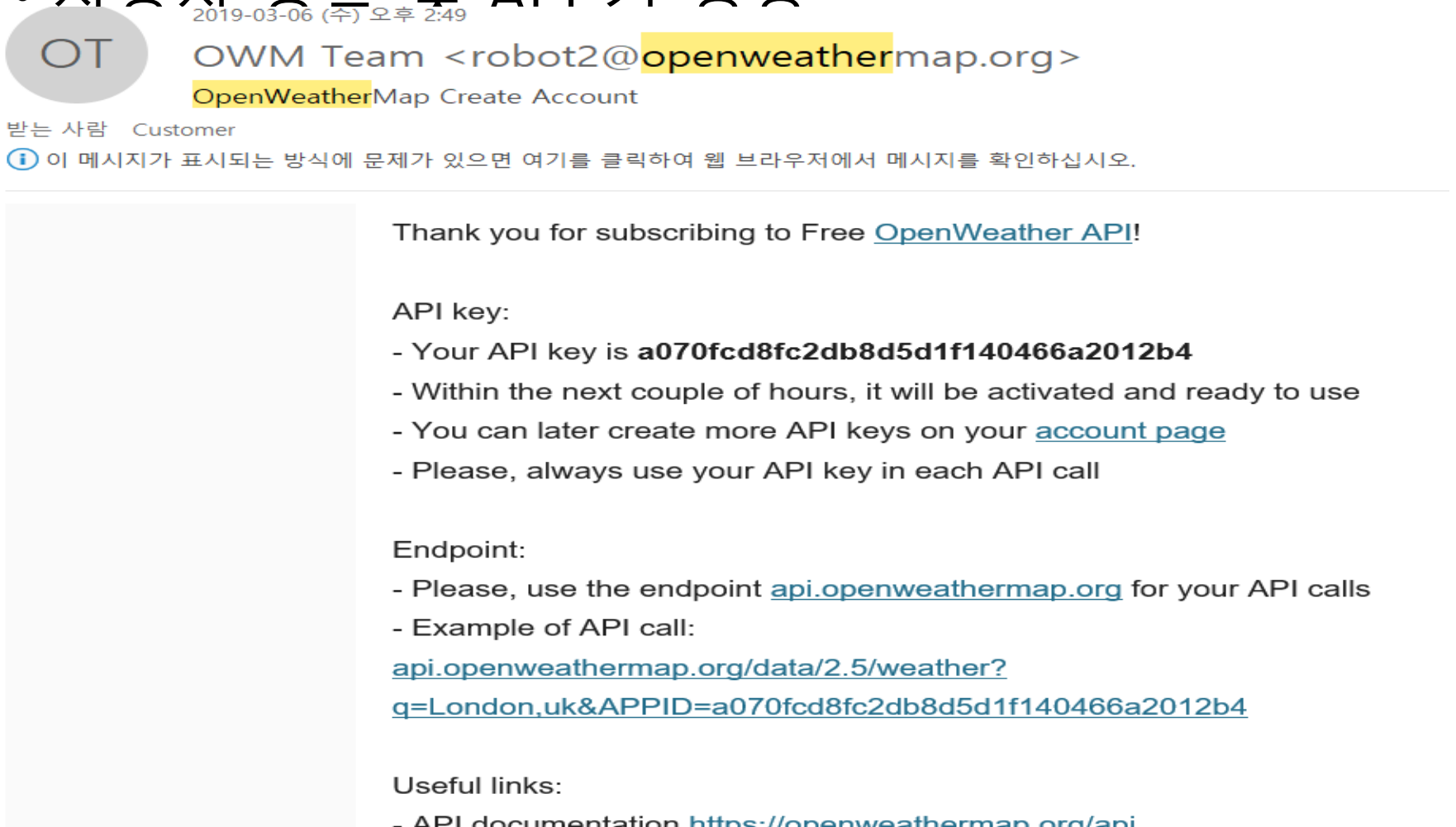
- 다양한 날씨(기상) 정보
  - XML과 JSON 형식



https://openweathermap.org/api

XML 활용: openAPI

- 사용자 등록 및 API 키 생성



2019-03-06 (수) 오후 2:49

OT

OWM Team <robot2@openweathermap.org>

OpenWeatherMap Create Account

받는 사람 Customer

이 메시지가 표시되는 방식에 문제가 있으면 여기를 클릭하여 웹 브라우저에서 메시지를 확인하십시오.

Thank you for subscribing to Free OpenWeather API!

API key:
- Your API key is **a070fcd8fc2db8d5d1f140466a2012b4**
- Within the next couple of hours, it will be activated and ready to use
- You can later create more API keys on your account page
- Please, always use your API key in each API call

Endpoint:
- Please, use the endpoint api.openweathermap.org for your API calls
- Example of API call:
api.openweathermap.org/data/2.5/weather?
q=London,uk&APPID=a070fcd8fc2db8d5d1f140466a2012b4

Useful links:
- API documentation https://openweathermap.org/api

XML 활용: openAPI

- 특정 도시에 날씨정보 요청 및 응답

a070fcd8fc2db8d5d1f140466a2012b4

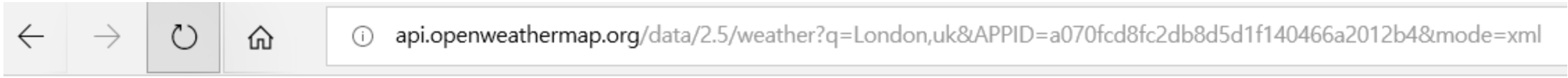
http:// api.openweathermap.org/data/2.5/weather?q=London,uk&APPID=키값

{"coord":{"lon":-0.13,"lat":51.51},"weather":[{"id":500,"main":"Rain","description":"light rain","icon":"10n"}],"base":"stations","main":
{"temp":281.06,"pressure":1019,"humidity":70,"temp_min":279.82,"temp_max":282.15},"visibility":10000,"wind":{"speed":7.7,"deg":210},"rain":{"1h":0.47},"clouds":{"all":92},"dt":1552354237,"sys":
{"type":1,"id":1414,"message":0.019,"country":"GB","sunrise":1552371725,"sunset":1552413568},"id":2643743,"name":"London","cod":200}

XML 활용: openAPI

- 특정 도시에 날씨정보 요청 및 응답 (XML)

http://api.openweathermap.org/data/2.5/weather?q=London,uk&APPID=키값&mode=xml




```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <current>
  - <city id="2643743" name="London">
      <coord lat="51.51" lon="-0.13"/>
      <country>GB</country>
      <sun set="2019-03-12T17:59:28" rise="2019-03-12T06:22:05"/>
    </city>
    <temperature unit="kelvin" max="282.15" min="279.82" value="281.06"/>
    <humidity unit="%" value="70"/>
    <pressure unit="hPa" value="1019"/>
  - <wind>
      <speed name="Moderate breeze" value="7.7"/>
      <gusts/>
      <direction name="South-southwest" value="210" code="SSW"/>
    </wind>
    <clouds name="overcast clouds" value="92"/>
```

(실습)XML 활용: openAPI

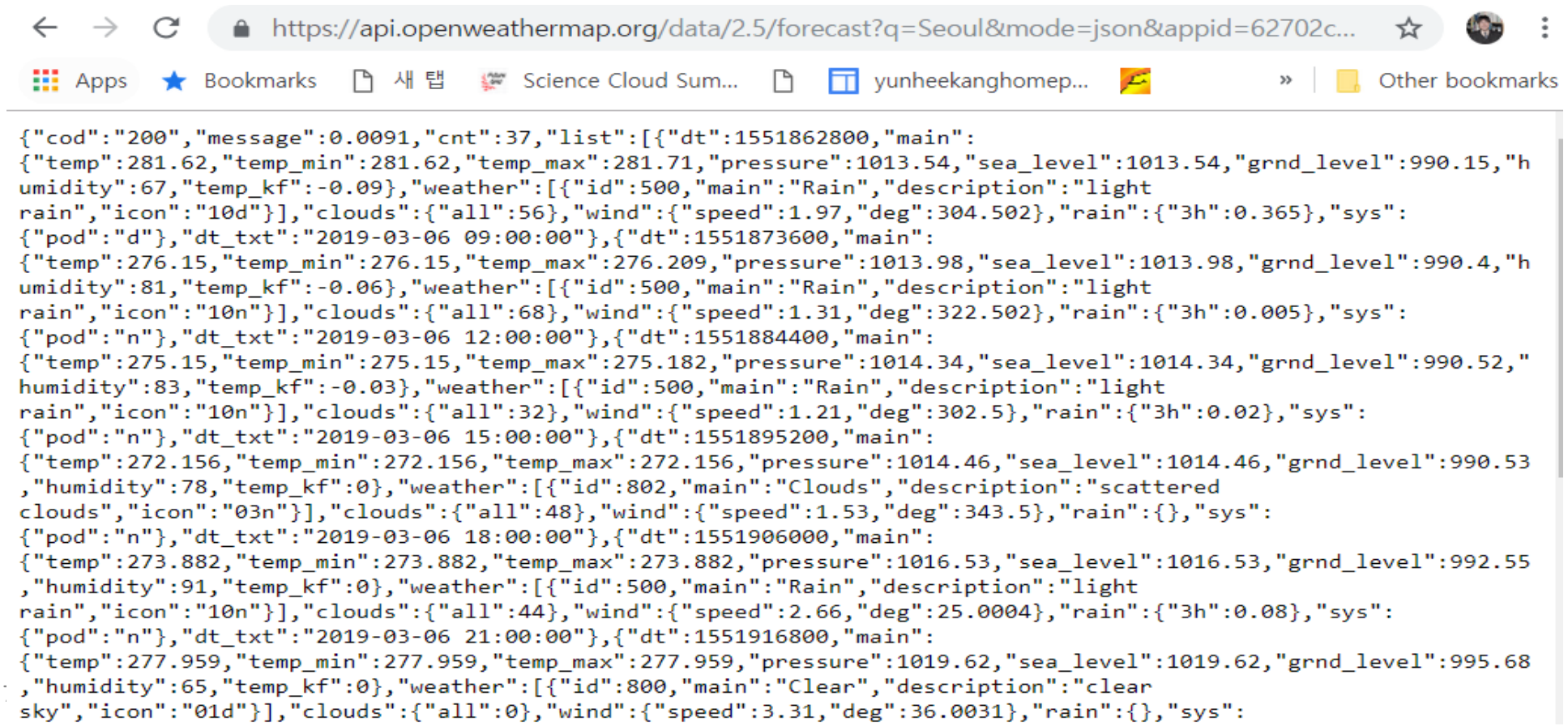
https://api.openweathermap.org/data/2.5/forecast?q=Seoul&mode=xml&appid=키값

This XML file does not appear to have any style information associated with it. The document tree is shown below.


```
<weatherdata>
  <location>
    <name>Seoul</name>
    <type/>
    <country>KR</country>
    <timezone/>
    <location altitude="0" latitude="37.5667" longitude="126.9783" geobase="geonames" geobaseid="1835848"/>
  </location>
  <credit/>
  <meta>
    <lastupdate/>
    <calctime>0.006</calctime>
    <nextupdate/>
  </meta>
  <sun rise="2019-03-05T21:57:09" set="2019-03-06T09:30:15"/>
  <forecast>
    <time from="2019-03-06T06:00:00" to="2019-03-06T09:00:00">
      <symbol number="500" name="light rain" var="10d"/>
      <precipitation unit="3h" value="0.365" type="rain"/>
      <windDirection deg="304.502" code="NW" name="Northwest"/>
      <windSpeed mps="1.97" name="Light breeze"/>
      <temperature unit="kelvin" value="281.62" min="281.62" max="281.71"/>
      <pressure unit="hPa" value="1013.54"/>
      <humidity value="67" unit="%"/>
      <clouds value="broken clouds" all="56" unit="%"/>
    </time>
    <time from="2019-03-06T09:00:00" to="2019-03-06T12:00:00">
      <symbol number="500" name="light rain" var="10n"/>
      <precipitation unit="3h" value="0.005" type="rain"/>
      <windDirection deg="322.502" code="NW" name="Northwest"/>
      <windSpeed mps="1.31" name="Calm"/>
      <temperature unit="kelvin" value="276.15" min="276.15" max="276.209"/>
      <pressure unit="hPa" value="1013.98"/>
      <humidity value="81" unit="%"/>
      <clouds value="broken clouds" all="68" unit="%"/>
    </time>
```

(실습) XML 활용: openAPI

https://api.openweathermap.org/data/2.5/forecast?q=Seoul&mode=json&appid=키값



정리

- 정보서비스를 위해 openAPI 가 공공 및 민간 분야에서 활용되고 있음
- openAPI는 네트워크 상의 요청과 응답으로 이루어짐
- openAPI의 응답형식으로는 XML 과 JSON 이 활용되고 있음

- 다양한 분야에서 사용되는 openAPI를 조사하여 응용을 구성할 수 있음