Folium 알아보기

In [2]:

```python
# 위도(latitude), 경도(longitude) 를 이용한 위치표시
import folium

loc = folium.Map(location=[37.546817, 126.911411])
loc
```

Out[2]:

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In [3]:

```python
# 위치 표시, 확대 (zoom_start 값이 크면 확대큼.)
# default = 10, zoom_start

import folium

m = folium.Map(
    location=[37.5466423,126.9092281],
    zoom_start=15
)

m
```

Out[3]:

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In [4]:

```python
m.save('map.html')
```

In [20]:

```python
import os
path = os.getcwd()
os.listdir(path)
```

Out[20]:

```
['.ipynb_checkpoints',
 'map.html',
 'Plugins_1.html',
 'seoul_muncipalities_geo.json',
 'unit01_05_v01_withColab.ipynb']
```

지도의 위치 찍기(Marker)

In [6]:

```python
## 원모양의 마커
## 양화진, 성산 중학교 마커
## folium.Marker, folium.CircleMaker
## 구글 지도 이용하여 위도, 경도 확인하기
loc = folium.Map(location=[37.546817, 126.911411], zoom_start=17)

folium.Marker([37.546817, 126.911411]).add_to(loc) # 양화진
folium.Marker([37.547394, 126.915816]).add_to(loc) # 성산중학교
loc
```

Out[6]:

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In [7]:

```
m = folium.Map(
    location=[37.5466423,126.9092281],
    zoom_start=15
)

folium.Marker(
    location=[37.5466423,126.9092281],
    popup = 'yanghwajin',                          # 선택 시 popup
    icon = folium.Icon(color='red', icon='star')  # 아이콘
).add_to(m)

m
```

Out[7]:

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CircleMarker 이용

In [8]:

```python
m = folium.Map(
    location=[37.5466423,126.9092281],
    zoom_start=15
)

folium.CircleMarker(
    location=[37.5466423,126.9092281],
    radius = 100,
    color = '#ffffgg',
    fill_color='#fffggg',
    popup = 'yanghwajin',                    # 선택 시 popup
    icon = folium.Icon(color='red', icon='star')  # 아이콘
).add_to(m)

m
```

Out[8]:

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In [9]:

```python
from folium import plugins
```

Marker를 군집화 시키기 - MarkerCluster

- Adds a MarkerCluster layer on the map.

In [10]:

```python
import numpy as np
import os
```

In [11]:

```
N = 100

data = np.array(
    [
     np.random.uniform(low=35, high=60, size=N),
     np.random.uniform(low=-12, high=30, size=N),
    ]
).T

popups = [str(i) for i in range(N)]   # Popups texts are simple numbers.

m = folium.Map([45, 3], zoom_start=4)
plugins.MarkerCluster(data, popups=popups).add_to(m)
m.save(os.path.join('.', 'Plugins_1.html'))

m
```

Out[11]:

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GeoJson 행정 구역 데이터

In [12]:

```
!ls
```

'ls'은(는) 내부 또는 외부 명령, 실행할 수 있는 프로그램, 또는
배치 파일이 아닙니다.

In [13]:

```python
import folium

m = folium.Map(
    location=[37.5838699,127.0565831],
    zoom_start=10
)

import json
with open('seoul_muncipalities_geo.json',mode='rt',encoding='utf-8') as f:
    geo = json.loads(f.read())
    f.close()

folium.GeoJson(
    geo,
    name='seoul_municipalities'
).add_to(m)

m.save('map.html')
m
```

Out[13]:

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In [14]:

```
stamen = folium.Map(location=[45.5236, -122.6750],
                    tiles='Stamen Toner',
                    zoom_start=13)
stamen
```

Out[14]:

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In [15]:

```
stamen = folium.Map(location=[45.5236, -122.6750],
                    tiles='Stamen Terrain',
                    zoom_start=13)
stamen
```

Out[15]:

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REF

- [https://github.com/python-visualization/folium/tree/master/examples/data (https://github.com/python-visualization/folium/tree/master/examples/data)](https://github.com/python-visualization/folium/tree/master/examples/data)
- [https://dailyheumsi.tistory.com/85 (https://dailyheumsi.tistory.com/85)](https://dailyheumsi.tistory.com/85)

In [ ]: