HeatMap

March 11, 2020

```python
[1]: import gmaps
     import json
     import os
     from os.path import join
     from ibm_watson import ToneAnalyzerV3
     from ibm_watson.tone_analyzer_v3 import ToneInput
     from ibm_cloud_sdk_core.authenticators import IAMAuthenticator
```

```python
[7]: ## Sample datasets
     import gmaps.datasets
```

```python
[8]: gmaps.configure(api_key='AIzaSyANBKTnUtFUgYga3F-gzM6qwdNFaUul8Gg')
```

```python
[3]: authenticator = IAMAuthenticator('WWfYmUhjlV60EA-ZwfhXG7n1eopAyoc8B8veLjpMn4J0')
     service = ToneAnalyzerV3(
         version='2017-09-21',
         authenticator=authenticator)
     #service.set_service_url('https://gateway.watsonplatform.net/tone-analyzer/api')
     service.set_service_url('https://api.us-south.tone-analyzer.watson.cloud.ibm.
      ↪com/instances/71cb1ee3-d68b-4688-a041-04e72b826f2b')
```

```python
[4]: gmaps.configure(api_key='AIzaSyANBKTnUtFUgYga3F-gzM6qwdNFaUul8Gg')
```

```python
[5]: ## SAMPLE earthquake datasets
     earthquake_df = gmaps.datasets.load_dataset_as_df('earthquakes')
     earthquake_df.head()
```

```
[5]:    latitude   longitude  magnitude
     0  65.193300 -149.072500       1.70
     1  38.791832 -122.780830       2.10
     2  38.818001 -122.792168       0.48
     3  33.601667 -116.727667       0.78
     4  37.378334 -118.520836       3.64
```

```python
[6]: locations = earthquake_df[['latitude', 'longitude']]
     weights = earthquake_df['magnitude']
     fig = gmaps.figure()
```

```
fig.add_layer(gmaps.heatmap_layer(locations, weights=weights))
fig
```

Figure(layout=FigureLayout(height='420px'))

```
[9]: print("\ntone_chat() example 1:\n")
     utterances = [{
         'text': 'I am very happy.',
         'user': 'glenn'
     }, {
         'text': 'It is a good day.',
         'user': 'glenn'
     }]
     tone_chat = service.tone_chat(utterances).get_result()
     print(json.dumps(tone_chat, indent=2))
```

```
tone_chat() example 1:

{
  "utterances_tone": [
    {
      "utterance_id": 0,
      "utterance_text": "I am very happy.",
      "tones": [
        {
          "score": 0.912181,
          "tone_id": "excited",
          "tone_name": "Excited"
        }
      ]
    },
    {
      "utterance_id": 1,
      "utterance_text": "It is a good day.",
      "tones": [
        {
          "score": 0.67376,
          "tone_id": "excited",
          "tone_name": "Excited"
        },
        {
          "score": 0.722718,
          "tone_id": "satisfied",
          "tone_name": "Satisfied"
        }
      ]
```

```
            }
        ]
    }
```

[ ]:

[ ]:

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