VacationPy

Note

- Keep an eye on your API usage. Use https://developers.google.com/maps/reporting/gmp-reporting (https://developers.google.com/maps/reporting/gmp-reporting) as reference for how to monitor your usage and billing.
- Instructions have been included for each segment. You do not have to follow them exactly, but they are included to help you think through the steps.

In [1]:

```
# Dependencies and Setup
import matplotlib.pyplot as plt
import pandas as pd
import numpy as np
import requests
import gmaps
import os
import csv

# Import API key
from api_keys import g_key
```

Store Part I results into DataFrame

- Load the csv exported in Part I to a DataFrame

In [2]:

```
#Import CSV file of Output Data
file_to_load = "cities.csv"
```

In [5]:

```
#Read the file and store into a dataframe
city_df = pd.read_csv(file_to_load)
city_df = pd.DataFrame(city_df)
city_df
```

Out[5]:

	City_ID	City	Cloudiness	Country	Date	Humidity	Lat	Lng	Max Temp	Wind Speed
0	0	ostrovnoy	2	RU	1558378754	72	68.05	39.51	37.50	7.16
1	1	mahebourg	75	MU	1558378503	74	-20.41	57.70	78.80	11.41
2	2	qaanaaq	25	GL	1558378755	73	77.48	-69.36	22.20	2.37
3	3	zhuhai	0	CN	1558378755	39	40.71	112.04	44.60	4.47
4	4	cape town	20	ZA	1558378755	76	-33.93	18.42	55.99	8.05
...	...	...	...	...	...	...	...	...	...	...
543	543	yabrud	0	SY	1558378840	32	33.97	36.66	80.60	8.05
544	544	paraiso	5	MX	1558378898	4	24.01	-104.61	84.20	16.11
545	545	veraval	0	FR	1558378898	62	49.65	0.71	61.00	8.05
546	546	novyy urgal	100	RU	1558378899	93	51.07	132.56	49.74	2.68
547	547	tongren	4	CN	1558378899	64	27.72	109.18	55.86	2.84

548 rows × 10 columns

Humidity Heatmap

- Configure gmaps.
- Use the Lat and Lng as locations and Humidity as the weight.
- Add Heatmap layer to map.

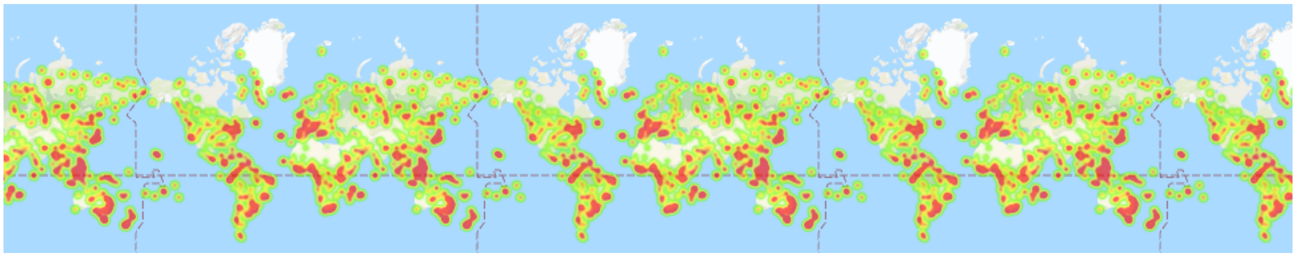
In [6]:

```
gmaps.configure(api_key=g_key)
```

In [9]:
```
cities = city_df[["Lat", "Lng"]]
humidity = city_df["Humidity"]

fig = gmaps.figure()
heat_layer = gmaps.heatmap_layer(locations, weights=humidity, dissipating=False)
heat_layer.max_intensity = 100
heat_layer.point_radius = 5


fig.add_layer(heat_layer)
fig
```



Create new DataFrame fitting weather criteria

- Narrow down the cities to fit weather conditions.
- Drop any rows will null values.

In [ ]:

Hotel Map

- Store into variable named `hotel_df` .
- Add a "Hotel Name" column to the DataFrame.
- Set parameters to search for hotels with 5000 meters.
- Hit the Google Places API for each city's coordinates.
- Store the first Hotel result into the DataFrame.
- Plot markers on top of the heatmap.

In [ ]:

In [ ]:
```
# NOTE: Do not change any of the code in this cell

# Using the template add the hotel marks to the heatmap
info_box_template = """
<dl>
<dt>Name</dt><dd>{Hotel Name}</dd>
<dt>City</dt><dd>{City}</dd>
<dt>Country</dt><dd>{Country}</dd>
</dl>
"""
# Store the DataFrame Row
# NOTE: be sure to update with your DataFrame name
hotel_info = [info_box_template.format(**row) for index, row in hotel_df.iterrows()]
locations = hotel_df[["Lat", "Lng"]]
```

In [ ]:
```
# Add marker layer ontop of heat map


# Display figure
```

In [ ]:

(data:image/png;base64,iVBORw0KGgoAAAANSUhEUgAAA8cAAAGBCAYAAABLkcMCAAAgAElEQVR4XuydBZBk13X+v3sfNgzDMq/QMluWKXb+scPgMDipVFKpJBVOKuBwpZJUmKECFWa