mapping_adventures

May 20, 2020

1 Mapping Adventures

It's time to plan an expedition for Harold's birthday! All he has told you so far is that he wants to go to NYC. Using the places of interest geospatial data, get a sense of the general location for places of interest. Use this as a guide for determining which boroughs/places you should hit for Harold's birthday adventure!

[1]:
```
import pandas as pd
import plotly.express as px
import os
from pathlib import Path
from dotenv import load_dotenv
```

1.0.1 Prep Mapbox API Credentials

[2]:
```
# Set up API credentials
# Read the Mapbox API key
load_dotenv()
map_box_api = os.getenv("mapbox")

# Set the Mapbox API
px.set_mapbox_access_token(map_box_api)
```

1.0.2 Read in data

[3]:
```
# Read in data
places_of_interest = pd.read_csv(
    Path("../../Resources/nyc_places_interest.csv")
).dropna()
places_of_interest.head()
```

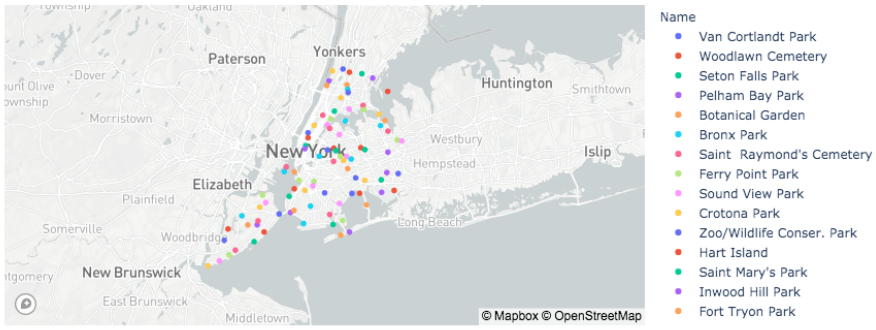
[3]:

	Id	Longitude	Latitude	Name	PlaceType	Borough
0	90	-73.888958	40.896210	Van Cortlandt Park	Park	Bronx
1	95	-73.871651	40.889879	Woodlawn Cemetery	Cemetery	Bronx
2	81	-73.838642	40.886965	Seton Falls Park	Park	Bronx
3	69	-73.809802	40.877986	Pelham Bay Park	Park	Bronx
4	8	-73.878308	40.864424	Botanical Garden	Garden	Bronx

1.0.3 Plot Data

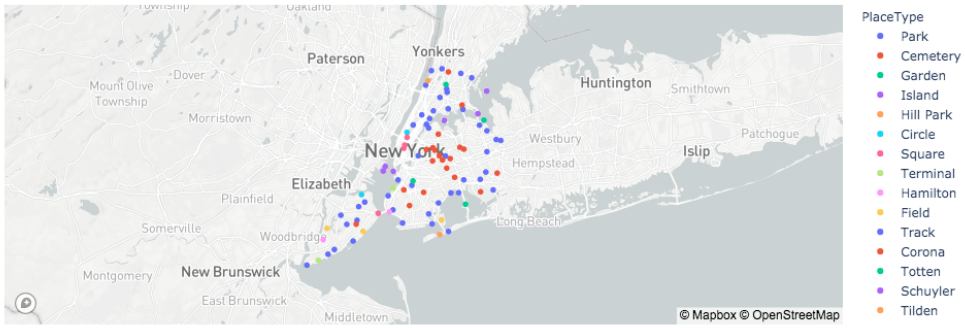
Plot All Places of Interest

[4]:
```
# Slice and plot data by name
map_1 = px.scatter_mapbox(
    places_of_interest,
    lat="Latitude",
    lon="Longitude",
    color="Name"
)
map_1.show()
```



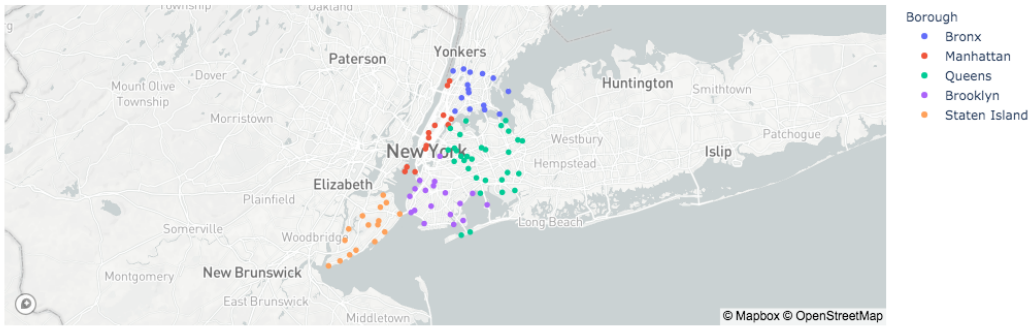
Plot Places of Interest by Place Type

[5]:
```
# Slice and plot data by place type
map_2 = px.scatter_mapbox(
    places_of_interest,
    lat="Latitude",
    lon="Longitude",
    color="PlaceType"
)
map_2.show()
```



Plot Places of Interest by Borough

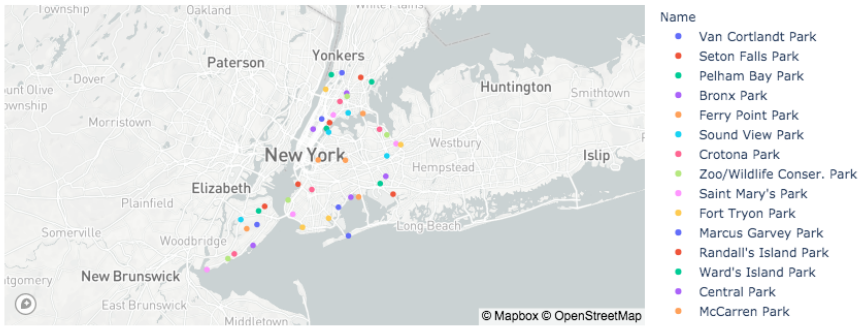
[6]:
```
# Slice and plot data by borough
map_3 = px.scatter_mapbox(
    places_of_interest,
    lat="Latitude",
    lon="Longitude",
    color="Borough"
)
map_3.show()
```



Plot Parks that are of Interest

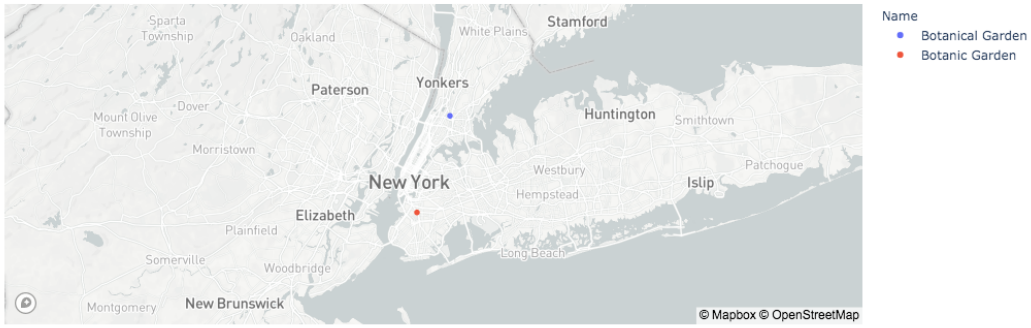
[7]:
```
# Slice and plot data by place type of park
parks = places_of_interest[places_of_interest["PlaceType"] == "Park"]
map_4= px.scatter_mapbox(
```

```
    parks,
    lat="Latitude",
    lon="Longitude",
    color="Name"
)
map_4.show()
```



Plot Gardens of Interest

[8]:
```
# Slice and plot data by place type of garden
gardens = places_of_interest[places_of_interest["PlaceType"] == "Garden"]
map_5=px.scatter_mapbox(
    gardens,
    lat="Latitude",
    lon="Longitude",
    color="Name"
)
map_5.show()
```



Plot Squares of Interest

[9]:
```
# Slice and plot data by place type of square
squares = places_of_interest[places_of_interest["PlaceType"] == "Square"]
map_6 = px.scatter_mapbox(
    squares,
    lat="Latitude",
    lon="Longitude",
    color="Name"
)
map_6.show()
```