mapping_adventures

August 24, 2019

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
```

1.1 Prep Mapbox API Credentials

```
[2]: # Set up API credentials
     map_box_api = os.getenv("MAPBOX_API_KEY")
     px.set_mapbox_access_token(map_box_api)
```

1.2 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
```
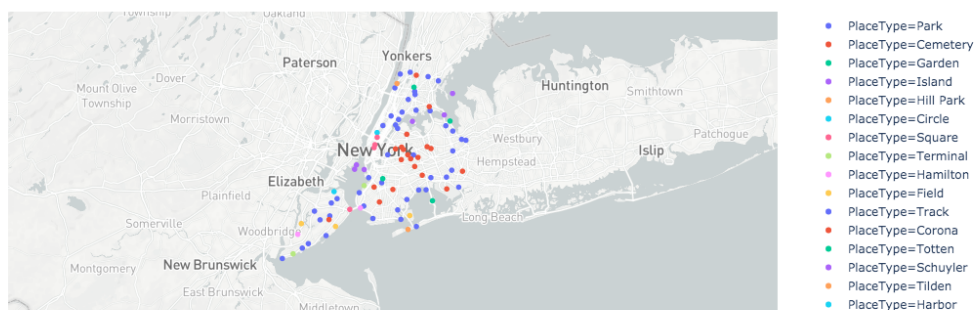
1.3 Plot Data

1.3.1 Plot All Places of Interest

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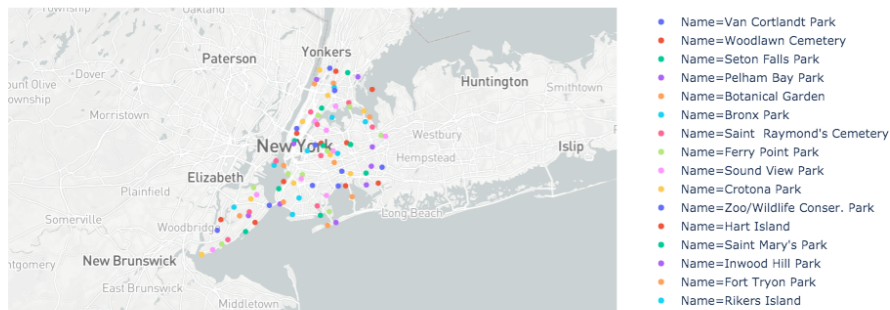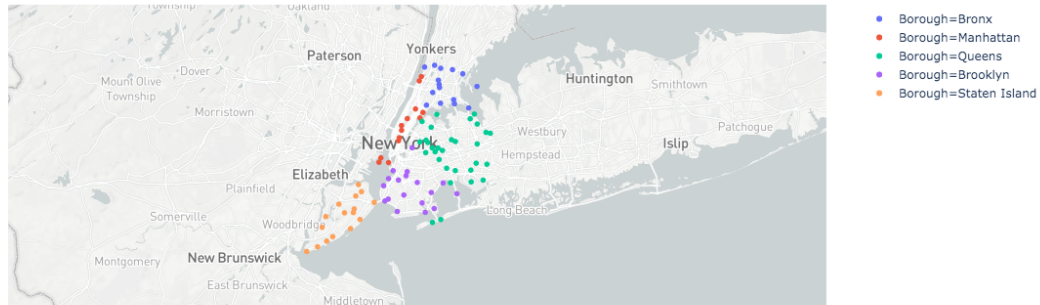

1.3.2 Plot Places of Interest by Place Type

```
[5]: # Slice and plot data by place type
px.scatter_mapbox(
    places_of_interest, lat="Latitude", lon="Longitude", color="PlaceType"
)
```
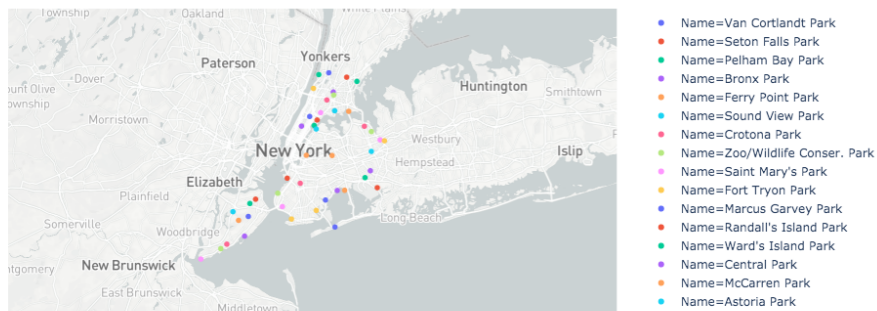
1.3.3 Plot Places of Interest by Borough

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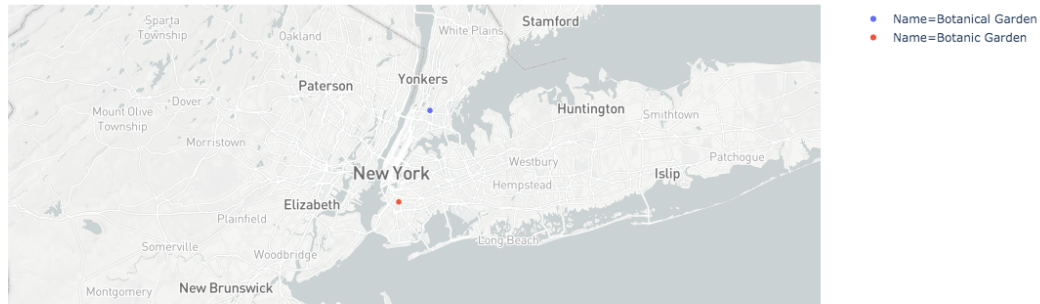

1.3.4 Plot Parks that are of Interest

```
[7]: # Slice and plot data by place type of park
     parks = places_of_interest[places_of_interest["PlaceType"] == "Park"]
     px.scatter_mapbox(parks, lat="Latitude", lon="Longitude", color="Name")
```

1.3.5 Plot Gardens of Interest

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


1.3.6 Plot Squares of Interest

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