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
                                 Botanical Garden
      8 -73.878308 40.864424
                                                     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")
```

```
Name=Van Cortlandt Park
Name=Ston Falls Park
Name=Seton Falls Park
Name=Bethanical Garden
Name=Botanical Garden
Name=Botanical Garden
Name=Saint Raymond's Cemetery
Name=Sound View Park
Name=Sound View Park
Name=Cond/Wildlife Conser. Park
Name=Cond/Wildlife Conser. Park
Name=Saint Mary's Park
Name=Sound View Park
Name=Tart Island
Name=Saint Mary's Park
Name=Tart Island
Name=Fart Tryon Park
Name=Inwood Hill Park
Name=Inwood Hill Park
Name=Fort Tryon Park
Name=Fort Tryon Park
Name=Rikers Island
```

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

```
Paterson

Paterson

Paterson

Mount Olive
Township

Morristown

Plainfield

Somerville

Woodbridgs

New Brunswick

East Brunswick

East Brunswick

East Brunswick

Middletown
```

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

```
[8]: # 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")
```

```
Elizabeth
New Brunswick
```

Name=Botanic Garden

1.3.6 Plot Squares of Interest

```
[9]: # 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")
```



- Name=Madison Square
- Name=Union Square