

Introduction

In this lab, you will learn how to convert addresses into their equivalent latitude and longitude values. Also, you will use the Foursquare API to explore neighborhoods in New York City. You will use the explore function to get the most common venue categories in each neighborhood, and then use this feature to group the neighborhoods into clusters. You will use the k-means clustering algorithm to complete this task. Finally, you will use the Folium library to visualize the neighborhoods in New York City and their emerging clusters.

Table of Contents

1. Download and Explore Dataset
2. Explore Neighborhoods in New York City
3. Analyze Each Neighborhood
4. Cluster Neighborhoods
5. Examine Clusters

Before we get the data and start exploring it, let's download all the dependencies that we will need.

In [2]:

```
import numpy as np # library to handle data in a vectorized manner

import pandas as pd # library for data analysis
pd.set_option('display.max_columns', None)
pd.set_option('display.max_rows', None)

import json # library to handle JSON files

!conda install -c conda-forge geopy --yes # uncomment this line if you haven't complete
d the Foursquare API lab
from geopy.geocoders import Nominatim # convert an address into Latitude and Longitude
values

import requests # library to handle requests
from pandas.io.json import json_normalize # tranform JSON file into a pandas dataframe

# Matplotlib and associated plotting modules
import matplotlib.cm as cm
import matplotlib.colors as colors

# import k-means from clustering stage
from sklearn.cluster import KMeans

#!conda install -c conda-forge folium=0.5.0 --yes # uncomment this line if you haven't
completed the Foursquare API Lab
import folium # map rendering library

print('Libraries imported.')
```

Solving environment: done

```
==> WARNING: A newer version of conda exists. <==
  current version: 4.5.11
  latest version: 4.7.12
```

Please update conda by running

```
$ conda update -n base -c defaults conda
```

Package Plan

environment location: /home/jupyterlab/conda/envs/python

```
added / updated specs:
- geopy
```

The following packages will be downloaded:

package	build		
scikit-learn-0.20.1	py36h22eb022_0	5.7 MB	
liblapack-3.8.0	11_openblas	10 KB	conda-fo
scipy-1.3.2	py36h921218d_0	18.0 MB	conda-fo
geographiclib-1.50	py_0	34 KB	conda-fo
libopenblas-0.3.6	h5a2b251_2	7.7 MB	
liblapacke-3.8.0	11_openblas	10 KB	conda-fo
numpy-1.17.3	py36h95a1406_0	5.2 MB	conda-fo
libcbblas-3.8.0	11_openblas	10 KB	conda-fo
libblas-3.8.0	11_openblas	10 KB	conda-fo
geopy-1.20.0	py_0	57 KB	conda-fo
blas-2.11	openblas	10 KB	conda-fo
Total:		36.8 MB	

The following NEW packages will be INSTALLED:

geographiclib:	1.50-py_0	conda-forge
geopy:	1.20.0-py_0	conda-forge
libblas:	3.8.0-11_openblas	conda-forge
libcbblas:	3.8.0-11_openblas	conda-forge
liblapack:	3.8.0-11_openblas	conda-forge
liblapacke:	3.8.0-11_openblas	conda-forge
libopenblas:	0.3.6-h5a2b251_2	

The following packages will be UPDATED:

blas:	1.1-openblas	conda-forge -->
-------	--------------	-----------------

```

2.11-openblas          conda-forge
  numpy:                1.16.2-py36_blas_openblash1522bff_0    conda-forge [bla
s_openblas] --> 1.17.3-py36h95a1406_0 conda-forge
  scipy:                1.2.1-py36_blas_openblash1522bff_0      conda-forge [bla
s_openblas] --> 1.3.2-py36h921218d_0 conda-forge

```

The following packages will be DOWNGRADED:

```

  scikit-learn: 0.20.1-py36_blas_openblashebf5e3_1200 conda-forge [bla
s_openblas] --> 0.20.1-py36h22eb022_0

```

Downloading and Extracting Packages

```

scikit-learn-0.20.1 | 5.7 MB | ##### |
100%
liblapack-3.8.0     | 10 KB | ##### |
100%
scipy-1.3.2         | 18.0 MB | ##### |
100%
geographiclib-1.50  | 34 KB | ##### |
100%
libopenblas-0.3.6   | 7.7 MB | ##### |
100%
liblapacke-3.8.0    | 10 KB | ##### |
100%
numpy-1.17.3        | 5.2 MB | ##### |
100%
libcbblas-3.8.0     | 10 KB | ##### |
100%
libblas-3.8.0       | 10 KB | ##### |
100%
geopy-1.20.0        | 57 KB | ##### |
100%
blas-2.11           | 10 KB | ##### |
100%

```

Preparing transaction: done

Verifying transaction: done

Executing transaction: done

Libraries imported.

1. Download and Explore Dataset

Neighborhood has a total of 5 boroughs and 306 neighborhoods. In order to segment the neighborhoods and explore them, we will essentially need a dataset that contains the 5 boroughs and the neighborhoods that exist in each borough as well as the the latitude and logitude coordinates of each neighborhood.

Here is the link to the dataset: https://geo.nyu.edu/catalog/nyu_2451_34572
[\(https://geo.nyu.edu/catalog/nyu_2451_34572\)](https://geo.nyu.edu/catalog/nyu_2451_34572)

In [3]:

```

!wget -q -O 'newyork_data.json' https://coc1.us/new_york_dataset
print('Data downloaded!')

```

Data downloaded!

Load and explore the data

Next, let's load the data.

In [4]:

```
with open('newyork_data.json') as json_data:  
    newyork_data = json.load(json_data)
```

Let's take a quick look at the data.

In [5]:

```
newyork_data
```

Out[5]:

```
{'type': 'FeatureCollection',
 'totalFeatures': 306,
 'features': [{'type': 'Feature',
  'id': 'nyu_2451_34572.1',
  'geometry': {'type': 'Point',
   'coordinates': [-73.84720052054902, 40.89470517661]},
  'geometry_name': 'geom',
  'properties': {'name': 'Wakefield',
   'stacked': 1,
   'annoline1': 'Wakefield',
   'annoline2': None,
   'annoline3': None,
   'annoangle': 0.0,
   'borough': 'Bronx',
   'bbox': [-73.84720052054902,
    40.89470517661,
    -73.84720052054902,
    40.89470517661]}},
 {'type': 'Feature',
  'id': 'nyu_2451_34572.2',
  'geometry': {'type': 'Point',
   'coordinates': [-73.82993910812398, 40.87429419303012]},
  'geometry_name': 'geom',
  'properties': {'name': 'Co-op City',
   'stacked': 2,
   'annoline1': 'Co-op',
   'annoline2': 'City',
   'annoline3': None,
   'annoangle': 0.0,
   'borough': 'Bronx',
   'bbox': [-73.82993910812398,
    40.87429419303012,
    -73.82993910812398,
    40.87429419303012]}},
 {'type': 'Feature',
  'id': 'nyu_2451_34572.3',
  'geometry': {'type': 'Point',
   'coordinates': [-73.82780644716412, 40.887555677350775]},
  'geometry_name': 'geom',
  'properties': {'name': 'Eastchester',
   'stacked': 1,
   'annoline1': 'Eastchester',
   'annoline2': None,
   'annoline3': None,
   'annoangle': 0.0,
   'borough': 'Bronx',
   'bbox': [-73.82780644716412,
    40.887555677350775,
    -73.82780644716412,
    40.887555677350775]}},
 {'type': 'Feature',
  'id': 'nyu_2451_34572.4',
  'geometry': {'type': 'Point',
   'coordinates': [-73.90564259591682, 40.89543742690383]},
  'geometry_name': 'geom',
  'properties': {'name': 'Fieldston',
   'stacked': 1,
   'annoline1': 'Fieldston',
   'annoline2': None,
```

```
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.90564259591682,
40.89543742690383,
-73.90564259591682,
40.89543742690383]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.5',
'geometry': {'type': 'Point',
'coordinates': [-73.9125854610857, 40.890834493891305]},
'geometry_name': 'geom',
'properties': {'name': 'Riverdale',
'stacked': 1,
'annoline1': 'Riverdale',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.9125854610857,
40.890834493891305,
-73.9125854610857,
40.890834493891305]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.6',
'geometry': {'type': 'Point',
'coordinates': [-73.90281798724604, 40.88168737120521]},
'geometry_name': 'geom',
'properties': {'name': 'Kingsbridge',
'stacked': 1,
'annoline1': 'Kingsbridge',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.90281798724604,
40.88168737120521,
-73.90281798724604,
40.88168737120521]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.7',
'geometry': {'type': 'Point',
'coordinates': [-73.91065965862981, 40.87655077879964]},
'geometry_name': 'geom',
'properties': {'name': 'Marble Hill',
'stacked': 2,
'annoline1': 'Marble',
'annoline2': 'Hill',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.91065965862981,
40.87655077879964,
-73.91065965862981,
40.87655077879964]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.8',
'geometry': {'type': 'Point',
'coordinates': [-73.86731496814176, 40.89827261213805]},
'geometry_name': 'geom',
'properties': {'name': 'Woodlawn',
```



```
'stacked': 1,
'annoline1': 'Woodlawn',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.86731496814176,
40.89827261213805,
-73.86731496814176,
40.89827261213805]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.9',
'geometry': {'type': 'Point',
'coordinates': [-73.8793907395681, 40.87722415599446]},
'geometry_name': 'geom',
'properties': {'name': 'Norwood',
'stacked': 1,
'annoline1': 'Norwood',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.8793907395681,
40.87722415599446,
-73.8793907395681,
40.87722415599446]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.10',
'geometry': {'type': 'Point',
'coordinates': [-73.85744642974207, 40.88103887819211]},
'geometry_name': 'geom',
'properties': {'name': 'Williamsbridge',
'stacked': 1,
'annoline1': 'Williamsbridge',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.85744642974207,
40.88103887819211,
-73.85744642974207,
40.88103887819211]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.11',
'geometry': {'type': 'Point',
'coordinates': [-73.83579759808117, 40.866858107252696]},
'geometry_name': 'geom',
'properties': {'name': 'Baychester',
'stacked': 1,
'annoline1': 'Baychester',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.83579759808117,
40.866858107252696,
-73.83579759808117,
40.866858107252696]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.12',
'geometry': {'type': 'Point',
```

```

    'coordinates': [-73.85475564017999, 40.85741349808865]],
    'geometry_name': 'geom',
    'properties': {'name': 'Pelham Parkway',
    'stacked': 1,
    'annoline1': 'Pelham Parkway',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Bronx',
    'bbox': [-73.85475564017999,
    40.85741349808865,
    -73.85475564017999,
    40.85741349808865]}}},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.13',
    'geometry': {'type': 'Point',
    'coordinates': [-73.78648845267413, 40.84724670491813]}},
    'geometry_name': 'geom',
    'properties': {'name': 'City Island',
    'stacked': 2,
    'annoline1': 'City',
    'annoline2': 'Island',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Bronx',
    'bbox': [-73.78648845267413,
    40.84724670491813,
    -73.78648845267413,
    40.84724670491813]}}},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.14',
    'geometry': {'type': 'Point',
    'coordinates': [-73.8855121841913, 40.870185164975325]}},
    'geometry_name': 'geom',
    'properties': {'name': 'Bedford Park',
    'stacked': 2,
    'annoline1': 'Bedford',
    'annoline2': 'Park',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Bronx',
    'bbox': [-73.8855121841913,
    40.870185164975325,
    -73.8855121841913,
    40.870185164975325]}}},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.15',
    'geometry': {'type': 'Point',
    'coordinates': [-73.9104159619131, 40.85572707719664]}},
    'geometry_name': 'geom',
    'properties': {'name': 'University Heights',
    'stacked': 2,
    'annoline1': 'University',
    'annoline2': 'Heights',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Bronx',
    'bbox': [-73.9104159619131,
    40.85572707719664,
    -73.9104159619131,
    40.85572707719664]}}},

```

```
{'type': 'Feature',
'id': 'nyu_2451_34572.16',
'geometry': {'type': 'Point',
'coordinates': [-73.91967159119565, 40.84789792606271]}},
'geometry_name': 'geom',
'properties': {'name': 'Morris Heights',
'stacked': 2,
'annoline1': 'Morris',
'annoline2': 'Heights',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.91967159119565,
40.84789792606271,
-73.91967159119565,
40.84789792606271]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.17',
'geometry': {'type': 'Point',
'coordinates': [-73.89642655981623, 40.86099679638654]}},
'geometry_name': 'geom',
'properties': {'name': 'Fordham',
'stacked': 1,
'annoline1': 'Fordham',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.89642655981623,
40.86099679638654,
-73.89642655981623,
40.86099679638654]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.18',
'geometry': {'type': 'Point',
'coordinates': [-73.88735617532338, 40.84269615786053]}},
'geometry_name': 'geom',
'properties': {'name': 'East Tremont',
'stacked': 2,
'annoline1': 'East',
'annoline2': 'Tremont',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.88735617532338,
40.84269615786053,
-73.88735617532338,
40.84269615786053]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.19',
'geometry': {'type': 'Point',
'coordinates': [-73.87774474910545, 40.83947505672653]}},
'geometry_name': 'geom',
'properties': {'name': 'West Farms',
'stacked': 2,
'annoline1': 'West',
'annoline2': 'Farms',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.87774474910545,
```

```

    40.83947505672653,
    -73.87774474910545,
    40.83947505672653]]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.20',
 'geometry': {'type': 'Point',
 'coordinates': [-73.9261020935813, 40.836623010706056]},
 'geometry_name': 'geom',
 'properties': {'name': 'High Bridge',
 'stacked': 1,
 'annoline1': 'Highbridge',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Bronx',
 'bbox': [-73.9261020935813,
 40.836623010706056,
 -73.9261020935813,
 40.836623010706056]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.21',
 'geometry': {'type': 'Point',
 'coordinates': [-73.90942160757436, 40.819754370594936]},
 'geometry_name': 'geom',
 'properties': {'name': 'Melrose',
 'stacked': 1,
 'annoline1': 'Melrose',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Bronx',
 'bbox': [-73.90942160757436,
 40.819754370594936,
 -73.90942160757436,
 40.819754370594936]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.22',
 'geometry': {'type': 'Point',
 'coordinates': [-73.91609987487575, 40.80623874935177]},
 'geometry_name': 'geom',
 'properties': {'name': 'Mott Haven',
 'stacked': 1,
 'annoline1': 'Mott Haven',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Bronx',
 'bbox': [-73.91609987487575,
 40.80623874935177,
 -73.91609987487575,
 40.80623874935177]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.23',
 'geometry': {'type': 'Point',
 'coordinates': [-73.91322139386135, 40.801663627756206]},
 'geometry_name': 'geom',
 'properties': {'name': 'Port Morris',
 'stacked': 2,
 'annoline1': 'Port',
 'annoline2': 'Morris',
 'annoline3': None,

```

```
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.91322139386135,
40.801663627756206,
-73.91322139386135,
40.801663627756206]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.24',
'geometry': {'type': 'Point',
'coordinates': [-73.8957882009446, 40.81509904545822]},
'geometry_name': 'geom',
'properties': {'name': 'Longwood',
'stacked': 1,
'annoline1': 'Longwood',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.8957882009446,
40.81509904545822,
-73.8957882009446,
40.81509904545822]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.25',
'geometry': {'type': 'Point',
'coordinates': [-73.88331505955291, 40.80972987938709]},
'geometry_name': 'geom',
'properties': {'name': 'Hunts Point',
'stacked': 2,
'annoline1': 'Hunts',
'annoline2': 'Point',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.88331505955291,
40.80972987938709,
-73.88331505955291,
40.80972987938709]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.26',
'geometry': {'type': 'Point',
'coordinates': [-73.90150648943059, 40.82359198585534]},
'geometry_name': 'geom',
'properties': {'name': 'Morrisania',
'stacked': 1,
'annoline1': 'Morrisania',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.90150648943059,
40.82359198585534,
-73.90150648943059,
40.82359198585534]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.27',
'geometry': {'type': 'Point',
'coordinates': [-73.86574609554924, 40.821012197914015]},
'geometry_name': 'geom',
'properties': {'name': 'Soundview',
'stacked': 1,
```

```

'annoline1': 'Soundview',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.86574609554924,
40.821012197914015,
-73.86574609554924,
40.821012197914015]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.28',
'geometry': {'type': 'Point',
'coordinates': [-73.85414416189266, 40.80655112003589]},
'geometry_name': 'geom',
'properties': {'name': 'Clason Point',
'stacked': 2,
'annoline1': 'Clason',
'annoline2': 'Point',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.85414416189266,
40.80655112003589,
-73.85414416189266,
40.80655112003589]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.29',
'geometry': {'type': 'Point',
'coordinates': [-73.81635002158441, 40.81510925804005]},
'geometry_name': 'geom',
'properties': {'name': 'Throgs Neck',
'stacked': 1,
'annoline1': 'Throgs Neck',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.81635002158441,
40.81510925804005,
-73.81635002158441,
40.81510925804005]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.30',
'geometry': {'type': 'Point',
'coordinates': [-73.8240992675385, 40.844245936947374]},
'geometry_name': 'geom',
'properties': {'name': 'Country Club',
'stacked': 2,
'annoline1': 'Country',
'annoline2': 'Club',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.8240992675385,
40.844245936947374,
-73.8240992675385,
40.844245936947374]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.31',
'geometry': {'type': 'Point',
'coordinates': [-73.85600310535783, 40.837937822267286]},

```

```
'geometry_name': 'geom',
'properties': {'name': 'Parkchester',
'stacked': 1,
'annoline1': 'Parkchester',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.85600310535783,
40.837937822267286,
-73.85600310535783,
40.837937822267286]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.32',
'geometry': {'type': 'Point',
'coordinates': [-73.84219407604444, 40.8406194964327]}},
'geometry_name': 'geom',
'properties': {'name': 'Westchester Square',
'stacked': 2,
'annoline1': 'Westchester',
'annoline2': 'Square',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.84219407604444,
40.8406194964327,
-73.84219407604444,
40.8406194964327]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.33',
'geometry': {'type': 'Point',
'coordinates': [-73.8662991807561, 40.84360847124718]}},
'geometry_name': 'geom',
'properties': {'name': 'Van Nest',
'stacked': 2,
'annoline1': 'Van',
'annoline2': 'Nest',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.8662991807561,
40.84360847124718,
-73.8662991807561,
40.84360847124718]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.34',
'geometry': {'type': 'Point',
'coordinates': [-73.85040178030421, 40.847549063536334]}},
'geometry_name': 'geom',
'properties': {'name': 'Morris Park',
'stacked': 1,
'annoline1': 'Morris Park',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.85040178030421,
40.847549063536334,
-73.85040178030421,
40.847549063536334]}},
{'type': 'Feature',
```

```

'id': 'nyu_2451_34572.35',
'geometry': {'type': 'Point',
'coordinates': [-73.88845196134804, 40.85727710073895]},
'geometry_name': 'geom',
'properties': {'name': 'Belmont',
'stacked': 1,
'annoline1': 'Belmont',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.88845196134804,
40.85727710073895,
-73.88845196134804,
40.85727710073895]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.36',
'geometry': {'type': 'Point',
'coordinates': [-73.91719048210393, 40.88139497727086]},
'geometry_name': 'geom',
'properties': {'name': 'Spuyten Duyvil',
'stacked': 2,
'annoline1': 'Spuyten',
'annoline2': 'Duyvil',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.91719048210393,
40.88139497727086,
-73.91719048210393,
40.88139497727086]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.37',
'geometry': {'type': 'Point',
'coordinates': [-73.90453054908927, 40.90854282950666]},
'geometry_name': 'geom',
'properties': {'name': 'North Riverdale',
'stacked': 2,
'annoline1': 'North',
'annoline2': 'Riverdale',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.90453054908927,
40.90854282950666,
-73.90453054908927,
40.90854282950666]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.38',
'geometry': {'type': 'Point',
'coordinates': [-73.8320737824047, 40.85064140940335]},
'geometry_name': 'geom',
'properties': {'name': 'Pelham Bay',
'stacked': 2,
'annoline1': 'Pelham',
'annoline2': 'Bay',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.8320737824047,
40.85064140940335,

```



```
-73.8320737824047,  
40.85064140940335]]},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.39',  
  'geometry': {'type': 'Point',  
    'coordinates': [-73.82620275994073, 40.82657951686922]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Schuylerville',  
    'stacked': 1,  
    'annoline1': 'Schuylerville',  
    'annoline2': None,  
    'annoline3': None,  
    'annoangle': 0.0,  
    'borough': 'Bronx',  
    'bbox': [-73.82620275994073,  
      40.82657951686922,  
      -73.82620275994073,  
      40.82657951686922]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.40',  
  'geometry': {'type': 'Point',  
    'coordinates': [-73.81388514428619, 40.821986118163494]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Edgewater Park',  
    'stacked': 2,  
    'annoline1': 'Edgewater',  
    'annoline2': 'Park',  
    'annoline3': None,  
    'annoangle': 0.0,  
    'borough': 'Bronx',  
    'bbox': [-73.81388514428619,  
      40.821986118163494,  
      -73.81388514428619,  
      40.821986118163494]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.41',  
  'geometry': {'type': 'Point',  
    'coordinates': [-73.84802729582735, 40.819014376988314]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Castle Hill',  
    'stacked': 2,  
    'annoline1': 'Castle',  
    'annoline2': 'Hill',  
    'annoline3': None,  
    'annoangle': 0.0,  
    'borough': 'Bronx',  
    'bbox': [-73.84802729582735,  
      40.819014376988314,  
      -73.84802729582735,  
      40.819014376988314]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.42',  
  'geometry': {'type': 'Point',  
    'coordinates': [-73.86332361652777, 40.87137078192371]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Olinville',  
    'stacked': 1,  
    'annoline1': 'Olinville',  
    'annoline2': None,  
    'annoline3': None,  
    'annoangle': 0.0,
```

```

    'borough': 'Bronx',
    'bbox': [-73.86332361652777,
    40.87137078192371,
    -73.86332361652777,
    40.87137078192371]]},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.43',
    'geometry': {'type': 'Point',
    'coordinates': [-73.84161194831223, 40.86296562477998]}},
    'geometry_name': 'geom',
    'properties': {'name': 'Pelham Gardens',
    'stacked': 2,
    'annoline1': 'Pelham',
    'annoline2': 'Gardens',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Bronx',
    'bbox': [-73.84161194831223,
    40.86296562477998,
    -73.84161194831223,
    40.86296562477998]}},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.44',
    'geometry': {'type': 'Point',
    'coordinates': [-73.91558941773444, 40.83428380733851]}},
    'geometry_name': 'geom',
    'properties': {'name': 'Concourse',
    'stacked': 1,
    'annoline1': 'Concourse',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Bronx',
    'bbox': [-73.91558941773444,
    40.83428380733851,
    -73.91558941773444,
    40.83428380733851]}},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.45',
    'geometry': {'type': 'Point',
    'coordinates': [-73.85053524451935, 40.82977429787161]}},
    'geometry_name': 'geom',
    'properties': {'name': 'Unionport',
    'stacked': 1,
    'annoline1': 'Unionport',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Bronx',
    'bbox': [-73.85053524451935,
    40.82977429787161,
    -73.85053524451935,
    40.82977429787161]}},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.46',
    'geometry': {'type': 'Point',
    'coordinates': [-73.84808271877168, 40.88456130303732]}},
    'geometry_name': 'geom',
    'properties': {'name': 'Edenwald',
    'stacked': 1,
    'annoline1': 'Edenwald',

```

```

    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Bronx',
    'bbox': [-73.84808271877168,
    40.88456130303732,
    -73.84808271877168,
    40.88456130303732]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.47',
   'geometry': {'type': 'Point',
    'coordinates': [-74.03062069353813, 40.625801065010656]},
   'geometry_name': 'geom',
   'properties': {'name': 'Bay Ridge',
    'stacked': 1,
    'annoline1': 'Bay Ridge',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-74.03062069353813,
    40.625801065010656,
    -74.03062069353813,
    40.625801065010656]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.48',
   'geometry': {'type': 'Point',
    'coordinates': [-73.99517998380729, 40.61100890202044]},
   'geometry_name': 'geom',
   'properties': {'name': 'Bensonhurst',
    'stacked': 1,
    'annoline1': 'Bensonhurst',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-73.99517998380729,
    40.61100890202044,
    -73.99517998380729,
    40.61100890202044]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.49',
   'geometry': {'type': 'Point',
    'coordinates': [-74.01031618527784, 40.64510294925429]},
   'geometry_name': 'geom',
   'properties': {'name': 'Sunset Park',
    'stacked': 2,
    'annoline1': 'Sunset',
    'annoline2': 'Park',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-74.01031618527784,
    40.64510294925429,
    -74.01031618527784,
    40.64510294925429]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.50',
   'geometry': {'type': 'Point',
    'coordinates': [-73.95424093127393, 40.7302009848647]},
   'geometry_name': 'geom',

```

```
'properties': {'name': 'Greenpoint',
'stacked': 1,
'annoline1': 'Greenpoint',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.95424093127393,
40.7302009848647,
-73.95424093127393,
40.7302009848647]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.51',
'geometry': {'type': 'Point',
'coordinates': [-73.97347087708445, 40.59526001306593]}},
'geometry_name': 'geom',
'properties': {'name': 'Gravesend',
'stacked': 1,
'annoline1': 'Gravesend',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.97347087708445,
40.59526001306593,
-73.97347087708445,
40.59526001306593]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.52',
'geometry': {'type': 'Point',
'coordinates': [-73.96509448785336, 40.57682506566604]}},
'geometry_name': 'geom',
'properties': {'name': 'Brighton Beach',
'stacked': 2,
'annoline1': 'Brighton',
'annoline2': 'Beach',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.96509448785336,
40.57682506566604,
-73.96509448785336,
40.57682506566604]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.53',
'geometry': {'type': 'Point',
'coordinates': [-73.94318640482979, 40.58689012678384]}},
'geometry_name': 'geom',
'properties': {'name': 'Sheepshead Bay',
'stacked': 2,
'annoline1': 'Sheepshead',
'annoline2': 'Bay',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.94318640482979,
40.58689012678384,
-73.94318640482979,
40.58689012678384]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.54',
```

```

'geometry': {'type': 'Point',
'coordinates': [-73.95743840559939, 40.61443251335098]},
'geometry_name': 'geom',
'properties': {'name': 'Manhattan Terrace',
'stacked': 2,
'annoline1': 'Manhattan',
'annoline2': 'Terrace',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.95743840559939,
40.61443251335098,
-73.95743840559939,
40.61443251335098]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.55',
'geometry': {'type': 'Point',
'coordinates': [-73.95840106533903, 40.63632589026677]},
'geometry_name': 'geom',
'properties': {'name': 'Flatbush',
'stacked': 1,
'annoline1': 'Flatbush',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.95840106533903,
40.63632589026677,
-73.95840106533903,
40.63632589026677]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.56',
'geometry': {'type': 'Point',
'coordinates': [-73.94329119073582, 40.67082917695294]},
'geometry_name': 'geom',
'properties': {'name': 'Crown Heights',
'stacked': 2,
'annoline1': 'Crown',
'annoline2': 'Heights',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.94329119073582,
40.67082917695294,
-73.94329119073582,
40.67082917695294]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.57',
'geometry': {'type': 'Point',
'coordinates': [-73.93610256185836, 40.64171776668961]},
'geometry_name': 'geom',
'properties': {'name': 'East Flatbush',
'stacked': 1,
'annoline1': 'East Flatbush',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.93610256185836,
40.64171776668961,
-73.93610256185836,

```

```

    40.64171776668961]]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.58',
   'geometry': {'type': 'Point',
    'coordinates': [-73.98042110559474, 40.642381958003526]},
   'geometry_name': 'geom',
   'properties': {'name': 'Kensington',
    'stacked': 1,
    'annoline1': 'Kensington',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-73.98042110559474,
     40.642381958003526,
     -73.98042110559474,
     40.642381958003526]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.59',
   'geometry': {'type': 'Point',
    'coordinates': [-73.98007340430172, 40.65694583575104]},
   'geometry_name': 'geom',
   'properties': {'name': 'Windsor Terrace',
    'stacked': 2,
    'annoline1': 'Windsor',
    'annoline2': 'Terrace',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-73.98007340430172,
     40.65694583575104,
     -73.98007340430172,
     40.65694583575104]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.60',
   'geometry': {'type': 'Point',
    'coordinates': [-73.9648592426269, 40.676822262254724]},
   'geometry_name': 'geom',
   'properties': {'name': 'Prospect Heights',
    'stacked': 2,
    'annoline1': 'Prospect',
    'annoline2': 'Heights',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-73.9648592426269,
     40.676822262254724,
     -73.9648592426269,
     40.676822262254724]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.61',
   'geometry': {'type': 'Point',
    'coordinates': [-73.91023536176607, 40.66394994339755]},
   'geometry_name': 'geom',
   'properties': {'name': 'Brownsville',
    'stacked': 1,
    'annoline1': 'Brownsville',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',

```

```
'bbox': [-73.91023536176607,
40.66394994339755,
-73.91023536176607,
40.66394994339755]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.62',
'geometry': {'type': 'Point',
'coordinates': [-73.95811529220927, 40.70714439344251]},
'geometry_name': 'geom',
'properties': {'name': 'Williamsburg',
'stacked': 1,
'annoline1': 'Williamsburg',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.95811529220927,
40.70714439344251,
-73.95811529220927,
40.70714439344251]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.63',
'geometry': {'type': 'Point',
'coordinates': [-73.92525797487045, 40.69811611017901]},
'geometry_name': 'geom',
'properties': {'name': 'Bushwick',
'stacked': 1,
'annoline1': 'Bushwick',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.92525797487045,
40.69811611017901,
-73.92525797487045,
40.69811611017901]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.64',
'geometry': {'type': 'Point',
'coordinates': [-73.94178488690297, 40.687231607720456]},
'geometry_name': 'geom',
'properties': {'name': 'Bedford Stuyvesant',
'stacked': 1,
'annoline1': 'Bedford Stuyvesant',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.94178488690297,
40.687231607720456,
-73.94178488690297,
40.687231607720456]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.65',
'geometry': {'type': 'Point',
'coordinates': [-73.99378225496424, 40.695863722724084]},
'geometry_name': 'geom',
'properties': {'name': 'Brooklyn Heights',
'stacked': 2,
'annoline1': 'Brooklyn',
'annoline2': 'Heights',
```

```
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.99378225496424,
40.695863722724084,
-73.99378225496424,
40.695863722724084]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.66',
'geometry': {'type': 'Point',
'coordinates': [-73.99856139218463, 40.687919722485574]},
'geometry_name': 'geom',
'properties': {'name': 'Cobble Hill',
'stacked': 2,
'annoline1': 'Cobble',
'annoline2': 'Hill',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.99856139218463,
40.687919722485574,
-73.99856139218463,
40.687919722485574]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.67',
'geometry': {'type': 'Point',
'coordinates': [-73.99465372828006, 40.680540231076485]},
'geometry_name': 'geom',
'properties': {'name': 'Carroll Gardens',
'stacked': 2,
'annoline1': 'Carroll',
'annoline2': 'Gardens',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.99465372828006,
40.680540231076485,
-73.99465372828006,
40.680540231076485]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.68',
'geometry': {'type': 'Point',
'coordinates': [-74.0127589747356, 40.676253230250886]},
'geometry_name': 'geom',
'properties': {'name': 'Red Hook',
'stacked': 2,
'annoline1': 'Red',
'annoline2': 'Hook',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-74.0127589747356,
40.676253230250886,
-74.0127589747356,
40.676253230250886]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.69',
'geometry': {'type': 'Point',
'coordinates': [-73.99444087145339, 40.673931143187154]},
'geometry_name': 'geom',
'properties': {'name': 'Gowanus',
```



```
'stacked': 1,
'annoline1': 'Gowanus',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.99444087145339,
40.673931143187154,
-73.99444087145339,
40.673931143187154]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.70',
'geometry': {'type': 'Point',
'coordinates': [-73.97290574369092, 40.68852726018977]}},
'geometry_name': 'geom',
'properties': {'name': 'Fort Greene',
'stacked': 2,
'annoline1': 'Fort',
'annoline2': 'Greene',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.97290574369092,
40.68852726018977,
-73.97290574369092,
40.68852726018977]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.71',
'geometry': {'type': 'Point',
'coordinates': [-73.97705030183924, 40.67232052268197]}},
'geometry_name': 'geom',
'properties': {'name': 'Park Slope',
'stacked': 2,
'annoline1': 'Park',
'annoline2': 'Slope',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.97705030183924,
40.67232052268197,
-73.97705030183924,
40.67232052268197]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.72',
'geometry': {'type': 'Point',
'coordinates': [-73.87661596457296, 40.68239101144211]}},
'geometry_name': 'geom',
'properties': {'name': 'Cypress Hills',
'stacked': 2,
'annoline1': 'Cypress',
'annoline2': 'Hills',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.87661596457296,
40.68239101144211,
-73.87661596457296,
40.68239101144211]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.73',
'geometry': {'type': 'Point',
```

```

    'coordinates': [-73.88069863917366, 40.669925700847045]],
    'geometry_name': 'geom',
    'properties': {'name': 'East New York',
    'stacked': 1,
    'annoline1': 'East New York',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-73.88069863917366,
    40.669925700847045,
    -73.88069863917366,
    40.669925700847045]]},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.74',
    'geometry': {'type': 'Point',
    'coordinates': [-73.87936970045875, 40.64758905230874]],
    'geometry_name': 'geom',
    'properties': {'name': 'Starrett City',
    'stacked': 2,
    'annoline1': 'Starrett',
    'annoline2': 'City',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-73.87936970045875,
    40.64758905230874,
    -73.87936970045875,
    40.64758905230874]]},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.75',
    'geometry': {'type': 'Point',
    'coordinates': [-73.90209269778966, 40.63556432797428]],
    'geometry_name': 'geom',
    'properties': {'name': 'Canarsie',
    'stacked': 1,
    'annoline1': 'Canarsie',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-73.90209269778966,
    40.63556432797428,
    -73.90209269778966,
    40.63556432797428]]},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.76',
    'geometry': {'type': 'Point',
    'coordinates': [-73.92911302644674, 40.630446043757466]],
    'geometry_name': 'geom',
    'properties': {'name': 'Flatlands',
    'stacked': 1,
    'annoline1': 'Flatlands',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-73.92911302644674,
    40.630446043757466,
    -73.92911302644674,
    40.630446043757466]]},

```

```
{'type': 'Feature',
'id': 'nyu_2451_34572.77',
'geometry': {'type': 'Point',
'coordinates': [-73.90818571777423, 40.606336421685626]},
'geometry_name': 'geom',
'properties': {'name': 'Mill Island',
'stacked': 2,
'annoline1': 'Mill',
'annoline2': 'Island',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.90818571777423,
40.606336421685626,
-73.90818571777423,
40.606336421685626]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.78',
'geometry': {'type': 'Point',
'coordinates': [-73.94353722891886, 40.57791350308657]},
'geometry_name': 'geom',
'properties': {'name': 'Manhattan Beach',
'stacked': 2,
'annoline1': 'Manhattan',
'annoline2': 'Beach',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.94353722891886,
40.57791350308657,
-73.94353722891886,
40.57791350308657]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.79',
'geometry': {'type': 'Point',
'coordinates': [-73.98868295821637, 40.57429256471601]},
'geometry_name': 'geom',
'properties': {'name': 'Coney Island',
'stacked': 1,
'annoline1': 'Coney Island',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.98868295821637,
40.57429256471601,
-73.98868295821637,
40.57429256471601]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.80',
'geometry': {'type': 'Point',
'coordinates': [-73.99875221443519, 40.59951870282238]},
'geometry_name': 'geom',
'properties': {'name': 'Bath Beach',
'stacked': 2,
'annoline1': 'Bath',
'annoline2': 'Beach',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.99875221443519,
```

```
40.59951870282238,  
-73.99875221443519,  
40.59951870282238]]},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.81',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.99049823044811, 40.633130512758015]},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Borough Park',  
 'stacked': 2,  
 'annoline1': 'Borough',  
 'annoline2': 'Park',  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Brooklyn',  
 'bbox': [-73.99049823044811,  
 40.633130512758015,  
 -73.99049823044811,  
 40.633130512758015]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.82',  
 'geometry': {'type': 'Point',  
 'coordinates': [-74.01931375636022, 40.619219457722636]},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Dyker Heights',  
 'stacked': 2,  
 'annoline1': 'Dyker',  
 'annoline2': 'Heights',  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Brooklyn',  
 'bbox': [-74.01931375636022,  
 40.619219457722636,  
 -74.01931375636022,  
 40.619219457722636]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.83',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.93010170691196, 40.590848433902046]},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Gerritsen Beach',  
 'stacked': 2,  
 'annoline1': 'Gerritsen',  
 'annoline2': 'Beach',  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Brooklyn',  
 'bbox': [-73.93010170691196,  
 40.590848433902046,  
 -73.93010170691196,  
 40.590848433902046]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.84',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.93134404108497, 40.609747779894604]},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Marine Park',  
 'stacked': 1,  
 'annoline1': 'Marine Park',  
 'annoline2': None,  
 'annoline3': None,
```

```
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.93134404108497,
40.609747779894604,
-73.93134404108497,
40.609747779894604]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.85',
'geometry': {'type': 'Point',
'coordinates': [-73.96784306216367, 40.693229421881504]},
'geometry_name': 'geom',
'properties': {'name': 'Clinton Hill',
'stacked': 2,
'annoline1': 'Clinton',
'annoline2': 'Hill',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.96784306216367,
40.693229421881504,
-73.96784306216367,
40.693229421881504]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.86',
'geometry': {'type': 'Point',
'coordinates': [-74.0078731120024, 40.57637537890224]},
'geometry_name': 'geom',
'properties': {'name': 'Sea Gate',
'stacked': 2,
'annoline1': 'Sea',
'annoline2': 'Gate',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-74.0078731120024,
40.57637537890224,
-74.0078731120024,
40.57637537890224]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.87',
'geometry': {'type': 'Point',
'coordinates': [-73.98346337431099, 40.69084402109802]},
'geometry_name': 'geom',
'properties': {'name': 'Downtown',
'stacked': 1,
'annoline1': 'Downtown',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.98346337431099,
40.69084402109802,
-73.98346337431099,
40.69084402109802]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.88',
'geometry': {'type': 'Point',
'coordinates': [-73.98374824115798, 40.685682912091444]},
'geometry_name': 'geom',
'properties': {'name': 'Boerum Hill',
'stacked': 2,
```

```
'annoline1': 'Boerum',
'annoline2': 'Hill',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.98374824115798,
40.685682912091444,
-73.98374824115798,
40.685682912091444]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.89',
'geometry': {'type': 'Point',
'coordinates': [-73.95489867077713, 40.658420017469815]},
'geometry_name': 'geom',
'properties': {'name': 'Prospect Lefferts Gardens',
'stacked': 3,
'annoline1': 'Prospect',
'annoline2': 'Lefferts',
'annoline3': 'Gardens',
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.95489867077713,
40.658420017469815,
-73.95489867077713,
40.658420017469815]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.90',
'geometry': {'type': 'Point',
'coordinates': [-73.91306831787395, 40.678402554795355]},
'geometry_name': 'geom',
'properties': {'name': 'Ocean Hill',
'stacked': 2,
'annoline1': 'Ocean',
'annoline2': 'Hill',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.91306831787395,
40.678402554795355,
-73.91306831787395,
40.678402554795355]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.91',
'geometry': {'type': 'Point',
'coordinates': [-73.86797598081334, 40.67856995727479]},
'geometry_name': 'geom',
'properties': {'name': 'City Line',
'stacked': 2,
'annoline1': 'City',
'annoline2': 'Line',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.86797598081334,
40.67856995727479,
-73.86797598081334,
40.67856995727479]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.92',
'geometry': {'type': 'Point',
'coordinates': [-73.89855633630317, 40.61514955045308]},
```

```

'geometry_name': 'geom',
'properties': {'name': 'Bergen Beach',
'stacked': 2,
'annoline1': 'Bergen',
'annoline2': 'Beach',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.89855633630317,
40.61514955045308,
-73.89855633630317,
40.61514955045308]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.93',
'geometry': {'type': 'Point',
'coordinates': [-73.95759523489838, 40.62559589869843]},
'geometry_name': 'geom',
'properties': {'name': 'Midwood',
'stacked': 1,
'annoline1': 'Midwood',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.95759523489838,
40.62559589869843,
-73.95759523489838,
40.62559589869843]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.94',
'geometry': {'type': 'Point',
'coordinates': [-73.96261316716048, 40.647008603185185]},
'geometry_name': 'geom',
'properties': {'name': 'Prospect Park South',
'stacked': 2,
'annoline1': 'Prospect',
'annoline2': 'Park South',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.96261316716048,
40.647008603185185,
-73.96261316716048,
40.647008603185185]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.95',
'geometry': {'type': 'Point',
'coordinates': [-73.91607483951324, 40.62384524478419]},
'geometry_name': 'geom',
'properties': {'name': 'Georgetown',
'stacked': 1,
'annoline1': 'Georgetown',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.91607483951324,
40.62384524478419,
-73.91607483951324,
40.62384524478419]}},
{'type': 'Feature',

```

```
'id': 'nyu_2451_34572.96',
'geometry': {'type': 'Point',
'coordinates': [-73.93885815269195, 40.70849241041548]},
'geometry_name': 'geom',
'properties': {'name': 'East Williamsburg',
'stacked': 2,
'annoline1': 'East',
'annoline2': 'Williamsburg',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.93885815269195,
40.70849241041548,
-73.93885815269195,
40.70849241041548]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.97',
'geometry': {'type': 'Point',
'coordinates': [-73.95880857587582, 40.714822906532014]},
'geometry_name': 'geom',
'properties': {'name': 'North Side',
'stacked': 1,
'annoline1': 'North Side',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.95880857587582,
40.714822906532014,
-73.95880857587582,
40.714822906532014]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.98',
'geometry': {'type': 'Point',
'coordinates': [-73.95800095153331, 40.71086147265064]},
'geometry_name': 'geom',
'properties': {'name': 'South Side',
'stacked': 1,
'annoline1': 'South Side',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.95800095153331,
40.71086147265064,
-73.95800095153331,
40.71086147265064]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.99',
'geometry': {'type': 'Point',
'coordinates': [-73.96836678035541, 40.61305976667942]},
'geometry_name': 'geom',
'properties': {'name': 'Ocean Parkway',
'stacked': 2,
'annoline1': 'Ocean',
'annoline2': 'Parkway',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.96836678035541,
40.61305976667942,
```



```
-73.96836678035541,  
40.61305976667942]]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.100',  
  'geometry': {'type': 'Point',  
    'coordinates': [-74.03197914537984, 40.61476812694226]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Fort Hamilton',  
    'stacked': 2,  
    'annoline1': 'Fort',  
    'annoline2': 'Hamilton',  
    'annoline3': None,  
    'annoangle': 0.0,  
    'borough': 'Brooklyn',  
    'bbox': [-74.03197914537984,  
      40.61476812694226,  
      -74.03197914537984,  
      40.61476812694226]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.101',  
  'geometry': {'type': 'Point',  
    'coordinates': [-73.99427936255978, 40.71561842231432]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Chinatown',  
    'stacked': 1,  
    'annoline1': 'Chinatown',  
    'annoline2': None,  
    'annoline3': None,  
    'annoangle': 0.0,  
    'borough': 'Manhattan',  
    'bbox': [-73.99427936255978,  
      40.71561842231432,  
      -73.99427936255978,  
      40.71561842231432]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.102',  
  'geometry': {'type': 'Point',  
    'coordinates': [-73.93690027985234, 40.85190252555305]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Washington Heights',  
    'stacked': 2,  
    'annoline1': 'Washington',  
    'annoline2': 'Heights',  
    'annoline3': None,  
    'annoangle': 0.0,  
    'borough': 'Manhattan',  
    'bbox': [-73.93690027985234,  
      40.85190252555305,  
      -73.93690027985234,  
      40.85190252555305]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.103',  
  'geometry': {'type': 'Point',  
    'coordinates': [-73.92121042203897, 40.86768396449915]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Inwood',  
    'stacked': 1,  
    'annoline1': 'Inwood',  
    'annoline2': None,  
    'annoline3': None,  
    'annoangle': 0.0,
```

```

    'borough': 'Manhattan',
    'bbox': [-73.92121042203897,
    40.86768396449915,
    -73.92121042203897,
    40.86768396449915]]},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.104',
    'geometry': {'type': 'Point',
    'coordinates': [-73.94968791883366, 40.823604284811935]}},
    'geometry_name': 'geom',
    'properties': {'name': 'Hamilton Heights',
    'stacked': 2,
    'annoline1': 'Hamilton',
    'annoline2': 'Heights',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.94968791883366,
    40.823604284811935,
    -73.94968791883366,
    40.823604284811935]}},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.105',
    'geometry': {'type': 'Point',
    'coordinates': [-73.9573853935188, 40.8169344294978]}},
    'geometry_name': 'geom',
    'properties': {'name': 'Manhattanville',
    'stacked': 2,
    'annoline1': 'Manhattanville',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.9573853935188,
    40.8169344294978,
    -73.9573853935188,
    40.8169344294978]}},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.106',
    'geometry': {'type': 'Point',
    'coordinates': [-73.94321112603905, 40.81597606742414]}},
    'geometry_name': 'geom',
    'properties': {'name': 'Central Harlem',
    'stacked': 2,
    'annoline1': 'Central',
    'annoline2': 'Harlem',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.94321112603905,
    40.81597606742414,
    -73.94321112603905,
    40.81597606742414]}},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.107',
    'geometry': {'type': 'Point',
    'coordinates': [-73.94418223148524, 40.79224946663033]}},
    'geometry_name': 'geom',
    'properties': {'name': 'East Harlem',
    'stacked': 2,
    'annoline1': 'East',

```

```

    'annoline2': 'Harlem',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.94418223148524,
    40.79224946663033,
    -73.94418223148524,
    40.79224946663033]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.108',
   'geometry': {'type': 'Point',
    'coordinates': [-73.96050763135, 40.775638573301805]},
   'geometry_name': 'geom',
   'properties': {'name': 'Upper East Side',
    'stacked': 3,
    'annoline1': 'Upper',
    'annoline2': 'East',
    'annoline3': 'Side',
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.96050763135,
    40.775638573301805,
    -73.96050763135,
    40.775638573301805]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.109',
   'geometry': {'type': 'Point',
    'coordinates': [-73.94711784471826, 40.775929849884875]},
   'geometry_name': 'geom',
   'properties': {'name': 'Yorkville',
    'stacked': 1,
    'annoline1': 'Yorkville',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.94711784471826,
    40.775929849884875,
    -73.94711784471826,
    40.775929849884875]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.110',
   'geometry': {'type': 'Point',
    'coordinates': [-73.9588596881376, 40.76811265828733]},
   'geometry_name': 'geom',
   'properties': {'name': 'Lenox Hill',
    'stacked': 2,
    'annoline1': 'Lenox',
    'annoline2': 'Hill',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.9588596881376,
    40.76811265828733,
    -73.9588596881376,
    40.76811265828733]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.111',
   'geometry': {'type': 'Point',
    'coordinates': [-73.94916769227953, 40.76215960576283]},
   'geometry_name': 'geom',

```

```

'properties': {'name': 'Roosevelt Island',
'stacked': 1,
'annoline1': 'Roosevelt Island',
'annoline2': None,
'annoline3': None,
'annoangle': 56,
'borough': 'Manhattan',
'bbox': [-73.94916769227953,
40.76215960576283,
-73.94916769227953,
40.76215960576283]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.112',
'geometry': {'type': 'Point',
'coordinates': [-73.97705923630603, 40.787657998534854]}},
'geometry_name': 'geom',
'properties': {'name': 'Upper West Side',
'stacked': 3,
'annoline1': 'Upper',
'annoline2': 'West',
'annoline3': 'Side',
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.97705923630603,
40.787657998534854,
-73.97705923630603,
40.787657998534854]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.113',
'geometry': {'type': 'Point',
'coordinates': [-73.98533777001262, 40.77352888942166]}},
'geometry_name': 'geom',
'properties': {'name': 'Lincoln Square',
'stacked': 2,
'annoline1': 'Lincoln',
'annoline2': 'Square',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.98533777001262,
40.77352888942166,
-73.98533777001262,
40.77352888942166]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.114',
'geometry': {'type': 'Point',
'coordinates': [-73.99611936309479, 40.75910089146212]}},
'geometry_name': 'geom',
'properties': {'name': 'Clinton',
'stacked': 1,
'annoline1': 'Clinton',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.99611936309479,
40.75910089146212,
-73.99611936309479,
40.75910089146212]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.115',

```

```
'geometry': {'type': 'Point',
'coordinates': [-73.98166882730304, 40.75469110270623]},
'geometry_name': 'geom',
'properties': {'name': 'Midtown',
'stacked': 1,
'annoline1': 'Midtown',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.98166882730304,
40.75469110270623,
-73.98166882730304,
40.75469110270623]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.116',
'geometry': {'type': 'Point',
'coordinates': [-73.97833207924127, 40.748303077252174]},
'geometry_name': 'geom',
'properties': {'name': 'Murray Hill',
'stacked': 2,
'annoline1': 'Murray',
'annoline2': 'Hill',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.97833207924127,
40.748303077252174,
-73.97833207924127,
40.748303077252174]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.117',
'geometry': {'type': 'Point',
'coordinates': [-74.00311633472813, 40.744034706747975]},
'geometry_name': 'geom',
'properties': {'name': 'Chelsea',
'stacked': 1,
'annoline1': 'Chelsea',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-74.00311633472813,
40.744034706747975,
-74.00311633472813,
40.744034706747975]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.118',
'geometry': {'type': 'Point',
'coordinates': [-73.99991402945902, 40.72693288536128]},
'geometry_name': 'geom',
'properties': {'name': 'Greenwich Village',
'stacked': 2,
'annoline1': 'Greenwich',
'annoline2': 'Village',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.99991402945902,
40.72693288536128,
-73.99991402945902,
```

```

    40.72693288536128]]},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.119',
   'geometry': {'type': 'Point',
    'coordinates': [-73.98222616506416, 40.727846777270244]},
   'geometry_name': 'geom',
   'properties': {'name': 'East Village',
    'stacked': 2,
    'annoline1': 'East',
    'annoline2': 'Village',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.98222616506416,
     40.727846777270244,
     -73.98222616506416,
     40.727846777270244]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.120',
   'geometry': {'type': 'Point',
    'coordinates': [-73.98089031999291, 40.71780674892765]},
   'geometry_name': 'geom',
   'properties': {'name': 'Lower East Side',
    'stacked': 3,
    'annoline1': 'Lower',
    'annoline2': 'East',
    'annoline3': 'Side',
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.98089031999291,
     40.71780674892765,
     -73.98089031999291,
     40.71780674892765]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.121',
   'geometry': {'type': 'Point',
    'coordinates': [-74.01068328559087, 40.721521967443216]},
   'geometry_name': 'geom',
   'properties': {'name': 'Tribeca',
    'stacked': 1,
    'annoline1': 'Tribeca',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-74.01068328559087,
     40.721521967443216,
     -74.01068328559087,
     40.721521967443216]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.122',
   'geometry': {'type': 'Point',
    'coordinates': [-73.99730467208073, 40.71932379395907]},
   'geometry_name': 'geom',
   'properties': {'name': 'Little Italy',
    'stacked': 2,
    'annoline1': 'Little',
    'annoline2': 'Italy',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',

```

```
'bbox': [-73.99730467208073,
40.71932379395907,
-73.99730467208073,
40.71932379395907]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.123',
'geometry': {'type': 'Point',
'coordinates': [-74.00065666959759, 40.72218384131794]},
'geometry_name': 'geom',
'properties': {'name': 'Soho',
'stacked': 1,
'annoline1': 'Soho',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-74.00065666959759,
40.72218384131794,
-74.00065666959759,
40.72218384131794]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.124',
'geometry': {'type': 'Point',
'coordinates': [-74.00617998126812, 40.73443393572434]},
'geometry_name': 'geom',
'properties': {'name': 'West Village',
'stacked': 2,
'annoline1': 'West',
'annoline2': 'Village',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-74.00617998126812,
40.73443393572434,
-74.00617998126812,
40.73443393572434]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.125',
'geometry': {'type': 'Point',
'coordinates': [-73.96428617740655, 40.797307041702865]},
'geometry_name': 'geom',
'properties': {'name': 'Manhattan Valley',
'stacked': 2,
'annoline1': 'Manhattan',
'annoline2': 'Valley',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.96428617740655,
40.797307041702865,
-73.96428617740655,
40.797307041702865]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.126',
'geometry': {'type': 'Point',
'coordinates': [-73.96389627905332, 40.807999738165826]},
'geometry_name': 'geom',
'properties': {'name': 'Morningside Heights',
'stacked': 2,
'annoline1': 'Morningside',
'annoline2': 'Heights',
```

```

    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.96389627905332,
    40.807999738165826,
    -73.96389627905332,
    40.807999738165826]]},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.127',
    'geometry': {'type': 'Point',
      'coordinates': [-73.98137594833541, 40.737209832715]},
    'geometry_name': 'geom',
    'properties': {'name': 'Gramercy',
      'stacked': 1,
      'annoline1': 'Gramercy',
      'annoline2': None,
      'annoline3': None,
      'annoangle': 0.0,
      'borough': 'Manhattan',
      'bbox': [-73.98137594833541,
      40.737209832715,
      -73.98137594833541,
      40.737209832715]}},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.128',
    'geometry': {'type': 'Point',
      'coordinates': [-74.01686930508617, 40.71193198394565]},
    'geometry_name': 'geom',
    'properties': {'name': 'Battery Park City',
      'stacked': 3,
      'annoline1': 'Battery',
      'annoline2': 'Park',
      'annoline3': 'City',
      'annoangle': 0.0,
      'borough': 'Manhattan',
      'bbox': [-74.01686930508617,
      40.71193198394565,
      -74.01686930508617,
      40.71193198394565]}},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.129',
    'geometry': {'type': 'Point',
      'coordinates': [-74.0106654452127, 40.70710710727048]},
    'geometry_name': 'geom',
    'properties': {'name': 'Financial District',
      'stacked': 2,
      'annoline1': 'Financial',
      'annoline2': 'District',
      'annoline3': None,
      'annoangle': 0.0,
      'borough': 'Manhattan',
      'bbox': [-74.0106654452127,
      40.70710710727048,
      -74.0106654452127,
      40.70710710727048]}},
  {'type': 'Feature',
    'id': 'nyu_2451_34572.130',
    'geometry': {'type': 'Point',
      'coordinates': [-73.91565374304234, 40.76850859335492]},
    'geometry_name': 'geom',
    'properties': {'name': 'Astoria',

```



```
'stacked': 1,
'annoline1': 'Astoria',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.91565374304234,
40.76850859335492,
-73.91565374304234,
40.76850859335492]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.131',
'geometry': {'type': 'Point',
'coordinates': [-73.90184166838284, 40.74634908860222]},
'geometry_name': 'geom',
'properties': {'name': 'Woodside',
'stacked': 1,
'annoline1': 'Woodside',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.90184166838284,
40.74634908860222,
-73.90184166838284,
40.74634908860222]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.132',
'geometry': {'type': 'Point',
'coordinates': [-73.88282109164365, 40.75198138007367]},
'geometry_name': 'geom',
'properties': {'name': 'Jackson Heights',
'stacked': 2,
'annoline1': 'Jackson',
'annoline2': 'Heights',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.88282109164365,
40.75198138007367,
-73.88282109164365,
40.75198138007367]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.133',
'geometry': {'type': 'Point',
'coordinates': [-73.88165622288388, 40.744048505122024]},
'geometry_name': 'geom',
'properties': {'name': 'Elmhurst',
'stacked': 1,
'annoline1': 'Elmhurst',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.88165622288388,
40.744048505122024,
-73.88165622288388,
40.744048505122024]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.134',
'geometry': {'type': 'Point',
```

```

    'coordinates': [-73.8381376460028, 40.65422527738487]},
    'geometry_name': 'geom',
    'properties': {'name': 'Howard Beach',
    'stacked': 2,
    'annoline1': 'Howard',
    'annoline2': 'Beach',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.8381376460028,
    40.65422527738487,
    -73.8381376460028,
    40.65422527738487]}},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.135',
    'geometry': {'type': 'Point',
    'coordinates': [-73.85682497345258, 40.74238175015667]},
    'geometry_name': 'geom',
    'properties': {'name': 'Corona',
    'stacked': 1,
    'annoline1': 'Corona',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.85682497345258,
    40.74238175015667,
    -73.85682497345258,
    40.74238175015667]}},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.136',
    'geometry': {'type': 'Point',
    'coordinates': [-73.84447500788983, 40.72526378216503]},
    'geometry_name': 'geom',
    'properties': {'name': 'Forest Hills',
    'stacked': 2,
    'annoline1': 'Forest',
    'annoline2': 'Hills',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.84447500788983,
    40.72526378216503,
    -73.84447500788983,
    40.72526378216503]}},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.137',
    'geometry': {'type': 'Point',
    'coordinates': [-73.82981905825703, 40.7051790354148]},
    'geometry_name': 'geom',
    'properties': {'name': 'Kew Gardens',
    'stacked': 2,
    'annoline1': 'Kew',
    'annoline2': 'Gardens',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.82981905825703,
    40.7051790354148,
    -73.82981905825703,
    40.7051790354148]}},

```

```
{'type': 'Feature',
'id': 'nyu_2451_34572.138',
'geometry': {'type': 'Point',
'coordinates': [-73.83183321446887, 40.69794731471763]},
'geometry_name': 'geom',
'properties': {'name': 'Richmond Hill',
'stacked': 2,
'annoline1': 'Richmond',
'annoline2': 'Hill',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.83183321446887,
40.69794731471763,
-73.83183321446887,
40.69794731471763]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.139',
'geometry': {'type': 'Point',
'coordinates': [-73.83177300329582, 40.76445419697846]},
'geometry_name': 'geom',
'properties': {'name': 'Flushing',
'stacked': 1,
'annoline1': 'Flushing',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.83177300329582,
40.76445419697846,
-73.83177300329582,
40.76445419697846]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.140',
'geometry': {'type': 'Point',
'coordinates': [-73.93920223915505, 40.75021734610528]},
'geometry_name': 'geom',
'properties': {'name': 'Long Island City',
'stacked': 3,
'annoline1': 'Long',
'annoline2': 'Island',
'annoline3': 'City',
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.93920223915505,
40.75021734610528,
-73.93920223915505,
40.75021734610528]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.141',
'geometry': {'type': 'Point',
'coordinates': [-73.92691617561577, 40.74017628351924]},
'geometry_name': 'geom',
'properties': {'name': 'Sunnyside',
'stacked': 1,
'annoline1': 'Sunnyside',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.92691617561577,
```

```
40.74017628351924,  
-73.92691617561577,  
40.74017628351924]]},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.142',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.86704147658772, 40.76407323883091]},  
 'geometry_name': 'geom',  
 'properties': {'name': 'East Elmhurst',  
 'stacked': 2,  
 'annoline1': 'East',  
 'annoline2': 'Elmhurst',  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Queens',  
 'bbox': [-73.86704147658772,  
 40.76407323883091,  
 -73.86704147658772,  
 40.76407323883091]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.143',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.89621713626859, 40.725427374093606]},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Maspeth',  
 'stacked': 1,  
 'annoline1': 'Maspeth',  
 'annoline2': None,  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Queens',  
 'bbox': [-73.89621713626859,  
 40.725427374093606,  
 -73.89621713626859,  
 40.725427374093606]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.144',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.90143517559589, 40.70832315613858]},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Ridgewood',  
 'stacked': 1,  
 'annoline1': 'Ridgewood',  
 'annoline2': None,  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Queens',  
 'bbox': [-73.90143517559589,  
 40.70832315613858,  
 -73.90143517559589,  
 40.70832315613858]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.145',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.87074167435605, 40.70276242967838]},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Glendale',  
 'stacked': 1,  
 'annoline1': 'Glendale',  
 'annoline2': None,  
 'annoline3': None,
```

```
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.87074167435605,
40.70276242967838,
-73.87074167435605,
40.70276242967838]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.146',
'geometry': {'type': 'Point',
'coordinates': [-73.8578268690537, 40.72897409480735]},
'geometry_name': 'geom',
'properties': {'name': 'Rego Park',
'stacked': 1,
'annoline1': 'Rego Park',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.8578268690537,
40.72897409480735,
-73.8578268690537,
40.72897409480735]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.147',
'geometry': {'type': 'Point',
'coordinates': [-73.8581104655432, 40.68988687915789]},
'geometry_name': 'geom',
'properties': {'name': 'Woodhaven',
'stacked': 1,
'annoline1': 'Woodhaven',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.8581104655432,
40.68988687915789,
-73.8581104655432,
40.68988687915789]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.148',
'geometry': {'type': 'Point',
'coordinates': [-73.84320266173447, 40.680708468265415]},
'geometry_name': 'geom',
'properties': {'name': 'Ozone Park',
'stacked': 1,
'annoline1': 'Ozone Park',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.84320266173447,
40.680708468265415,
-73.84320266173447,
40.680708468265415]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.149',
'geometry': {'type': 'Point',
'coordinates': [-73.80986478649041, 40.66854957767195]},
'geometry_name': 'geom',
'properties': {'name': 'South Ozone Park',
'stacked': 2,
```

```
'annoline1': 'South',
'annoline2': 'Ozone Park',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.80986478649041,
40.66854957767195,
-73.80986478649041,
40.66854957767195]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.150',
'geometry': {'type': 'Point',
'coordinates': [-73.84304528896125, 40.784902749260205]},
'geometry_name': 'geom',
'properties': {'name': 'College Point',
'stacked': 2,
'annoline1': 'College',
'annoline2': 'Point',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.84304528896125,
40.784902749260205,
-73.84304528896125,
40.784902749260205]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.151',
'geometry': {'type': 'Point',
'coordinates': [-73.81420216610863, 40.78129076602694]},
'geometry_name': 'geom',
'properties': {'name': 'Whitestone',
'stacked': 1,
'annoline1': 'Whitestone',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.81420216610863,
40.78129076602694,
-73.81420216610863,
40.78129076602694]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.152',
'geometry': {'type': 'Point',
'coordinates': [-73.7742736306867, 40.76604063281064]},
'geometry_name': 'geom',
'properties': {'name': 'Bayside',
'stacked': 1,
'annoline1': 'Bayside',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.7742736306867,
40.76604063281064,
-73.7742736306867,
40.76604063281064]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.153',
'geometry': {'type': 'Point',
'coordinates': [-73.79176243728061, 40.76172954903262]},
```

```

'geometry_name': 'geom',
'properties': {'name': 'Auburndale',
'stacked': 1,
'annoline1': 'Auburndale',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.79176243728061,
40.76172954903262,
-73.79176243728061,
40.76172954903262]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.154',
'geometry': {'type': 'Point',
'coordinates': [-73.7388977558074, 40.7708261928267]}},
'geometry_name': 'geom',
'properties': {'name': 'Little Neck',
'stacked': 2,
'annoline1': 'Little',
'annoline2': 'Neck',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.7388977558074,
40.7708261928267,
-73.7388977558074,
40.7708261928267]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.155',
'geometry': {'type': 'Point',
'coordinates': [-73.7424982072733, 40.76684609790763]}},
'geometry_name': 'geom',
'properties': {'name': 'Douglaston',
'stacked': 1,
'annoline1': 'Douglaston',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.7424982072733,
40.76684609790763,
-73.7424982072733,
40.76684609790763]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.156',
'geometry': {'type': 'Point',
'coordinates': [-73.71548118999145, 40.74944079974332]}},
'geometry_name': 'geom',
'properties': {'name': 'Glen Oaks',
'stacked': 2,
'annoline1': 'Glen',
'annoline2': 'Oaks',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.71548118999145,
40.74944079974332,
-73.71548118999145,
40.74944079974332]}},
{'type': 'Feature',

```

```

'id': 'nyu_2451_34572.157',
'geometry': {'type': 'Point',
'coordinates': [-73.72012814826903, 40.72857318176675]},
'geometry_name': 'geom',
'properties': {'name': 'Bellerose',
'stacked': 1,
'annoline1': 'Bellerose',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.72012814826903,
40.72857318176675,
-73.72012814826903,
40.72857318176675]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.158',
'geometry': {'type': 'Point',
'coordinates': [-73.82087764933566, 40.722578244228046]},
'geometry_name': 'geom',
'properties': {'name': 'Kew Gardens Hills',
'stacked': 3,
'annoline1': 'Kew',
'annoline2': 'Gardens',
'annoline3': 'Hills',
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.82087764933566,
40.722578244228046,
-73.82087764933566,
40.722578244228046]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.159',
'geometry': {'type': 'Point',
'coordinates': [-73.78271337003264, 40.7343944653313]},
'geometry_name': 'geom',
'properties': {'name': 'Fresh Meadows',
'stacked': 2,
'annoline1': 'Fresh',
'annoline2': 'Meadows',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.78271337003264,
40.7343944653313,
-73.78271337003264,
40.7343944653313]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.160',
'geometry': {'type': 'Point',
'coordinates': [-73.81174822458634, 40.71093547252271]},
'geometry_name': 'geom',
'properties': {'name': 'Briarwood',
'stacked': 1,
'annoline1': 'Briarwood',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.81174822458634,
40.71093547252271,

```



```
-73.81174822458634,  
40.71093547252271]]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.161',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.79690165888289, 40.70465736068717]}},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Jamaica Center',  
 'stacked': 2,  
 'annoline1': 'Jamaica',  
 'annoline2': 'Center',  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Queens',  
 'bbox': [-73.79690165888289,  
 40.70465736068717,  
 -73.79690165888289,  
 40.70465736068717]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.162',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.75494976234332, 40.74561857141855]}},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Oakland Gardens',  
 'stacked': 2,  
 'annoline1': 'Oakland',  
 'annoline2': 'Gardens',  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Queens',  
 'bbox': [-73.75494976234332,  
 40.74561857141855,  
 -73.75494976234332,  
 40.74561857141855]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.163',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.73871484578424, 40.718893092167356]}},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Queens Village',  
 'stacked': 2,  
 'annoline1': 'Queens',  
 'annoline2': 'Village',  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Queens',  
 'bbox': [-73.73871484578424,  
 40.718893092167356,  
 -73.73871484578424,  
 40.718893092167356]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.164',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.75925009335594, 40.71124344191904]}},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Hollis',  
 'stacked': 1,  
 'annoline1': 'Hollis',  
 'annoline2': None,  
 'annoline3': None,  
 'annoangle': 0.0,
```

```
'borough': 'Queens',
'bbox': [-73.75925009335594,
40.71124344191904,
-73.75925009335594,
40.71124344191904]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.165',
'geometry': {'type': 'Point',
'coordinates': [-73.7904261313554, 40.696911253789885]},
'geometry_name': 'geom',
'properties': {'name': 'South Jamaica',
'stacked': 1,
'annoline1': 'South Jamaica',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.7904261313554,
40.696911253789885,
-73.7904261313554,
40.696911253789885]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.166',
'geometry': {'type': 'Point',
'coordinates': [-73.75867603727717, 40.69444538522359]},
'geometry_name': 'geom',
'properties': {'name': 'St. Albans',
'stacked': 1,
'annoline1': 'St. Albans',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.75867603727717,
40.69444538522359,
-73.75867603727717,
40.69444538522359]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.167',
'geometry': {'type': 'Point',
'coordinates': [-73.77258787620906, 40.67521139591733]},
'geometry_name': 'geom',
'properties': {'name': 'Rochdale',
'stacked': 1,
'annoline1': 'Rochdale',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.77258787620906,
40.67521139591733,
-73.77258787620906,
40.67521139591733]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.168',
'geometry': {'type': 'Point',
'coordinates': [-73.76042092682287, 40.666230490368584]},
'geometry_name': 'geom',
'properties': {'name': 'Springfield Gardens',
'stacked': 2,
'annoline1': 'Springfield',
```

```
'annoline2': 'Gardens',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.76042092682287,
40.666230490368584,
-73.76042092682287,
40.666230490368584]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.169',
'geometry': {'type': 'Point',
'coordinates': [-73.73526873708026, 40.692774639160845]},
'geometry_name': 'geom',
'properties': {'name': 'Cambria Heights',
'stacked': 2,
'annoline1': 'Cambria',
'annoline2': 'Heights',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.73526873708026,
40.692774639160845,
-73.73526873708026,
40.692774639160845]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.170',
'geometry': {'type': 'Point',
'coordinates': [-73.73526079428278, 40.659816433428084]},
'geometry_name': 'geom',
'properties': {'name': 'Rosedale',
'stacked': 1,
'annoline1': 'Rosedale',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.73526079428278,
40.659816433428084,
-73.73526079428278,
40.659816433428084]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.171',
'geometry': {'type': 'Point',
'coordinates': [-73.75497968043872, 40.603134432500894]},
'geometry_name': 'geom',
'properties': {'name': 'Far Rockaway',
'stacked': 2,
'annoline1': 'Far Rockaway',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.75497968043872,
40.603134432500894,
-73.75497968043872,
40.603134432500894]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.172',
'geometry': {'type': 'Point',
'coordinates': [-73.8200548911032, 40.60302658351238]},
'geometry_name': 'geom',
```

```
'properties': {'name': 'Broad Channel',
'stacked': 2,
'annoline1': 'Broad',
'annoline2': 'Channel',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.8200548911032,
40.60302658351238,
-73.8200548911032,
40.60302658351238]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.173',
'geometry': {'type': 'Point',
'coordinates': [-73.92551196994168, 40.55740128845452]}},
'geometry_name': 'geom',
'properties': {'name': 'Breezy Point',
'stacked': 2,
'annoline1': 'Breezy',
'annoline2': 'Point',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.92551196994168,
40.55740128845452,
-73.92551196994168,
40.55740128845452]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.174',
'geometry': {'type': 'Point',
'coordinates': [-73.90228960391673, 40.775923015642896]}},
'geometry_name': 'geom',
'properties': {'name': 'Steinway',
'stacked': 1,
'annoline1': 'Steinway',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.90228960391673,
40.775923015642896,
-73.90228960391673,
40.775923015642896]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.175',
'geometry': {'type': 'Point',
'coordinates': [-73.80436451720988, 40.79278140360048]}},
'geometry_name': 'geom',
'properties': {'name': 'Beechhurst',
'stacked': 1,
'annoline1': 'Beechhurst',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.80436451720988,
40.79278140360048,
-73.80436451720988,
40.79278140360048]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.176',
```

```

'geometry': {'type': 'Point',
'coordinates': [-73.7768022262158, 40.782842806245554]},
'geometry_name': 'geom',
'properties': {'name': 'Bay Terrace',
'stacked': 2,
'annoline1': 'Bay',
'annoline2': 'Terrace',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.7768022262158,
40.782842806245554,
-73.7768022262158,
40.782842806245554]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.177',
'geometry': {'type': 'Point',
'coordinates': [-73.77613282391705, 40.595641807368494]},
'geometry_name': 'geom',
'properties': {'name': 'Edgemere',
'stacked': 1,
'annoline1': 'Edgemere',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.77613282391705,
40.595641807368494,
-73.77613282391705,
40.595641807368494]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.178',
'geometry': {'type': 'Point',
'coordinates': [-73.79199233136943, 40.58914394372971]},
'geometry_name': 'geom',
'properties': {'name': 'Arverne',
'stacked': 1,
'annoline1': 'Arverne',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.79199233136943,
40.58914394372971,
-73.79199233136943,
40.58914394372971]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.179',
'geometry': {'type': 'Point',
'coordinates': [-73.82236121088751, 40.582801696845586]},
'geometry_name': 'geom',
'properties': {'name': 'Rockaway Beach',
'stacked': 2,
'annoline1': 'Rockaway',
'annoline2': 'Beach',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.82236121088751,
40.582801696845586,
-73.82236121088751,
40.582801696845586,
-73.82236121088751,
40.582801696845586]}},

```

```
40.582801696845586]]},
{'type': 'Feature',
 'id': 'nyu_2451_34572.180',
 'geometry': {'type': 'Point',
 'coordinates': [-73.85754672410827, 40.572036730217015]},
 'geometry_name': 'geom',
 'properties': {'name': 'Neponsit',
 'stacked': 1,
 'annoline1': 'Neponsit',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Queens',
 'bbox': [-73.85754672410827,
 40.572036730217015,
 -73.85754672410827,
 40.572036730217015]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.181',
 'geometry': {'type': 'Point',
 'coordinates': [-73.81276269135866, 40.764126122614066]},
 'geometry_name': 'geom',
 'properties': {'name': 'Murray Hill',
 'stacked': 2,
 'annoline1': 'Murray',
 'annoline2': 'Hill',
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Queens',
 'bbox': [-73.81276269135866,
 40.764126122614066,
 -73.81276269135866,
 40.764126122614066]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.182',
 'geometry': {'type': 'Point',
 'coordinates': [-73.70884705889246, 40.741378421945434]},
 'geometry_name': 'geom',
 'properties': {'name': 'Floral Park',
 'stacked': 1,
 'annoline1': 'Floral Park',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Queens',
 'bbox': [-73.70884705889246,
 40.741378421945434,
 -73.70884705889246,
 40.741378421945434]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.183',
 'geometry': {'type': 'Point',
 'coordinates': [-73.76714166714729, 40.7209572076444]},
 'geometry_name': 'geom',
 'properties': {'name': 'Holliswood',
 'stacked': 1,
 'annoline1': 'Holliswood',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Queens',
```

```
'bbox': [-73.76714166714729,
40.7209572076444,
-73.76714166714729,
40.7209572076444]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.184',
'geometry': {'type': 'Point',
'coordinates': [-73.7872269693666, 40.71680483014613]},
'geometry_name': 'geom',
'properties': {'name': 'Jamaica Estates',
'stacked': 2,
'annoline1': 'Jamaica',
'annoline2': 'Estates',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.7872269693666,
40.71680483014613,
-73.7872269693666,
40.71680483014613]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.185',
'geometry': {'type': 'Point',
'coordinates': [-73.82580915110559, 40.7445723092867]},
'geometry_name': 'geom',
'properties': {'name': 'Queensboro Hill',
'stacked': 2,
'annoline1': 'Queensboro',
'annoline2': 'Hill',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.82580915110559,
40.7445723092867,
-73.82580915110559,
40.7445723092867]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.186',
'geometry': {'type': 'Point',
'coordinates': [-73.79760300912672, 40.723824901829204]},
'geometry_name': 'geom',
'properties': {'name': 'Hillcrest',
'stacked': 1,
'annoline1': 'Hillcrest',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.79760300912672,
40.723824901829204,
-73.79760300912672,
40.723824901829204]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.187',
'geometry': {'type': 'Point',
'coordinates': [-73.93157506072878, 40.761704526054146]},
'geometry_name': 'geom',
'properties': {'name': 'Ravenswood',
'stacked': 1,
'annoline1': 'Ravenswood',
'annoline2': None,
```

```

    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.93157506072878,
    40.761704526054146,
    -73.93157506072878,
    40.761704526054146]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.188',
   'geometry': {'type': 'Point',
    'coordinates': [-73.84963782402441, 40.66391841925139]},
   'geometry_name': 'geom',
   'properties': {'name': 'Lindenwood',
    'stacked': 1,
    'annoline1': 'Lindenwood',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.84963782402441,
    40.66391841925139,
    -73.84963782402441,
    40.66391841925139]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.189',
   'geometry': {'type': 'Point',
    'coordinates': [-73.74025607989822, 40.66788389660247]},
   'geometry_name': 'geom',
   'properties': {'name': 'Laurelton',
    'stacked': 1,
    'annoline1': 'Laurelton',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.74025607989822,
    40.66788389660247,
    -73.74025607989822,
    40.66788389660247]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.190',
   'geometry': {'type': 'Point',
    'coordinates': [-73.8625247141374, 40.736074570830795]},
   'geometry_name': 'geom',
   'properties': {'name': 'Lefrak City',
    'stacked': 2,
    'annoline1': 'Lefrak',
    'annoline2': 'City',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.8625247141374,
    40.736074570830795,
    -73.8625247141374,
    40.736074570830795]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.191',
   'geometry': {'type': 'Point',
    'coordinates': [-73.8540175039252, 40.57615556543109]},
   'geometry_name': 'geom',
   'properties': {'name': 'Belle Harbor',

```



```
'stacked': 1,
'annoline1': 'Belle Harbor',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.8540175039252,
40.57615556543109,
-73.8540175039252,
40.57615556543109]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.192',
'geometry': {'type': 'Point',
'coordinates': [-73.84153370226186, 40.58034295646131]}},
'geometry_name': 'geom',
'properties': {'name': 'Rockaway Park',
'stacked': 1,
'annoline1': 'Rockaway Park',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.84153370226186,
40.58034295646131,
-73.84153370226186,
40.58034295646131]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.193',
'geometry': {'type': 'Point',
'coordinates': [-73.79664750844047, 40.59771061565768]}},
'geometry_name': 'geom',
'properties': {'name': 'Somerville',
'stacked': 1,
'annoline1': 'Somerville',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.79664750844047,
40.59771061565768,
-73.79664750844047,
40.59771061565768]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.194',
'geometry': {'type': 'Point',
'coordinates': [-73.75175310731153, 40.66000322733613]}},
'geometry_name': 'geom',
'properties': {'name': 'Brookville',
'stacked': 1,
'annoline1': 'Brookville',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.75175310731153,
40.66000322733613,
-73.75175310731153,
40.66000322733613]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.195',
'geometry': {'type': 'Point',
```

```

    'coordinates': [-73.73889198912481, 40.73301404027834]],
    'geometry_name': 'geom',
    'properties': {'name': 'Bellaire',
    'stacked': 1,
    'annoline1': 'Bellaire',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.73889198912481,
    40.73301404027834,
    -73.73889198912481,
    40.73301404027834]}},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.196',
    'geometry': {'type': 'Point',
    'coordinates': [-73.85751790676447, 40.7540709990489]],
    'geometry_name': 'geom',
    'properties': {'name': 'North Corona',
    'stacked': 2,
    'annoline1': 'North',
    'annoline2': 'Corona',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.85751790676447,
    40.7540709990489,
    -73.85751790676447,
    40.7540709990489]}},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.197',
    'geometry': {'type': 'Point',
    'coordinates': [-73.8410221123401, 40.7146110815117]],
    'geometry_name': 'geom',
    'properties': {'name': 'Forest Hills Gardens',
    'stacked': 3,
    'annoline1': 'Forest',
    'annoline2': 'Hills',
    'annoline3': 'Gardens',
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.8410221123401,
    40.7146110815117,
    -73.8410221123401,
    40.7146110815117]}},
    {'type': 'Feature',
    'id': 'nyu_2451_34572.198',
    'geometry': {'type': 'Point',
    'coordinates': [-74.07935312512797, 40.6449815710044]],
    'geometry_name': 'geom',
    'properties': {'name': 'St. George',
    'stacked': 2,
    'annoline1': 'St.',
    'annoline2': 'George',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Staten Island',
    'bbox': [-74.07935312512797,
    40.6449815710044,
    -74.07935312512797,
    40.6449815710044]}},

```

```
{'type': 'Feature',
'id': 'nyu_2451_34572.199',
'geometry': {'type': 'Point',
'coordinates': [-74.08701650516625, 40.64061455913511]},
'geometry_name': 'geom',
'properties': {'name': 'New Brighton',
'stacked': 2,
'annoline1': 'New',
'annoline2': 'Brighton',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.08701650516625,
40.64061455913511,
-74.08701650516625,
40.64061455913511]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.200',
'geometry': {'type': 'Point',
'coordinates': [-74.07790192660066, 40.62692762538176]},
'geometry_name': 'geom',
'properties': {'name': 'Stapleton',
'stacked': 1,
'annoline1': 'Stapleton',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.07790192660066,
40.62692762538176,
-74.07790192660066,
40.62692762538176]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.201',
'geometry': {'type': 'Point',
'coordinates': [-74.06980526716141, 40.61530494652761]},
'geometry_name': 'geom',
'properties': {'name': 'Rosebank',
'stacked': 1,
'annoline1': 'Rosebank',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.06980526716141,
40.61530494652761,
-74.06980526716141,
40.61530494652761]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.202',
'geometry': {'type': 'Point',
'coordinates': [-74.1071817826561, 40.63187892654607]},
'geometry_name': 'geom',
'properties': {'name': 'West Brighton',
'stacked': 2,
'annoline1': 'West',
'annoline2': 'Brighton',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.1071817826561,
```

```

    40.63187892654607,
    -74.1071817826561,
    40.63187892654607]]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.203',
   'geometry': {'type': 'Point',
    'coordinates': [-74.08724819983729, 40.624184791313006]},
   'geometry_name': 'geom',
   'properties': {'name': 'Grymes Hill',
    'stacked': 2,
    'annoline1': 'Grymes',
    'annoline2': 'Hill',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Staten Island',
    'bbox': [-74.08724819983729,
    40.624184791313006,
    -74.08724819983729,
    40.624184791313006]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.204',
   'geometry': {'type': 'Point',
    'coordinates': [-74.1113288180088, 40.59706851814673]},
   'geometry_name': 'geom',
   'properties': {'name': 'Todt Hill',
    'stacked': 2,
    'annoline1': 'Todt',
    'annoline2': 'Hill',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Staten Island',
    'bbox': [-74.1113288180088,
    40.59706851814673,
    -74.1113288180088,
    40.59706851814673]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.205',
   'geometry': {'type': 'Point',
    'coordinates': [-74.0795529253982, 40.58024741350956]},
   'geometry_name': 'geom',
   'properties': {'name': 'South Beach',
    'stacked': 2,
    'annoline1': 'South',
    'annoline2': 'Beach',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Staten Island',
    'bbox': [-74.0795529253982,
    40.58024741350956,
    -74.0795529253982,
    40.58024741350956]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.206',
   'geometry': {'type': 'Point',
    'coordinates': [-74.12943426797008, 40.63366930554365]},
   'geometry_name': 'geom',
   'properties': {'name': 'Port Richmond',
    'stacked': 2,
    'annoline1': 'Port',
    'annoline2': 'Richmond',
    'annoline3': None,

```

```
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.12943426797008,
40.63366930554365,
-74.12943426797008,
40.63366930554365]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.207',
'geometry': {'type': 'Point',
'coordinates': [-74.15008537046981, 40.632546390481124]},
'geometry_name': 'geom',
'properties': {'name': "Mariner's Harbor",
'stacked': 2,
'annoline1': "Mariner's",
'annoline2': 'Harbor',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.15008537046981,
40.632546390481124,
-74.15008537046981,
40.632546390481124]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.208',
'geometry': {'type': 'Point',
'coordinates': [-74.17464532993542, 40.63968297845542]},
'geometry_name': 'geom',
'properties': {'name': 'Port Ivory',
'stacked': 2,
'annoline1': 'Port',
'annoline2': 'Ivory',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.17464532993542,
40.63968297845542,
-74.17464532993542,
40.63968297845542]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.209',
'geometry': {'type': 'Point',
'coordinates': [-74.11918058534842, 40.61333593766742]},
'geometry_name': 'geom',
'properties': {'name': 'Castleton Corners',
'stacked': 2,
'annoline1': 'Castleton',
'annoline2': 'Corners',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.11918058534842,
40.61333593766742,
-74.11918058534842,
40.61333593766742]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.210',
'geometry': {'type': 'Point',
'coordinates': [-74.16496031329827, 40.594252379161695]},
'geometry_name': 'geom',
'properties': {'name': 'New Springville',
'stacked': 2,
```

```
'annoline1': 'New',
'annoline2': 'Springville',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.16496031329827,
40.594252379161695,
-74.16496031329827,
40.594252379161695]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.211',
'geometry': {'type': 'Point',
'coordinates': [-74.19073717538116, 40.58631375103281]},
'geometry_name': 'geom',
'properties': {'name': 'Travis',
'stacked': 1,
'annoline1': 'Travis',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.19073717538116,
40.58631375103281,
-74.19073717538116,
40.58631375103281]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.212',
'geometry': {'type': 'Point',
'coordinates': [-74.1164794360638, 40.57257231820632]},
'geometry_name': 'geom',
'properties': {'name': 'New Dorp',
'stacked': 2,
'annoline1': 'New',
'annoline2': 'Dorp',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.1164794360638,
40.57257231820632,
-74.1164794360638,
40.57257231820632]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.213',
'geometry': {'type': 'Point',
'coordinates': [-74.12156593771896, 40.5584622432888]},
'geometry_name': 'geom',
'properties': {'name': 'Oakwood',
'stacked': 1,
'annoline1': 'Oakwood',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.12156593771896,
40.5584622432888,
-74.12156593771896,
40.5584622432888]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.214',
'geometry': {'type': 'Point',
'coordinates': [-74.14932381490992, 40.549480228713605]},
```

```
'geometry_name': 'geom',
'properties': {'name': 'Great Kills',
'stacked': 2,
'annoline1': 'Great',
'annoline2': 'Kills',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.14932381490992,
40.549480228713605,
-74.14932381490992,
40.549480228713605]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.215',
'geometry': {'type': 'Point',
'coordinates': [-74.1643308041936, 40.542230747450745]}},
'geometry_name': 'geom',
'properties': {'name': 'Eltingville',
'stacked': 1,
'annoline1': 'Eltingville',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.1643308041936,
40.542230747450745,
-74.1643308041936,
40.542230747450745]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.216',
'geometry': {'type': 'Point',
'coordinates': [-74.17854866165878, 40.53811417474507]}},
'geometry_name': 'geom',
'properties': {'name': 'Annadale',
'stacked': 1,
'annoline1': 'Annadale',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.17854866165878,
40.53811417474507,
-74.17854866165878,
40.53811417474507]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.217',
'geometry': {'type': 'Point',
'coordinates': [-74.20524582480326, 40.541967622888755]}},
'geometry_name': 'geom',
'properties': {'name': 'Woodrow',
'stacked': 1,
'annoline1': 'Woodrow',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.20524582480326,
40.541967622888755,
-74.20524582480326,
40.541967622888755]}},
{'type': 'Feature',
```

```
'id': 'nyu_2451_34572.218',
'geometry': {'type': 'Point',
'coordinates': [-74.24656934235283, 40.50533376115642]},
'geometry_name': 'geom',
'properties': {'name': 'Tottenville',
'stacked': 1,
'annoline1': 'Tottenville',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.24656934235283,
40.50533376115642,
-74.24656934235283,
40.50533376115642]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.219',
'geometry': {'type': 'Point',
'coordinates': [-74.08055351790115, 40.637316067110326]},
'geometry_name': 'geom',
'properties': {'name': 'Tompkinsville',
'stacked': 1,
'annoline1': 'Tompkinsville',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.08055351790115,
40.637316067110326,
-74.08055351790115,
40.637316067110326]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.220',
'geometry': {'type': 'Point',
'coordinates': [-74.09629029235458, 40.61919310792676]},
'geometry_name': 'geom',
'properties': {'name': 'Silver Lake',
'stacked': 2,
'annoline1': 'Silver',
'annoline2': 'Lake',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.09629029235458,
40.61919310792676,
-74.09629029235458,
40.61919310792676]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.221',
'geometry': {'type': 'Point',
'coordinates': [-74.0971255217853, 40.61276015756489]},
'geometry_name': 'geom',
'properties': {'name': 'Sunnyside',
'stacked': 1,
'annoline1': 'Sunnyside',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.0971255217853,
40.61276015756489,
```



```
-74.0971255217853,  
40.61276015756489]]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.222',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.96101312466779, 40.643675183340974]}},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Ditmas Park',  
 'stacked': 2,  
 'annoline1': 'Ditmas',  
 'annoline2': 'Park',  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Brooklyn',  
 'bbox': [-73.96101312466779,  
 40.643675183340974,  
 -73.96101312466779,  
 40.643675183340974]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.223',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.93718680559314, 40.66094656188111]}},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Wingate',  
 'stacked': 1,  
 'annoline1': 'Wingate',  
 'annoline2': None,  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Brooklyn',  
 'bbox': [-73.93718680559314,  
 40.66094656188111,  
 -73.93718680559314,  
 40.66094656188111]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.224',  
 'geometry': {'type': 'Point',  
 'coordinates': [-73.92688212616955, 40.655572313280764]}},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Rugby',  
 'stacked': 1,  
 'annoline1': 'Rugby',  
 'annoline2': None,  
 'annoline3': None,  
 'annoangle': 0.0,  
 'borough': 'Brooklyn',  
 'bbox': [-73.92688212616955,  
 40.655572313280764,  
 -73.92688212616955,  
 40.655572313280764]}},  
{'type': 'Feature',  
 'id': 'nyu_2451_34572.225',  
 'geometry': {'type': 'Point',  
 'coordinates': [-74.08015734936296, 40.60919044434558]}},  
 'geometry_name': 'geom',  
 'properties': {'name': 'Park Hill',  
 'stacked': 2,  
 'annoline1': 'Park',  
 'annoline2': 'Hill',  
 'annoline3': None,  
 'annoangle': 0.0,
```

```
'borough': 'Staten Island',
'bbox': [-74.08015734936296,
40.60919044434558,
-74.08015734936296,
40.60919044434558]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.226',
'geometry': {'type': 'Point',
'coordinates': [-74.13304143951704, 40.62109047275409]},
'geometry_name': 'geom',
'properties': {'name': 'Westerleigh',
'stacked': 1,
'annoline1': 'Westerleigh',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.13304143951704,
40.62109047275409,
-74.13304143951704,
40.62109047275409]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.227',
'geometry': {'type': 'Point',
'coordinates': [-74.15315246387762, 40.620171512231884]},
'geometry_name': 'geom',
'properties': {'name': 'Graniteville',
'stacked': 1,
'annoline1': 'Graniteville',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.15315246387762,
40.620171512231884,
-74.15315246387762,
40.620171512231884]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.228',
'geometry': {'type': 'Point',
'coordinates': [-74.16510420241124, 40.63532509911492]},
'geometry_name': 'geom',
'properties': {'name': 'Arlington',
'stacked': 1,
'annoline1': 'Arlington',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.16510420241124,
40.63532509911492,
-74.16510420241124,
40.63532509911492]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.229',
'geometry': {'type': 'Point',
'coordinates': [-74.06712363225574, 40.596312571276734]},
'geometry_name': 'geom',
'properties': {'name': 'Arrochar',
'stacked': 1,
'annoline1': 'Arrochar',
```

```

    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Staten Island',
    'bbox': [-74.06712363225574,
    40.596312571276734,
    -74.06712363225574,
    40.596312571276734]]},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.230',
   'geometry': {'type': 'Point',
    'coordinates': [-74.0766743627905, 40.59826835959991]},
   'geometry_name': 'geom',
   'properties': {'name': 'Grasmere',
    'stacked': 1,
    'annoline1': 'Grasmere',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Staten Island',
    'bbox': [-74.0766743627905,
    40.59826835959991,
    -74.0766743627905,
    40.59826835959991]]},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.231',
   'geometry': {'type': 'Point',
    'coordinates': [-74.08751118005578, 40.59632891379513]},
   'geometry_name': 'geom',
   'properties': {'name': 'Old Town',
    'stacked': 2,
    'annoline1': 'Old',
    'annoline2': 'Town',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Staten Island',
    'bbox': [-74.08751118005578,
    40.59632891379513,
    -74.08751118005578,
    40.59632891379513]]},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.232',
   'geometry': {'type': 'Point',
    'coordinates': [-74.09639905312521, 40.588672948199275]},
   'geometry_name': 'geom',
   'properties': {'name': 'Dongan Hills',
    'stacked': 2,
    'annoline1': 'Dongan',
    'annoline2': 'Hills',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Staten Island',
    'bbox': [-74.09639905312521,
    40.588672948199275,
    -74.09639905312521,
    40.588672948199275]]},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.233',
   'geometry': {'type': 'Point',
    'coordinates': [-74.09348266303591, 40.57352690574283]},
   'geometry_name': 'geom',

```

```
'properties': {'name': 'Midland Beach',
'stacked': 2,
'annoline1': 'Midland',
'annoline2': 'Beach',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.09348266303591,
40.57352690574283,
-74.09348266303591,
40.57352690574283]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.234',
'geometry': {'type': 'Point',
'coordinates': [-74.10585598545434, 40.57621558711788]},
'geometry_name': 'geom',
'properties': {'name': 'Grant City',
'stacked': 2,
'annoline1': 'Grant',
'annoline2': 'City',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.10585598545434,
40.57621558711788,
-74.10585598545434,
40.57621558711788]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.235',
'geometry': {'type': 'Point',
'coordinates': [-74.10432707469124, 40.56425549307335]},
'geometry_name': 'geom',
'properties': {'name': 'New Dorp Beach',
'stacked': 3,
'annoline1': 'New',
'annoline2': 'Dorp',
'annoline3': 'Beach',
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.10432707469124,
40.56425549307335,
-74.10432707469124,
40.56425549307335]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.236',
'geometry': {'type': 'Point',
'coordinates': [-74.13916622175768, 40.55398800858462]},
'geometry_name': 'geom',
'properties': {'name': 'Bay Terrace',
'stacked': 2,
'annoline1': 'Bay',
'annoline2': 'Terrace',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.13916622175768,
40.55398800858462,
-74.13916622175768,
40.55398800858462]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.237',
```

```
'geometry': {'type': 'Point',
'coordinates': [-74.19174105747814, 40.531911920489605]},
'geometry_name': 'geom',
'properties': {'name': 'Huguenot',
'stacked': 1,
'annoline1': 'Huguenot',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.19174105747814,
40.531911920489605,
-74.19174105747814,
40.531911920489605]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.238',
'geometry': {'type': 'Point',
'coordinates': [-74.21983106616777, 40.524699376118136]},
'geometry_name': 'geom',
'properties': {'name': 'Pleasant Plains',
'stacked': 2,
'annoline1': 'Pleasant',
'annoline2': 'Plains',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.21983106616777,
40.524699376118136,
-74.21983106616777,
40.524699376118136]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.239',
'geometry': {'type': 'Point',
'coordinates': [-74.22950350260027, 40.50608165346305]},
'geometry_name': 'geom',
'properties': {'name': 'Butler Manor',
'stacked': 2,
'annoline1': 'Butler',
'annoline2': 'Manor',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.22950350260027,
40.50608165346305,
-74.22950350260027,
40.50608165346305]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.240',
'geometry': {'type': 'Point',
'coordinates': [-74.23215775896526, 40.53053148283314]},
'geometry_name': 'geom',
'properties': {'name': 'Charleston',
'stacked': 1,
'annoline1': 'Charleston',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.23215775896526,
40.53053148283314,
-74.23215775896526,
```

```
40.53053148283314]]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.241',
 'geometry': {'type': 'Point',
 'coordinates': [-74.21572851113952, 40.54940400650072]}},
 'geometry_name': 'geom',
 'properties': {'name': 'Rossville',
 'stacked': 1,
 'annoline1': 'Rossville',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Staten Island',
 'bbox': [-74.21572851113952,
 40.54940400650072,
 -74.21572851113952,
 40.54940400650072]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.242',
 'geometry': {'type': 'Point',
 'coordinates': [-74.18588674583893, 40.54928582278321]}},
 'geometry_name': 'geom',
 'properties': {'name': 'Arden Heights',
 'stacked': 2,
 'annoline1': 'Arden',
 'annoline2': 'Heights',
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Staten Island',
 'bbox': [-74.18588674583893,
 40.54928582278321,
 -74.18588674583893,
 40.54928582278321]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.243',
 'geometry': {'type': 'Point',
 'coordinates': [-74.17079414786092, 40.555295236173194]}},
 'geometry_name': 'geom',
 'properties': {'name': 'Greenridge',
 'stacked': 1,
 'annoline1': 'Greenridge',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Staten Island',
 'bbox': [-74.17079414786092,
 40.555295236173194,
 -74.17079414786092,
 40.555295236173194]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.244',
 'geometry': {'type': 'Point',
 'coordinates': [-74.15902208156601, 40.58913894875281]}},
 'geometry_name': 'geom',
 'properties': {'name': 'Heartland Village',
 'stacked': 2,
 'annoline1': 'Heartland',
 'annoline2': 'Village',
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Staten Island',
```

```
'bbox': [-74.15902208156601,
40.58913894875281,
-74.15902208156601,
40.58913894875281]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.245',
'geometry': {'type': 'Point',
'coordinates': [-74.1895604551969, 40.59472602746295]},
'geometry_name': 'geom',
'properties': {'name': 'Chelsea',
'stacked': 1,
'annoline1': 'Chelsea',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.1895604551969,
40.59472602746295,
-74.1895604551969,
40.59472602746295]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.246',
'geometry': {'type': 'Point',
'coordinates': [-74.18725638381567, 40.60577868452358]},
'geometry_name': 'geom',
'properties': {'name': 'Bloomfield',
'stacked': 1,
'annoline1': 'Bloomfield',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.18725638381567,
40.60577868452358,
-74.18725638381567,
40.60577868452358]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.247',
'geometry': {'type': 'Point',
'coordinates': [-74.15940948657122, 40.6095918004203]},
'geometry_name': 'geom',
'properties': {'name': 'Bulls Head',
'stacked': 2,
'annoline1': 'Bulls',
'annoline2': 'Head',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.15940948657122,
40.6095918004203,
-74.15940948657122,
40.6095918004203]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.248',
'geometry': {'type': 'Point',
'coordinates': [-73.95325646837112, 40.7826825671257]},
'geometry_name': 'geom',
'properties': {'name': 'Carnegie Hill',
'stacked': 2,
'annoline1': 'Carnegie',
'annoline2': 'Hill',
```

```
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.95325646837112,
40.7826825671257,
-73.95325646837112,
40.7826825671257]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.249',
'geometry': {'type': 'Point',
'coordinates': [-73.98843368023597, 40.72325901885768]},
'geometry_name': 'geom',
'properties': {'name': 'Noho',
'stacked': 1,
'annoline1': 'Noho',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.98843368023597,
40.72325901885768,
-73.98843368023597,
40.72325901885768]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.250',
'geometry': {'type': 'Point',
'coordinates': [-74.00541529873355, 40.71522892046282]},
'geometry_name': 'geom',
'properties': {'name': 'Civic Center',
'stacked': 2,
'annoline1': 'Civic',
'annoline2': 'Center',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-74.00541529873355,
40.71522892046282,
-74.00541529873355,
40.71522892046282]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.251',
'geometry': {'type': 'Point',
'coordinates': [-73.98871313285247, 40.7485096643122]},
'geometry_name': 'geom',
'properties': {'name': 'Midtown South',
'stacked': 2,
'annoline1': 'Midtown',
'annoline2': 'South',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.98871313285247,
40.7485096643122,
-73.98871313285247,
40.7485096643122]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.252',
'geometry': {'type': 'Point',
'coordinates': [-74.1340572986257, 40.56960594275505]},
'geometry_name': 'geom',
'properties': {'name': 'Richmond Town',
```



```
'stacked': 2,
'annoline1': 'Richmond',
'annoline2': 'Town',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.1340572986257,
40.56960594275505,
-74.1340572986257,
40.56960594275505]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.253',
'geometry': {'type': 'Point',
'coordinates': [-74.06667766061771, 40.60971934079284]}},
'geometry_name': 'geom',
'properties': {'name': 'Shore Acres',
'stacked': 2,
'annoline1': 'Shore',
'annoline2': 'Acres',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.06667766061771,
40.60971934079284,
-74.06667766061771,
40.60971934079284]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.254',
'geometry': {'type': 'Point',
'coordinates': [-74.072642445484, 40.61917845202843]}},
'geometry_name': 'geom',
'properties': {'name': 'Clifton',
'stacked': 1,
'annoline1': 'Clifton',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.072642445484,
40.61917845202843,
-74.072642445484,
40.61917845202843]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.255',
'geometry': {'type': 'Point',
'coordinates': [-74.08402364740358, 40.6044731896879]}},
'geometry_name': 'geom',
'properties': {'name': 'Concord',
'stacked': 1,
'annoline1': 'Concord',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.08402364740358,
40.6044731896879,
-74.08402364740358,
40.6044731896879]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.256',
'geometry': {'type': 'Point',
```

```
'coordinates': [-74.09776206972522, 40.606794394801]],
'geometry_name': 'geom',
'properties': {'name': 'Emerson Hill',
'stacked': 2,
'annoline1': 'Emerson',
'annoline2': 'Hill',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.09776206972522,
40.606794394801,
-74.09776206972522,
40.606794394801]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.257',
'geometry': {'type': 'Point',
'coordinates': [-74.09805062373887, 40.63563000681151]},
'geometry_name': 'geom',
'properties': {'name': 'Randall Manor',
'stacked': 2,
'annoline1': 'Randall',
'annoline2': 'Manor',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.09805062373887,
40.63563000681151,
-74.09805062373887,
40.63563000681151]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.258',
'geometry': {'type': 'Point',
'coordinates': [-74.18622331749823, 40.63843283794795]},
'geometry_name': 'geom',
'properties': {'name': 'Howland Hook',
'stacked': 2,
'annoline1': 'Howland',
'annoline2': 'Hook',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.18622331749823,
40.63843283794795,
-74.18622331749823,
40.63843283794795]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.259',
'geometry': {'type': 'Point',
'coordinates': [-74.1418167896889, 40.630146741193826]},
'geometry_name': 'geom',
'properties': {'name': 'Elm Park',
'stacked': 2,
'annoline1': 'Elm',
'annoline2': 'Park',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.1418167896889,
40.630146741193826,
-74.1418167896889,
40.630146741193826]}},
```

```
{'type': 'Feature',
'id': 'nyu_2451_34572.260',
'geometry': {'type': 'Point',
'coordinates': [-73.91665331978048, 40.652117451793494]},
'geometry_name': 'geom',
'properties': {'name': 'Remsen Village',
'stacked': 2,
'annoline1': 'Remsen',
'annoline2': 'Village',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.91665331978048,
40.652117451793494,
-73.91665331978048,
40.652117451793494]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.261',
'geometry': {'type': 'Point',
'coordinates': [-73.88511776379292, 40.6627442796966]},
'geometry_name': 'geom',
'properties': {'name': 'New Lots',
'stacked': 2,
'annoline1': 'New',
'annoline2': 'Lots',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.88511776379292,
40.6627442796966,
-73.88511776379292,
40.6627442796966]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.262',
'geometry': {'type': 'Point',
'coordinates': [-73.90233474295836, 40.63131755039667]},
'geometry_name': 'geom',
'properties': {'name': 'Paerdegat Basin',
'stacked': 2,
'annoline1': 'Paerdegat',
'annoline2': 'Basin',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.90233474295836,
40.63131755039667,
-73.90233474295836,
40.63131755039667]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.263',
'geometry': {'type': 'Point',
'coordinates': [-73.91515391550404, 40.61597423962336]},
'geometry_name': 'geom',
'properties': {'name': 'Mill Basin',
'stacked': 2,
'annoline1': 'Mill',
'annoline2': 'Basin',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.91515391550404,
```

```

    40.61597423962336,
    -73.91515391550404,
    40.61597423962336]]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.264',
   'geometry': {'type': 'Point',
    'coordinates': [-73.79646462081593, 40.71145964370482]}},
   'geometry_name': 'geom',
   'properties': {'name': 'Jamaica Hills',
    'stacked': 2,
    'annoline1': 'Jamaica',
    'annoline2': 'Hills',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.79646462081593,
    40.71145964370482,
    -73.79646462081593,
    40.71145964370482]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.265',
   'geometry': {'type': 'Point',
    'coordinates': [-73.79671678028349, 40.73350025429757]}},
   'geometry_name': 'geom',
   'properties': {'name': 'Utopia',
    'stacked': 1,
    'annoline1': 'Utopia',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.79671678028349,
    40.73350025429757,
    -73.79671678028349,
    40.73350025429757]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.266',
   'geometry': {'type': 'Point',
    'coordinates': [-73.80486120040537, 40.73493618075478]}},
   'geometry_name': 'geom',
   'properties': {'name': 'Pomonok',
    'stacked': 1,
    'annoline1': 'Pomonok',
    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.80486120040537,
    40.73493618075478,
    -73.80486120040537,
    40.73493618075478]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.267',
   'geometry': {'type': 'Point',
    'coordinates': [-73.89467996270574, 40.7703173929982]}},
   'geometry_name': 'geom',
   'properties': {'name': 'Astoria Heights',
    'stacked': 2,
    'annoline1': 'Astoria',
    'annoline2': 'Heights',
    'annoline3': None,

```

```
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.89467996270574,
40.7703173929982,
-73.89467996270574,
40.7703173929982]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.268',
'geometry': {'type': 'Point',
'coordinates': [-73.90119903387667, 40.83142834161548]},
'geometry_name': 'geom',
'properties': {'name': 'Claremont Village',
'stacked': 2,
'annoline1': 'Claremont',
'annoline2': 'Village',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.90119903387667,
40.83142834161548,
-73.90119903387667,
40.83142834161548]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.269',
'geometry': {'type': 'Point',
'coordinates': [-73.91584652759009, 40.824780490842905]},
'geometry_name': 'geom',
'properties': {'name': 'Concourse Village',
'stacked': 2,
'annoline1': 'Concourse',
'annoline2': 'Village',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.91584652759009,
40.824780490842905,
-73.91584652759009,
40.824780490842905]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.270',
'geometry': {'type': 'Point',
'coordinates': [-73.91655551964419, 40.84382617671654]},
'geometry_name': 'geom',
'properties': {'name': 'Mount Eden',
'stacked': 2,
'annoline1': 'Mount',
'annoline2': 'Eden',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.91655551964419,
40.84382617671654,
-73.91655551964419,
40.84382617671654]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.271',
'geometry': {'type': 'Point',
'coordinates': [-73.90829930881988, 40.84884160724665]},
'geometry_name': 'geom',
'properties': {'name': 'Mount Hope',
'stacked': 2,
```

```

    'annoline1': 'Mount',
    'annoline2': 'Hope',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Bronx',
    'bbox': [-73.90829930881988,
    40.84884160724665,
    -73.90829930881988,
    40.84884160724665]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.272',
   'geometry': {'type': 'Point',
    'coordinates': [-73.96355614094303, 40.76028033131374]}},
   'geometry_name': 'geom',
   'properties': {'name': 'Sutton Place',
    'stacked': 2,
    'annoline1': 'Sutton',
    'annoline2': 'Place',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.96355614094303,
    40.76028033131374,
    -73.96355614094303,
    40.76028033131374]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.273',
   'geometry': {'type': 'Point',
    'coordinates': [-73.95386782130745, 40.743414090073536]}},
   'geometry_name': 'geom',
   'properties': {'name': 'Hunters Point',
    'stacked': 2,
    'annoline1': 'Hunters',
    'annoline2': 'Point',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.95386782130745,
    40.743414090073536,
    -73.95386782130745,
    40.743414090073536]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.274',
   'geometry': {'type': 'Point',
    'coordinates': [-73.96770824581834, 40.75204236950722]}},
   'geometry_name': 'geom',
   'properties': {'name': 'Turtle Bay',
    'stacked': 2,
    'annoline1': 'Turtle',
    'annoline2': 'Bay',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Manhattan',
    'bbox': [-73.96770824581834,
    40.75204236950722,
    -73.96770824581834,
    40.75204236950722]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.275',
   'geometry': {'type': 'Point',
    'coordinates': [-73.97121928722265, 40.746917410740195]}},

```

```
'geometry_name': 'geom',
'properties': {'name': 'Tudor City',
'stacked': 2,
'annoline1': 'Tudor',
'annoline2': 'City',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.97121928722265,
40.746917410740195,
-73.97121928722265,
40.746917410740195]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.276',
'geometry': {'type': 'Point',
'coordinates': [-73.97405170469203, 40.73099955477061]}},
'geometry_name': 'geom',
'properties': {'name': 'Stuyvesant Town',
'stacked': 2,
'annoline1': 'Stuyvesant',
'annoline2': 'Town',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.97405170469203,
40.73099955477061,
-73.97405170469203,
40.73099955477061]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.277',
'geometry': {'type': 'Point',
'coordinates': [-73.9909471052826, 40.739673047638426]}},
'geometry_name': 'geom',
'properties': {'name': 'Flatiron',
'stacked': 1,
'annoline1': 'Flatiron',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Manhattan',
'bbox': [-73.9909471052826,
40.739673047638426,
-73.9909471052826,
40.739673047638426]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.278',
'geometry': {'type': 'Point',
'coordinates': [-73.91819286431682, 40.74565180608076]}},
'geometry_name': 'geom',
'properties': {'name': 'Sunnyside Gardens',
'stacked': 2,
'annoline1': 'Sunnyside',
'annoline2': 'Gardens',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.91819286431682,
40.74565180608076,
-73.91819286431682,
40.74565180608076]}},
{'type': 'Feature',
```

```
'id': 'nyu_2451_34572.279',
'geometry': {'type': 'Point',
'coordinates': [-73.93244235260178, 40.73725071694497]},
'geometry_name': 'geom',
'properties': {'name': 'Blissville',
'stacked': 1,
'annoline1': 'Blissville',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.93244235260178,
40.73725071694497,
-73.93244235260178,
40.73725071694497]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.280',
'geometry': {'type': 'Point',
'coordinates': [-73.99550751888415, 40.70328109093014]},
'geometry_name': 'geom',
'properties': {'name': 'Fulton Ferry',
'stacked': 2,
'annoline1': 'Fulton',
'annoline2': 'Ferry',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.99550751888415,
40.70328109093014,
-73.99550751888415,
40.70328109093014]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.281',
'geometry': {'type': 'Point',
'coordinates': [-73.98111603592393, 40.70332149882874]},
'geometry_name': 'geom',
'properties': {'name': 'Vinegar Hill',
'stacked': 2,
'annoline1': 'Vinegar',
'annoline2': 'Hill',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.98111603592393,
40.70332149882874,
-73.98111603592393,
40.70332149882874]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.282',
'geometry': {'type': 'Point',
'coordinates': [-73.93053108817338, 40.67503986503237]},
'geometry_name': 'geom',
'properties': {'name': 'Weeksville',
'stacked': 1,
'annoline1': 'Weeksville',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.93053108817338,
40.67503986503237,
```



```
-73.93053108817338,  
40.67503986503237]]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.283',  
  'geometry': {'type': 'Point',  
    'coordinates': [-73.90331684852599, 40.67786104769531]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Broadway Junction',  
    'stacked': 2,  
    'annoline1': 'Broadway',  
    'annoline2': 'Junction',  
    'annoline3': None,  
    'annoangle': 0.0,  
    'borough': 'Brooklyn',  
    'bbox': [-73.90331684852599,  
      40.67786104769531,  
      -73.90331684852599,  
      40.67786104769531]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.284',  
  'geometry': {'type': 'Point',  
    'coordinates': [-73.9887528074504, 40.70317632822692]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Dumbo',  
    'stacked': 1,  
    'annoline1': 'Dumbo',  
    'annoline2': None,  
    'annoline3': None,  
    'annoangle': 0.0,  
    'borough': 'Brooklyn',  
    'bbox': [-73.9887528074504,  
      40.70317632822692,  
      -73.9887528074504,  
      40.70317632822692]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.285',  
  'geometry': {'type': 'Point',  
    'coordinates': [-74.12059399718001, 40.60180957631444]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Manor Heights',  
    'stacked': 2,  
    'annoline1': 'Manor',  
    'annoline2': 'Heights',  
    'annoline3': None,  
    'annoangle': 0.0,  
    'borough': 'Staten Island',  
    'bbox': [-74.12059399718001,  
      40.60180957631444,  
      -74.12059399718001,  
      40.60180957631444]}},  
{'type': 'Feature',  
  'id': 'nyu_2451_34572.286',  
  'geometry': {'type': 'Point',  
    'coordinates': [-74.13208447484298, 40.60370692627371]},  
  'geometry_name': 'geom',  
  'properties': {'name': 'Willowbrook',  
    'stacked': 1,  
    'annoline1': 'Willowbrook',  
    'annoline2': None,  
    'annoline3': None,  
    'annoangle': 0.0,
```

```
'borough': 'Staten Island',
'bbox': [-74.13208447484298,
40.60370692627371,
-74.13208447484298,
40.60370692627371]]},
{'type': 'Feature',
'id': 'nyu_2451_34572.287',
'geometry': {'type': 'Point',
'coordinates': [-74.21776636068567, 40.541139922091766]},
'geometry_name': 'geom',
'properties': {'name': 'Sandy Ground',
'stacked': 2,
'annoline1': 'Sandy',
'annoline2': 'Ground',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.21776636068567,
40.541139922091766,
-74.21776636068567,
40.541139922091766]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.288',
'geometry': {'type': 'Point',
'coordinates': [-74.12727240604946, 40.579118742961214]},
'geometry_name': 'geom',
'properties': {'name': 'Egbertville',
'stacked': 1,
'annoline1': 'Egbertville',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.12727240604946,
40.579118742961214,
-74.12727240604946,
40.579118742961214]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.289',
'geometry': {'type': 'Point',
'coordinates': [-73.89213760232822, 40.56737588957032]},
'geometry_name': 'geom',
'properties': {'name': 'Roxbury',
'stacked': 1,
'annoline1': 'Roxbury',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.89213760232822,
40.56737588957032,
-73.89213760232822,
40.56737588957032]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.290',
'geometry': {'type': 'Point',
'coordinates': [-73.95918459428702, 40.598525095137255]},
'geometry_name': 'geom',
'properties': {'name': 'Homecrest',
'stacked': 1,
'annoline1': 'Homecrest',
```

```

    'annoline2': None,
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Brooklyn',
    'bbox': [-73.95918459428702,
    40.598525095137255,
    -73.95918459428702,
    40.598525095137255]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.291',
   'geometry': {'type': 'Point',
    'coordinates': [-73.88114319200604, 40.716414511158185]},
   'geometry_name': 'geom',
   'properties': {'name': 'Middle Village',
    'stacked': 2,
    'annoline1': 'Middle',
    'annoline2': 'Village',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Queens',
    'bbox': [-73.88114319200604,
    40.716414511158185,
    -73.88114319200604,
    40.716414511158185]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.292',
   'geometry': {'type': 'Point',
    'coordinates': [-74.20152556457658, 40.52626406734812]},
   'geometry_name': 'geom',
   'properties': {'name': "Prince's Bay",
    'stacked': 2,
    'annoline1': "Prince's",
    'annoline2': 'Bay',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Staten Island',
    'bbox': [-74.20152556457658,
    40.52626406734812,
    -74.20152556457658,
    40.52626406734812]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.293',
   'geometry': {'type': 'Point',
    'coordinates': [-74.13792663771568, 40.57650629379489]},
   'geometry_name': 'geom',
   'properties': {'name': 'Lighthouse Hill',
    'stacked': 2,
    'annoline1': 'Lighthouse',
    'annoline2': 'Hill',
    'annoline3': None,
    'annoangle': 0.0,
    'borough': 'Staten Island',
    'bbox': [-74.13792663771568,
    40.57650629379489,
    -74.13792663771568,
    40.57650629379489]}},
  {'type': 'Feature',
   'id': 'nyu_2451_34572.294',
   'geometry': {'type': 'Point',
    'coordinates': [-74.22957080626941, 40.51954145748909]},
   'geometry_name': 'geom',

```

```

'properties': {'name': 'Richmond Valley',
'stacked': 2,
'annoline1': 'Richmond',
'annoline2': 'Valley',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Staten Island',
'bbox': [-74.22957080626941,
40.51954145748909,
-74.22957080626941,
40.51954145748909]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.295',
'geometry': {'type': 'Point',
'coordinates': [-73.82667757138641, 40.79060155670148]},
'geometry_name': 'geom',
'properties': {'name': 'Malba',
'stacked': 1,
'annoline1': 'Malba',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Queens',
'bbox': [-73.82667757138641,
40.79060155670148,
-73.82667757138641,
40.79060155670148]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.296',
'geometry': {'type': 'Point',
'coordinates': [-73.890345709872, 40.6819989345173]},
'geometry_name': 'geom',
'properties': {'name': 'Highland Park',
'stacked': 2,
'annoline1': 'Highland',
'annoline2': 'Park',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.890345709872,
40.6819989345173,
-73.890345709872,
40.6819989345173]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.297',
'geometry': {'type': 'Point',
'coordinates': [-73.94841515328893, 40.60937770113766]},
'geometry_name': 'geom',
'properties': {'name': 'Madison',
'stacked': 1,
'annoline1': 'Madison',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.94841515328893,
40.60937770113766,
-73.94841515328893,
40.60937770113766]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.298',

```

```
'geometry': {'type': 'Point',
'coordinates': [-73.86172577555115, 40.85272297633017]},
'geometry_name': 'geom',
'properties': {'name': 'Bronxdale',
'stacked': 1,
'annoline1': 'Bronxdale',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.86172577555115,
40.85272297633017,
-73.86172577555115,
40.85272297633017]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.299',
'geometry': {'type': 'Point',
'coordinates': [-73.85931863221647, 40.86578787802982]},
'geometry_name': 'geom',
'properties': {'name': 'Allerton',
'stacked': 1,
'annoline1': 'Allerton',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.85931863221647,
40.86578787802982,
-73.85931863221647,
40.86578787802982]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.300',
'geometry': {'type': 'Point',
'coordinates': [-73.90152264513144, 40.8703923914147]},
'geometry_name': 'geom',
'properties': {'name': 'Kingsbridge Heights',
'stacked': 2,
'annoline1': 'Kingsbridge',
'annoline2': 'Heights',
'annoline3': None,
'annoangle': 0.0,
'borough': 'Bronx',
'bbox': [-73.90152264513144,
40.8703923914147,
-73.90152264513144,
40.8703923914147]}},
{'type': 'Feature',
'id': 'nyu_2451_34572.301',
'geometry': {'type': 'Point',
'coordinates': [-73.94817709920184, 40.64692606658579]},
'geometry_name': 'geom',
'properties': {'name': 'Erasmus',
'stacked': 1,
'annoline1': 'Erasmus',
'annoline2': None,
'annoline3': None,
'annoangle': 0.0,
'borough': 'Brooklyn',
'bbox': [-73.94817709920184,
40.64692606658579,
-73.94817709920184,
```

```

    40.64692606658579]]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.302',
 'geometry': {'type': 'Point',
 'coordinates': [-74.00011136202637, 40.75665808227519]},
 'geometry_name': 'geom',
 'properties': {'name': 'Hudson Yards',
 'stacked': 2,
 'annoline1': 'Hudson',
 'annoline2': 'Yards',
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Manhattan',
 'bbox': [-74.00011136202637,
 40.75665808227519,
 -74.00011136202637,
 40.75665808227519]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.303',
 'geometry': {'type': 'Point',
 'coordinates': [-73.80553002968718, 40.58733774018741]},
 'geometry_name': 'geom',
 'properties': {'name': 'Hammels',
 'stacked': 1,
 'annoline1': 'Hammels',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Queens',
 'bbox': [-73.80553002968718,
 40.58733774018741,
 -73.80553002968718,
 40.58733774018741]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.304',
 'geometry': {'type': 'Point',
 'coordinates': [-73.76596781445627, 40.611321691283834]},
 'geometry_name': 'geom',
 'properties': {'name': 'Bayswater',
 'stacked': 1,
 'annoline1': 'Bayswater',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Queens',
 'bbox': [-73.76596781445627,
 40.611321691283834,
 -73.76596781445627,
 40.611321691283834]}},
{'type': 'Feature',
 'id': 'nyu_2451_34572.305',
 'geometry': {'type': 'Point',
 'coordinates': [-73.94563070334091, 40.756091297094706]},
 'geometry_name': 'geom',
 'properties': {'name': 'Queensbridge',
 'stacked': 1,
 'annoline1': 'Queensbridge',
 'annoline2': None,
 'annoline3': None,
 'annoangle': 0.0,
 'borough': 'Queens',

```

```

    'bbox': [-73.94563070334091,
             40.756091297094706,
             -73.94563070334091,
             40.756091297094706]}},
    {'type': 'Feature',
     'id': 'nyu_2451_34572.306',
     'geometry': {'type': 'Point',
                  'coordinates': [-74.08173992211962, 40.61731079252983]}},
     'geometry_name': 'geom',
     'properties': {'name': 'Fox Hills',
                    'stacked': 2,
                    'annoline1': 'Fox',
                    'annoline2': 'Hills',
                    'annoline3': None,
                    'annoangle': 0.0,
                    'borough': 'Staten Island',
                    'bbox': [-74.08173992211962,
                             40.61731079252983,
                             -74.08173992211962,
                             40.61731079252983]}},
     'crs': {'type': 'name', 'properties': {'name': 'urn:ogc:def:crs:EPSG::4326'}}},
    'bbox': [-74.2492599487305,
             40.5033187866211,
             -73.7061614990234,
             40.9105606079102]}

```

Notice how all the relevant data is in the features key, which is basically a list of the neighborhoods. So, let's define a new variable that includes this data.

In [6]:

```
neighborhoods_data = newyork_data['features']
```

Let's take a look at the first item in this list.

In [7]:

```
neighborhoods_data[0]
```

Out[7]:

```

{'type': 'Feature',
 'id': 'nyu_2451_34572.1',
 'geometry': {'type': 'Point',
              'coordinates': [-73.84720052054902, 40.89470517661]}},
 'geometry_name': 'geom',
 'properties': {'name': 'Wakefield',
                'stacked': 1,
                'annoline1': 'Wakefield',
                'annoline2': None,
                'annoline3': None,
                'annoangle': 0.0,
                'borough': 'Bronx',
                'bbox': [-73.84720052054902,
                         40.89470517661,
                         -73.84720052054902,
                         40.89470517661]}}

```

Tranform the data into a pandas dataframe

The next task is essentially transforming this data of nested Python dictionaries into a pandas dataframe. So let's start by creating an empty dataframe.

In [8]:

```
# define the dataframe columns
column_names = ['Borough', 'Neighborhood', 'Latitude', 'Longitude']

# instantiate the dataframe
neighborhoods = pd.DataFrame(columns=column_names)
```

Take a look at the empty dataframe to confirm that the columns are as intended.

In [9]:

```
neighborhoods
```

Out[9]:

Borough	Neighborhood	Latitude	Longitude
---------	--------------	----------	-----------

Then let's loop through the data and fill the dataframe one row at a time.

In [10]:

```
for data in neighborhoods_data:
    borough = neighborhood_name = data['properties']['borough']
    neighborhood_name = data['properties']['name']

    neighborhood_latlon = data['geometry']['coordinates']
    neighborhood_lat = neighborhood_latlon[1]
    neighborhood_lon = neighborhood_latlon[0]

    neighborhoods = neighborhoods.append({'Borough': borough,
                                          'Neighborhood': neighborhood_name,
                                          'Latitude': neighborhood_lat,
                                          'Longitude': neighborhood_lon}, ignore_index=
True)
```

Quickly examine the resulting dataframe.

In [11]:

```
neighborhoods.head()
```

Out[11]:

	Borough	Neighborhood	Latitude	Longitude
0	Bronx	Wakefield	40.894705	-73.847201
1	Bronx	Co-op City	40.874294	-73.829939
2	Bronx	Eastchester	40.887556	-73.827806
3	Bronx	Fieldston	40.895437	-73.905643
4	Bronx	Riverdale	40.890834	-73.912585

And make sure that the dataset has all 5 boroughs and 306 neighborhoods.

In [12]:

```
print('The dataframe has {} boroughs and {} neighborhoods.'.format(
    len(neighborhoods['Borough'].unique()),
    neighborhoods.shape[0]
))
```

The dataframe has 5 boroughs and 306 neighborhoods.

In [13]:

```
address = 'New York City, NY'

geolocator = Nominatim(user_agent="ny_explorer")
location = geolocator.geocode(address)
latitude = location.latitude
longitude = location.longitude
print('The geograpical coordinate of New York City are {}, {}'.format(latitude, longitude))
```

The geographical coordinate of New York City are 40.7127281, -74.0060152.

Use geopy library to get the latitude and longitude values of New York City.

In order to define an instance of the geocoder, we need to define a user_agent. We will name our agent ny_explorer, as shown below.

Create a map of New York with neighborhoods superimposed on top

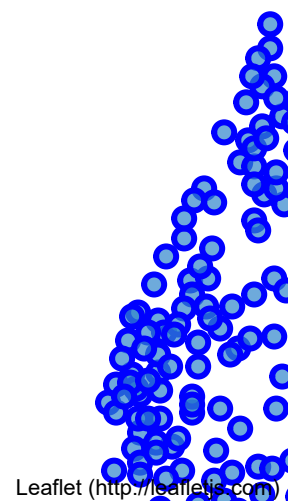
In [14]:

```
# create map of New York using Latitude and Longitude values
map_newyork = folium.Map(location=[latitude, longitude], zoom_start=10)

# add markers to map
for lat, lng, borough, neighborhood in zip(neighborhoods['Latitude'], neighborhoods['Longitude'], neighborhoods['Borough'], neighborhoods['Neighborhood']):
    label = '{} {}, {}'.format(neighborhood, borough)
    label = folium.Popup(label, parse_html=True)
    folium.CircleMarker(
        [lat, lng],
        radius=5,
        popup=label,
        color='blue',
        fill=True,
        fill_color='#3186cc',
        fill_opacity=0.7,
        parse_html=False).add_to(map_newyork)

map_newyork
```

Out[14]:



Folium is a great visualization library. Feel free to zoom into the above map, and click on each circle mark to reveal the name of the neighborhood and its respective borough.

However, for illustration purposes, let's simplify the above map and segment and cluster only the neighborhoods in Manhattan. So let's slice the original dataframe and create a new dataframe of the Manhattan data.

In [15]:

```
manhattan_data = neighborhoods[neighborhoods['Borough'] == 'Manhattan'].reset_index(drop=True)
manhattan_data.head()
```

Out[15]:

	Borough	Neighborhood	Latitude	Longitude
0	Manhattan	Marble Hill	40.876551	-73.910660
1	Manhattan	Chinatown	40.715618	-73.994279
2	Manhattan	Washington Heights	40.851903	-73.936900
3	Manhattan	Inwood	40.867684	-73.921210
4	Manhattan	Hamilton Heights	40.823604	-73.949688

Let's get the geographical coordinates of Manhattan.

In [17]:

```
address = 'Manhattan, NY'

geolocator = Nominatim(user_agent="ny_explorer")
location = geolocator.geocode(address)
latitude = location.latitude
longitude = location.longitude
print('The geograpical coordinate of Manhattan are {}, {}'.format(latitude, longitude))
```

The geograpical coordinate of Manhattan are 40.7896239, -73.9598939.

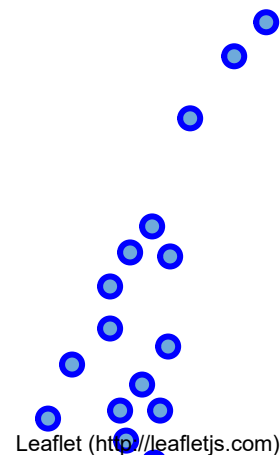
In [18]:

```
# create map of Manhattan using Latitude and Longitude values
map_manhattan = folium.Map(location=[latitude, longitude], zoom_start=11)

# add markers to map
for lat, lng, label in zip(manhattan_data['Latitude'], manhattan_data['Longitude'], manhattan_data['Neighborhood']):
    label = folium.Popup(label, parse_html=True)
    folium.CircleMarker(
        [lat, lng],
        radius=5,
        popup=label,
        color='blue',
        fill=True,
        fill_color='#3186cc',
        fill_opacity=0.7,
        parse_html=False).add_to(map_manhattan)

map_manhattan
```

Out[18]:



Leaflet (<http://leafletjs.com>)

Next, we are going to start utilizing the Foursquare API to explore the neighborhoods and segment them.

Define Foursquare Credentials and Version

In [20]:

```
CLIENT_ID = 'OLN1BAQQBH0234LKFIU1ZNGV4Z303P1GS5KIMTNPJHLX1MKL' # your Foursquare ID
CLIENT_SECRET = 'VDM5CGGVSUOGKMY21ET04J1UAJH5QJEALQCJAIWUF2DJXR2T' # your Foursquare Secret
VERSION = '20180605' # Foursquare API version

print('Your credentials:')
print('CLIENT_ID: ' + CLIENT_ID)
print('CLIENT_SECRET: ' + CLIENT_SECRET)
```

Your credentials:

```
CLIENT_ID: OLN1BAQQBH0234LKFIU1ZNGV4Z303P1GS5KIMTNPJHLX1MKL
CLIENT_SECRET: VDM5CGGVSUOGKMY21ET04J1UAJH5QJEALQCJAIWUF2DJXR2T
```

Let's explore the first neighborhood in our dataframe.

Get the neighborhood's name.

In [21]:

```
manhattan_data.loc[0, 'Neighborhood']
```

Out[21]:

'Marble Hill'

In [22]:

```
neighborhood_latitude = manhattan_data.loc[0, 'Latitude'] # neighborhood latitude value
neighborhood_longitude = manhattan_data.loc[0, 'Longitude'] # neighborhood longitude value

neighborhood_name = manhattan_data.loc[0, 'Neighborhood'] # neighborhood name

print('Latitude and longitude values of {} are {}, {}'.format(neighborhood_name,
                                                                neighborhood_latitude,
                                                                neighborhood_longitude))
```

Latitude and longitude values of Marble Hill are 40.87655077879964, -73.91065965862981.

Now, let's get the top 100 venues that are in Marble Hill within a radius of 500 meters.

In [23]:

```
# type your answer here
radius = 500 # define radius
LIMIT = 100 # limit of number of venues returned by Foursquare API
url = 'https://api.foursquare.com/v2/venues/explore?&client_id={}&client_secret={}&v={}&ll={},{}&radius={}&limit={}'.format(
    CLIENT_ID,
    CLIENT_SECRET,
    VERSION,
    neighborhood_latitude,
    neighborhood_longitude,
    radius,
    LIMIT)
url
```

Out[23]:

```
'https://api.foursquare.com/v2/venues/explore?&client_id=OLN1BAQQBH0234LKF
IU1ZNGV4Z303P1GS5KIMTNPJHLX1MKL&client_secret=VDM5CGGVSUOGKMY21ET04J1UAJH5
QJEALQCJAIWUF2DJXR2T&v=20180605&ll=40.87655077879964,-73.91065965862981&ra
dius=500&limit=100'
```

In [24]:

```
results = requests.get(url).json()  
results
```

Out[24]:

```
{
  'meta': {
    'code': 200,
    'requestId': '5dde3df21e152c001cf59828'
  },
  'response': {
    'suggestedFilters': {
      'header': 'Tap to show:',
      'filters': [
        {
          'name': 'Open now',
          'key': 'openNow'
        }
      ]
    },
    'headerLocation': 'Marble Hill',
    'headerFullLocation': 'Marble Hill, New York',
    'headerLocationGranularity': 'neighborhood',
    'totalResults': 24,
    'suggestedBounds': {
      'ne': {
        'lat': 40.88105078329964,
        'lng': -73.90471933917806
      },
      'sw': {
        'lat': 40.87205077429964,
        'lng': -73.91659997808156
      }
    },
    'groups': [
      {
        'type': 'Recommended Places',
        'name': 'recommended',
        'items': [
          {
            'reasons': {
              'count': 0,
              'items': [
                {
                  'summary': 'This spot is popular',
                  'type': 'general',
                  'reasonName': 'globalInteractionReason'
                }
              ]
            },
            'venue': {
              'id': '4b4429abf964a52037f225e3',
              'name': "Arturo's",
              'location': {
                'address': '5198 Broadway',
                'crossStreet': 'at 225th St.',
                'lat': 40.87441177110231,
                'lng': -73.91027100981574,
                'labeledLatLngs': [
                  {
                    'label': 'display',
                    'lat': 40.87441177110231,
                    'lng': -73.91027100981574
                  }
                ],
                'distance': 240,
                'postalCode': '10463',
                'cc': 'US',
                'city': 'New York',
                'state': 'NY',
                'country': 'United States',
                'formattedAddress': [
                  '5198 Broadway (at 225th St.)',
                  'New York, NY 10463',
                  'United States'
                ]
              },
              'categories': [
                {
                  'id': '4bf58dd8d48988d1ca941735',
                  'name': 'Pizza Place',
                  'pluralName': 'Pizza Places',
                  'shortName': 'Pizza',
                  'icon': {
                    'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/pizza_',
                    'suffix': '.png',
                    'primary': True
                  }
                }
              ],
              'delivery': {
                'id': '72548',
                'url': 'https://www.seamless.com/menu/arturos-pizza-5189-broadway-ave-new-york/72548?affiliate=1131&utm_source=foursquare-affiliate-network&utm_medium=affiliate&utm_campaign=1131&utm_content=72548',
                'provider': {
                  'name': 'seamless',
                  'icon': {
                    'prefix': 'https://fastly.4sqi.net/img/general/cap/',
                    'sizes': [40, 50],
                    'name': '/delivery_provider_seamless_20180129.png'
                  }
                },
                'photos': {
                  'count': 0,
                  'groups': []
                },
                'referralId': 'e-0-4b4429abf964a52037f225e3-0'
              },
              'reasons': {
                'count': 0,
                'items': [
                  {
                    'summary': 'This spot is popular',
                    'type': 'general',
                    'reasonName': 'globalInteractionReason'
                  }
                ]
              },
              'venue': {
                'id': '4baf59e8f964a520a6f93be3',
                'name': 'Bikram Yoga',
                'location': {
                  'address': '5500 Broadway',

```



```

'crossStreet': '230th Street',
'lat': 40.876843690797934,
'lng': -73.90620384419528,
'labeledLatLngs': [{ 'label': 'display',
  'lat': 40.876843690797934,
  'lng': -73.90620384419528}],
'distance': 376,
'postalCode': '10463',
'cc': 'US',
'city': 'Bronx',
'state': 'NY',
'country': 'United States',
'formattedAddress': ['5500 Broadway (230th Street)',
  'Bronx, NY 10463',
  'United States']],
'categories': [{ 'id': '4bf58dd8d48988d102941735',
  'name': 'Yoga Studio',
  'pluralName': 'Yoga Studios',
  'shortName': 'Yoga Studio',
  'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/shops/
gym_yogastudio_',
    'suffix': '.png'},
  'primary': True}],
'photos': { 'count': 0, 'groups': []}},
'referralId': 'e-0-4baf59e8f964a520a6f93be3-1'},
{'reasons': { 'count': 0,
  'items': [{ 'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'}]}],
'venue': { 'id': '4b79cc46f964a520c5122fe3',
  'name': 'Tibbett Diner',
  'location': { 'address': '3033 Tibbett Ave',
    'crossStreet': 'btwn 230th & 231st',
    'lat': 40.8804044222466,
    'lng': -73.90893738006402,
    'labeledLatLngs': [{ 'label': 'display',
      'lat': 40.8804044222466,
      'lng': -73.90893738006402}],
    'distance': 452,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'Bronx',
    'state': 'NY',
    'country': 'United States',
    'formattedAddress': ['3033 Tibbett Ave (btwn 230th & 231st)',
      'Bronx, NY 10463',
      'United States']],
  'categories': [{ 'id': '4bf58dd8d48988d147941735',
    'name': 'Diner',
    'pluralName': 'Diners',
    'shortName': 'Diner',
    'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/d
iner_',
      'suffix': '.png'},
    'primary': True}],
  'photos': { 'count': 0, 'groups': []}},
'referralId': 'e-0-4b79cc46f964a520c5122fe3-2'},
{'reasons': { 'count': 0,
  'items': [{ 'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'}]}],

```

```

'venue': {'id': '55f81cd2498ee903149fcc64',
'name': 'Starbucks',
'location': {'address': '171 W 230th St',
'crossStreet': 'Kimberly Pl',
'lat': 40.87753134921497,
'lng': -73.90558216359267,
'labeledLatLngs': [{'label': 'display',
'lat': 40.87753134921497,
'lng': -73.90558216359267}]},
'distance': 441,
'postalCode': '10463',
'cc': 'US',
'city': 'Bronx',
'state': 'NY',
'country': 'United States',
'formattedAddress': ['171 W 230th St (Kimberly Pl)',
'Bronx, NY 10463',
'United States']},
'categories': [{'id': '4bf58dd8d48988d1e0931735',
'name': 'Coffee Shop',
'pluralName': 'Coffee Shops',
'shortName': 'Coffee Shop',
'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/coffeeshop_',
'suffix': '.png'},
'primary': True}],
'photos': {'count': 0, 'groups': []}},
'referralId': 'e-0-55f81cd2498ee903149fcc64-3'},
{'reasons': {'count': 0,
'items': [{'summary': 'This spot is popular',
'type': 'general',
'reasonName': 'globalInteractionReason'}]},
'venue': {'id': '55f751ca498eacc0307d1cfe',
'name': 'Blink Fitness Riverdale',
'location': {'address': '5520 Broadway',
'crossStreet': 'at W 230th St',
'lat': 40.87714687429521,
'lng': -73.90583697267095,
'labeledLatLngs': [{'label': 'display',
'lat': 40.87714687429521,
'lng': -73.90583697267095}]},
'distance': 411,
'postalCode': '10463',
'cc': 'US',
'neighborhood': 'Kingsbridge',
'city': 'Bronx',
'state': 'NY',
'country': 'United States',
'formattedAddress': ['5520 Broadway (at W 230th St)',
'Bronx, NY 10463',
'United States']},
'categories': [{'id': '4bf58dd8d48988d176941735',
'name': 'Gym',
'pluralName': 'Gyms',
'shortName': 'Gym',
'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/building/gym_',
'suffix': '.png'},
'primary': True}],
'photos': {'count': 0, 'groups': []}},
'referralId': 'e-0-55f751ca498eacc0307d1cfe-4'},

```

```

    {'reasons': {'count': 0,
      'items': [{'summary': 'This spot is popular',
        'type': 'general',
        'reasonName': 'globalInteractionReason'}]}],
    'venue': {'id': '4b5357adf964a520319827e3',
      'name': "Dunkin'",
      'location': {'address': '5501 Broadway',
        'crossStreet': 'W 230th St',
        'lat': 40.87713584201589,
        'lng': -73.90666550701411,
        'labeledLatLngs': [{'label': 'display',
          'lat': 40.87713584201589,
          'lng': -73.90666550701411}]},
      'distance': 342,
      'postalCode': '10463',
      'cc': 'US',
      'city': 'Bronx',
      'state': 'NY',
      'country': 'United States',
      'formattedAddress': ['5501 Broadway (W 230th St)',
        'Bronx, NY 10463',
        'United States']},
    'categories': [{'id': '4bf58dd8d48988d148941735',
      'name': 'Donut Shop',
      'pluralName': 'Donut Shops',
      'shortName': 'Donuts',
      'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/d
onuts_',
        'suffix': '.png'},
      'primary': True}],
    'photos': {'count': 0, 'groups': []}},
    'referralId': 'e-0-4b5357adf964a520319827e3-5'},
    {'reasons': {'count': 0,
      'items': [{'summary': 'This spot is popular',
        'type': 'general',
        'reasonName': 'globalInteractionReason'}]}],
    'venue': {'id': '546d31ca498e561c698a0320',
      'name': 'T.J. Maxx',
      'location': {'lat': 40.87723198343352,
        'lng': -73.90504239962168,
        'labeledLatLngs': [{'label': 'display',
          'lat': 40.87723198343352,
          'lng': -73.90504239962168}]},
      'distance': 478,
      'cc': 'US',
      'city': 'Bronx',
      'state': 'NY',
      'country': 'United States',
      'formattedAddress': ['Bronx, NY', 'United States']},
    'categories': [{'id': '4bf58dd8d48988d1f6941735',
      'name': 'Department Store',
      'pluralName': 'Department Stores',
      'shortName': 'Department Store',
      'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/shops/
departmentstore_',
        'suffix': '.png'},
      'primary': True}],
    'photos': {'count': 0, 'groups': []}},
    'referralId': 'e-0-546d31ca498e561c698a0320-6'},
    {'reasons': {'count': 0,
      'items': [{'summary': 'This spot is popular',

```

```

    'type': 'general',
    'reasonName': 'globalInteractionReason']]],
'venu': {'id': '4b9c9c6af964a520b27236e3',
'name': 'Land & Sea Restaurant',
'location': {'address': '5535 Broadway',
'crossStreet': '231st St',
'lat': 40.87788463309788,
'lng': -73.90587282193539,
'labeledLatLngs': [{'label': 'display',
'lat': 40.87788463309788,
'lng': -73.90587282193539}]},
'distance': 429,
'postalCode': '10463',
'cc': 'US',
'city': 'Bronx',
'state': 'NY',
'country': 'United States',
'formattedAddress': ['5535 Broadway (231st St)',
'Bronx, NY 10463',
'United States']},
'categories': [{'id': '4bf58dd8d48988d1ce941735',
'name': 'Seafood Restaurant',
'pluralName': 'Seafood Restaurants',
'shortName': 'Seafood',
'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/s
eafood_',
'suffix': '.png'},
'primary': True}],
'delivery': {'id': '277380',
'url': 'https://www.seamless.com/menu/land--sea-restaurant-5535-br
oadway-ave-bronx/277380?affiliate=1131&utm_source=foursquare-affiliate-net
work&utm_medium=affiliate&utm_campaign=1131&utm_content=277380',
'provider': {'name': 'seamless',
'icon': {'prefix': 'https://fastly.4sqi.net/img/general/cap/',
'sizes': [40, 50],
'name': '/delivery_provider_seamless_20180129.png'}}},
'photos': {'count': 0, 'groups': []}},
'referralId': 'e-0-4b9c9c6af964a520b27236e3-7'},
{'reasons': {'count': 0,
'items': [{'summary': 'This spot is popular',
'type': 'general',
'reasonName': 'globalInteractionReason']]],
'venu': {'id': '4a725fa1f964a520f6da1fe3',
'name': 'TCR The Club of Riverdale',
'location': {'address': '2600 Netherland Ave',
'lat': 40.8786283,
'lng': -73.9145678,
'labeledLatLngs': [{'label': 'display',
'lat': 40.8786283,
'lng': -73.9145678}]},
'distance': 402,
'postalCode': '10463',
'cc': 'US',
'city': 'Bronx',
'state': 'NY',
'country': 'United States',
'formattedAddress': ['2600 Netherland Ave',
'Bronx, NY 10463',
'United States']},
'categories': [{'id': '4e39a891bd410d7aed40cbc2',
'name': 'Tennis Stadium',

```

```

    'pluralName': 'Tennis Stadiums',
    'shortName': 'Tennis',
    'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/arts_e
ntertainment/stadium_tennis_',
    'suffix': '.png'},
    'primary': True}],
    'photos': {'count': 0, 'groups': []},
    'venuePage': {'id': '40358759'}},
    'referralId': 'e-0-4a725fa1f964a520f6da1fe3-8'},
    {'reasons': {'count': 0,
    'items': [{'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'}]}},
    'venue': {'id': '4b88e053f964a5208a1132e3',
    'name': 'Rite Aid',
    'location': {'address': '5237 Broadway',
    'crossStreet': '228th Street',
    'lat': 40.875466574434704,
    'lng': -73.90890629016033,
    'labeledLatLngs': [{'label': 'display',
    'lat': 40.875466574434704,
    'lng': -73.90890629016033}],
    'distance': 190,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'Bronx',
    'state': 'NY',
    'country': 'United States',
    'formattedAddress': ['5237 Broadway (228th Street)',
    'Bronx, NY 10463',
    'United States']}},
    'categories': [{'id': '4bf58dd8d48988d10f951735',
    'name': 'Pharmacy',
    'pluralName': 'Pharmacies',
    'shortName': 'Pharmacy',
    'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/shops/
pharmacy_',
    'suffix': '.png'},
    'primary': True}],
    'photos': {'count': 0, 'groups': []}},
    'referralId': 'e-0-4b88e053f964a5208a1132e3-9'},
    {'reasons': {'count': 0,
    'items': [{'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'}]}},
    'venue': {'id': '57655be738faa66160da7527',
    'name': 'Starbucks',
    'location': {'address': '50 W 225th St',
    'lat': 40.873754554218515,
    'lng': -73.90861305343668,
    'labeledLatLngs': [{'label': 'display',
    'lat': 40.873754554218515,
    'lng': -73.90861305343668}],
    'distance': 355,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'New York',
    'state': 'NY',
    'country': 'United States',
    'formattedAddress': ['50 W 225th St',
    'New York, NY 10463',

```

```

    'United States']},
    'categories': [{ 'id': '4bf58dd8d48988d1e0931735',
        'name': 'Coffee Shop',
        'pluralName': 'Coffee Shops',
        'shortName': 'Coffee Shop',
        'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/coffee_shop_',
            'suffix': '.png'},
        'primary': True}],
    'photos': { 'count': 0, 'groups': []},
    'referralId': 'e-0-57655be738faa66160da7527-10'},
    { 'reasons': { 'count': 0,
        'items': [{ 'summary': 'This spot is popular',
            'type': 'general',
            'reasonName': 'globalInteractionReason'}]},
    'venue': { 'id': '5631194e498e2de074de661c',
        'name': 'Vitamin Shoppe',
        'location': { 'address': '5510 Broadway',
            'lat': 40.87716,
            'lng': -73.905632,
            'labeledLatLngs': [{ 'label': 'display',
                'lat': 40.87716,
                'lng': -73.905632}],
            'distance': 428,
            'postalCode': '10463',
            'cc': 'US',
            'city': 'Bronx',
            'state': 'NY',
            'country': 'United States',
            'formattedAddress': ['5510 Broadway',
                'Bronx, NY 10463',
                'United States']}},
        'categories': [{ 'id': '5744ccdf4b0c0459246b4cd',
            'name': 'Supplement Shop',
            'pluralName': 'Supplement Shops',
            'shortName': 'Supplement Shop',
            'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/education/lab_',
                'suffix': '.png'},
                'primary': True}],
            'photos': { 'count': 0, 'groups': []},
            'referralId': 'e-0-5631194e498e2de074de661c-11'},
            { 'reasons': { 'count': 0,
                'items': [{ 'summary': 'This spot is popular',
                    'type': 'general',
                    'reasonName': 'globalInteractionReason'}]},
                'venue': { 'id': '4b9c9c43f964a520ac7236e3',
                    'name': 'Lot Less Closeouts',
                    'location': { 'address': '5545 Broadway',
                        'crossStreet': '231st St',
                        'lat': 40.878270422202085,
                        'lng': -73.9052646742604,
                        'labeledLatLngs': [{ 'label': 'display',
                            'lat': 40.878270422202085,
                            'lng': -73.9052646742604}],
                        'distance': 492,
                        'postalCode': '10463',
                        'cc': 'US',
                        'city': 'Bronx',
                        'state': 'NY',
                        'country': 'United States',

```

```

    'formattedAddress': ['5545 Broadway (231st St)',
    'Bronx, NY 10463',
    'United States']],
    'categories': [{ 'id': '52dea92d3cf9994f4e043dbb',
    'name': 'Discount Store',
    'pluralName': 'Discount Stores',
    'shortName': 'Discount Store',
    'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/shops/
discountstore_',
    'suffix': '.png'},
    'primary': True}],
    'photos': { 'count': 0, 'groups': []},
    'referralId': 'e-0-4b9c9c43f964a520ac7236e3-12'},
    { 'reasons': { 'count': 0,
    'items': [{ 'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'}]},
    'venue': { 'id': '4e4e4517bd4101d0d7a67568',
    'name': 'Baskin-Robbins',
    'location': { 'address': '5501 Broadway',
    'lat': 40.8769755336728,
    'lng': -73.90675193198494,
    'labeledLatLngs': [{ 'label': 'display',
    'lat': 40.8769755336728,
    'lng': -73.90675193198494}],
    'distance': 332,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'Bronx',
    'state': 'NY',
    'country': 'United States',
    'formattedAddress': ['5501 Broadway',
    'Bronx, NY 10463',
    'United States']],
    'categories': [{ 'id': '4bf58dd8d48988d1c9941735',
    'name': 'Ice Cream Shop',
    'pluralName': 'Ice Cream Shops',
    'shortName': 'Ice Cream',
    'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/i
cecream_',
    'suffix': '.png'},
    'primary': True}],
    'photos': { 'count': 0, 'groups': []},
    'referralId': 'e-0-4e4e4517bd4101d0d7a67568-13'},
    { 'reasons': { 'count': 0,
    'items': [{ 'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'}]},
    'venue': { 'id': '585c205665e7c70a2f1055ea',
    'name': 'Boston Market',
    'location': { 'address': '5520 Broadway',
    'lat': 40.87743,
    'lng': -73.9054121,
    'labeledLatLngs': [{ 'label': 'display',
    'lat': 40.87743,
    'lng': -73.9054121}],
    'distance': 452,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'Bronx',
    'state': 'NY',

```

```

    'country': 'United States',
    'formattedAddress': ['5520 Broadway',
    'Bronx, NY 10463',
    'United States']],
    'categories': [{ 'id': '4bf58dd8d48988d14e941735',
    'name': 'American Restaurant',
    'pluralName': 'American Restaurants',
    'shortName': 'American',
    'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/d
default_',
    'suffix': '.png'},
    'primary': True}],
    'delivery': { 'id': '1436334',
    'url': 'https://www.seamless.com/menu/boston-market-5520-broadway-
bronx/1436334?affiliate=1131&utm_source=foursquare-affiliate-network&utm_m
edium=affiliate&utm_campaign=1131&utm_content=1436334',
    'provider': { 'name': 'seamless',
    'icon': { 'prefix': 'https://fastly.4sqi.net/img/general/cap/',
    'sizes': [40, 50],
    'name': '/delivery_provider_seamless_20180129.png' } }},
    'photos': { 'count': 0, 'groups': [] }},
    'referralId': 'e-0-585c205665e7c70a2f1055ea-14'},
    { 'reasons': { 'count': 0,
    'items': [{ 'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason' } ]},
    'venue': { 'id': '56229ff8498e2abb44b6f12b',
    'name': 'Five Below',
    'location': { 'address': '171 W 230th St',
    'lat': 40.87745060873134,
    'lng': -73.9051704920654,
    'labeledLatLngs': [{ 'label': 'display',
    'lat': 40.87745060873134,
    'lng': -73.9051704920654 } ]},
    'distance': 472,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'Bronx',
    'state': 'NY',
    'country': 'United States',
    'formattedAddress': ['171 W 230th St',
    'Bronx, NY 10463',
    'United States']],
    'categories': [{ 'id': '4bf58dd8d48988d1ff941735',
    'name': 'Miscellaneous Shop',
    'pluralName': 'Miscellaneous Shops',
    'shortName': 'Shop',
    'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/shops/
default_',
    'suffix': '.png'},
    'primary': True}],
    'photos': { 'count': 0, 'groups': [] }},
    'referralId': 'e-0-56229ff8498e2abb44b6f12b-15'},
    { 'reasons': { 'count': 0,
    'items': [{ 'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason' } ]},
    'venue': { 'id': '4b9f030af964a520eb0f37e3',
    'name': 'GameStop',
    'location': { 'address': '90 W 225th St Ste A-B',
    'crossStreet': 'btw Broadway & Exterior St.',

```



```

'lat': 40.874266802124836,
'lng': -73.90934218062803,
'labeledLatLngs': [{'label': 'display',
  'lat': 40.874266802124836,
  'lng': -73.90934218062803}],
'distance': 277,
'postalCode': '10463',
'cc': 'US',
'city': 'Bronx',
'state': 'NY',
'country': 'United States',
'formattedAddress': ['90 W 225th St Ste A-B (btw Broadway & Exteri
or St.)',
  'Bronx, NY 10463',
  'United States']},
'categories': [{'id': '4bf58dd8d48988d10b951735',
  'name': 'Video Game Store',
  'pluralName': 'Video Game Stores',
  'shortName': 'Video Games',
  'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/shops/
videogames_',
    'suffix': '.png'},
  'primary': True}],
'photos': {'count': 0, 'groups': []},
'referralId': 'e-0-4b9f030af964a520eb0f37e3-16'},
{'reasons': {'count': 0,
  'items': [{'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'}]},
'venue': {'id': '4dfe40df8877333e195b68fc',
  'name': 'Parrilla Latina',
  'location': {'address': '230th St & Broadway',
    'lat': 40.87747294351472,
    'lng': -73.90607346968568,
    'labeledLatLngs': [{'label': 'display',
      'lat': 40.87747294351472,
      'lng': -73.90607346968568}],
    'distance': 399,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'Bronx',
    'state': 'NY',
    'country': 'United States',
    'formattedAddress': ['230th St & Broadway',
      'Bronx, NY 10463',
      'United States']},
  'categories': [{'id': '4bf58dd8d48988d1cc941735',
    'name': 'Steakhouse',
    'pluralName': 'Steakhouses',
    'shortName': 'Steakhouse',
    'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/s
teakhouse_',
      'suffix': '.png'},
    'primary': True}],
  'delivery': {'id': '330981',
    'url': 'https://www.seamless.com/menu/parrilla-latina-5523-broadwa
y-bronx/330981?affiliate=1131&utm_source=foursquare-affiliate-network&utm_
medium=affiliate&utm_campaign=1131&utm_content=330981',
    'provider': {'name': 'seamless',
      'icon': {'prefix': 'https://fastly.4sqi.net/img/general/cap/',
        'sizes': [40, 50],

```

```

    'name': '/delivery_provider_seamless_20180129.png'}}},
    'photos': {'count': 0, 'groups': []}},
    'referralId': 'e-0-4dfe40df8877333e195b68fc-17'},
    {'reasons': {'count': 0,
    'items': [{'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'}]}},
    'venue': {'id': '4e4ce4debd413c4cc66d05d0',
    'name': 'SUBWAY',
    'location': {'address': '5549 Broadway',
    'lat': 40.87849271667849,
    'lng': -73.90538547211088,
    'labeledLatLngs': [{'label': 'display',
    'lat': 40.87849271667849,
    'lng': -73.90538547211088}]},
    'distance': 493,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'Bronx',
    'state': 'NY',
    'country': 'United States',
    'formattedAddress': ['5549 Broadway',
    'Bronx, NY 10463',
    'United States']},
    'categories': [{'id': '4bf58dd8d48988d1c5941735',
    'name': 'Sandwich Place',
    'pluralName': 'Sandwich Places',
    'shortName': 'Sandwiches',
    'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/d
eli_',
    'suffix': '.png'},
    'primary': True}]},
    'delivery': {'id': '774886',
    'url': 'https://www.seamless.com/menu/subway-5549-broadway-bronx/7
74886?affiliate=1131&utm_source=foursquare-affiliate-network&utm_medium=af
filiate&utm_campaign=1131&utm_content=774886',
    'provider': {'name': 'seamless',
    'icon': {'prefix': 'https://fastly.4sqi.net/img/general/cap/',
    'sizes': [40, 50],
    'name': '/delivery_provider_seamless_20180129.png'}}},
    'photos': {'count': 0, 'groups': []}},
    'referralId': 'e-0-4e4ce4debd413c4cc66d05d0-18'},
    {'reasons': {'count': 0,
    'items': [{'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'}]}},
    'venue': {'id': '4c852173dc018cfa2bc3e56c',
    'name': "The Children's Place",
    'location': {'address': '44 W 225th St',
    'lat': 40.873671591133125,
    'lng': -73.90815619608166,
    'labeledLatLngs': [{'label': 'display',
    'lat': 40.873671591133125,
    'lng': -73.90815619608166}]},
    'distance': 383,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'Bronx',
    'state': 'NY',
    'country': 'United States',
    'formattedAddress': ['44 W 225th St',

```

```

    'Bronx, NY 10463',
    'United States']]],
    'categories': [{ 'id': '4bf58dd8d48988d105951735',
    'name': 'Kids Store',
    'pluralName': 'Kids Stores',
    'shortName': 'Kids Store',
    'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/shops/
apparel_kids_',
    'suffix': '.png'},
    'primary': True}],
    'photos': { 'count': 0, 'groups': []}],
    'referralId': 'e-0-4c852173dc018cfa2bc3e56c-19'},
    {'reasons': { 'count': 0,
    'items': [{ 'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'} ]}],
    'venue': { 'id': '53319bb511d2ef06787f02b4',
    'name': 'Broadway Plaza',
    'location': { 'address': '171 W 231st St',
    'lat': 40.87753906779665,
    'lng': -73.90539578168178,
    'labeledLatLngs': [{ 'label': 'display',
    'lat': 40.87753906779665,
    'lng': -73.90539578168178}],
    'distance': 456,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'Bronx',
    'state': 'NY',
    'country': 'United States',
    'formattedAddress': ['171 W 231st St',
    'Bronx, NY 10463',
    'United States'] ]}],
    'categories': [{ 'id': '4bf58dd8d48988d1fd941735',
    'name': 'Shopping Mall',
    'pluralName': 'Shopping Malls',
    'shortName': 'Mall',
    'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/shops/
mall_',
    'suffix': '.png'},
    'primary': True}],
    'photos': { 'count': 0, 'groups': []}],
    'referralId': 'e-0-53319bb511d2ef06787f02b4-20'},
    {'reasons': { 'count': 0,
    'items': [{ 'summary': 'This spot is popular',
    'type': 'general',
    'reasonName': 'globalInteractionReason'} ]}],
    'venue': { 'id': '4d0a529133d6b60cf4cf9985',
    'name': 'Subway',
    'location': { 'address': '5209 Broadway',
    'lat': 40.877720351115315,
    'lng': -73.90537973066263,
    'labeledLatLngs': [{ 'label': 'display',
    'lat': 40.877720351115315,
    'lng': -73.90537973066263}],
    'distance': 463,
    'postalCode': '10463',
    'cc': 'US',
    'city': 'Bronx',
    'state': 'NY',
    'country': 'United States',

```

```

'formattedAddress': ['5209 Broadway',
'Bronx, NY 10463',
'United States']],
'categories': [{ 'id': '4bf58dd8d48988d1c5941735',
'name': 'Sandwich Place',
'pluralName': 'Sandwich Places',
'shortName': 'Sandwiches',
'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/d
eli_',
'suffix': '.png'},
'primary': True}],
'photos': { 'count': 0, 'groups': []}],
'referralId': 'e-0-4d0a529133d6b60cf4cf9985-21'},
{'reasons': { 'count': 0,
'items': [{ 'summary': 'This spot is popular',
'type': 'general',
'reasonName': 'globalInteractionReason'}]},
'venue': { 'id': '4ed7956b8b81b2bf28adc714',
'name': 'Terrace View Delicatessen',
'location': { 'address': '135 Terrace View Ave.',
'lat': 40.875995,
'lng': -73.913151,
'labeledLatLngs': [{ 'label': 'display',
'lat': 40.875995,
'lng': -73.913151}],
'distance': 218,
'postalCode': '10034',
'cc': 'US',
'city': 'New York',
'state': 'NY',
'country': 'United States',
'formattedAddress': ['135 Terrace View Ave.',
'New York, NY 10034',
'United States']],
'categories': [{ 'id': '4bf58dd8d48988d146941735',
'name': 'Deli / Bodega',
'pluralName': 'Delis / Bodegas',
'shortName': 'Deli / Bodega',
'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/d
eli_',
'suffix': '.png'},
'primary': True}],
'photos': { 'count': 0, 'groups': []}],
'referralId': 'e-0-4ed7956b8b81b2bf28adc714-22'},
{'reasons': { 'count': 0,
'items': [{ 'summary': 'This spot is popular',
'type': 'general',
'reasonName': 'globalInteractionReason'}]},
'venue': { 'id': '5012c967e889cf0567e9e2d4',
'name': 'Grill 26 at TCR',
'location': { 'address': '2600 Netherland Ave',
'crossStreet': 'off Kappock Street',
'lat': 40.878802209517126,
'lng': -73.9156723022461,
'labeledLatLngs': [{ 'label': 'display',
'lat': 40.878802209517126,
'lng': -73.9156723022461}],
'distance': 490,
'postalCode': '10463',
'cc': 'US',
'city': 'Bronx',

```

```

'state': 'NY',
'country': 'United States',
'formattedAddress': ['2600 Netherland Ave (off Kappock Street)',
'Bronx, NY 10463',
'United States']},
'categories': [{ 'id': '4bf58dd8d48988d14e941735',
'name': 'American Restaurant',
'pluralName': 'American Restaurants',
'shortName': 'American',
'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/d
efault_',
'suffix': '.png'},
'primary': True}],
'photos': { 'count': 0, 'groups': []}},
'referralId': 'e-0-5012c967e889cf0567e9e2d4-23'}]]]]}

```

Before we proceed, let's borrow the `get_category_type` function from the Foursquare lab.

In [25]:

```

# function that extracts the category of the venue
def get_category_type(row):
    try:
        categories_list = row['categories']
    except:
        categories_list = row['venue.categories']

    if len(categories_list) == 0:
        return None
    else:
        return categories_list[0]['name']

```

Now we are ready to clean the json and structure it into a pandas dataframe.

In [26]:

```

venues = results['response']['groups'][0]['items']

nearby_venues = json_normalize(venues) # flatten JSON

# filter columns
filtered_columns = ['venue.name', 'venue.categories', 'venue.location.lat', 'venue.location.lng']
nearby_venues = nearby_venues.loc[:, filtered_columns]

# filter the category for each row
nearby_venues['venue.categories'] = nearby_venues.apply(get_category_type, axis=1)

# clean columns
nearby_venues.columns = [col.split(".")[1] for col in nearby_venues.columns]

nearby_venues.head()

```

Out[26]:

	name	categories	lat	lng
0	Arturo's	Pizza Place	40.874412	-73.910271
1	Bikram Yoga	Yoga Studio	40.876844	-73.906204
2	Tibbett Diner	Diner	40.880404	-73.908937
3	Starbucks	Coffee Shop	40.877531	-73.905582
4	Blink Fitness Riverdale	Gym	40.877147	-73.905837

In [27]:

```
print('{} venues were returned by Foursquare.'.format(nearby_venues.shape[0]))
```

24 venues were returned by Foursquare.

2. Explore Neighborhoods in Manhattan

Let's create a function to repeat the same process to all the neighborhoods in Manhattan

In [28]:

```
def getNearbyVenues(names, latitudes, longitudes, radius=500):

    venues_list=[]
    for name, lat, lng in zip(names, latitudes, longitudes):
        print(name)

        # create the API request URL
        url = 'https://api.foursquare.com/v2/venues/explore?&client_id={}&client_secret={}&v={}&ll={}&radius={}&limit={}'.format(
            CLIENT_ID,
            CLIENT_SECRET,
            VERSION,
            lat,
            lng,
            radius,
            LIMIT)

        # make the GET request
        results = requests.get(url).json()["response"]["groups"][0]["items"]

        # return only relevant information for each nearby venue
        venues_list.append([(
            name,
            lat,
            lng,
            v['venue']['name'],
            v['venue']['location']['lat'],
            v['venue']['location']['lng'],
            v['venue']['categories'][0]['name']) for v in results])

    nearby_venues = pd.DataFrame([item for venue_list in venues_list for item in venue_list])
    nearby_venues.columns = ['Neighborhood',
                            'Neighborhood Latitude',
                            'Neighborhood Longitude',
                            'Venue',
                            'Venue Latitude',
                            'Venue Longitude',
                            'Venue Category']

    return(nearby_venues)
```

In [29]:

```
# type your answer here
```

```
manhattan_venues = getNearbyVenues(names=manhattan_data['Neighborhood'],  
                                     latitudes=manhattan_data['Latitude'],  
                                     longitudes=manhattan_data['Longitude']  
                                    )
```

Marble Hill
Chinatown
Washington Heights
Inwood
Hamilton Heights
Manhattanville
Central Harlem
East Harlem
Upper East Side
Yorkville
Lenox Hill
Roosevelt Island
Upper West Side
Lincoln Square
Clinton
Midtown
Murray Hill
Chelsea
Greenwich Village
East Village
Lower East Side
Tribeca
Little Italy
Soho
West Village
Manhattan Valley
Morningside Heights
Gramercy
Battery Park City
Financial District
Carnegie Hill
Noho
Civic Center
Midtown South
Sutton Place
Turtle Bay
Tudor City
Stuyvesant Town
Flatiron
Hudson Yards

In [30]:

```
print(manhattan_venues.shape)
manhattan_venues.head()
```

(3311, 7)

Out[30]:

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Marble Hill	40.876551	-73.91066	Arturo's	40.874412	-73.910271	Pizza Place
1	Marble Hill	40.876551	-73.91066	Bikram Yoga	40.876844	-73.906204	Yoga Studio
2	Marble Hill	40.876551	-73.91066	Tibbett Diner	40.880404	-73.908937	Diner
3	Marble Hill	40.876551	-73.91066	Starbucks	40.877531	-73.905582	Coffee Shop
4	Marble Hill	40.876551	-73.91066	Blink Fitness Riverdale	40.877147	-73.905837	Gym

In [31]:

```
manhattan_venues.groupby('Neighborhood').count()
```

Out[31]:

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
Neighborhood						
Battery Park City	98	98	98	98	98	98
Carnegie Hill	100	100	100	100	100	100
Central Harlem	46	46	46	46	46	46
Chelsea	100	100	100	100	100	100
Chinatown	100	100	100	100	100	100
Civic Center	100	100	100	100	100	100
Clinton	100	100	100	100	100	100
East Harlem	44	44	44	44	44	44
East Village	100	100	100	100	100	100
Financial District	100	100	100	100	100	100
Flatiron	100	100	100	100	100	100
Gramercy	100	100	100	100	100	100
Greenwich Village	100	100	100	100	100	100
Hamilton Heights	60	60	60	60	60	60
Hudson Yards	79	79	79	79	79	79
Inwood	55	55	55	55	55	55
Lenox Hill	100	100	100	100	100	100
Lincoln Square	100	100	100	100	100	100
Little Italy	100	100	100	100	100	100
Lower East Side	53	53	53	53	53	53
Manhattan Valley	52	52	52	52	52	52
Manhattanville	39	39	39	39	39	39
Marble Hill	24	24	24	24	24	24
Midtown	100	100	100	100	100	100
Midtown South	100	100	100	100	100	100
Morningside Heights	41	41	41	41	41	41
Murray Hill	100	100	100	100	100	100
Noho	100	100	100	100	100	100
Roosevelt Island	26	26	26	26	26	26

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
Neighborhood						
Soho	100	100	100	100	100	100
Stuyvesant Town	23	23	23	23	23	23
Sutton Place	100	100	100	100	100	100
Tribeca	100	100	100	100	100	100
Tudor City	80	80	80	80	80	80
Turtle Bay	100	100	100	100	100	100
Upper East Side	100	100	100	100	100	100
Upper West Side	100	100	100	100	100	100
Washington Heights	91	91	91	91	91	91
West Village	100	100	100	100	100	100
Yorkville	100	100	100	100	100	100

In [32]:

```
print('There are {} uniques categories.'.format(len(manhattan_venues['Venue Category'].unique())))
```

There are 336 uniques categories.

3. Analyze Each Neighborhood

In [33]:

```

# one hot encoding
manhattan_onehot = pd.get_dummies(manhattan_venues[['Venue Category']], prefix="", prefix_sep="")

# add neighborhood column back to dataframe
manhattan_onehot['Neighborhood'] = manhattan_venues['Neighborhood']

# move neighborhood column to the first column
fixed_columns = [manhattan_onehot.columns[-1]] + list(manhattan_onehot.columns[:-1])
manhattan_onehot = manhattan_onehot[fixed_columns]

manhattan_onehot.head()

```

Out[33]:

	Neighborhood	Accessories Store	Adult Boutique	Afghan Restaurant	African Restaurant	American Restaurant	Antique Shop	Arcad
0	Marble Hill	0	0	0	0	0	0	
1	Marble Hill	0	0	0	0	0	0	
2	Marble Hill	0	0	0	0	0	0	
3	Marble Hill	0	0	0	0	0	0	
4	Marble Hill	0	0	0	0	0	0	

In [34]:

```
manhattan_onehot.shape
```

Out[34]:

(3311, 337)

In [35]:

```
manhattan_grouped = manhattan_onehot.groupby('Neighborhood').mean().reset_index()  
manhattan_grouped
```

Out[35]:

	Neighborhood	Accessories Store	Adult Boutique	Afghan Restaurant	African Restaurant	American Restaurant	Antique Shop	Arca
0	Battery Park City	0.000000	0.00	0.00	0.000000	0.010204	0.00	0.
1	Carnegie Hill	0.000000	0.00	0.00	0.000000	0.010000	0.00	0.
2	Central Harlem	0.000000	0.00	0.00	0.065217	0.043478	0.00	0.
3	Chelsea	0.000000	0.00	0.00	0.000000	0.030000	0.00	0.
4	Chinatown	0.000000	0.00	0.00	0.000000	0.040000	0.00	0.
5	Civic Center	0.000000	0.00	0.00	0.000000	0.030000	0.01	0.
6	Clinton	0.000000	0.00	0.00	0.000000	0.040000	0.00	0.
7	East Harlem	0.000000	0.00	0.00	0.000000	0.000000	0.00	0.
8	East Village	0.000000	0.00	0.00	0.000000	0.020000	0.01	0.
9	Financial District	0.010000	0.00	0.00	0.000000	0.050000	0.00	0.
10	Flatiron	0.000000	0.00	0.00	0.000000	0.040000	0.00	0.
11	Gramercy	0.000000	0.00	0.00	0.000000	0.030000	0.00	0.
12	Greenwich Village	0.000000	0.00	0.00	0.000000	0.020000	0.00	0.
13	Hamilton Heights	0.000000	0.00	0.00	0.000000	0.000000	0.00	0.
14	Hudson Yards	0.000000	0.00	0.00	0.000000	0.063291	0.00	0.
15	Inwood	0.000000	0.00	0.00	0.000000	0.036364	0.00	0.
16	Lenox Hill	0.000000	0.00	0.01	0.000000	0.000000	0.00	0.
17	Lincoln Square	0.000000	0.00	0.00	0.000000	0.020000	0.00	0.
18	Little Italy	0.000000	0.00	0.00	0.000000	0.010000	0.00	0.
19	Lower East Side	0.000000	0.00	0.00	0.000000	0.000000	0.00	0.
20	Manhattan Valley	0.000000	0.00	0.00	0.000000	0.000000	0.00	0.
21	Manhattanville	0.000000	0.00	0.00	0.000000	0.025641	0.00	0.
22	Marble Hill	0.000000	0.00	0.00	0.000000	0.083333	0.00	0.
23	Midtown	0.000000	0.00	0.00	0.000000	0.020000	0.00	0.
24	Midtown South	0.000000	0.00	0.00	0.000000	0.030000	0.00	0.
25	Morningside Heights	0.000000	0.00	0.00	0.000000	0.073171	0.00	0.
26	Murray Hill	0.000000	0.00	0.00	0.000000	0.030000	0.00	0.
27	Noho	0.000000	0.01	0.00	0.000000	0.020000	0.00	0.
28	Roosevelt Island	0.000000	0.00	0.00	0.000000	0.000000	0.00	0.
29	Soho	0.010000	0.00	0.00	0.000000	0.010000	0.00	0.

	Neighborhood	Accessories Store	Adult Boutique	Afghan Restaurant	African Restaurant	American Restaurant	Antique Shop	Arca
30	Stuyvesant Town	0.000000	0.00	0.00	0.000000	0.000000	0.00	0.
31	Sutton Place	0.000000	0.01	0.00	0.000000	0.020000	0.00	0.
32	Tribeca	0.000000	0.00	0.00	0.000000	0.060000	0.00	0.
33	Tudor City	0.000000	0.00	0.00	0.000000	0.012500	0.00	0.
34	Turtle Bay	0.000000	0.00	0.00	0.000000	0.010000	0.00	0.
35	Upper East Side	0.000000	0.00	0.00	0.000000	0.020000	0.00	0.
36	Upper West Side	0.010000	0.00	0.00	0.000000	0.020000	0.00	0.
37	Washington Heights	0.010989	0.00	0.00	0.000000	0.010989	0.00	0.
38	West Village	0.010000	0.00	0.00	0.000000	0.040000	0.00	0.
39	Yorkville	0.000000	0.00	0.00	0.000000	0.000000	0.00	0.

