

# Battle of Neighborhoods

## Segmenting and Clustering Neighborhoods in Seven Cities Throughout the US

### Introduction

In this project, I converted addresses into their equivalent latitude and longitude values. Also, I used Foursquare API to explore neighborhoods in Atlanta, Denver, Houston, Manhattan - NYC, Minneapolis, San Francisco, and Seattle. I used the **explore** function to get the most common venue categories in each neighborhood, and then used this feature to group the neighborhoods into clusters between all seven cities. For that, I used the *k*-means clustering algorithm, and the Folium library to visualize the neighborhoods in each city and their emerging clusters.

```
In [1]: # Download all the dependencies needed
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
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 # Transform 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
import folium # Map rendering library

print('Libraries imported.')
```

```

Fetching package metadata .....
Solving package specifications: .

```

Package plan for installation in environment /opt/conda/envs/DSX-Python35:

The following NEW packages will be INSTALLED:

```

geographiclib: 1.49-py_0    conda-forge
geopy:         1.18.1-py_0  conda-forge

```

```

geographiclib- 100% |#####| Time: 0:00:00  24.18 M
B/s

```

```

geopy-1.18.1-p 100% |#####| Time: 0:00:00  38.25 M
B/s

```

```

Fetching package metadata .....
Solving package specifications: .

```

Package plan for installation in environment /opt/conda/envs/DSX-Python35:

The following NEW packages will be INSTALLED:

```

altair:  2.2.2-py35_1  conda-forge
branca:  0.3.1-py_0    conda-forge
folium:  0.5.0-py_0    conda-forge
vincent: 0.4.4-py_1    conda-forge

```

```

altair-2.2.2-p 100% |#####| Time: 0:00:00  57.53 M
B/s

```

```

branca-0.3.1-p 100% |#####| Time: 0:00:00  33.65 M
B/s

```

```

vincent-0.4.4- 100% |#####| Time: 0:00:00  39.43 M
B/s

```

```

folium-0.5.0-p 100% |#####| Time: 0:00:00  49.20 M
B/s

```

Libraries imported.

## 1. Importing and Analyzing the Data

```

In [2]: # Get geojson data from my gists
!wget -q -O 'neighborhoods-map.geojson' https://gist.github.com/alaneg/15c583
388a842f7fa4e94cc58609be0b/raw/f8161b203b34555dae112087914c937f2ac6c53e/neighb
orhoods-map.geojson
print('Data downloaded!')

```

Data downloaded!

```

In [3]: with open('neighborhoods-map.geojson') as json_data:
n_data = json.load(json_data)

```

```
In [4]: # Check json data  
n_data
```

```
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```

```
In [5]: neighborhoods_data = n_data['features']
```

```
In [6]: # Define the dataframe columns
column_names = ['City', 'Neighborhood', 'Latitude', 'Longitude']

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

```
In [7]: neighborhoods
```

```
Out[7]:
```

City	Neighborhood	Latitude	Longitude
------	--------------	----------	-----------

```
In [8]: # Pass json data into pandas dataframe
for data in neighborhoods_data:
    city = data['properties']['city']
    neighborhood_name = data['properties']['neighborhood']

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

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

```
In [9]: # Check the dataframe  
neighborhoods
```

Out[9]:

	City	Neighborhood	Latitude	Longitude
0	Atlanta	Tacotown	33.745000	-84.365500
1	Atlanta	Oakland Cemetery	33.748700	-84.372600
2	Atlanta	High Point	33.716800	-84.395800
3	Atlanta	Atkins Park	33.775600	-84.350500
4	Atlanta	Pittsburgh	33.727600	-84.402350
5	Atlanta	Oakland	33.748000	-84.379800
6	Atlanta	Loring Heights	33.796300	-84.402900
7	Atlanta	Custer-Mcdonough	33.712600	-84.354400
8	Atlanta	Amal Heights	33.708500	-84.398700
9	Atlanta	Semmes Park	33.687800	-84.448000
10	Atlanta	Swallow Circle/Baywood	33.692600	-84.385100
11	Atlanta	West End	33.737000	-84.422900
12	Atlanta	Harris Chiles	33.744100	-84.420400
13	Atlanta	Historic Westside Village	33.755500	-84.415300
14	Atlanta	Meadow Lark Estates	33.672800	-84.470400
15	Atlanta	Just Us	33.752100	-84.424900
16	Atlanta	Joyland	33.711600	-84.397300
17	Atlanta	Westchester Hills/Chelsea Heights	33.780600	-84.310000
18	Atlanta	Berkeley Park	33.798800	-84.413600
19	Atlanta	East Atlanta	33.734600	-84.334800
20	Atlanta	Harvel Homes Community	33.759300	-84.467500
21	Atlanta	Mechanicsville	33.737100	-84.397100
22	Atlanta	Downtown	33.758600	-84.390200
23	Atlanta	Midtown	33.779000	-84.383900
24	Atlanta	Sherwood Forest	33.799700	-84.381800
25	Atlanta	Cabbagetown	33.749800	-84.365600
26	Atlanta	Ansley Park	33.794800	-84.376000
27	Atlanta	Piedmont Heights	33.806300	-84.371000
28	Atlanta	Virginia-Highland	33.780700	-84.357300
29	Atlanta	Druid Hills	33.785300	-84.327600
30	Atlanta	Candler Park	33.766200	-84.340700
31	Atlanta	Sweet Auburn	33.754600	-84.375500



	City	Neighborhood	Latitude	Longitude
32	Atlanta	Morningside/Lenox Park	33.798700	-84.355800
33	Atlanta	Edgewood	33.755200	-84.342500
34	Atlanta	Piedmont Park	33.787100	-84.373800
35	Atlanta	Lake Claire	33.764200	-84.326000
36	Atlanta	Poncey-Highland	33.769900	-84.356500
37	Atlanta	Reynoldstown	33.749900	-84.355400
38	Atlanta	Old Fourth Ward	33.765400	-84.370100
39	Atlanta	The Bluff	33.770200	-84.410200
40	Atlanta	Inman Park	33.760000	-84.356600
41	Atlanta	Little Five Points	33.765000	-84.349300
42	Atlanta	Lindridge - Martin Manor	33.817400	-84.355600
43	Atlanta	Armour	33.811400	-84.377600
44	Atlanta	Sycamore Ridge	33.774100	-84.288000
45	Atlanta	Hunter Hills	33.759200	-84.430700
46	Atlanta	South River Gardens	33.665700	-84.359600
47	Atlanta	Kirkwood	33.752700	-84.322800
48	Atlanta	East Lake	33.745500	-84.297100
49	Atlanta	Chosewood Park	33.715700	-84.372900
50	Atlanta	English Avenue	33.769200	-84.416000
51	Atlanta	Vine City	33.758950	-84.408900
52	Atlanta	Georgia Tech	33.776400	-84.397200
53	Atlanta	Home Park	33.785000	-84.398200
54	Atlanta	Atlantic Station	33.792200	-84.396800
55	Atlanta	Washington Park	33.758900	-84.420900
56	Atlanta	Bankhead	33.769900	-84.424700
57	Atlanta	Knight Park/Howell Station	33.782300	-84.424300
58	Atlanta	Lavista Park	33.819500	-84.341000
59	Atlanta	Merry Hills	33.820100	-84.325900
60	Atlanta	North Druid Hills	33.827400	-84.315600
61	Atlanta	Biltmore Acres	33.812700	-84.328500
62	Atlanta	Victoria Estates	33.807100	-84.324900
63	Atlanta	Oakhurst	33.760100	-84.303700

	City	Neighborhood	Latitude	Longitude
64	Atlanta	Decatur Heights	33.782700	-84.281500
65	Atlanta	Great Lakes	33.782300	-84.299800
66	Atlanta	Glennwood Estates	33.781300	-84.288700
67	Atlanta	Lenox Place	33.770000	-84.306200
68	Atlanta	Winnona Park	33.765100	-84.287500
69	Atlanta	West Lake	33.758900	-84.441400
70	Atlanta	Colonial Hills	33.695700	-84.433900
71	Atlanta	Summerhill	33.737100	-84.386500
72	Atlanta	Grant Park	33.736100	-84.370300
73	Atlanta	Glenwood Park	33.741300	-84.357400
74	Atlanta	North Ormewood Park	33.742500	-84.351800
75	Atlanta	Ormewood Park	33.732900	-84.354100
76	Atlanta	Boulevard Heights	33.723900	-84.364400
77	Atlanta	Benteen Park	33.715200	-84.363900
78	Atlanta	Capitol Gateway	33.745400	-84.384900
79	Atlanta	Peoplestown	33.726600	-84.386700
80	Atlanta	Jefferson Park	33.688000	-84.426600
81	Atlanta	Capitol View Manor	33.717400	-84.403100
82	Atlanta	Capitol View	33.717300	-84.414000
83	Atlanta	Adair Park	33.730400	-84.410900
84	Atlanta	Sylvan Hills	33.704700	-84.418300
85	Atlanta	Perkerson	33.688100	-84.408200
86	Atlanta	Hammond Park	33.676900	-84.407400
87	Atlanta	Mak Historic District	33.764700	-84.297600
88	Atlanta	College Heights	33.755300	-84.292200
89	Atlanta	South Atlanta	33.713900	-84.386800
90	Atlanta	Frog Hollow	33.680800	-84.445200
91	Atlanta	Conley Hills	33.680500	-84.450600
92	Atlanta	Egan Park	33.662900	-84.431900
93	Atlanta	Lakewood Heights	33.702400	-84.383200
94	Atlanta	Betmar La Villa	33.706300	-84.398000
95	Atlanta	Thomasville Heights	33.701800	-84.357700

	City	Neighborhood	Latitude	Longitude
96	Atlanta	Mozley Park	33.750100	-84.435900
97	Atlanta	Polar Rock	33.693700	-84.396500
98	Atlanta	West Midtown	33.786000	-84.413600
99	Atlanta	Atlanta University Center	33.748700	-84.410700
100	Atlanta	Oakland City	33.724100	-84.424600
101	Atlanta	Bush Mountain	33.727400	-84.431600
102	Atlanta	Underwood Hills	33.806700	-84.426800
103	Atlanta	Future Westside Park	33.781500	-84.435300
104	Atlanta	Westview	33.740500	-84.440500
105	Atlanta	Ashview Heights	33.750200	-84.421600
106	Atlanta	Venetian Hills	33.716300	-84.444000
107	Atlanta	Penelope Neighbors	33.752900	-84.450900
108	Atlanta	Grove Park	33.772000	-84.446700
109	Atlanta	Dixie Hills	33.758200	-84.456000
110	Atlanta	Center Hill	33.771400	-84.465100
111	Atlanta	Collier Heights	33.769900	-84.483200
112	Atlanta	Woodland Hills (North)	33.810800	-84.343400
113	Atlanta	Woodland Hills (South)	33.721200	-84.352000
114	Denver	Chaffee Park	39.787200	-105.010800
115	Denver	Sunnyside	39.776400	-105.011400
116	Denver	Highland	39.763100	-105.011000
117	Denver	Globeville	39.779300	-104.987400
118	Denver	Jefferson Park	39.752100	-105.019400
119	Denver	Sun Valley	39.735100	-105.021100
120	Denver	Valverde	39.716400	-105.016200
121	Denver	Athmar Park	39.703500	-105.010400
122	Denver	Windsor	39.701100	-104.885300
123	Denver	Northeast Park Hill	39.772700	-104.922200
124	Denver	Elyria Swansea	39.781800	-104.956700
125	Denver	Wellshire	39.660600	-104.949800
126	Denver	University	39.674700	-104.966200
127	Denver	Rosedale	39.672800	-104.980100

	City	Neighborhood	Latitude	Longitude
128	Denver	Cheesman Park	39.734200	-104.966100
129	Denver	Hilltop	39.717100	-104.924900
130	Denver	Montclair	39.732700	-104.913400
131	Denver	Hale	39.732300	-104.931400
132	Denver	North Park Hill	39.755600	-104.922500
133	Denver	South Park Hill	39.744800	-104.922400
134	Denver	University Park	39.675800	-104.950000
135	Denver	Platt Park	39.686100	-104.980700
136	Denver	College View/South Platte	39.671300	-105.016400
137	Denver	Overland	39.680800	-104.993100
138	Denver	Ruby Hill	39.688300	-105.011800
139	Denver	Kennedy	39.653400	-104.862800
140	Denver	Hampden	39.657600	-104.890100
141	Denver	Baker	39.714700	-104.993400
142	Denver	Fort Logan	39.641800	-105.045800
143	Denver	Bear Valley	39.659800	-105.063100
144	Denver	Harvey Park South	39.660300	-105.038900
145	Denver	Southmoor Park	39.640300	-104.914600
146	Denver	Hampden South	39.640300	-104.896400
147	Denver	Indian Creek	39.684600	-104.897200
148	Denver	Goldsmith	39.673200	-104.912500
149	Denver	Virginia Village	39.685100	-104.923600
150	Denver	Gateway/Green Valley Ranch	39.784800	-104.770400
151	Denver	DIA	39.843900	-104.695600
152	Denver	University Hills	39.662500	-104.932500
153	Denver	Harvey Park	39.673600	-105.040300
154	Denver	Mar Lee	39.689400	-105.039200
155	Denver	Westwood	39.703200	-105.038400
156	Denver	East Colfax	39.739000	-104.894400
157	Denver	Auraria	39.745600	-105.008400
158	Denver	Cory - Merrill	39.689600	-104.949600
159	Denver	Belcaro	39.703900	-104.950300

	City	Neighborhood	Latitude	Longitude
160	Denver	Washington Park	39.699800	-104.966800
161	Denver	Washington Park West	39.701900	-104.980200
162	Denver	Speer	39.718300	-104.980200
163	Denver	Cherry Creek	39.718900	-104.949300
164	Denver	Country Club	39.721300	-104.966100
165	Denver	Congress Park	39.732000	-104.950300
166	Denver	City Park	39.744800	-104.950200
167	Denver	Clayton	39.766700	-104.950700
168	Denver	Skyland	39.756200	-104.950500
169	Denver	Cole	39.766200	-104.966100
170	Denver	Marston	39.625900	-105.075100
171	Denver	Washington Virginia Vale	39.700600	-104.914300
172	Denver	Barnum	39.718100	-105.032300
173	Denver	Barnum West	39.718100	-105.046900
174	Denver	Villa Park	39.729200	-105.039400
175	Denver	West Colfax	39.739500	-105.038900
176	Denver	West Highland	39.763400	-105.039900
177	Denver	Sloan Lake	39.752600	-105.037400
178	Denver	Berkeley	39.774800	-105.039600
179	Denver	Regis	39.787300	-105.042700
180	Denver	Lincoln Park	39.731600	-105.004700
181	Denver	City Park West	39.745200	-104.966200
182	Denver	Whittier	39.755100	-104.967000
183	Denver	Capitol Hill	39.732500	-104.980000
184	Denver	North Capitol Hill	39.742700	-104.980900
185	Denver	Civic Center	39.735700	-104.991100
186	Denver	CBD	39.745300	-104.993200
187	Denver	Union Station	39.753000	-105.000500
188	Denver	Five Points	39.758700	-104.982100
189	Denver	Stapleton	39.774600	-104.876000
190	Denver	Montbello	39.785500	-104.835300
191	Denver	Lowry Field	39.718500	-104.889600

	City	Neighborhood	Latitude	Longitude
192	Houston	Fourth Ward	29.757420	-95.379630
193	Houston	Greater Uptown	29.745960	-95.489280
194	Houston	Greater Inwood	29.833780	-95.452380
195	Houston	Greater Hobby Area	29.612310	-95.211380
196	Houston	Eldridge/West Oaks	29.683870	-95.590100
197	Houston	Washington Avenue Coalition/Memorial Park	29.833780	-95.452380
198	Houston	Pleasantville Area	29.777901	-95.271881
199	Houston	Northshore	29.772520	-95.166260
200	Houston	Minnetex	29.632469	-95.275749
201	Houston	Spring Branch East	29.833780	-95.452380
202	Houston	Spring Branch North	29.808969	-95.564041
203	Houston	Langwood	29.812560	-95.510500
204	Houston	Greater Greenspoint	30.010900	-95.634930
205	Houston	Iah/Airport Area	29.657670	-95.282020
206	Houston	Kingwood Area	30.052500	-95.204819
207	Houston	Lake Houston	30.028940	-95.219810
208	Houston	South Belt/Ellington	29.611120	-95.487660
209	Houston	Ost/South Union	29.687660	-95.396150
210	Houston	Meadowbrook/Allendale	29.649990	-95.078340
211	Houston	Museum Park	29.721713	-95.385261
212	Houston	Greenway/Upper Kirby Area	29.733006	-95.432623
213	Houston	Mid West	29.733064	-95.511399
214	Houston	Midtown	29.740966	-95.374911
215	Houston	Edgebrook Area	29.645601	-95.225472
216	Houston	Memorial	29.773746	-95.575043
217	Houston	Settegast	29.847197	-95.282963
218	Houston	Addicks/Park Ten	29.812739	-95.644238
219	Houston	Second Ward	29.751111	-95.324715
220	Houston	Independence Heights	29.829064	-95.395663
221	Houston	Downtown	29.758273	-95.361891
222	Houston	Westbranch	29.838510	-95.557567
223	Houston	Clinton Park Tri-Community	29.750302	-95.261663

	City	Neighborhood	Latitude	Longitude
224	Houston	Golfcrest/Bellfort/Reveille	29.675455	-95.294994
225	Houston	Greater Fifth Ward	29.778319	-95.329306
226	Houston	Denver Harbor/Port Houston	29.771715	-95.298336
227	Houston	Lazy Brook/Timbergrove	29.797885	-95.437685
228	Houston	Greater Heights	29.797888	-95.397300
229	Houston	Kashmere Gardens	29.800721	-95.317047
230	Houston	Northside Village	29.797287	-95.361096
231	Houston	Sharpstown	29.704664	-95.521981
232	Houston	El Dorado/Oates Prairie	29.806144	-95.245761
233	Houston	Westbury	29.653476	-95.482116
234	Houston	Spring Branch Central	29.813786	-95.514121
235	Houston	Hunterwood	29.816916	-95.214911
236	Houston	Willow Meadows/Willowbend Area	29.666409	-95.450911
237	Houston	Central Northwest	29.832191	-95.447136
238	Houston	Trinity/Houston Gardens	29.827964	-95.309103
239	Houston	Braeburn	29.680431	-95.513479
240	Houston	Carverdale	29.853812	-95.544618
241	Houston	South Main	29.672602	-95.421486
242	Houston	Eastex/Jensen Area	29.844679	-95.344020
243	Houston	Medical Center Area	29.706161	-95.400061
244	Houston	East Houston	29.835158	-95.258478
245	Houston	Acres Home	29.862574	-95.435336
246	Houston	Northside/Northline	29.853748	-95.378110
247	Houston	Hidden Valley	29.889810	-95.417163
248	Houston	East Little York/Homestead	29.872498	-95.296698
249	Houston	Willowbrook	29.953580	-95.541176
250	Houston	Fairbanks/Northwest Crossing	29.849389	-95.511994
251	Houston	Gulfton	29.714340	-95.481671
252	Houston	Westwood	29.675075	-95.551146
253	Houston	Macgregor	29.710152	-95.361526
254	Houston	Fort Bend/Houston	29.524268	-95.751708
255	Houston	Fondren Gardens	29.625668	-95.502938

	City	Neighborhood	Latitude	Longitude
256	Houston	South Acres/Crestmont Park	29.629652	-95.358288
257	Houston	Brays Oaks	29.655748	-95.529337
258	Houston	Central Southwest	29.629629	-95.433808
259	Houston	Gulfgate Riverview/Pine Valley	29.708583	-95.317419
260	Houston	Sunnyside	29.659013	-95.368031
261	Houston	Westchase	29.727880	-95.566686
262	Houston	Alief	29.682566	-95.592165
263	Houston	Pecan Park	29.707021	-95.287029
264	Houston	Clear Lake	29.587682	-95.126094
265	Houston	South Park	29.668280	-95.331975
266	Houston	Astrodome Area	29.690468	-95.393679
267	Houston	Park Place	29.695575	-95.271651
268	Houston	Harrisburg/Manchester	29.718892	-95.265587
269	Houston	University Place	29.717439	-95.407617
270	Houston	Lawndale/Wayside	29.723598	-95.306620
271	Houston	Greater Third Ward	29.728695	-95.352069
272	Houston	Greater Eastwood	29.735936	-95.332838
273	Houston	Spring Branch West	29.799739	-95.554424
274	Houston	Braeswood Place	29.694595	-95.431709
275	Houston	Meyerland Area	29.686582	-95.465452
276	Houston	Magnolia Park	29.739183	-95.293859
277	Houston	Afton Oaks/River Oaks Area	29.743158	-95.442634
278	Houston	Briarforest Area	29.749148	-95.575172
279	Houston	Neartown - Montrose	29.752752	-95.394165
280	Minneapolis	Bryant	44.930949	-93.268853
281	Minneapolis	Regina	44.922898	-93.270534
282	Minneapolis	Northrup	44.919985	-93.255266
283	Minneapolis	Page	44.907448	-93.268502
284	Minneapolis	Hale	44.908847	-93.254151
285	Minneapolis	Keewaydin	44.910590	-93.230808
286	Minneapolis	Diamond Lake	44.896839	-93.261079
287	Minneapolis	Wenonah	44.899713	-93.234900



	City	Neighborhood	Latitude	Longitude
288	Minneapolis	Morris Park	44.901643	-93.215128
289	Minneapolis	Minnehaha	44.909985	-93.214456
290	Minneapolis	Ericsson	44.921004	-93.230678
291	Minneapolis	Hiawatha	44.922430	-93.209819
292	Minneapolis	Howe	44.936147	-93.217279
293	Minneapolis	Standish	44.931392	-93.237770
294	Minneapolis	Bancroft	44.930595	-93.254945
295	Minneapolis	Powderhorn Park	44.942010	-93.254580
296	Minneapolis	Lyndale	44.943076	-93.281739
297	Minneapolis	ECCO	44.941981	-93.301619
298	Minneapolis	Fulton	44.911416	-93.319169
299	Minneapolis	Kenny	44.898795	-93.296596
300	Minneapolis	Armatage	44.898012	-93.311690
301	Minneapolis	Tangletown	44.913010	-93.281509
302	Minneapolis	Windom	44.896995	-93.283358
303	Minneapolis	East Harriet	44.928774	-93.295105
304	Minneapolis	Lowry Hill East	44.955326	-93.291728
305	Minneapolis	Phillips	44.957134	-93.257254
306	Minneapolis	Stevens Square	44.964498	-93.277316
307	Minneapolis	West Calhoun	44.944333	-93.324341
308	Minneapolis	Linden Hills	44.927555	-93.318579
309	Minneapolis	Lynnhurst	44.912453	-93.297566
310	Minneapolis	Shingle Creek	45.047191	-93.309892
311	Minneapolis	Humboldt Industrial	45.041653	-93.307166
312	Minneapolis	Webber-Camden	45.030149	-93.297272
313	Minneapolis	Cleveland	45.018721	-93.313927
314	Minneapolis	Jordan	45.008106	-93.303579
315	Minneapolis	Willard-Hay	44.996745	-93.312189
316	Minneapolis	Bryn-Mawr	44.972990	-93.314327
317	Minneapolis	Cedar-Isles	44.952434	-93.320097
318	Minneapolis	Columbia Park	45.029935	-93.260531
319	Minneapolis	Camden Industrial	45.032180	-93.288896

	City	Neighborhood	Latitude	Longitude
320	Minneapolis	Bottineau	45.009266	-93.267931
321	Minneapolis	Logan Park	45.002898	-93.252660
322	Minneapolis	Windom Park	45.009698	-93.235483
323	Minneapolis	Mid-City Industrial	44.996569	-93.221601
324	Minneapolis	Marcy-Holmes	44.985704	-93.245031
325	Minneapolis	Prospect Park	44.970683	-93.216957
326	Minneapolis	Lowry Hill	44.967761	-93.294882
327	Minneapolis	Downtown West	44.973691	-93.271618
328	Minneapolis	Cedar-Riverside	44.968264	-93.243357
329	Minneapolis	Northeast Park	45.004174	-93.229879
330	Minneapolis	Waite Park	45.029702	-93.236658
331	Minneapolis	Sumner-Glenwood	44.983867	-93.291097
332	Minneapolis	McKinley	45.018573	-93.285999
333	Minneapolis	Hawthorne	45.005740	-93.285047
334	Minneapolis	St. Anthony West	44.995097	-93.263494
335	Minneapolis	Folwell	45.018370	-93.300898
336	Minneapolis	Lind-Bohanon	45.043975	-93.290763
337	Minneapolis	Victory	45.032529	-93.313661
338	Minneapolis	Field	44.915941	-93.269119
339	Minneapolis	King Field	44.929257	-93.281404
340	Minneapolis	CARAG	44.942708	-93.293125
341	Minneapolis	Central	44.981265	-93.266259
342	Minneapolis	Longfellow	44.948209	-93.227592
343	Minneapolis	Corcoran	44.942564	-93.240817
344	Minneapolis	Cooper	44.947512	-93.210681
345	Minneapolis	Whittier	44.957095	-93.280050
346	Minneapolis	East Isles	44.956453	-93.299988
347	Minneapolis	Kenwood	44.959247	-93.312326
348	Minneapolis	Harrison	44.981162	-93.303625
349	Minneapolis	Nicollet Island	44.988170	-93.263208
350	Minneapolis	Near North	44.992484	-93.294887
351	Minneapolis	North Loop	44.986141	-93.279441

	City	Neighborhood	Latitude	Longitude
<b>352</b>	Minneapolis	Elliot Park	44.969852	-93.262356
<b>353</b>	Minneapolis	Downtown East	44.975541	-93.253038
<b>354</b>	Minneapolis	University	44.977800	-93.225700
<b>355</b>	Minneapolis	Seward	44.959754	-93.231895
<b>356</b>	Minneapolis	Loring Park	44.969499	-93.281779
<b>357</b>	Minneapolis	Como	44.986353	-93.221267
<b>358</b>	Minneapolis	Beltrami	44.995044	-93.242432
<b>359</b>	Minneapolis	St. Anthony East	44.995873	-93.252917
<b>360</b>	Minneapolis	Sheridan	45.002252	-93.265360
<b>361</b>	Minneapolis	Holland	45.012197	-93.256233
<b>362</b>	Minneapolis	Marshall Terrace	45.020859	-93.269544
<b>363</b>	Minneapolis	Audubon Park	45.018284	-93.238720
<b>364</b>	Minneapolis	Ventura Village	44.962898	-93.257882
<b>365</b>	San Francisco	Sea Cliff	37.785900	-122.490700
<b>366</b>	San Francisco	Marina	37.803700	-122.436800
<b>367</b>	San Francisco	Pacific Heights	37.792500	-122.438200
<b>368</b>	San Francisco	Nob Hill	37.793000	-122.416100
<b>369</b>	San Francisco	Presidio Heights	37.792500	-122.438200
<b>370</b>	San Francisco	Downtown/Civic Center	37.781600	-122.415600
<b>371</b>	San Francisco	Excelsior	37.724400	-122.427200
<b>372</b>	San Francisco	Bernal Heights	37.738900	-122.415200
<b>373</b>	San Francisco	Western Addition	37.782200	-122.434200
<b>374</b>	San Francisco	Chinatown	37.794100	-122.407800
<b>375</b>	San Francisco	North Beach	37.806100	-122.410300
<b>376</b>	San Francisco	Haight Ashbury	37.769200	-122.448100
<b>377</b>	San Francisco	Outer Mission	37.715700	-122.445800
<b>378</b>	San Francisco	Crocker Amazon	37.712000	-122.437600
<b>379</b>	San Francisco	West of Twin Peaks	37.740600	-122.458900
<b>380</b>	San Francisco	South of Market	37.778500	-122.405600
<b>381</b>	San Francisco	Potrero Hill	37.760500	-122.400900
<b>382</b>	San Francisco	Inner Richmond	37.779900	-122.464700
<b>383</b>	San Francisco	Bayview	37.730400	-122.384400

	City	Neighborhood	Latitude	Longitude
384	San Francisco	Noe Valley	37.750200	-122.433700
385	San Francisco	Inner Sunset	37.760700	-122.468000
386	San Francisco	Diamond Heights	37.742400	-122.442500
387	San Francisco	Lakeshore	37.723300	-122.488700
388	San Francisco	Russian Hill	37.801100	-122.419600
389	San Francisco	Treasure Island/YBI	37.823600	-122.370600
390	San Francisco	Twin Peaks	37.752500	-122.447600
391	San Francisco	Outer Richmond	37.777700	-122.495300
392	San Francisco	Visitacion Valley	37.717200	-122.404300
393	San Francisco	Golden Gate Park	37.769400	-122.486200
394	San Francisco	Parkside	37.733000	-122.478600
395	San Francisco	Financial District	37.794600	-122.399900
396	San Francisco	Ocean View	37.714200	-122.456600
397	San Francisco	Mission	37.759900	-122.414800
398	San Francisco	Presidio	37.798900	-122.466200
399	San Francisco	Castro/Upper Market	37.760900	-122.435000
400	San Francisco	Outer Sunset	37.746700	-122.486300
401	San Francisco	Glen Park	37.737800	-122.432100
402	Seattle	Adams	47.670200	-122.386200
403	Seattle	Wallingford	47.659700	-122.331700
404	Seattle	Green Lake	47.680400	-122.333600
405	Seattle	Sand Point	47.680800	-122.255500
406	Seattle	University District	47.657400	-122.309100
407	Seattle	Seaview	47.550500	-122.394000
408	Seattle	Alki	47.571000	-122.409000
409	Seattle	Matthews Beach	47.704000	-122.281600
410	Seattle	Broadview	47.720000	-122.366200
411	Seattle	Sunset Hill	47.681500	-122.399400
412	Seattle	Windermere	47.669200	-122.266500
413	Seattle	Laurelhurst	47.658700	-122.279500
414	Seattle	Eastlake	47.640800	-122.326100
415	Seattle	South Lake Union	47.622800	-122.335200

	City	Neighborhood	Latitude	Longitude
416	Seattle	Lawton Park	47.655300	-122.397700
417	Seattle	Briarcliff	47.642700	-122.408100
418	Seattle	Whittier Heights	47.682700	-122.371400
419	Seattle	Interbay	47.640400	-122.380500
420	Seattle	Georgetown	47.542600	-122.322600
421	Seattle	South Park	47.527700	-122.326200
422	Seattle	Harbor Island	47.578800	-122.351800
423	Seattle	Industrial District	47.569100	-122.335000
424	Seattle	Crown Hill	47.696600	-122.371200
425	Seattle	Fauntleroy	47.521600	-122.390600
426	Seattle	North Beacon Hill	47.578000	-122.308700
427	Seattle	Dunlap	47.525000	-122.271100
428	Seattle	Rainier Beach	47.511900	-122.262200
429	Seattle	Mount Baker	47.576900	-122.289200
430	Seattle	Roxhill	47.526400	-122.371600
431	Seattle	Seward Park	47.550000	-122.265100
432	Seattle	Montlake	47.639400	-122.306000
433	Seattle	Madison Park	47.635100	-122.286100
434	Seattle	Stevens	47.625700	-122.304400
435	Seattle	Loyal Heights	47.682500	-122.385100
436	Seattle	North Beach/Blue Ridge	47.698400	-122.387400
437	Seattle	Yesler Terrace	47.602600	-122.320600
438	Seattle	West Woodland	47.666800	-122.368300
439	Seattle	Wedgwood	47.689900	-122.291600
440	Seattle	Phinney Ridge	47.674300	-122.352500
441	Seattle	Fremont	47.655600	-122.351300
442	Seattle	View Ridge	47.680800	-122.272900
443	Seattle	Ravenna	47.673400	-122.300000
444	Seattle	Mann	47.611400	-122.299600
445	Seattle	Bryant	47.669700	-122.285000
446	Seattle	High Point	47.543500	-122.368800
447	Seattle	Roosevelt	47.682700	-122.316300

	City	Neighborhood	Latitude	Longitude
448	Seattle	West Queen Anne	47.633800	-122.366400
449	Seattle	Lower Queen Anne	47.622600	-122.354700
450	Seattle	East Queen Anne	47.635000	-122.349900
451	Seattle	North Queen Anne	47.645700	-122.365000
452	Seattle	Westlake	47.632100	-122.341500
453	Seattle	First Hill	47.609500	-122.323800
454	Seattle	Southeast Magnolia	47.640800	-122.392500
455	Seattle	Central Business District	47.607400	-122.334500
456	Seattle	Minor	47.608000	-122.309800
457	Seattle	Madrona	47.612500	-122.289300
458	Seattle	Harrison/Denny-Blaine	47.623100	-122.287100
459	Seattle	Leschi	47.598400	-122.291200
460	Seattle	Atlantic	47.594000	-122.303200
461	Seattle	International District	47.597600	-122.322600
462	Seattle	Pike-Market	47.608900	-122.342200
463	Seattle	Brighton	47.537600	-122.275100
464	Seattle	Belltown	47.614500	-122.343700
465	Seattle	Pioneer Square	47.597000	-122.334100
466	Seattle	Gatewood	47.537500	-122.383100
467	Seattle	Arbor Heights	47.509200	-122.379500
468	Seattle	North Admiral	47.578100	-122.387700
469	Seattle	Fairmount Park	47.553000	-122.381500
470	Seattle	Olympic Hills	47.725900	-122.302600
471	Seattle	Genesee	47.564400	-122.388200
472	Seattle	Greenwood	47.693400	-122.355300
473	Seattle	Mid-Beacon Hill	47.551300	-122.304100
474	Seattle	South Beacon Hill	47.525300	-122.286400
475	Seattle	Holly Park	47.539200	-122.287100
476	Seattle	South Delridge	47.525300	-122.359700
477	Seattle	Rainier View	47.501500	-122.262400
478	Seattle	Bitter Lake	47.718300	-122.350300
479	Seattle	Maple Leaf	47.697600	-122.319000

	City	Neighborhood	Latitude	Longitude
<b>480</b>	Seattle	Columbia City	47.557200	-122.284400
<b>481</b>	Seattle	Highland Park	47.525100	-122.344300
<b>482</b>	Seattle	North Delridge	47.561700	-122.364900
<b>483</b>	Seattle	Riverview	47.545700	-122.353200
<b>484</b>	Seattle	Portage Bay	47.646000	-122.319500
<b>485</b>	Seattle	Victory Heights	47.710300	-122.306200
<b>486</b>	Seattle	Broadway	47.623800	-122.319700
<b>487</b>	Seattle	Meadowbrook	47.704900	-122.295900
<b>488</b>	Seattle	Cedar Park	47.722900	-122.286800
<b>489</b>	Seattle	Haller Lake	47.720000	-122.334800
<b>490</b>	Seattle	Pinehurst	47.718400	-122.319000
<b>491</b>	Seattle	North College Park	47.697100	-122.336700
<b>492</b>	Manhattan - NYC	Marble Hill	40.876551	-73.910660
<b>493</b>	Manhattan - NYC	Chinatown	40.715618	-73.994279
<b>494</b>	Manhattan - NYC	Washington Heights	40.851903	-73.936900
<b>495</b>	Manhattan - NYC	Inwood	40.867684	-73.921210
<b>496</b>	Manhattan - NYC	Hamilton Heights	40.823604	-73.949688
<b>497</b>	Manhattan - NYC	Manhattanville	40.816934	-73.957385
<b>498</b>	Manhattan - NYC	Central Harlem	40.815976	-73.943211
<b>499</b>	Manhattan - NYC	East Harlem	40.792249	-73.944182
<b>500</b>	Manhattan - NYC	Upper East Side	40.775639	-73.960508
<b>501</b>	Manhattan - NYC	Yorkville	40.775930	-73.947118
<b>502</b>	Manhattan - NYC	Lenox Hill	40.768113	-73.958860
<b>503</b>	Manhattan - NYC	Roosevelt Island	40.762160	-73.949168

	City	Neighborhood	Latitude	Longitude
<b>504</b>	Manhattan - NYC	Upper West Side	40.787658	-73.977059
<b>505</b>	Manhattan - NYC	Lincoln Square	40.773529	-73.985338
<b>506</b>	Manhattan - NYC	Clinton	40.759101	-73.996119
<b>507</b>	Manhattan - NYC	Midtown	40.754691	-73.981669
<b>508</b>	Manhattan - NYC	Murray Hill	40.748303	-73.978332
<b>509</b>	Manhattan - NYC	Chelsea	40.744035	-74.003116
<b>510</b>	Manhattan - NYC	Greenwich Village	40.726933	-73.999914
<b>511</b>	Manhattan - NYC	East Village	40.727847	-73.982226
<b>512</b>	Manhattan - NYC	Lower East Side	40.717807	-73.980890
<b>513</b>	Manhattan - NYC	Tribeca	40.721522	-74.010683
<b>514</b>	Manhattan - NYC	Little Italy	40.719324	-73.997305
<b>515</b>	Manhattan - NYC	Soho	40.722184	-74.000657
<b>516</b>	Manhattan - NYC	West Village	40.734434	-74.006180
<b>517</b>	Manhattan - NYC	Manhattan Valley	40.797307	-73.964286
<b>518</b>	Manhattan - NYC	Morningside Heights	40.808000	-73.963896
<b>519</b>	Manhattan - NYC	Gramercy	40.737210	-73.981376
<b>520</b>	Manhattan - NYC	Battery Park City	40.711932	-74.016869
<b>521</b>	Manhattan - NYC	Financial District	40.707107	-74.010665
<b>522</b>	Manhattan - NYC	Carnegie Hill	40.782683	-73.953256



	City	Neighborhood	Latitude	Longitude
523	Manhattan - NYC	Noho	40.723259	-73.988434
524	Manhattan - NYC	Civic Center	40.715229	-74.005415
525	Manhattan - NYC	Midtown South	40.748510	-73.988713
526	Manhattan - NYC	Turtle Bay	40.752042	-73.967708
527	Manhattan - NYC	Tudor City	40.746917	-73.971219
528	Manhattan - NYC	Stuyvesant Town	40.731000	-73.974052
529	Manhattan - NYC	Flatiron	40.739673	-73.990947
530	Manhattan - NYC	Hudson Yards	40.756658	-74.000111
531	Manhattan - NYC	Sutton Place	40.760280	-73.963556

```
In [10]: # Show total number of cities, boroughs, and neighborhoods
n_city = neighborhoods['City'].nunique()
n_neighborhood = neighborhoods.shape[0]

print("The dataframe has", n_city, "cities and", n_neighborhood, "neighborhoods.")
```

The dataframe has 7 cities and 532 neighborhoods.

## 2. Mapping with Folium

```
In [11]: # Find the coordinates of the US to map the seven cities
address = 'United States of America'

geolocator = Nominatim(user_agent="usa_explorer")
location = geolocator.geocode(address)
latitude = location.latitude
longitude = location.longitude
print('The geographical coordinate of the US are {}, {}'.format(latitude, longitude))
```

The geographical coordinate of the US are 39.7837304, -100.4458825.

```
In [12]: # Map of all seven cities using US Latitude and Longitude values
map_cities = folium.Map(location=[latitude, longitude], zoom_start=4)

# Adding markers to map
for lat, lng, city, neighborhood in zip(neighborhoods['Latitude'], neighborhoo
ds['Longitude'], neighborhoods['City'], neighborhoods['Neighborhood']):
    label = '{}', {}'.format(neighborhood, city)
    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_cities)

# Show map
map_cities
```

Out[12]:



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

### 3. Foursquare API

```
In [13]: # @hiddencell
CLIENT_ID = 'H5UHWYXEIEXH3QRRBKADSTXFE04PRQWEW50DDOKPWIV2N3LD' # your Foursqua
re ID
CLIENT_SECRET = 'TRGOGZ3MTIXDC3PDOC0LBDS0XZWDBKXBBKMQK1MKDREDNC2L' # your Four
square Secret
VERSION = '20180605' # Foursquare API version
```

```
In [14]: # Find the first neighborhood in the dataset
neighborhoods.loc[0, 'Neighborhood']
```

```
Out[14]: 'Tacotown'
```

```
In [15]: # Get the coordinates of the first neighborhood in the dataset
neighborhood_latitude = neighborhoods.loc[0, 'Latitude'] # Neighborhood Latitude value
neighborhood_longitude = neighborhoods.loc[0, 'Longitude'] # Neighborhood Longitude value

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

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

Latitude and longitude values of Tacotown are 33.745, -84.3655.

```
In [16]: # Explore venues in first neighborhood in the dataset
LIMIT = 100 # Limit of number of venues returned by Foursquare API
radius = 500 # Define radius

# Create URL
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)
```

```
In [17]: results = requests.get(url).json()  
results
```

```

Out[17]: {'meta': {'code': 200, 'requestId': '5c7a9c5a4434b957cf8f58e7'},
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      'primary': True,
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      'photos': {'count': 0, 'groups': []}}]},
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```

```

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    'primary': True,
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```

```

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'pluralName': 'Burger Joints',
'primary': True,
'shortName': 'Burgers'}]},
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```

```
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```



```

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```

```

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```

```

    'lng': -84.36416387557983}],
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```

```

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'name': 'Ramen Restaurant',
'pluralName': 'Ramen Restaurants',
'primary': True,
'shortName': 'Ramen'}]},
'id': '5ba6c1e54ac28a002c857827',
'location': {'cc': 'US',
'city': 'Atlanta',
'country': 'United States',
'distance': 496,
'formattedAddress': ['Atlanta, GA 30312', 'United States'],
'labeledLatLngs': [{'label': 'display',
'lat': 33.74638,
'lng': -84.370605}],
'lat': 33.74638,
'lng': -84.370605,
'postalCode': '30312',
'state': 'GA'},
'name': 'Ramen Station',
'photos': {'count': 0, 'groups': []}}}],
'name': 'recommended',
'type': 'Recommended Places'}],
'headerFullLocation': 'Grant Park, Atlanta',
'headerLocation': 'Grant Park',
'headerLocationGranularity': 'neighborhood',
'suggestedBounds': {'ne': {'lat': 33.7495000045, 'lng': -84.3600983105827},
'sw': {'lat': 33.740499995499995, 'lng': -84.3709016894173}},
'suggestedFilters': {'filters': [{'key': 'openNow', 'name': 'Open now'},
{'key': 'price', 'name': '$-$$$$'}],
'header': 'Tap to show:'},
'totalResults': 32}}

```

```

In [18]: # Function to extract 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']

```

```
In [19]: # From json to pandas dataframe
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
```

Out[19]:

	name	categories	lat	lng
0	Petit Chou	Breakfast Spot	33.746803	-84.365824
1	Garden*Hood Atlanta	Flower Shop	33.745124	-84.368321
2	Brother Moto	Motorcycle Shop	33.746976	-84.365384
3	Agave	Mexican Restaurant	33.747968	-84.368020
4	Mix'D Up Truck Stop	Burger Joint	33.745977	-84.368182
5	Doc Chey's Noodle House	Noodle House	33.746536	-84.369496
6	Mi Barrio Restaurante Mexicano	Mexican Restaurant	33.746503	-84.368812
7	Firepit Pizza Tavern	Pizza Place	33.746274	-84.370371
8	Full Commission	Gastropub	33.746151	-84.370321
9	Carroll Street Cafe	Breakfast Spot	33.748944	-84.368047
10	Cabbagetown Park	Park	33.749357	-84.364164
11	Grindhouse Killer Burgers	Burger Joint	33.746535	-84.364971
12	Atlanta Habitat for Humanity ReStore	Miscellaneous Shop	33.746263	-84.370379
13	Burger Joy	Chinese Restaurant	33.744465	-84.368499
14	El Toro	Mexican Restaurant	33.746450	-84.364759
15	Chien Hong School Of Kung Fu	Martial Arts Dojo	33.746529	-84.366032
16	The Cube Gallery	Art Gallery	33.746935	-84.365775
17	Cummin Landscape Supply	Garden	33.746974	-84.363315
18	Salon 611	Health & Beauty Service	33.742514	-84.367559
19	Adams Park Recreation Center	Park	33.742016	-84.364714
20	Sutera Hair Spa	Spa	33.742340	-84.367418
21	Foxgloves & Ivy	Flower Shop	33.746580	-84.369023
22	Future Perfect Massage	Massage Studio	33.748493	-84.365485
23	DocChey's	Noodle House	33.746358	-84.369394
24	Intown Saltroom	Spa	33.746310	-84.369620
25	Baby Love	Kids Store	33.742031	-84.368335
26	Flora Fauna	Flower Shop	33.748210	-84.362953
27	All Life is Yoga	Yoga Studio	33.748878	-84.365605
28	The Beam: Moving In The Spirit	Dance Studio	33.741769	-84.361998
29	Kale Me Crazy	Juice Bar	33.746441	-84.370489
30	Larkin On Memorial	Shopping Plaza	33.746554	-84.370518
31	Ramen Station	Ramen Restaurant	33.746380	-84.370605



```

In [20]: print('{} venues were returned by Foursquare.'.format(nearby_venues.shape[0]))
32 venues were returned by Foursquare.

In [21]: # Explore neighborhoods in the dataset
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 [37]: # Run the above function to each neighborhood
neighborhood_venues = getNearbyVenues(names=neighborhoods['Neighborhood'],
                                      latitudes=neighborhoods['Latitude'],
                                      longitudes=neighborhoods['Longitude']
                                      )
```

Tacotown  
Oakland Cemetery  
High Point  
Atkins Park  
Pittsburgh  
Oakland  
Loring Heights  
Custer-Mcdonough  
Amal Heights  
Semmes Park  
Swallow Circle/Baywood  
West End  
Harris Chiles  
Historic Westside Village  
Meadow Lark Estates  
Just Us  
Joyland  
Westchester Hills/Chelsea Heights  
Berkeley Park  
East Atlanta  
Harvel Homes Community  
Mechanicsville  
Downtown  
Midtown  
Sherwood Forest  
Cabbagetown  
Ansley Park  
Piedmont Heights  
Virginia-Highland  
Druid Hills  
Candler Park  
Sweet Auburn  
Morningside/Lenox Park  
Edgewood  
Piedmont Park  
Lake Claire  
Poncey-Highland  
Reynoldstown  
Old Fourth Ward  
The Bluff  
Inman Park  
Little Five Points  
Lindridge - Martin Manor  
Armour  
Sycamore Ridge  
Hunter Hills  
South River Gardens  
Kirkwood  
East Lake  
Chosewood Park  
English Avenue  
Vine City  
Georgia Tech  
Home Park  
Atlantic Station  
Washington Park  
Bankhead

Knight Park/Howell Station  
Lavista Park  
Merry Hills  
North Druid Hills  
Biltmore Acres  
Victoria Estates  
Oakhurst  
Decatur Heights  
Great Lakes  
Glennwood Estates  
Lenox Place  
Winnona Park  
West Lake  
Colonial Hills  
Summerhill  
Grant Park  
Glenwood Park  
North Ormewood Park  
Ormewood Park  
Boulevard Heights  
Benteen Park  
Capitol Gateway  
Peoplestown  
Jefferson Park  
Capitol View Manor  
Capitol View  
Adair Park  
Sylvan Hills  
Perkerson  
Hammond Park  
Mak Historic District  
College Heights  
South Atlanta  
Frog Hollow  
Conley Hills  
Egan Park  
Lakewood Heights  
Betmar La Villa  
Thomasville Heights  
Mozley Park  
Polar Rock  
West Midtown  
Atlanta University Center  
Oakland City  
Bush Mountain  
Underwood Hills  
Future Westside Park  
Westview  
Ashview Heights  
Venetian Hills  
Penelope Neighbors  
Grove Park  
Dixie Hills  
Center Hill  
Collier Heights  
Woodland Hills (North)  
Woodland Hills (South)

Chaffee Park  
Sunnyside  
Highland  
Globeville  
Jefferson Park  
Sun Valley  
Valverde  
Athmar Park  
Windsor  
Northeast Park Hill  
Elyria Swansea  
Wellshire  
University  
Rosedale  
Cheesman Park  
Hilltop  
Montclair  
Hale  
North Park Hill  
South Park Hill  
University Park  
Platt Park  
College View/South Platte  
Overland  
Ruby Hill  
Kennedy  
Hampden  
Baker  
Fort Logan  
Bear Valley  
Harvey Park South  
Southmoor Park  
Hampden South  
Indian Creek  
Goldsmith  
Virginia Village  
Gateway/Green Valley Ranch  
DIA  
University Hills  
Harvey Park  
Mar Lee  
Westwood  
East Colfax  
Auraria  
Cory - Merrill  
Belcaro  
Washington Park  
Washington Park West  
Speer  
Cherry Creek  
Country Club  
Congress Park  
City Park  
Clayton  
Skyland  
Cole  
Marston

Washington Virginia Vale  
Barnum  
Barnum West  
Villa Park  
West Colfax  
West Highland  
Sloan Lake  
Berkeley  
Regis  
Lincoln Park  
City Park West  
Whittier  
Capitol Hill  
North Capitol Hill  
Civic Center  
CBD  
Union Station  
Five Points  
Stapleton  
Montbello  
Lowry Field  
Fourth Ward  
Greater Uptown  
Greater Inwood  
Greater Hobby Area  
Eldridge/West Oaks  
Washington Avenue Coalition/Memorial Park  
Pleasantville Area  
Northshore  
Minnetex  
Spring Branch East  
Spring Branch North  
Langwood  
Greater Greenspoint  
Iah/Airport Area  
Kingwood Area  
Lake Houston  
South Belt/Ellington  
Ost/South Union  
Meadowbrook/Allendale  
Museum Park  
Greenway/Upper Kirby Area  
Mid West  
Midtown  
Edgebrook Area  
Memorial  
Settegast  
Addicks/Park Ten  
Second Ward  
Independence Heights  
Downtown  
Westbranch  
Clinton Park Tri-Community  
Golfcrest/Bellfort/Reveille  
Greater Fifth Ward  
Denver Harbor/Port Houston  
Lazy Brook/Timbergrove

Greater Heights  
Kashmere Gardens  
Northside Village  
Sharpstown  
El Dorado/Oates Prairie  
Westbury  
Spring Branch Central  
Hunterwood  
Willow Meadows/Willowbend Area  
Central Northwest  
Trinity/Houston Gardens  
Braeburn  
Carverdale  
South Main  
Eastex/Jensen Area  
Medical Center Area  
East Houston  
Acres Home  
Northside/Northline  
Hidden Valley  
East Little York/Homestead  
Willowbrook  
Fairbanks/Northwest Crossing  
Gulfton  
Westwood  
Macgregor  
Fort Bend/Houston  
Fondren Gardens  
South Acres/Crestmont Park  
Brays Oaks  
Central Southwest  
Gulfgate Riverview/Pine Valley  
Sunnyside  
Westchase  
Alief  
Pecan Park  
Clear Lake  
South Park  
Astrodome Area  
Park Place  
Harrisburg/Manchester  
University Place  
Lawndale/Wayside  
Greater Third Ward  
Greater Eastwood  
Spring Branch West  
Braeswood Place  
Meyerland Area  
Magnolia Park  
Afton Oaks/River Oaks Area  
Briarforest Area  
Neartown - Montrose  
Bryant  
Regina  
Northrup  
Page  
Hale

Keewaydin  
Diamond Lake  
Wenonah  
Morris Park  
Minnehaha  
Ericsson  
Hiawatha  
Howe  
Standish  
Bancroft  
Powderhorn Park  
Lyndale  
ECCO  
Fulton  
Kenny  
Armatage  
Tangletown  
Windom  
East Harriet  
Lowry Hill East  
Phillips  
Stevens Square  
West Calhoun  
Linden Hills  
Lynnhurst  
Shingle Creek  
Humboldt Industrial  
Webber-Camden  
Cleveland  
Jordan  
Willard-Hay  
Bryn-Mawr  
Cedar-Isles  
Columbia Park  
Camden Industrial  
Bottineau  
Logan Park  
Windom Park  
Mid-City Industrial  
Marcy-Holmes  
Prospect Park  
Lowry Hill  
Downtown West  
Cedar-Riverside  
Northeast Park  
Waite Park  
Sumner-Glenwood  
McKinley  
Hawthorne  
St. Anthony West  
Folwell  
Lind-Bohanon  
Victory  
Field  
King Field  
CARAG  
Central



Longfellow  
Corcoran  
Cooper  
Whittier  
East Isles  
Kenwood  
Harrison  
Nicollet Island  
Near North  
North Loop  
Elliot Park  
Downtown East  
University  
Seward  
Loring Park  
Como  
Beltrami  
St. Anthony East  
Sheridan  
Holland  
Marshall Terrace  
Audubon Park  
Ventura Village  
Sea Cliff  
Marina  
Pacific Heights  
Nob Hill  
Presidio Heights  
Downtown/Civic Center  
Excelsior  
Bernal Heights  
Western Addition  
Chinatown  
North Beach  
Haight Ashbury  
Outer Mission  
Crocker Amazon  
West of Twin Peaks  
South of Market  
Potrero Hill  
Inner Richmond  
Bayview  
Noe Valley  
Inner Sunset  
Diamond Heights  
Lakeshore  
Russian Hill  
Treasure Island/YBI  
Twin Peaks  
Outer Richmond  
Visitacion Valley  
Golden Gate Park  
Parkside  
Financial District  
Ocean View  
Mission  
Presidio

Castro/Upper Market  
Outer Sunset  
Glen Park  
Adams  
Wallingford  
Green Lake  
Sand Point  
University District  
Seaview  
Alki  
Matthews Beach  
Broadview  
Sunset Hill  
Windermere  
Laurelhurst  
Eastlake  
South Lake Union  
Lawton Park  
Briarcliff  
Whittier Heights  
Interbay  
Georgetown  
South Park  
Harbor Island  
Industrial District  
Crown Hill  
Fauntleroy  
North Beacon Hill  
Dunlap  
Rainier Beach  
Mount Baker  
Roxhill  
Seward Park  
Montlake  
Madison Park  
Stevens  
Loyal Heights  
North Beach/Blue Ridge  
Yesler Terrace  
West Woodland  
Wedgwood  
Phinney Ridge  
Fremont  
View Ridge  
Ravenna  
Mann  
Bryant  
High Point  
Roosevelt  
West Queen Anne  
Lower Queen Anne  
East Queen Anne  
North Queen Anne  
Westlake  
First Hill  
Southeast Magnolia  
Central Business District

Minor  
Madrona  
Harrison/Denny-Blaine  
Leschi  
Atlantic  
International District  
Pike-Market  
Brighton  
Belltown  
Pioneer Square  
Gatewood  
Arbor Heights  
North Admiral  
Fairmount Park  
Olympic Hills  
Genesee  
Greenwood  
Mid-Beacon Hill  
South Beacon Hill  
Holly Park  
South Delridge  
Rainier View  
Bitter Lake  
Maple Leaf  
Columbia City  
Highland Park  
North Delridge  
Riverview  
Portage Bay  
Victory Heights  
Broadway  
Meadowbrook  
Cedar Park  
Haller Lake  
Pinehurst  
North College Park  
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  
 Turtle Bay  
 Tudor City  
 Stuyvesant Town  
 Flatiron  
 Hudson Yards  
 Sutton Place

```

In [38]: # Check the size of the resulting dataframe
print(neighborhood_venues.shape)
neighborhood_venues.head()

```

```
(11201, 7)
```

Out[38]:

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	C
0	Tacotown	33.745	-84.3655	Petit Chou	33.746803	-84.365824	Br Sp
1	Tacotown	33.745	-84.3655	Garden*Hood Atlanta	33.745124	-84.368321	Fl Sh
2	Tacotown	33.745	-84.3655	Brother Moto	33.746976	-84.365384	Mc Sh
3	Tacotown	33.745	-84.3655	Agave	33.747968	-84.368020	Me Re
4	Tacotown	33.745	-84.3655	Mix'D Up Truck Stop	33.745977	-84.368182	Bu Joi



```
In [39]: # Check how many venues were return for each neighborhood  
neighborhood_venues.groupby('Neighborhood').count()
```

Out[39]:

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Acres Home	4	4	4	4	4	4
Adair Park	3	3	3	3	3	3
Adams	86	86	86	86	86	86
Addicks/Park Ten	1	1	1	1	1	1
Afton Oaks/River Oaks Area	39	39	39	39	39	39
Alki	8	8	8	8	8	8
Amal Heights	1	1	1	1	1	1
Ansley Park	11	11	11	11	11	11
Armatage	6	6	6	6	6	6
Armour	11	11	11	11	11	11
Ashview Heights	1	1	1	1	1	1
Astrodome Area	9	9	9	9	9	9
Athmar Park	5	5	5	5	5	5
Atkins Park	37	37	37	37	37	37
Atlanta University Center	7	7	7	7	7	7
Atlantic	9	9	9	9	9	9
Atlantic Station	67	67	67	67	67	67
Audubon Park	15	15	15	15	15	15
Auraria	35	35	35	35	35	35
Baker	10	10	10	10	10	10
Bancroft	6	6	6	6	6	6
Bankhead	1	1	1	1	1	1
Barnum	6	6	6	6	6	6
Barnum West	3	3	3	3	3	3
Battery Park City	100	100	100	100	100	100
Bayview	3	3	3	3	3	3
Bear Valley	4	4	4	4	4	4
Belcaro	4	4	4	4	4	4
Belltown	100	100	100	100	100	100

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Beltrami	6	6	6	6	6	6
Benteen Park	6	6	6	6	6	6
Berkeley	46	46	46	46	46	46
Berkeley Park	18	18	18	18	18	18
Bernal Heights	39	39	39	39	39	39
Betmar La Villa	3	3	3	3	3	3
Biltmore Acres	4	4	4	4	4	4
Bitter Lake	22	22	22	22	22	22
Bottineau	30	30	30	30	30	30
Boulevard Heights	5	5	5	5	5	5
Braeburn	4	4	4	4	4	4
Braeswood Place	1	1	1	1	1	1
Brays Oaks	11	11	11	11	11	11
Briarcliff	3	3	3	3	3	3
Briarforest Area	17	17	17	17	17	17
Brighton	13	13	13	13	13	13
Broadview	3	3	3	3	3	3
Broadway	55	55	55	55	55	55
Bryant	15	15	15	15	15	15
Bryn-Mawr	8	8	8	8	8	8
Bush Mountain	2	2	2	2	2	2
CARAG	21	21	21	21	21	21
CBD	100	100	100	100	100	10
Cabbagetown	20	20	20	20	20	20
Camden Industrial	8	8	8	8	8	8
Candler Park	17	17	17	17	17	17
Capitol Gateway	10	10	10	10	10	10
Capitol Hill	23	23	23	23	23	23
Capitol View	5	5	5	5	5	5
Capitol View Manor	3	3	3	3	3	3
Carnegie Hill	100	100	100	100	100	10

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Carverdale	2	2	2	2	2	2
Castro/Upper Market	100	100	100	100	100	100
Cedar Park	6	6	6	6	6	6
Cedar-Isles	26	26	26	26	26	26
Cedar-Riverside	25	25	25	25	25	25
Center Hill	2	2	2	2	2	2
Central	65	65	65	65	65	65
Central Business District	100	100	100	100	100	100
Central Harlem	46	46	46	46	46	46
Central Northwest	4	4	4	4	4	4
Central Southwest	2	2	2	2	2	2
Chaffee Park	8	8	8	8	8	8
Cheesman Park	6	6	6	6	6	6
Chelsea	100	100	100	100	100	100
Cherry Creek	97	97	97	97	97	97
Chinatown	200	200	200	200	200	200
Chosewood Park	5	5	5	5	5	5
City Park	13	13	13	13	13	13
City Park West	34	34	34	34	34	34
Civic Center	142	142	142	142	142	142
Clayton	6	6	6	6	6	6
Cleveland	3	3	3	3	3	3
Clinton	100	100	100	100	100	100
Clinton Park Tri-Community	1	1	1	1	1	1
Cole	1	1	1	1	1	1
College Heights	2	2	2	2	2	2
College View/South Platte	2	2	2	2	2	2
Collier Heights	2	2	2	2	2	2
Colonial Hills	4	4	4	4	4	4
Columbia City	34	34	34	34	34	34



	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Columbia Park	4	4	4	4	4	4
Como	4	4	4	4	4	4
Congress Park	6	6	6	6	6	6
Conley Hills	6	6	6	6	6	6
Cooper	17	17	17	17	17	17
Corcoran	6	6	6	6	6	6
Cory - Merrill	3	3	3	3	3	3
Country Club	5	5	5	5	5	5
Crocker Amazon	9	9	9	9	9	9
Crown Hill	9	9	9	9	9	9
Custer-McDonough	6	6	6	6	6	6
Decatur Heights	2	2	2	2	2	2
Diamond Heights	15	15	15	15	15	15
Diamond Lake	5	5	5	5	5	5
Dixie Hills	1	1	1	1	1	1
Downtown	200	200	200	200	200	200
Downtown East	38	38	38	38	38	38
Downtown West	100	100	100	100	100	100
Downtown/Civic Center	100	100	100	100	100	100
Druid Hills	24	24	24	24	24	24
Dunlap	14	14	14	14	14	14
ECCO	11	11	11	11	11	11
East Atlanta	4	4	4	4	4	4
East Colfax	20	20	20	20	20	20
East Harlem	45	45	45	45	45	45
East Harriet	6	6	6	6	6	6
East Houston	5	5	5	5	5	5
East Isles	26	26	26	26	26	26
East Lake	2	2	2	2	2	2
East Little York/Homestead	3	3	3	3	3	3

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
East Queen Anne	3	3	3	3	3	3
East Village	100	100	100	100	100	100
Eastex/Jensen Area	11	11	11	11	11	11
Eastlake	29	29	29	29	29	29
Edgebrook Area	3	3	3	3	3	3
Edgewood	4	4	4	4	4	4
Egan Park	25	25	25	25	25	25
Eldridge/West Oaks	1	1	1	1	1	1
Elliot Park	17	17	17	17	17	17
Elyria Swansea	11	11	11	11	11	11
English Avenue	7	7	7	7	7	7
Ericsson	6	6	6	6	6	6
Excelsior	5	5	5	5	5	5
Fairbanks/Northwest Crossing	14	14	14	14	14	14
Fairmount Park	11	11	11	11	11	11
Fauntleroy	8	8	8	8	8	8
Field	16	16	16	16	16	16
Financial District	200	200	200	200	200	200
First Hill	40	40	40	40	40	40
Five Points	64	64	64	64	64	64
Flatiron	100	100	100	100	100	100
Folwell	6	6	6	6	6	6
Fort Bend/Houston	1	1	1	1	1	1
Fort Logan	1	1	1	1	1	1
Fourth Ward	6	6	6	6	6	6
Fremont	52	52	52	52	52	52
Frog Hollow	9	9	9	9	9	9
Fulton	9	9	9	9	9	9
Future Westside Park	4	4	4	4	4	4

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Gateway/Green Valley Ranch	28	28	28	28	28	28
Gatewood	4	4	4	4	4	4
Genesee	49	49	49	49	49	49
Georgetown	10	10	10	10	10	10
Georgia Tech	16	16	16	16	16	16
Glen Park	29	29	29	29	29	29
Glennwood Estates	6	6	6	6	6	6
Glenwood Park	26	26	26	26	26	26
Globeville	9	9	9	9	9	9
Golden Gate Park	8	8	8	8	8	8
Goldsmith	9	9	9	9	9	9
Golfcrest/Bellfort/Reveille	2	2	2	2	2	2
Gramercy	100	100	100	100	100	10
Grant Park	34	34	34	34	34	34
Great Lakes	1	1	1	1	1	1
Greater Eastwood	18	18	18	18	18	18
Greater Fifth Ward	2	2	2	2	2	2
Greater Greenspoint	1	1	1	1	1	1
Greater Heights	10	10	10	10	10	10
Greater Hobby Area	11	11	11	11	11	11
Greater Inwood	4	4	4	4	4	4
Greater Third Ward	9	9	9	9	9	9
Greater Uptown	11	11	11	11	11	11
Green Lake	8	8	8	8	8	8
Greenway/Upper Kirby Area	18	18	18	18	18	18
Greenwich Village	100	100	100	100	100	10
Greenwood	52	52	52	52	52	52
Grove Park	10	10	10	10	10	10
Gulfgate Riverview/Pine Valley	4	4	4	4	4	4

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Gulfton	3	3	3	3	3	3
Haight Ashbury	96	96	96	96	96	96
Hale	8	8	8	8	8	8
Haller Lake	2	2	2	2	2	2
Hamilton Heights	60	60	60	60	60	60
Hammond Park	3	3	3	3	3	3
Hampden	2	2	2	2	2	2
Hampden South	18	18	18	18	18	18
Harris Chiles	9	9	9	9	9	9
Harrisburg/Manchester	2	2	2	2	2	2
Harrison	7	7	7	7	7	7
Harrison/Denny-Blaine	4	4	4	4	4	4
Harvel Homes Community	4	4	4	4	4	4
Harvey Park	5	5	5	5	5	5
Harvey Park South	1	1	1	1	1	1
Hawthorne	4	4	4	4	4	4
Hiawatha	4	4	4	4	4	4
Hidden Valley	3	3	3	3	3	3
High Point	8	8	8	8	8	8
Highland	43	43	43	43	43	43
Highland Park	6	6	6	6	6	6
Hilltop	3	3	3	3	3	3
Historic Westside Village	11	11	11	11	11	11
Holland	8	8	8	8	8	8
Holly Park	21	21	21	21	21	21
Home Park	17	17	17	17	17	17
Howe	5	5	5	5	5	5
Hudson Yards	60	60	60	60	60	60
Humboldt Industrial	3	3	3	3	3	3
Hunter Hills	2	2	2	2	2	2

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Iah/Airport Area	8	8	8	8	8	8
Independence Heights	5	5	5	5	5	5
Indian Creek	2	2	2	2	2	2
Industrial District	15	15	15	15	15	15
Inman Park	38	38	38	38	38	38
Inner Richmond	69	69	69	69	69	69
Inner Sunset	43	43	43	43	43	43
Interbay	17	17	17	17	17	17
International District	64	64	64	64	64	64
Inwood	57	57	57	57	57	57
Jefferson Park	22	22	22	22	22	22
Jordan	4	4	4	4	4	4
Joyland	2	2	2	2	2	2
Just Us	2	2	2	2	2	2
Kashmere Gardens	6	6	6	6	6	6
Keewaydin	5	5	5	5	5	5
Kennedy	6	6	6	6	6	6
Kenny	4	4	4	4	4	4
Kenwood	8	8	8	8	8	8
King Field	9	9	9	9	9	9
Kingwood Area	2	2	2	2	2	2
Kirkwood	19	19	19	19	19	19
Knight Park/Howell Station	4	4	4	4	4	4
Lake Claire	6	6	6	6	6	6
Lake Houston	1	1	1	1	1	1
Lakeshore	6	6	6	6	6	6
Lakewood Heights	8	8	8	8	8	8
Langwood	4	4	4	4	4	4
Laurelhurst	5	5	5	5	5	5
Lavista Park	1	1	1	1	1	1

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Lawndale/Wayside	2	2	2	2	2	2
Lawton Park	4	4	4	4	4	4
Lazy Brook/Timbergrove	8	8	8	8	8	8
Lenox Hill	100	100	100	100	100	100
Lenox Place	7	7	7	7	7	7
Leschi	5	5	5	5	5	5
Lincoln Park	5	5	5	5	5	5
Lincoln Square	100	100	100	100	100	100
Lind-Bohanon	5	5	5	5	5	5
Linden Hills	19	19	19	19	19	19
Lindridge - Martin Manor	31	31	31	31	31	31
Little Five Points	45	45	45	45	45	45
Little Italy	100	100	100	100	100	100
Logan Park	26	26	26	26	26	26
Longfellow	21	21	21	21	21	21
Loring Heights	10	10	10	10	10	10
Loring Park	43	43	43	43	43	43
Lower East Side	60	60	60	60	60	60
Lower Queen Anne	67	67	67	67	67	67
Lowry Field	6	6	6	6	6	6
Lowry Hill	9	9	9	9	9	9
Lowry Hill East	52	52	52	52	52	52
Loyal Heights	6	6	6	6	6	6
Lyndale	9	9	9	9	9	9
Lynnhurst	5	5	5	5	5	5
Macgregor	3	3	3	3	3	3
Madison Park	11	11	11	11	11	11
Madrona	20	20	20	20	20	20
Magnolia Park	4	4	4	4	4	4
Mak Historic District	4	4	4	4	4	4
Manhattan Valley	63	63	63	63	63	63

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Manhattanville	41	41	41	41	41	41
Mann	27	27	27	27	27	27
Maple Leaf	11	11	11	11	11	11
Mar Lee	5	5	5	5	5	5
Marble Hill	24	24	24	24	24	24
Marcy-Holmes	11	11	11	11	11	11
Marina	90	90	90	90	90	90
Marshall Terrace	6	6	6	6	6	6
Marston	1	1	1	1	1	1
Matthews Beach	1	1	1	1	1	1
McKinley	4	4	4	4	4	4
Meadow Lark Estates	1	1	1	1	1	1
Meadowbrook	9	9	9	9	9	9
Meadowbrook/Allendale	1	1	1	1	1	1
Mechanicsville	10	10	10	10	10	10
Medical Center Area	29	29	29	29	29	29
Memorial	5	5	5	5	5	5
Merry Hills	1	1	1	1	1	1
Meyerland Area	64	64	64	64	64	64
Mid West	16	16	16	16	16	16
Mid-Beacon Hill	2	2	2	2	2	2
Mid-City Industrial	7	7	7	7	7	7
Midtown	225	225	225	225	225	225
Midtown South	100	100	100	100	100	100
Minnehaha	4	4	4	4	4	4
Minor	10	10	10	10	10	10
Mission	94	94	94	94	94	94
Montbello	3	3	3	3	3	3
Montclair	5	5	5	5	5	5
Montlake	17	17	17	17	17	17
Morningside Heights	43	43	43	43	43	43

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
<b>Morningside/Lenox Park</b>	4	4	4	4	4	4
<b>Morris Park</b>	2	2	2	2	2	2
<b>Mount Baker</b>	4	4	4	4	4	4
<b>Mozley Park</b>	6	6	6	6	6	6
<b>Murray Hill</b>	100	100	100	100	100	10
<b>Museum Park</b>	23	23	23	23	23	23
<b>Near North</b>	4	4	4	4	4	4
<b>Neartown - Montrose</b>	35	35	35	35	35	35
<b>Nicollet Island</b>	26	26	26	26	26	26
<b>Nob Hill</b>	83	83	83	83	83	83
<b>Noe Valley</b>	75	75	75	75	75	75
<b>Noho</b>	100	100	100	100	100	10
<b>North Admiral</b>	27	27	27	27	27	27
<b>North Beach</b>	85	85	85	85	85	85
<b>North Beach/Blue Ridge</b>	1	1	1	1	1	1
<b>North Beacon Hill</b>	24	24	24	24	24	24
<b>North Capitol Hill</b>	41	41	41	41	41	41
<b>North College Park</b>	3	3	3	3	3	3
<b>North Delridge</b>	5	5	5	5	5	5
<b>North Druid Hills</b>	3	3	3	3	3	3
<b>North Loop</b>	33	33	33	33	33	33
<b>North Ormewood Park</b>	19	19	19	19	19	19
<b>North Park Hill</b>	2	2	2	2	2	2
<b>North Queen Anne</b>	5	5	5	5	5	5
<b>Northeast Park</b>	24	24	24	24	24	24
<b>Northeast Park Hill</b>	7	7	7	7	7	7
<b>Northrup</b>	4	4	4	4	4	4
<b>Northside Village</b>	10	10	10	10	10	10
<b>Northside/Northline</b>	3	3	3	3	3	3
<b>Oakhurst</b>	16	16	16	16	16	16
<b>Oakland</b>	22	22	22	22	22	22



	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Oakland Cemetery	33	33	33	33	33	33
Oakland City	7	7	7	7	7	7
Ocean View	16	16	16	16	16	16
Old Fourth Ward	4	4	4	4	4	4
Olympic Hills	3	3	3	3	3	3
Ormewood Park	12	12	12	12	12	12
Ost/South Union	12	12	12	12	12	12
Outer Mission	27	27	27	27	27	27
Outer Richmond	53	53	53	53	53	53
Outer Sunset	14	14	14	14	14	14
Overland	11	11	11	11	11	11
Pacific Heights	35	35	35	35	35	35
Page	9	9	9	9	9	9
Park Place	3	3	3	3	3	3
Parkside	14	14	14	14	14	14
Pecan Park	3	3	3	3	3	3
Penelope Neighbors	6	6	6	6	6	6
Peopletown	3	3	3	3	3	3
Perkerson	4	4	4	4	4	4
Phillips	4	4	4	4	4	4
Phinney Ridge	35	35	35	35	35	35
Piedmont Heights	15	15	15	15	15	15
Piedmont Park	35	35	35	35	35	35
Pike-Market	100	100	100	100	100	100
Pinehurst	10	10	10	10	10	10
Pioneer Square	61	61	61	61	61	61
Pittsburgh	4	4	4	4	4	4
Platt Park	29	29	29	29	29	29
Pleasantville Area	2	2	2	2	2	2
Poncey-Highland	50	50	50	50	50	50
Portage Bay	9	9	9	9	9	9

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Potrero Hill	40	40	40	40	40	40
Powderhorn Park	6	6	6	6	6	6
Presidio	7	7	7	7	7	7
Presidio Heights	35	35	35	35	35	35
Prospect Park	16	16	16	16	16	16
Rainier Beach	3	3	3	3	3	3
Rainier View	1	1	1	1	1	1
Ravenna	12	12	12	12	12	12
Regina	5	5	5	5	5	5
Regis	6	6	6	6	6	6
Reynoldstown	11	11	11	11	11	11
Riverview	2	2	2	2	2	2
Roosevelt	9	9	9	9	9	9
Roosevelt Island	24	24	24	24	24	24
Rosedale	3	3	3	3	3	3
Roxhill	4	4	4	4	4	4
Russian Hill	73	73	73	73	73	73
Sand Point	17	17	17	17	17	17
Sea Cliff	10	10	10	10	10	10
Seaview	4	4	4	4	4	4
Second Ward	8	8	8	8	8	8
Semmes Park	4	4	4	4	4	4
Settegast	2	2	2	2	2	2
Seward	15	15	15	15	15	15
Seward Park	3	3	3	3	3	3
Sharpstown	13	13	13	13	13	13
Sheridan	25	25	25	25	25	25
Sherwood Forest	2	2	2	2	2	2
Shingle Creek	4	4	4	4	4	4
Skyland	2	2	2	2	2	2
Sloan Lake	6	6	6	6	6	6

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Soho	100	100	100	100	100	10
South Acres/Crestmont Park	3	3	3	3	3	3
South Atlanta	3	3	3	3	3	3
South Belt/Ellington	2	2	2	2	2	2
South Delridge	4	4	4	4	4	4
South Lake Union	74	74	74	74	74	74
South Main	1	1	1	1	1	1
South Park	13	13	13	13	13	13
South Park Hill	1	1	1	1	1	1
South of Market	72	72	72	72	72	72
Southeast Magnolia	14	14	14	14	14	14
Southmoor Park	4	4	4	4	4	4
Speer	13	13	13	13	13	13
Spring Branch Central	4	4	4	4	4	4
Spring Branch East	4	4	4	4	4	4
Spring Branch North	9	9	9	9	9	9
Spring Branch West	4	4	4	4	4	4
St. Anthony East	12	12	12	12	12	12
St. Anthony West	8	8	8	8	8	8
Standish	2	2	2	2	2	2
Stapleton	2	2	2	2	2	2
Stevens	11	11	11	11	11	11
Stevens Square	27	27	27	27	27	27
Stuyvesant Town	19	19	19	19	19	19
Summerhill	14	14	14	14	14	14
Sumner-Glenwood	6	6	6	6	6	6
Sun Valley	9	9	9	9	9	9
Sunnyside	24	24	24	24	24	24
Sunset Hill	11	11	11	11	11	11
Sutton Place	100	100	100	100	100	10

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Swallow Circle/Baywood	1	1	1	1	1	1
Sweet Auburn	60	60	60	60	60	60
Sycamore Ridge	15	15	15	15	15	15
Sylvan Hills	4	4	4	4	4	4
Tacotown	32	32	32	32	32	32
Tangletown	13	13	13	13	13	13
The Bluff	9	9	9	9	9	9
Thomasville Heights	3	3	3	3	3	3
Treasure Island/YBI	9	9	9	9	9	9
Tribeca	100	100	100	100	100	100
Tudor City	82	82	82	82	82	82
Turtle Bay	100	100	100	100	100	100
Twin Peaks	10	10	10	10	10	10
Underwood Hills	9	9	9	9	9	9
Union Station	100	100	100	100	100	100
University	48	48	48	48	48	48
University District	62	62	62	62	62	62
University Hills	1	1	1	1	1	1
University Park	3	3	3	3	3	3
University Place	6	6	6	6	6	6
Upper East Side	100	100	100	100	100	100
Upper West Side	100	100	100	100	100	100
Valverde	7	7	7	7	7	7
Venetian Hills	3	3	3	3	3	3
Ventura Village	20	20	20	20	20	20
Victoria Estates	2	2	2	2	2	2
Victory	6	6	6	6	6	6
Victory Heights	9	9	9	9	9	9
View Ridge	3	3	3	3	3	3
Villa Park	4	4	4	4	4	4
Vine City	5	5	5	5	5	5

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Virginia Village	4	4	4	4	4	4
Virginia-Highland	35	35	35	35	35	35
Visitation Valley	4	4	4	4	4	4
Waite Park	7	7	7	7	7	7
Wallingford	60	60	60	60	60	60
Washington Avenue Coalition/Memorial Park	4	4	4	4	4	4
Washington Heights	86	86	86	86	86	86
Washington Park	22	22	22	22	22	22
Washington Park West	5	5	5	5	5	5
Washington Virginia Vale	23	23	23	23	23	23
Webber-Camden	2	2	2	2	2	2
Wedgwood	14	14	14	14	14	14
Wenonah	4	4	4	4	4	4
West Calhoun	13	13	13	13	13	13
West Colfax	16	16	16	16	16	16
West End	18	18	18	18	18	18
West Highland	24	24	24	24	24	24
West Midtown	37	37	37	37	37	37
West Queen Anne	15	15	15	15	15	15
West Village	100	100	100	100	100	100
West Woodland	22	22	22	22	22	22
West of Twin Peaks	5	5	5	5	5	5
Westbranch	3	3	3	3	3	3
Westbury	5	5	5	5	5	5
Westchase	3	3	3	3	3	3
Westchester Hills/Chelsea Heights	2	2	2	2	2	2
Western Addition	70	70	70	70	70	70
Westlake	15	15	15	15	15	15
Westview	7	7	7	7	7	7

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Ca
Neighborhood						
Westwood	17	17	17	17	17	17
Whittier	48	48	48	48	48	48
Whittier Heights	15	15	15	15	15	15
Willard-Hay	5	5	5	5	5	5
Willow Meadows/Willowbend Area	2	2	2	2	2	2
Willowbrook	44	44	44	44	44	44
Windermere	3	3	3	3	3	3
Windom	13	13	13	13	13	13
Windom Park	11	11	11	11	11	11
Windsor	4	4	4	4	4	4
Winnona Park	1	1	1	1	1	1
Woodland Hills (North)	4	4	4	4	4	4
Woodland Hills (South)	19	19	19	19	19	19
Yesler Terrace	26	26	26	26	26	26
Yorkville	100	100	100	100	100	10

In [40]: `# Find out how many unique categories of venues we have  
print('There are {} uniques categories.'.format(len(neighborhood_venues['Venue  
Category'].unique())))`

There are 477 uniques categories.

## 4. Analyze each neighborhood

```
In [41]: # One hot encoding
neighborhood_onehot = pd.get_dummies(neighborhood_venues[['Venue Category']],
prefix="", prefix_sep="")

# Add neighborhood column back to dataframe
neighborhood_onehot['Neighborhood'] = neighborhood_venues['Neighborhood']

# Move neighborhood column to the first column
fixed_columns = [neighborhood_onehot.columns[-1]] + list(neighborhood_onehot.c
olumns[:-1])
neighborhood_onehot = neighborhood_onehot[fixed_columns]

neighborhood_onehot
```

```
In [42]: # Check the size of the dataframe
neighborhood_onehot.shape
```

```
In [45]: # Group rows by neighborhood and take the mean of the frequency of occurrence  
         of each category  
neighborhood_grouped = neighborhood_onehot.groupby('Neighborhood').mean().reset_index()  
neighborhood_grouped
```



Out[45]:

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
0	Acres Home	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
1	Adair Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
2	Adams	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
3	Addicks/Park Ten	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
4	Afton Oaks/River Oaks Area	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
5	Alki	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
6	Amal Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
7	Ansley Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
8	Armatage	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
9	Armour	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
10	Ashview Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
11	Astrodome Area	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
12	Athmar Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
13	Atkins Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
14	Atlanta University Center	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
15	Atlantic	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
16	Atlantic Station	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
17	Audubon Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
18	Auraria	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
19	Baker	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
20	Bancroft	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
21	Bankhead	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
22	Barnum	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
23	Barnum West	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
24	Battery Park City	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
25	Bayview	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
26	Bear Valley	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
27	Belcaro	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
28	Belltown	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
29	Beltrami	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
30	Benteen Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
31	Berkeley	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
32	Berkeley Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
33	Bernal Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
34	Betmar La Villa	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
35	Biltmore Acres	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
36	Bitter Lake	0.000000	0.045455	0.000	0.000000	0.000000	0.00000
37	Bottineau	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
38	Boulevard Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
39	Braeburn	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
40	Braeswood Place	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
41	Brays Oaks	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
42	Briarcliff	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
43	Briarforest Area	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
44	Brighton	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
45	Broadview	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
46	Broadway	0.000000	0.018182	0.000	0.000000	0.000000	0.00000
47	Bryant	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
48	Bryn-Mawr	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
49	Bush Mountain	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
50	CARAG	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
51	CBD	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
52	Cabbagetown	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
53	Camden Industrial	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
54	Candler Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
55	Capitol Gateway	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
56	Capitol Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
57	Capitol View	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
58	Capitol View Manor	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
59	Carnegie Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
60	Carverdale	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
61	Castro/Upper Market	0.000000	0.000000	0.000	0.000000	0.010000	0.00000
62	Cedar Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
63	Cedar-Isles	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
64	Cedar-Riverside	0.000000	0.040000	0.000	0.000000	0.000000	0.00000
65	Center Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
66	Central	0.000000	0.000000	0.000	0.000000	0.015385	0.00000
67	Central Business District	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
68	Central Harlem	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
69	Central Northwest	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
70	Central Southwest	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
71	Chaffee Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
72	Cheesman Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
73	Chelsea	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
74	Cherry Creek	0.000000	0.000000	0.000	0.010309	0.000000	0.00000
75	Chinatown	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
76	Chosewood Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
77	City Park	0.153846	0.000000	0.000	0.000000	0.000000	0.00000
78	City Park West	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
79	Civic Center	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
80	Clayton	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
81	Cleveland	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
82	Clinton	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
83	Clinton Park Tri-Community	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
84	Cole	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
85	College Heights	0.000000	0.000000	0.000	0.000000	0.500000	0.00000
86	College View/South Platte	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
87	Collier Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
88	Colonial Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
89	Columbia City	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
90	Columbia Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
91	Como	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
92	Congress Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
93	Conley Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
94	Cooper	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
95	Corcoran	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
96	Cory - Merrill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
97	Country Club	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
98	Crocker Amazon	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
99	Crown Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
100	Custer-Mcdonough	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
101	Decatur Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
102	Diamond Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
103	Diamond Lake	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
104	Dixie Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
105	Downtown	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
106	Downtown East	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
107	Downtown West	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
108	Downtown/Civic Center	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
109	Druid Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
110	Dunlap	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
111	ECCO	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
112	East Atlanta	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
113	East Colfax	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
114	East Harlem	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
115	East Harriet	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
116	East Houston	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
117	East Isles	0.000000	0.038462	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
118	East Lake	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
119	East Little York/Homestead	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
120	East Queen Anne	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
121	East Village	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
122	Eastex/Jensen Area	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
123	Eastlake	0.000000	0.034483	0.000	0.000000	0.000000	0.00000
124	Edgebrook Area	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
125	Edgewood	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
126	Egan Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
127	Eldridge/West Oaks	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
128	Elliot Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
129	Elyria Swansea	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
130	English Avenue	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
131	Ericsson	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
132	Excelsior	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
133	Fairbanks/Northwest Crossing	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
134	Fairmount Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
135	Fauntleroy	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
136	Field	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
137	Financial District	0.000000	0.000000	0.005	0.005000	0.000000	0.00000
138	First Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
139	Five Points	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
140	Flatiron	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
141	Folwell	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
142	Fort Bend/Houston	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
143	Fort Logan	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
144	Fourth Ward	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
145	Fremont	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
146	Frog Hollow	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
147	Fulton	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
148	Future Westside Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
149	Gateway/Green Valley Ranch	0.000000	0.035714	0.000	0.000000	0.000000	0.00000
150	Gatewood	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
151	Genesee	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
152	Georgetown	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
153	Georgia Tech	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
154	Glen Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
155	Glennwood Estates	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
156	Glenwood Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
157	Globeville	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
158	Golden Gate Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
159	Goldsmith	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
160	Golfcrest/Bellfort/Reveille	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
161	Gramercy	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
162	Grant Park	0.323529	0.000000	0.000	0.000000	0.000000	0.00000
163	Great Lakes	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
164	Greater Eastwood	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
165	Greater Fifth Ward	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
166	Greater Greenspoint	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
167	Greater Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
168	Greater Hobby Area	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
169	Greater Inwood	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
170	Greater Third Ward	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
171	Greater Uptown	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
172	Green Lake	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
173	Greenway/Upper Kirby Area	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
174	Greenwich Village	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
175	Greenwood	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
176	Grove Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
177	Gulfgate Riverview/Pine Valley	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
178	Gulfton	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
179	Haight Ashbury	0.000000	0.000000	0.000	0.020833	0.000000	0.00000
180	Hale	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
181	Haller Lake	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
182	Hamilton Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
183	Hammond Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
184	Hampden	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
185	Hampden South	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
186	Harris Chiles	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
187	Harrisburg/Manchester	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
188	Harrison	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
189	Harrison/Denny-Blaine	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
190	Harvel Homes Community	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
191	Harvey Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
192	Harvey Park South	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
193	Hawthorne	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
194	Hiawatha	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
195	Hidden Valley	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
196	High Point	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
197	Highland	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
198	Highland Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
199	Hilltop	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
200	Historic Westside Village	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
201	Holland	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
202	Holly Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
203	Home Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
204	Howe	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
205	Hudson Yards	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
206	Humboldt Industrial	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
207	Hunter Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
208	Iah/Airport Area	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
209	Independence Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
210	Indian Creek	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
211	Industrial District	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
212	Inman Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
213	Inner Richmond	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
214	Inner Sunset	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
215	Interbay	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
216	International District	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
217	Inwood	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
218	Jefferson Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
219	Jordan	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
220	Joyland	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
221	Just Us	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
222	Kashmere Gardens	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
223	Keewaydin	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
224	Kennedy	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
225	Kenny	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
226	Kenwood	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
227	King Field	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
228	Kingwood Area	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
229	Kirkwood	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
230	Knight Park/Howell Station	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
231	Lake Claire	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
232	Lake Houston	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
233	Lakeshore	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
234	Lakewood Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000



	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
235	Langwood	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
236	Laurelhurst	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
237	Lavista Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
238	Lawndale/Wayside	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
239	Lawton Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
240	Lazy Brook/Timbergrove	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
241	Lenox Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.01000
242	Lenox Place	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
243	Leschi	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
244	Lincoln Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
245	Lincoln Square	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
246	Lind-Bohanon	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
247	Linden Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
248	Lindridge - Martin Manor	0.000000	0.000000	0.000	0.000000	0.032258	0.00000
249	Little Five Points	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
250	Little Italy	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
251	Logan Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
252	Longfellow	0.000000	0.047619	0.000	0.000000	0.000000	0.00000
253	Loring Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
254	Loring Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
255	Lower East Side	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
256	Lower Queen Anne	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
257	Lowry Field	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
258	Lowry Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
259	Lowry Hill East	0.000000	0.019231	0.000	0.000000	0.000000	0.00000
260	Loyal Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
261	Lyndale	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
262	Lynnhurst	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
263	Macgregor	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
264	Madison Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
265	Madrona	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
266	Magnolia Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
267	Mak Historic District	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
268	Manhattan Valley	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
269	Manhattanville	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
270	Mann	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
271	Maple Leaf	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
272	Mar Lee	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
273	Marble Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
274	Marcy-Holmes	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
275	Marina	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
276	Marshall Terrace	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
277	Marston	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
278	Matthews Beach	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
279	McKinley	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
280	Meadow Lark Estates	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
281	Meadowbrook	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
282	Meadowbrook/Allendale	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
283	Mechanicsville	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
284	Medical Center Area	0.000000	0.034483	0.000	0.000000	0.000000	0.00000
285	Memorial	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
286	Merry Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
287	Meyerland Area	0.000000	0.015625	0.000	0.046875	0.000000	0.00000
288	Mid West	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
289	Mid-Beacon Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
290	Mid-City Industrial	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
291	Midtown	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
292	Midtown South	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
293	Minnehaha	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
294	Minor	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
295	Mission	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
296	Montbello	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
297	Montclair	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
298	Montlake	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
299	Morningside Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
300	Morningside/Lenox Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
301	Morris Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
302	Mount Baker	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
303	Mozley Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
304	Murray Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
305	Museum Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
306	Near North	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
307	Neartown - Montrose	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
308	Nicollet Island	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
309	Nob Hill	0.000000	0.000000	0.000	0.000000	0.012048	0.000000
310	Noe Valley	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
311	Noho	0.000000	0.000000	0.000	0.000000	0.010000	0.000000
312	North Admiral	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
313	North Beach	0.000000	0.000000	0.000	0.011765	0.000000	0.000000
314	North Beach/Blue Ridge	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
315	North Beacon Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
316	North Capitol Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
317	North College Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
318	North Delridge	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
319	North Druid Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
320	North Loop	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
321	North Ormewood Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
322	North Park Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
323	North Queen Anne	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
324	Northeast Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
325	Northeast Park Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
326	Northrup	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
327	Northside Village	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
328	Northside/Northline	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
329	Oakhurst	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
330	Oakland	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
331	Oakland Cemetery	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
332	Oakland City	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
333	Ocean View	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
334	Old Fourth Ward	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
335	Olympic Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
336	Ormewood Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
337	Ost/South Union	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
338	Outer Mission	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
339	Outer Richmond	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
340	Outer Sunset	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
341	Overland	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
342	Pacific Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
343	Page	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
344	Park Place	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
345	Parkside	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
346	Pecan Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
347	Penelope Neighbors	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
348	Peoplestown	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
349	Perkerson	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
350	Phillips	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
351	Phinney Ridge	0.114286	0.000000	0.000	0.000000	0.000000	0.00000
352	Piedmont Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
353	Piedmont Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
354	Pike-Market	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
355	Pinehurst	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
356	Pioneer Square	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
357	Pittsburgh	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
358	Platt Park	0.000000	0.000000	0.000	0.034483	0.000000	0.000000
359	Pleasantville Area	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
360	Poncey-Highland	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
361	Portage Bay	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
362	Potrero Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
363	Powderhorn Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
364	Presidio	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
365	Presidio Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
366	Prospect Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
367	Rainier Beach	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
368	Rainier View	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
369	Ravenna	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
370	Regina	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
371	Regis	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
372	Reynoldstown	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
373	Riverview	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
374	Roosevelt	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
375	Roosevelt Island	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
376	Rosedale	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
377	Roxhill	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
378	Russian Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.01369
379	Sand Point	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
380	Sea Cliff	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
381	Seaview	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
382	Second Ward	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
383	Semmes Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
384	Settegast	0.000000	0.000000	0.000	0.000000	0.000000	0.000000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
385	Seward	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
386	Seward Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
387	Sharpstown	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
388	Sheridan	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
389	Sherwood Forest	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
390	Shingle Creek	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
391	Skyland	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
392	Sloan Lake	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
393	Soho	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
394	South Acres/Crestmont Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
395	South Atlanta	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
396	South Belt/Ellington	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
397	South Delridge	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
398	South Lake Union	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
399	South Main	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
400	South Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
401	South Park Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
402	South of Market	0.000000	0.000000	0.000	0.013889	0.000000	0.00000
403	Southeast Magnolia	0.000000	0.071429	0.000	0.000000	0.000000	0.00000
404	Southmoor Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
405	Speer	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
406	Spring Branch Central	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
407	Spring Branch East	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
408	Spring Branch North	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
409	Spring Branch West	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
410	St. Anthony East	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
411	St. Anthony West	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
412	Standish	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
413	Stapleton	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
414	Stevens	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
415	Stevens Square	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
416	Stuyvesant Town	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
417	Summerhill	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
418	Sumner-Glenwood	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
419	Sun Valley	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
420	Sunnyside	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
421	Sunset Hill	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
422	Sutton Place	0.000000	0.000000	0.000	0.000000	0.010000	0.000000
423	Swallow Circle/Baywood	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
424	Sweet Auburn	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
425	Sycamore Ridge	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
426	Sylvan Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
427	Tacotown	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
428	Tangletown	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
429	The Bluff	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
430	Thomasville Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
431	Treasure Island/YBI	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
432	Tribeca	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
433	Tudor City	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
434	Turtle Bay	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
435	Twin Peaks	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
436	Underwood Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
437	Union Station	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
438	University	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
439	University District	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
440	University Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
441	University Park	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
442	University Place	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
443	Upper East Side	0.000000	0.000000	0.000	0.000000	0.000000	0.000000
444	Upper West Side	0.000000	0.000000	0.000	0.010000	0.000000	0.000000

	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
445	Valverde	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
446	Venetian Hills	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
447	Ventura Village	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
448	Victoria Estates	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
449	Victory	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
450	Victory Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
451	View Ridge	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
452	Villa Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
453	Vine City	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
454	Virginia Village	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
455	Virginia-Highland	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
456	Visitacion Valley	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
457	Waite Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
458	Wallingford	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
459	Washington Avenue Coalition/Memorial Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
460	Washington Heights	0.000000	0.000000	0.000	0.011628	0.000000	0.00000
461	Washington Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
462	Washington Park West	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
463	Washington Virginia Vale	0.000000	0.043478	0.000	0.000000	0.000000	0.00000
464	Webber-Camden	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
465	Wedgwood	0.000000	0.071429	0.000	0.000000	0.000000	0.00000
466	Wenonah	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
467	West Calhoun	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
468	West Colfax	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
469	West End	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
470	West Highland	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
471	West Midtown	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
472	West Queen Anne	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
473	West Village	0.000000	0.000000	0.000	0.010000	0.000000	0.00000
474	West Woodland	0.000000	0.000000	0.000	0.000000	0.000000	0.00000



	Neighborhood	Zoo Exhibit	ATM	Acai House	Accessories Store	Adult Boutique	Afg Restau
475	West of Twin Peaks	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
476	Westbranch	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
477	Westbury	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
478	Westchase	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
479	Westchester Hills/Chelsea Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
480	Western Addition	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
481	Westlake	0.000000	0.066667	0.000	0.000000	0.000000	0.00000
482	Westview	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
483	Westwood	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
484	Whittier	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
485	Whittier Heights	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
486	Willard-Hay	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
487	Willow Meadows/Willowbend Area	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
488	Willowbrook	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
489	Windermere	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
490	Windom	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
491	Windom Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
492	Windsor	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
493	Winnona Park	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
494	Woodland Hills (North)	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
495	Woodland Hills (South)	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
496	Yesler Terrace	0.000000	0.000000	0.000	0.000000	0.000000	0.00000
497	Yorkville	0.000000	0.000000	0.000	0.000000	0.000000	0.00000

In [46]: `# Confirm the new size  
neighborhood_grouped.shape`

Out[46]: (498, 477)

```
In [47]: # Print each neighborhood along with the top 5 most common venues
num_top_venues = 5

for hood in neighborhood_grouped['Neighborhood']:
    print("----"+hood+"----")
    temp = neighborhood_grouped[neighborhood_grouped['Neighborhood'] == hood].
T.reset_index()
    temp.columns = ['venue', 'freq']
    temp = temp.iloc[1:]
    temp['freq'] = temp['freq'].astype(float)
    temp = temp.round({'freq': 2})
    print(temp.sort_values('freq', ascending=False).reset_index(drop=True).hea
d(num_top_venues))
    print('\n')
```

## ----Acres Home----

	venue	freq
0	Bus Station	0.25
1	Home Service	0.25
2	Burger Joint	0.25
3	Intersection	0.25
4	Zoo Exhibit	0.00

## ----Adair Park----

	venue	freq
0	Park	1.0
1	Zoo Exhibit	0.0
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

## ----Adams----

	venue	freq
0	Coffee Shop	0.06
1	Ice Cream Shop	0.05
2	Burger Joint	0.05
3	Cocktail Bar	0.05
4	Mexican Restaurant	0.05

## ----Addicks/Park Ten----

	venue	freq
0	Outdoors & Recreation	1.0
1	Paella Restaurant	0.0
2	Pet Café	0.0
3	Peruvian Restaurant	0.0
4	Persian Restaurant	0.0

## ----Afton Oaks/River Oaks Area----

	venue	freq
0	Women's Store	0.13
1	Furniture / Home Store	0.13
2	Clothing Store	0.08
3	Bank	0.05
4	Cosmetics Shop	0.05

## ----Alki----

	venue	freq
0	Beach	0.38
1	Park	0.25
2	Pharmacy	0.12
3	Italian Restaurant	0.12
4	Scenic Lookout	0.12

## ----Amal Heights----

	venue	freq
0	Trail	1.0

1	Newsstand	0.0
2	Pet Café	0.0
3	Peruvian Restaurant	0.0
4	Persian Restaurant	0.0

## ----Ansley Park----

	venue	freq
0	Trail	0.18
1	Gay Bar	0.18
2	Garden	0.09
3	Thai Restaurant	0.09
4	Men's Store	0.09

## ----Armatage----

	venue	freq
0	Trail	0.17
1	Furniture / Home Store	0.17
2	Park	0.17
3	Skate Park	0.17
4	Pizza Place	0.17

## ----Armour----

	venue	freq
0	Brewery	0.18
1	Gym / Fitness Center	0.09
2	Coffee Shop	0.09
3	Paper / Office Supplies Store	0.09
4	Light Rail Station	0.09

## ----Ashview Heights----

	venue	freq
0	Trail	1.0
1	Newsstand	0.0
2	Pet Café	0.0
3	Peruvian Restaurant	0.0
4	Persian Restaurant	0.0

## ----Astrodome Area----

	venue	freq
0	Trail	0.11
1	Auto Garage	0.11
2	Gym	0.11
3	Pizza Place	0.11
4	Moving Target	0.11

## ----Athmar Park----

	venue	freq
0	Construction & Landscaping	0.2
1	Home Service	0.2
2	Art Gallery	0.2
3	Vacation Rental	0.2

4 Park 0.2

----Atkins Park----

	venue	freq
0	Bar	0.11
1	Event Space	0.05
2	Yoga Studio	0.05
3	Thai Restaurant	0.05
4	Tiki Bar	0.03

----Atlanta University Center----

	venue	freq
0	Café	0.14
1	Pizza Place	0.14
2	Art Museum	0.14
3	Park	0.14
4	Sandwich Place	0.14

----Atlantic----

	venue	freq
0	Residential Building (Apartment / Condo)	0.11
1	Tunnel	0.11
2	Café	0.11
3	Food	0.11
4	Park	0.11

----Atlantic Station----

	venue	freq
0	Clothing Store	0.09
1	American Restaurant	0.06
2	Pizza Place	0.04
3	Boutique	0.03
4	Lingerie Store	0.03

----Audubon Park----

	venue	freq
0	Pharmacy	0.13
1	Convenience Store	0.13
2	American Restaurant	0.07
3	Bakery	0.07
4	Thrift / Vintage Store	0.07

----Auraria----

	venue	freq
0	Light Rail Station	0.09
1	Sports Bar	0.06
2	Food Truck	0.06
3	Fast Food Restaurant	0.06
4	Convenience Store	0.06

## ----Baker----

	venue	freq
0	Breakfast Spot	0.1
1	Marijuana Dispensary	0.1
2	Eastern European Restaurant	0.1
3	Pizza Place	0.1
4	Coffee Shop	0.1

## ----Bancroft----

	venue	freq
0	Garden Center	0.17
1	Discount Store	0.17
2	Fast Food Restaurant	0.17
3	Caribbean Restaurant	0.17
4	Grocery Store	0.17

## ----Bankhead----

	venue	freq
0	Gun Shop	1.0
1	Zoo Exhibit	0.0
2	Night Market	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

## ----Barnum----

	venue	freq
0	Food	0.17
1	Market	0.17
2	Lawyer	0.17
3	Construction & Landscaping	0.17
4	Convenience Store	0.17

## ----Barnum West----

	venue	freq
0	Home Service	0.33
1	Fast Food Restaurant	0.33
2	Hotel	0.33
3	Zoo Exhibit	0.00
4	Paper / Office Supplies Store	0.00

## ----Battery Park City----

	venue	freq
0	Coffee Shop	0.08
1	Park	0.07
2	Hotel	0.05
3	Wine Shop	0.03
4	Italian Restaurant	0.03

## ----Bayview----

	venue	freq
0	Brewery	0.33

1	Deli / Bodega	0.33
2	Gym	0.33
3	Pakistani Restaurant	0.00
4	Pet Café	0.00

#### ----Bear Valley----

	venue	freq
0	Park	0.75
1	Playground	0.25
2	Zoo Exhibit	0.00
3	Pet Store	0.00
4	Pet Café	0.00

#### ----Belcaro----

	venue	freq
0	Lawyer	0.25
1	Marijuana Dispensary	0.25
2	Shopping Mall	0.25
3	Park	0.25
4	Zoo Exhibit	0.00

#### ----Belltown----

	venue	freq
0	Bar	0.06
1	Italian Restaurant	0.05
2	Coffee Shop	0.05
3	Bakery	0.04
4	Cocktail Bar	0.04

#### ----Beltrami----

	venue	freq
0	Brewery	0.17
1	Asian Restaurant	0.17
2	Café	0.17
3	Chinese Restaurant	0.17
4	Gay Bar	0.17

#### ----Benteen Park----

	venue	freq
0	Park	0.17
1	Smoke Shop	0.17
2	Ice Cream Shop	0.17
3	Mexican Restaurant	0.17
4	Shoe Store	0.17

#### ----Berkeley----

	venue	freq
0	Coffee Shop	0.09
1	Breakfast Spot	0.07
2	American Restaurant	0.07
3	Bakery	0.04

4 Italian Restaurant 0.04

----Berkeley Park----

	venue	freq
0	Gym	0.11
1	Gym / Fitness Center	0.11
2	Bridal Shop	0.06
3	Convenience Store	0.06
4	Department Store	0.06

----Bernal Heights----

	venue	freq
0	Park	0.08
1	Coffee Shop	0.08
2	Gourmet Shop	0.05
3	Bakery	0.05
4	Italian Restaurant	0.05

----Betmar La Villa----

	venue	freq
0	Music Venue	0.67
1	Rock Club	0.33
2	Zoo Exhibit	0.00
3	Outdoors & Recreation	0.00
4	Peruvian Restaurant	0.00

----Biltmore Acres----

	venue	freq
0	Pool	0.25
1	Speakeasy	0.25
2	Basketball Court	0.25
3	Garden	0.25
4	North Indian Restaurant	0.00

----Bitter Lake----

	venue	freq
0	Marijuana Dispensary	0.14
1	Thai Restaurant	0.09
2	Gas Station	0.05
3	Vietnamese Restaurant	0.05
4	Steakhouse	0.05

----Bottineau----

	venue	freq
0	Park	0.10
1	Convenience Store	0.07
2	Liquor Store	0.07
3	Gym / Fitness Center	0.07
4	Music Store	0.03



## ----Boulevard Heights----

	venue	freq
0	Trail	0.2
1	Concert Hall	0.2
2	Flower Shop	0.2
3	Arts & Crafts Store	0.2
4	Scenic Lookout	0.2

## ----Braeburn----

	venue	freq
0	Clothing Store	0.25
1	Mexican Restaurant	0.25
2	Caribbean Restaurant	0.25
3	Sporting Goods Shop	0.25
4	Zoo Exhibit	0.00

## ----Braeswood Place----

	venue	freq
0	Trail	1.0
1	Newsstand	0.0
2	Pet Café	0.0
3	Peruvian Restaurant	0.0
4	Persian Restaurant	0.0

## ----Brays Oaks----

	venue	freq
0	Discount Store	0.27
1	Gas Station	0.09
2	Sandwich Place	0.09
3	Fast Food Restaurant	0.09
4	Clothing Store	0.09

## ----Briarcliff----

	venue	freq
0	Bus Stop	0.67
1	Park	0.33
2	Zoo Exhibit	0.00
3	Paella Restaurant	0.00
4	Pet Café	0.00

## ----Briarforest Area----

	venue	freq
0	Grocery Store	0.12
1	Pool	0.06
2	Asian Restaurant	0.06
3	Gym / Fitness Center	0.06
4	Martial Arts Dojo	0.06

## ----Brighton----

	venue	freq
0	Mexican Restaurant	0.31

1	Breakfast Spot	0.08
2	Vietnamese Restaurant	0.08
3	Fast Food Restaurant	0.08
4	Coffee Shop	0.08

## ----Broadview----

	venue	freq
0	Concert Hall	0.33
1	Art Gallery	0.33
2	Trail	0.33
3	Zoo Exhibit	0.00
4	Paper / Office Supplies Store	0.00

## ----Broadway----

	venue	freq
0	Cocktail Bar	0.09
1	Coffee Shop	0.09
2	American Restaurant	0.05
3	Indian Restaurant	0.04
4	Men's Store	0.04

## ----Bryant----

	venue	freq
0	Grocery Store	0.13
1	Coffee Shop	0.13
2	Moving Target	0.07
3	Bus Station	0.07
4	Fishing Spot	0.07

## ----Bryn-Mawr----

	venue	freq
0	Furniture / Home Store	0.25
1	Antique Shop	0.12
2	Massage Studio	0.12
3	Coffee Shop	0.12
4	Pizza Place	0.12

## ----Bush Mountain----

	venue	freq
0	Park	1.0
1	Zoo Exhibit	0.0
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

## ----CARAG----

	venue	freq
0	Coffee Shop	0.14
1	Yoga Studio	0.10
2	Park	0.10
3	Cosmetics Shop	0.05

4 Pizza Place 0.05

----CBD----

	venue	freq
0	Hotel	0.16
1	American Restaurant	0.07
2	Steakhouse	0.04
3	Sandwich Place	0.04
4	Theater	0.04

----Cabbagetown----

	venue	freq
0	Park	0.15
1	Burger Joint	0.10
2	Breakfast Spot	0.10
3	Mexican Restaurant	0.10
4	Cupcake Shop	0.05

----Camden Industrial----

	venue	freq
0	Park	0.25
1	Café	0.12
2	Chinese Restaurant	0.12
3	Sandwich Place	0.12
4	Fast Food Restaurant	0.12

----Candler Park----

	venue	freq
0	Park	0.18
1	Gym	0.06
2	Golf Course	0.06
3	Basketball Court	0.06
4	Photography Studio	0.06

----Capitol Gateway----

	venue	freq
0	Rental Car Location	0.2
1	American Restaurant	0.2
2	Intersection	0.1
3	Food Court	0.1
4	Women's Store	0.1

----Capitol Hill----

	venue	freq
0	Pizza Place	0.13
1	Pub	0.09
2	Convenience Store	0.09
3	Jazz Club	0.04
4	Bed & Breakfast	0.04

## ----Capitol View----

	venue	freq
0	Park	0.4
1	Home Service	0.2
2	Disc Golf	0.2
3	Scenic Lookout	0.2
4	Zoo Exhibit	0.0

## ----Capitol View Manor----

	venue	freq
0	Fried Chicken Joint	0.33
1	Concert Hall	0.33
2	Trail	0.33
3	Zoo Exhibit	0.00
4	Pakistani Restaurant	0.00

## ----Carnegie Hill----

	venue	freq
0	Pizza Place	0.06
1	Coffee Shop	0.05
2	Cosmetics Shop	0.05
3	Café	0.04
4	Yoga Studio	0.03

## ----Carverdale----

	venue	freq
0	Breakfast Spot	0.5
1	Construction & Landscaping	0.5
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

## ----Castro/Upper Market----

	venue	freq
0	Gay Bar	0.11
1	Coffee Shop	0.05
2	New American Restaurant	0.04
3	Pet Store	0.03
4	Thai Restaurant	0.03

## ----Cedar Park----

	venue	freq
0	Supermarket	0.17
1	Vietnamese Restaurant	0.17
2	Park	0.17
3	Dog Run	0.17
4	Brewery	0.17

## ----Cedar-Isles----

	venue	freq
0	Spa	0.08

1	Sandwich Place	0.04
2	Chinese Restaurant	0.04
3	Falafel Restaurant	0.04
4	Park	0.04

----Cedar-Riverside----

	venue	freq
0	Sandwich Place	0.12
1	Bar	0.08
2	Gym	0.04
3	Greek Restaurant	0.04
4	College Residence Hall	0.04

----Center Hill----

	venue	freq
0	Historic Site	0.5
1	Grocery Store	0.5
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

----Central----

	venue	freq
0	Bar	0.11
1	Coffee Shop	0.11
2	Sandwich Place	0.09
3	Food Truck	0.08
4	Asian Restaurant	0.06

----Central Business District----

	venue	freq
0	Coffee Shop	0.11
1	Hotel	0.06
2	New American Restaurant	0.05
3	Café	0.04
4	Italian Restaurant	0.04

----Central Harlem----

	venue	freq
0	African Restaurant	0.07
1	Cosmetics Shop	0.07
2	French Restaurant	0.04
3	Seafood Restaurant	0.04
4	Gym / Fitness Center	0.04

----Central Northwest----

	venue	freq
0	Burger Joint	0.50
1	Discount Store	0.25
2	Convenience Store	0.25
3	Performing Arts Venue	0.00

4 Park 0.00

----Central Southwest----

	venue	freq
0	Food	0.5
1	Grocery Store	0.5
2	Outdoors & Recreation	0.0
3	Peruvian Restaurant	0.0
4	Persian Restaurant	0.0

----Chaffee Park----

	venue	freq
0	Grocery Store	0.25
1	Convenience Store	0.12
2	Cosmetics Shop	0.12
3	Pizza Place	0.12
4	Thrift / Vintage Store	0.12

----Cheesman Park----

	venue	freq
0	Garden	0.33
1	Park	0.17
2	Track	0.17
3	Bar	0.17
4	Ice Cream Shop	0.17

----Chelsea----

	venue	freq
0	Coffee Shop	0.07
1	Italian Restaurant	0.06
2	Ice Cream Shop	0.05
3	Nightclub	0.04
4	Bakery	0.04

----Cherry Creek----

	venue	freq
0	Clothing Store	0.10
1	Cosmetics Shop	0.06
2	Furniture / Home Store	0.05
3	Coffee Shop	0.03
4	Asian Restaurant	0.03

----Chinatown----

	venue	freq
0	Chinese Restaurant	0.09
1	Coffee Shop	0.04
2	Dim Sum Restaurant	0.04
3	Bubble Tea Shop	0.04
4	Bakery	0.04

## ----Chosewood Park----

	venue	freq
0	History Museum	0.2
1	Baseball Field	0.2
2	Mexican Restaurant	0.2
3	Park	0.2
4	Ice Cream Shop	0.2

## ----City Park----

	venue	freq
0	Zoo Exhibit	0.15
1	Park	0.15
2	Music Venue	0.08
3	Massage Studio	0.08
4	Marijuana Dispensary	0.08

## ----City Park West----

	venue	freq
0	American Restaurant	0.12
1	Brewery	0.09
2	Pharmacy	0.06
3	Coffee Shop	0.06
4	Thai Restaurant	0.06

## ----Civic Center----

	venue	freq
0	Sandwich Place	0.05
1	Gym / Fitness Center	0.05
2	Italian Restaurant	0.04
3	Spa	0.04
4	Coffee Shop	0.04

## ----Clayton----

	venue	freq
0	Park	0.33
1	Market	0.17
2	Mexican Restaurant	0.17
3	Discount Store	0.17
4	Food	0.17

## ----Cleveland----

	venue	freq
0	Home Service	0.33
1	Music Venue	0.33
2	Concert Hall	0.33
3	Zoo Exhibit	0.00
4	Pakistani Restaurant	0.00

## ----Clinton----

	venue	freq
0	Theater	0.13

1	Italian Restaurant	0.04
2	Coffee Shop	0.04
3	Gym / Fitness Center	0.04
4	American Restaurant	0.04

----Clinton Park Tri-Community----

	venue	freq
0	Tourist Information Center	1.0
1	Zoo Exhibit	0.0
2	Newsstand	0.0
3	Peruvian Restaurant	0.0
4	Persian Restaurant	0.0

----Cole----

	venue	freq
0	Ramen Restaurant	1.0
1	Zoo Exhibit	0.0
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

----College Heights----

	venue	freq
0	Adult Boutique	0.5
1	Park	0.5
2	Zoo Exhibit	0.0
3	Paella Restaurant	0.0
4	Pet Café	0.0

----College View/South Platte----

	venue	freq
0	Electronics Store	0.5
1	Gym / Fitness Center	0.5
2	Zoo Exhibit	0.0
3	Pet Service	0.0
4	Peruvian Restaurant	0.0

----Collier Heights----

	venue	freq
0	Shop & Service	0.5
1	Scenic Lookout	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Café	0.0

----Colonial Hills----

	venue	freq
0	Jazz Club	0.25
1	Sandwich Place	0.25
2	Liquor Store	0.25
3	Massage Studio	0.25



## 4 Recreation Center 0.00

## ----Columbia City----

	venue	freq
0	Bar	0.06
1	Coffee Shop	0.06
2	Ice Cream Shop	0.06
3	Pizza Place	0.06
4	Vietnamese Restaurant	0.06

## ----Columbia Park----

	venue	freq
0	Furniture / Home Store	0.25
1	Skate Park	0.25
2	Motorcycle Shop	0.25
3	Gym	0.25
4	Paella Restaurant	0.00

## ----Como----

	venue	freq
0	Dive Bar	0.25
1	Grocery Store	0.25
2	Restaurant	0.25
3	Bar	0.25
4	Peruvian Restaurant	0.00

## ----Congress Park----

	venue	freq
0	Tennis Court	0.17
1	Yoga Studio	0.17
2	Pharmacy	0.17
3	Gift Shop	0.17
4	Tapas Restaurant	0.17

## ----Conley Hills----

	venue	freq
0	Farmers Market	0.17
1	Bar	0.17
2	Public Art	0.17
3	Food Truck	0.17
4	Sports Bar	0.17

## ----Cooper----

	venue	freq
0	Coffee Shop	0.18
1	Gas Station	0.06
2	Print Shop	0.06
3	Fast Food Restaurant	0.06
4	Mexican Restaurant	0.06

## ----Corcoran----

	venue	freq
0	Train	0.17
1	Outdoor Supply Store	0.17
2	Hobby Shop	0.17
3	Theater	0.17
4	Music Store	0.17

## ----Cory - Merrill----

	venue	freq
0	Pharmacy	0.33
1	Playground	0.33
2	Gym / Fitness Center	0.33
3	Zoo Exhibit	0.00
4	Pakistani Restaurant	0.00

## ----Country Club----

	venue	freq
0	Coffee Shop	0.2
1	Golf Course	0.2
2	Print Shop	0.2
3	Fish Market	0.2
4	American Restaurant	0.2

## ----Crocker Amazon----

	venue	freq
0	Restaurant	0.11
1	Bus Station	0.11
2	Pharmacy	0.11
3	Basketball Court	0.11
4	Liquor Store	0.11

## ----Crown Hill----

	venue	freq
0	Pet Store	0.22
1	Mexican Restaurant	0.11
2	Sandwich Place	0.11
3	Burger Joint	0.11
4	Pizza Place	0.11

## ----Custer-Mcdonough----

	venue	freq
0	Pharmacy	0.17
1	Grocery Store	0.17
2	Fast Food Restaurant	0.17
3	Hot Spring	0.17
4	Video Store	0.17

## ----Decatur Heights----

	venue	freq
0	Pool	0.5

1	Art Gallery	0.5
2	Zoo Exhibit	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

----Diamond Heights----

	venue	freq
0	Trail	0.20
1	Coffee Shop	0.07
2	Salon / Barbershop	0.07
3	Pharmacy	0.07
4	Playground	0.07

----Diamond Lake----

	venue	freq
0	Outdoors & Recreation	0.2
1	New American Restaurant	0.2
2	Grocery Store	0.2
3	Tree	0.2
4	Bus Stop	0.2

----Dixie Hills----

	venue	freq
0	Park	1.0
1	Zoo Exhibit	0.0
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

----Downtown----

	venue	freq
0	Hotel	0.09
1	Sandwich Place	0.07
2	Burger Joint	0.04
3	American Restaurant	0.04
4	Cocktail Bar	0.04

----Downtown East----

	venue	freq
0	Theater	0.11
1	Bar	0.08
2	American Restaurant	0.05
3	Brewery	0.05
4	Sandwich Place	0.03

----Downtown West----

	venue	freq
0	Coffee Shop	0.10
1	Hotel	0.07
2	Sandwich Place	0.07
3	Salad Place	0.04

4 Pizza Place 0.04

----Downtown/Civic Center----

	venue	freq
0	Vietnamese Restaurant	0.08
1	Coffee Shop	0.06
2	Thai Restaurant	0.06
3	Theater	0.04
4	Beer Bar	0.03

----Druid Hills----

	venue	freq
0	Bakery	0.08
1	Italian Restaurant	0.08
2	Pizza Place	0.08
3	Plaza	0.08
4	Sandwich Place	0.08

----Dunlap----

	venue	freq
0	Tennis Court	0.07
1	Mexican Restaurant	0.07
2	Fast Food Restaurant	0.07
3	Pharmacy	0.07
4	Grocery Store	0.07

----ECCO----

	venue	freq
0	Juice Bar	0.09
1	Comic Shop	0.09
2	Beach	0.09
3	Massage Studio	0.09
4	Coffee Shop	0.09

----East Atlanta----

	venue	freq
0	Grocery Store	0.25
1	Cemetery	0.25
2	Cosmetics Shop	0.25
3	Diner	0.25
4	Pedestrian Plaza	0.00

----East Colfax----

	venue	freq
0	Fast Food Restaurant	0.10
1	Mexican Restaurant	0.10
2	Convenience Store	0.05
3	Clothing Store	0.05
4	Coffee Shop	0.05

## ----East Harlem----

	venue	freq
0	Mexican Restaurant	0.11
1	Bakery	0.09
2	Latin American Restaurant	0.07
3	Deli / Bodega	0.07
4	Thai Restaurant	0.04

## ----East Harriet----

	venue	freq
0	Garden	0.33
1	Health & Beauty Service	0.17
2	Park	0.17
3	Playground	0.17
4	Dog Run	0.17

## ----East Houston----

	venue	freq
0	BBQ Joint	0.2
1	Food & Drink Shop	0.2
2	Discount Store	0.2
3	Liquor Store	0.2
4	Wine Bar	0.2

## ----East Isles----

	venue	freq
0	Pizza Place	0.12
1	Coffee Shop	0.08
2	Boutique	0.08
3	Mexican Restaurant	0.08
4	Skating Rink	0.04

## ----East Lake----

	venue	freq
0	Recreation Center	0.5
1	Park	0.5
2	Zoo Exhibit	0.0
3	Paella Restaurant	0.0
4	Pet Café	0.0

## ----East Little York/Homestead----

	venue	freq
0	Discount Store	0.67
1	Lounge	0.33
2	Zoo Exhibit	0.00
3	Pakistani Restaurant	0.00
4	Pet Service	0.00

## ----East Queen Anne----

	venue	freq
0	Playground	0.67

1	Park	0.33
2	Zoo Exhibit	0.00
3	Pet Store	0.00
4	Pet Café	0.00

#### ----East Village----

	venue	freq
0	Ice Cream Shop	0.06
1	Bar	0.06
2	Wine Bar	0.05
3	Cocktail Bar	0.04
4	Mexican Restaurant	0.04

#### ----Eastex/Jensen Area----

	venue	freq
0	Fast Food Restaurant	0.27
1	Sandwich Place	0.09
2	Gas Station	0.09
3	Pizza Place	0.09
4	Fried Chicken Joint	0.09

#### ----Eastlake----

	venue	freq
0	Sandwich Place	0.14
1	Coffee Shop	0.10
2	Italian Restaurant	0.10
3	Pizza Place	0.10
4	Mexican Restaurant	0.07

#### ----Edgebrook Area----

	venue	freq
0	Pharmacy	0.33
1	Locksmith	0.33
2	Grocery Store	0.33
3	North Indian Restaurant	0.00
4	Paper / Office Supplies Store	0.00

#### ----Edgewood----

	venue	freq
0	Grocery Store	0.25
1	Coffee Shop	0.25
2	Big Box Store	0.25
3	Pet Store	0.25
4	Pakistani Restaurant	0.00

#### ----Egan Park----

	venue	freq
0	Hotel	0.44
1	Gas Station	0.04
2	American Restaurant	0.04
3	Smoothie Shop	0.04

## 4 Fast Food Restaurant 0.04

## ----Eldridge/West Oaks----

	venue	freq
0	Gas Station	1.0
1	Zoo Exhibit	0.0
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

## ----Elliot Park----

	venue	freq
0	Coffee Shop	0.29
1	Pharmacy	0.06
2	Football Stadium	0.06
3	BBQ Joint	0.06
4	Hospital	0.06

## ----Elyria Swansea----

	venue	freq
0	Food	0.18
1	Farm	0.18
2	Construction & Landscaping	0.09
3	Basketball Court	0.09
4	Marijuana Dispensary	0.09

## ----English Avenue----

	venue	freq
0	Gas Station	0.14
1	Gun Shop	0.14
2	Furniture / Home Store	0.14
3	Deli / Bodega	0.14
4	Southern / Soul Food Restaurant	0.14

## ----Ericsson----

	venue	freq
0	Tennis Court	0.33
1	Stables	0.17
2	Playground	0.17
3	Soccer Field	0.17
4	Lake	0.17

## ----Excelsior----

	venue	freq
0	Park	0.4
1	Scenic Lookout	0.2
2	Moving Target	0.2
3	Lake	0.2
4	Zoo Exhibit	0.0

## ----Fairbanks/Northwest Crossing----

	venue	freq
0	Convenience Store	0.14
1	Mexican Restaurant	0.07
2	Mobile Phone Shop	0.07
3	Asian Restaurant	0.07
4	Hotel	0.07

## ----Fairmount Park----

	venue	freq
0	Bar	0.09
1	Knitting Store	0.09
2	Pizza Place	0.09
3	Thai Restaurant	0.09
4	Coffee Shop	0.09

## ----Fauntleroy----

	venue	freq
0	Park	0.25
1	Market	0.12
2	Pizza Place	0.12
3	American Restaurant	0.12
4	Boat or Ferry	0.12

## ----Field----

	venue	freq
0	Pizza Place	0.12
1	Gym / Fitness Center	0.12
2	American Restaurant	0.12
3	Comfort Food Restaurant	0.06
4	Moving Target	0.06

## ----Financial District----

	venue	freq
0	Coffee Shop	0.10
1	Café	0.04
2	Hotel	0.04
3	Food Truck	0.04
4	Gym	0.04

## ----First Hill----

	venue	freq
0	Hotel	0.10
1	Sandwich Place	0.08
2	Coffee Shop	0.08
3	Asian Restaurant	0.05
4	Burger Joint	0.05

## ----Five Points----

	venue	freq
0	Brewery	0.12



1	Bar	0.09
2	Coffee Shop	0.06
3	Bakery	0.05
4	Rock Club	0.05

## ----Flatiron----

	venue	freq
0	Italian Restaurant	0.05
1	Gym / Fitness Center	0.04
2	American Restaurant	0.04
3	Yoga Studio	0.04
4	Gym	0.04

## ----Folwell----

	venue	freq
0	Dessert Shop	0.33
1	Brewery	0.17
2	Intersection	0.17
3	Bus Stop	0.17
4	Bus Station	0.17

## ----Fort Bend/Houston----

	venue	freq
0	Construction & Landscaping	1.0
1	Zoo Exhibit	0.0
2	Pakistani Restaurant	0.0
3	Pet Service	0.0
4	Pet Café	0.0

## ----Fort Logan----

	venue	freq
0	BBQ Joint	1.0
1	Night Market	0.0
2	Pet Service	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

## ----Fourth Ward----

	venue	freq
0	Hotel	0.17
1	Portuguese Restaurant	0.17
2	Gay Bar	0.17
3	Seafood Restaurant	0.17
4	Park	0.17

## ----Fremont----

	venue	freq
0	Coffee Shop	0.08
1	Bar	0.08
2	Pub	0.06
3	Pizza Place	0.04

4 Park 0.04

----Frog Hollow----

	venue	freq
0	Wings Joint	0.22
1	Breakfast Spot	0.11
2	Vegetarian / Vegan Restaurant	0.11
3	Pizza Place	0.11
4	Southern / Soul Food Restaurant	0.11

----Fulton----

	venue	freq
0	Pet Store	0.11
1	Shipping Store	0.11
2	Gym	0.11
3	Antique Shop	0.11
4	Pizza Place	0.11

----Future Westside Park----

	venue	freq
0	Furniture / Home Store	0.25
1	Other Great Outdoors	0.25
2	Campground	0.25
3	Business Service	0.25
4	Zoo Exhibit	0.00

----Gateway/Green Valley Ranch----

	venue	freq
0	Fried Chicken Joint	0.11
1	Restaurant	0.07
2	Sandwich Place	0.07
3	Pizza Place	0.07
4	Fast Food Restaurant	0.07

----Gatewood----

	venue	freq
0	Massage Studio	0.25
1	Coffee Shop	0.25
2	Gym	0.25
3	Pet Store	0.25
4	Zoo Exhibit	0.00

----Genesee----

	venue	freq
0	Pizza Place	0.08
1	Mexican Restaurant	0.08
2	Bakery	0.04
3	Arts & Crafts Store	0.04
4	Coffee Shop	0.04

## ----Georgetown----

	venue	freq
0	Gas Station	0.1
1	Outdoor Sculpture	0.1
2	Food	0.1
3	Sandwich Place	0.1
4	Café	0.1

## ----Georgia Tech----

	venue	freq
0	Fast Food Restaurant	0.12
1	Coffee Shop	0.12
2	Athletics & Sports	0.06
3	Music Venue	0.06
4	Restaurant	0.06

## ----Glen Park----

	venue	freq
0	Trail	0.10
1	Coffee Shop	0.10
2	Gym	0.03
3	Breakfast Spot	0.03
4	Cheese Shop	0.03

## ----Glennwood Estates----

	venue	freq
0	Tennis Court	0.17
1	Dog Run	0.17
2	Cemetery	0.17
3	Soccer Field	0.17
4	Park	0.17

## ----Glenwood Park----

	venue	freq
0	Trail	0.31
1	Beer Bar	0.08
2	Restaurant	0.08
3	Coffee Shop	0.08
4	New American Restaurant	0.04

## ----Globeville----

	venue	freq
0	Intersection	0.22
1	Bar	0.22
2	Circus	0.11
3	Clothing Store	0.11
4	Dive Bar	0.11

## ----Golden Gate Park----

	venue	freq
0	Park	0.50

1	Intersection	0.12
2	Disc Golf	0.12
3	Bus Stop	0.12
4	Playground	0.12

----Goldsmith----

	venue	freq
0	Mediterranean Restaurant	0.11
1	Discount Store	0.11
2	Mexican Restaurant	0.11
3	Fast Food Restaurant	0.11
4	Coffee Shop	0.11

----Golfcrest/Bellfort/Reveille----

	venue	freq
0	Donut Shop	0.5
1	Grocery Store	0.5
2	Zoo Exhibit	0.0
3	Paella Restaurant	0.0
4	Peruvian Restaurant	0.0

----Gramercy----

	venue	freq
0	Italian Restaurant	0.05
1	Wine Shop	0.04
2	Bagel Shop	0.04
3	Cocktail Bar	0.04
4	Coffee Shop	0.04

----Grant Park----

	venue	freq
0	Zoo Exhibit	0.32
1	Cosmetics Shop	0.06
2	Playground	0.06
3	Park	0.06
4	Ice Cream Shop	0.03

----Great Lakes----

	venue	freq
0	Train Station	1.0
1	Pet Service	0.0
2	Pet Café	0.0
3	Peruvian Restaurant	0.0
4	Persian Restaurant	0.0

----Greater Eastwood----

	venue	freq
0	Mexican Restaurant	0.22
1	Art Gallery	0.11
2	Café	0.06
3	Fast Food Restaurant	0.06

4 Thai Restaurant 0.06

----Greater Fifth Ward----

	venue	freq
0	Arts & Entertainment	0.5
1	Food Truck	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Café	0.0

----Greater Greenspoint----

	venue	freq
0	Pool	1.0
1	Zoo Exhibit	0.0
2	Pet Store	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

----Greater Heights----

	venue	freq
0	Trail	0.1
1	Performing Arts Venue	0.1
2	Pizza Place	0.1
3	Park	0.1
4	Salon / Barbershop	0.1

----Greater Hobby Area----

	venue	freq
0	Restaurant	0.09
1	American Restaurant	0.09
2	Mexican Restaurant	0.09
3	Tex-Mex Restaurant	0.09
4	Vietnamese Restaurant	0.09

----Greater Inwood----

	venue	freq
0	Burger Joint	0.50
1	Trail	0.25
2	Park	0.25
3	Pakistani Restaurant	0.00
4	Pet Service	0.00

----Greater Third Ward----

	venue	freq
0	Pizza Place	0.22
1	Light Rail Station	0.11
2	Burger Joint	0.11
3	Fast Food Restaurant	0.11
4	Vietnamese Restaurant	0.11

## ----Greater Uptown----

	venue	freq
0	Pharmacy	0.09
1	Chinese Restaurant	0.09
2	Liquor Store	0.09
3	Grocery Store	0.09
4	American Restaurant	0.09

## ----Green Lake----

	venue	freq
0	Park	0.25
1	Trail	0.12
2	New American Restaurant	0.12
3	Playground	0.12
4	Bed & Breakfast	0.12

## ----Greenway/Upper Kirby Area----

	venue	freq
0	Coffee Shop	0.17
1	Food Truck	0.11
2	Nightclub	0.06
3	Video Game Store	0.06
4	Sushi Restaurant	0.06

## ----Greenwich Village----

	venue	freq
0	Italian Restaurant	0.10
1	French Restaurant	0.04
2	Sushi Restaurant	0.04
3	Clothing Store	0.04
4	Boutique	0.03

## ----Greenwood----

	venue	freq
0	Coffee Shop	0.10
1	Bookstore	0.08
2	Bar	0.06
3	Spa	0.06
4	Mexican Restaurant	0.04

## ----Grove Park----

	venue	freq
0	Park	0.2
1	Gas Station	0.1
2	Light Rail Station	0.1
3	Fast Food Restaurant	0.1
4	Athletics & Sports	0.1

## ----Gulfgate Riverview/Pine Valley----

	venue	freq
0	Sandwich Place	0.25

1	Mexican Restaurant	0.25
2	Pizza Place	0.25
3	Seafood Restaurant	0.25
4	Pakistani Restaurant	0.00

----Gulfton----

	venue	freq
0	Soccer Field	0.33
1	Mexican Restaurant	0.33
2	Food Truck	0.33
3	Zoo Exhibit	0.00
4	Pakistani Restaurant	0.00

----Haight Ashbury----

	venue	freq
0	Boutique	0.06
1	Coffee Shop	0.05
2	Thrift / Vintage Store	0.05
3	Pizza Place	0.04
4	Clothing Store	0.04

----Hale----

	venue	freq
0	Breakfast Spot	0.12
1	Music Venue	0.12
2	Park	0.12
3	Liquor Store	0.12
4	Thrift / Vintage Store	0.12

----Haller Lake----

	venue	freq
0	Coffee Shop	0.5
1	Lake	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Service	0.0

----Hamilton Heights----

	venue	freq
0	Mexican Restaurant	0.08
1	Deli / Bodega	0.07
2	Café	0.07
3	Coffee Shop	0.07
4	Pizza Place	0.05

----Hammond Park----

	venue	freq
0	Pharmacy	0.67
1	Home Service	0.33
2	Pet Store	0.00
3	Pet Café	0.00

4 Peruvian Restaurant 0.00

----Hampden----

	venue	freq
0	Home Service	0.5
1	Pizza Place	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Café	0.0

----Hampden South----

	venue	freq
0	Fast Food Restaurant	0.06
1	American Restaurant	0.06
2	Electronics Store	0.06
3	Liquor Store	0.06
4	Thai Restaurant	0.06

----Harris Chiles----

	venue	freq
0	Gas Station	0.11
1	Cosmetics Shop	0.11
2	Park	0.11
3	Concert Hall	0.11
4	American Restaurant	0.11

----Harrisburg/Manchester----

	venue	freq
0	Home Service	0.5
1	Park	0.5
2	Zoo Exhibit	0.0
3	Pet Store	0.0
4	Pet Café	0.0

----Harrison----

	venue	freq
0	American Restaurant	0.29
1	Park	0.14
2	Vegetarian / Vegan Restaurant	0.14
3	Grocery Store	0.14
4	Clothing Store	0.14

----Harrison/Denny-Blaine----

	venue	freq
0	Surf Spot	0.25
1	Spa	0.25
2	Beach	0.25
3	Café	0.25
4	North Indian Restaurant	0.00



## ----Harvel Homes Community----

	venue	freq
0	Nightclub	0.25
1	Gas Station	0.25
2	Bus Station	0.25
3	Bookstore	0.25
4	Pedestrian Plaza	0.00

## ----Harvey Park----

	venue	freq
0	Historic Site	0.2
1	Mexican Restaurant	0.2
2	Construction & Landscaping	0.2
3	Lake	0.2
4	Park	0.2

## ----Harvey Park South----

	venue	freq
0	Construction & Landscaping	1.0
1	Zoo Exhibit	0.0
2	Pakistani Restaurant	0.0
3	Pet Service	0.0
4	Pet Café	0.0

## ----Hawthorne----

	venue	freq
0	Video Store	0.25
1	Concert Hall	0.25
2	Antique Shop	0.25
3	Construction & Landscaping	0.25
4	Peruvian Restaurant	0.00

## ----Hiawatha----

	venue	freq
0	Bus Station	0.25
1	Pizza Place	0.25
2	Playground	0.25
3	Trail	0.25
4	Zoo Exhibit	0.00

## ----Hidden Valley----

	venue	freq
0	Cosmetics Shop	0.33
1	Hotel	0.33
2	Food	0.33
3	Zoo Exhibit	0.00
4	Paper / Office Supplies Store	0.00

## ----High Point----

	venue	freq
0	Playground	0.25

1	Park	0.25
2	Chinese Restaurant	0.12
3	Garden	0.12
4	Vietnamese Restaurant	0.12

----Highland----

	venue	freq
0	New American Restaurant	0.07
1	Bar	0.07
2	American Restaurant	0.07
3	Italian Restaurant	0.07
4	Cocktail Bar	0.05

----Highland Park----

	venue	freq
0	BBQ Joint	0.17
1	Dog Run	0.17
2	Playground	0.17
3	Grocery Store	0.17
4	Baseball Field	0.17

----Hilltop----

	venue	freq
0	Italian Restaurant	0.33
1	Deli / Bodega	0.33
2	Park	0.33
3	Zoo Exhibit	0.00
4	Paella Restaurant	0.00

----Historic Westside Village----

	venue	freq
0	Gas Station	0.09
1	Light Rail Station	0.09
2	Southern / Soul Food Restaurant	0.09
3	Pizza Place	0.09
4	Sports Bar	0.09

----Holland----

	venue	freq
0	Café	0.12
1	Museum	0.12
2	Karaoke Bar	0.12
3	Fast Food Restaurant	0.12
4	Dive Bar	0.12

----Holly Park----

	venue	freq
0	Vietnamese Restaurant	0.24
1	Grocery Store	0.10
2	Thai Restaurant	0.10
3	Chinese Restaurant	0.10

4 Bank 0.05

----Home Park----

	venue	freq
0	Sandwich Place	0.12
1	Paper / Office Supplies Store	0.12
2	Pizza Place	0.12
3	Comedy Club	0.06
4	Latin American Restaurant	0.06

----Howe----

	venue	freq
0	Restaurant	0.2
1	Hobby Shop	0.2
2	Indie Movie Theater	0.2
3	Wine Bar	0.2
4	Coffee Shop	0.2

----Hudson Yards----

	venue	freq
0	Coffee Shop	0.07
1	Italian Restaurant	0.07
2	Café	0.05
3	Theater	0.05
4	Restaurant	0.05

----Humboldt Industrial----

	venue	freq
0	Train Station	0.33
1	Construction & Landscaping	0.33
2	Other Repair Shop	0.33
3	Zoo Exhibit	0.00
4	Paper / Office Supplies Store	0.00

----Hunter Hills----

	venue	freq
0	Breakfast Spot	0.5
1	Food	0.5
2	Non-Profit	0.0
3	Noodle House	0.0
4	Pet Café	0.0

----Iah/Airport Area----

	venue	freq
0	Rental Car Location	0.62
1	Mexican Restaurant	0.12
2	Fast Food Restaurant	0.12
3	Airport Terminal	0.12
4	Zoo Exhibit	0.00

## ----Independence Heights----

	venue	freq
0	Fried Chicken Joint	0.4
1	Shoe Store	0.2
2	BBQ Joint	0.2
3	Discount Store	0.2
4	Zoo Exhibit	0.0

## ----Indian Creek----

	venue	freq
0	Cosmetics Shop	0.5
1	Park	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Service	0.0

## ----Industrial District----

	venue	freq
0	Brewery	0.07
1	Warehouse Store	0.07
2	Food Truck	0.07
3	Food Service	0.07
4	Coffee Shop	0.07

## ----Inman Park----

	venue	freq
0	Deli / Bodega	0.05
1	Mexican Restaurant	0.05
2	Restaurant	0.05
3	Gym	0.05
4	Trail	0.05

## ----Inner Richmond----

	venue	freq
0	Korean Restaurant	0.07
1	Japanese Restaurant	0.07
2	Bakery	0.07
3	Sushi Restaurant	0.06
4	Thai Restaurant	0.04

## ----Inner Sunset----

	venue	freq
0	Ice Cream Shop	0.07
1	Chinese Restaurant	0.05
2	Breakfast Spot	0.05
3	Bakery	0.05
4	Coffee Shop	0.05

## ----Interbay----

	venue	freq
0	Bus Stop	0.18

1	Golf Course	0.12
2	Garden	0.06
3	Grocery Store	0.06
4	Pet Store	0.06

#### ----International District----

	venue	freq
0	Chinese Restaurant	0.19
1	Vietnamese Restaurant	0.12
2	Bubble Tea Shop	0.05
3	Japanese Restaurant	0.05
4	Bakery	0.05

#### ----Inwood----

	venue	freq
0	Lounge	0.07
1	Café	0.07
2	Mexican Restaurant	0.07
3	Pizza Place	0.05
4	Restaurant	0.04

#### ----Jefferson Park----

	venue	freq
0	Park	0.14
1	American Restaurant	0.09
2	Mexican Restaurant	0.09
3	Salon / Barbershop	0.09
4	Comedy Club	0.05

#### ----Jordan----

	venue	freq
0	Food	0.25
1	Construction & Landscaping	0.25
2	Lake	0.25
3	Park	0.25
4	Pakistani Restaurant	0.00

#### ----Joyland----

	venue	freq
0	Trail	0.5
1	Non-Profit	0.5
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

#### ----Just Us----

	venue	freq
0	Trail	1.0
1	Newsstand	0.0
2	Pet Café	0.0
3	Peruvian Restaurant	0.0

4 Persian Restaurant 0.0

----Kashmere Gardens----

	venue	freq
0	Fast Food Restaurant	0.50
1	Cosmetics Shop	0.17
2	Fish Market	0.17
3	Bus Stop	0.17
4	Zoo Exhibit	0.00

----Keewaydin----

	venue	freq
0	Gift Shop	0.2
1	Yoga Studio	0.2
2	Park	0.2
3	Beach	0.2
4	Coffee Shop	0.2

----Kennedy----

	venue	freq
0	American Restaurant	0.33
1	Moving Target	0.17
2	Pet Store	0.17
3	Theme Park Ride / Attraction	0.17
4	Golf Course	0.17

----Kenny----

	venue	freq
0	Brewery	0.25
1	Construction & Landscaping	0.25
2	Park	0.25
3	Plaza	0.25
4	Zoo Exhibit	0.00

----Kenwood----

	venue	freq
0	American Restaurant	0.25
1	Bakery	0.12
2	Bookstore	0.12
3	Arts & Crafts Store	0.12
4	Trail	0.12

----King Field----

	venue	freq
0	Park	0.22
1	American Restaurant	0.22
2	Toy / Game Store	0.11
3	Bookstore	0.11
4	Yoga Studio	0.11

## ----Kingwood Area----

	venue	freq
0	Playground	0.5
1	Pool	0.5
2	Zoo Exhibit	0.0
3	Pet Service	0.0
4	Peruvian Restaurant	0.0

## ----Kirkwood----

	venue	freq
0	Pet Store	0.16
1	Park	0.16
2	Spa	0.11
3	Sports Bar	0.05
4	Mexican Restaurant	0.05

## ----Knight Park/Howell Station----

	venue	freq
0	Pharmacy	0.25
1	Liquor Store	0.25
2	Smoke Shop	0.25
3	Brewery	0.25
4	Rental Car Location	0.00

## ----Lake Claire----

	venue	freq
0	Arcade	0.17
1	Park	0.17
2	Trail	0.17
3	Art Gallery	0.17
4	Pool	0.17

## ----Lake Houston----

	venue	freq
0	Stables	1.0
1	Zoo Exhibit	0.0
2	Outdoors & Recreation	0.0
3	Peruvian Restaurant	0.0
4	Persian Restaurant	0.0

## ----Lakeshore----

	venue	freq
0	Pizza Place	0.17
1	College Cafeteria	0.17
2	Park	0.17
3	American Restaurant	0.17
4	Golf Course	0.17

## ----Lakewood Heights----

	venue	freq
0	Gas Station	0.12

1	Football Stadium	0.12
2	Rental Service	0.12
3	Dive Bar	0.12
4	Home Service	0.12

----Langwood----

	venue	freq
0	Business Service	0.50
1	Construction & Landscaping	0.25
2	Taco Place	0.25
3	Peking Duck Restaurant	0.00
4	Paper / Office Supplies Store	0.00

----Laurelhurst----

	venue	freq
0	Park	0.4
1	Pharmacy	0.2
2	Juice Bar	0.2
3	Café	0.2
4	Pakistani Restaurant	0.0

----Lavista Park----

	venue	freq
0	Playground	1.0
1	Zoo Exhibit	0.0
2	Pet Store	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

----Lawndale/Wayside----

	venue	freq
0	Flower Shop	0.5
1	Park	0.5
2	Zoo Exhibit	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

----Lawton Park----

	venue	freq
0	Garden	0.25
1	Bookstore	0.25
2	Coffee Shop	0.25
3	Grocery Store	0.25
4	Pakistani Restaurant	0.00

----Lazy Brook/Timbergrove----

	venue	freq
0	Music Store	0.12
1	Convenience Store	0.12
2	Gym / Fitness Center	0.12
3	Video Store	0.12



4 Park 0.12

----Lenox Hill----

	venue	freq
0	Italian Restaurant	0.08
1	Sushi Restaurant	0.06
2	Coffee Shop	0.06
3	Gym / Fitness Center	0.04
4	Pizza Place	0.04

----Lenox Place----

	venue	freq
0	Pub	0.29
1	Gym	0.14
2	Trail	0.14
3	Playground	0.14
4	Martial Arts Dojo	0.14

----Leschi----

	venue	freq
0	Pet Store	0.2
1	Bakery	0.2
2	Pizza Place	0.2
3	Playground	0.2
4	Park	0.2

----Lincoln Park----

	venue	freq
0	Comedy Club	0.2
1	Steakhouse	0.2
2	Baseball Field	0.2
3	Café	0.2
4	Brewery	0.2

----Lincoln Square----

	venue	freq
0	Theater	0.06
1	Gym / Fitness Center	0.06
2	Plaza	0.05
3	Italian Restaurant	0.05
4	Concert Hall	0.05

----Lind-Bohanon----

	venue	freq
0	Mexican Restaurant	0.2
1	Fast Food Restaurant	0.2
2	Pizza Place	0.2
3	Park	0.2
4	BBQ Joint	0.2

## ----Linden Hills----

	venue	freq
0	Bakery	0.11
1	Park	0.11
2	Pet Store	0.05
3	New American Restaurant	0.05
4	Snack Place	0.05

## ----Lindridge - Martin Manor----

	venue	freq
0	Gas Station	0.06
1	Gay Bar	0.06
2	Smoke Shop	0.06
3	Video Store	0.06
4	Chinese Restaurant	0.03

## ----Little Five Points----

	venue	freq
0	Bar	0.09
1	Pizza Place	0.07
2	Coffee Shop	0.04
3	Thrift / Vintage Store	0.04
4	Music Venue	0.04

## ----Little Italy----

	venue	freq
0	Bakery	0.06
1	Café	0.04
2	Salon / Barbershop	0.03
3	Chinese Restaurant	0.03
4	Sandwich Place	0.03

## ----Logan Park----

	venue	freq
0	Art Gallery	0.23
1	Brewery	0.08
2	Gym	0.08
3	Convenience Store	0.08
4	Antique Shop	0.04

## ----Longfellow----

	venue	freq
0	Fast Food Restaurant	0.10
1	Gift Shop	0.05
2	Himalayan Restaurant	0.05
3	Thrift / Vintage Store	0.05
4	Mexican Restaurant	0.05

## ----Loring Heights----

	venue	freq
0	Bakery	0.1

1	American Restaurant	0.1
2	Electronics Store	0.1
3	Pizza Place	0.1
4	Furniture / Home Store	0.1

----Loring Park----

	venue	freq
0	Coffee Shop	0.07
1	Sushi Restaurant	0.05
2	Music Venue	0.05
3	New American Restaurant	0.05
4	Gym	0.05

----Lower East Side----

	venue	freq
0	Coffee Shop	0.05
1	Café	0.05
2	Latin American Restaurant	0.03
3	Chinese Restaurant	0.03
4	Art Gallery	0.03

----Lower Queen Anne----

	venue	freq
0	Coffee Shop	0.04
1	Mexican Restaurant	0.04
2	Theater	0.04
3	Hotel	0.04
4	Gym / Fitness Center	0.03

----Lowry Field----

	venue	freq
0	Skating Rink	0.17
1	Soccer Stadium	0.17
2	Gym / Fitness Center	0.17
3	Scenic Lookout	0.17
4	Park	0.17

----Lowry Hill----

	venue	freq
0	Mini Golf	0.11
1	Garden	0.11
2	Soccer Field	0.11
3	Hockey Arena	0.11
4	New American Restaurant	0.11

----Lowry Hill East----

	venue	freq
0	Pizza Place	0.08
1	Coffee Shop	0.06
2	Breakfast Spot	0.04
3	Yoga Studio	0.04

## 4 Asian Restaurant 0.04

## ----Loyal Heights----

	venue	freq
0	Pizza Place	0.33
1	Soccer Field	0.17
2	Food Truck	0.17
3	Coffee Shop	0.17
4	Park	0.17

## ----Lyndale----

	venue	freq
0	Poke Place	0.11
1	Chinese Restaurant	0.11
2	Fast Food Restaurant	0.11
3	Park	0.11
4	Thrift / Vintage Store	0.11

## ----Lynnhurst----

	venue	freq
0	Pool	0.2
1	Playground	0.2
2	Baseball Field	0.2
3	Coffee Shop	0.2
4	Trail	0.2

## ----Macgregor----

	venue	freq
0	Trail	0.33
1	Snack Place	0.33
2	Spa	0.33
3	Night Market	0.00
4	Peruvian Restaurant	0.00

## ----Madison Park----

	venue	freq
0	Dry Cleaner	0.09
1	Vietnamese Restaurant	0.09
2	Ski Area	0.09
3	Coffee Shop	0.09
4	Soccer Field	0.09

## ----Madrona----

	venue	freq
0	Food & Drink Shop	0.10
1	Gift Shop	0.05
2	French Restaurant	0.05
3	Farmers Market	0.05
4	Bar	0.05

## ----Magnolia Park----

	venue	freq
0	Snack Place	0.25
1	Mexican Restaurant	0.25
2	Athletics & Sports	0.25
3	Beer Garden	0.25
4	Paper / Office Supplies Store	0.00

## ----Mak Historic District----

	venue	freq
0	Pool	0.25
1	Gym / Fitness Center	0.25
2	Planetarium	0.25
3	Garden	0.25
4	Noodle House	0.00

## ----Manhattan Valley----

	venue	freq
0	Coffee Shop	0.05
1	Pizza Place	0.05
2	French Restaurant	0.03
3	Playground	0.03
4	Yoga Studio	0.03

## ----Manhattanville----

	venue	freq
0	Chinese Restaurant	0.05
1	Italian Restaurant	0.05
2	Seafood Restaurant	0.05
3	Deli / Bodega	0.05
4	Mexican Restaurant	0.05

## ----Mann----

	venue	freq
0	Ethiopian Restaurant	0.19
1	Coffee Shop	0.11
2	Bar	0.07
3	Mini Golf	0.04
4	Donut Shop	0.04

## ----Maple Leaf----

	venue	freq
0	Video Store	0.18
1	Ice Cream Shop	0.09
2	Convenience Store	0.09
3	Chinese Restaurant	0.09
4	Cocktail Bar	0.09

## ----Mar Lee----

	venue	freq
0	Discount Store	0.2

1	Liquor Store	0.2
2	Taco Place	0.2
3	Grocery Store	0.2
4	Mobile Phone Shop	0.2

## ----Marble Hill----

	venue	freq
0	Coffee Shop	0.08
1	Discount Store	0.08
2	Department Store	0.04
3	Video Game Store	0.04
4	Supplement Shop	0.04

## ----Marcy-Holmes----

	venue	freq
0	American Restaurant	0.18
1	New American Restaurant	0.09
2	Hotel	0.09
3	Art Gallery	0.09
4	Greek Restaurant	0.09

## ----Marina----

	venue	freq
0	Pizza Place	0.04
1	Gym / Fitness Center	0.04
2	Park	0.03
3	Sushi Restaurant	0.03
4	Cosmetics Shop	0.03

## ----Marshall Terrace----

	venue	freq
0	Brewery	0.17
1	Gym	0.17
2	Music Venue	0.17
3	Food Truck	0.17
4	Miscellaneous Shop	0.17

## ----Marston----

	venue	freq
0	Ice Cream Shop	1.0
1	Zoo Exhibit	0.0
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

## ----Matthews Beach----

	venue	freq
0	Gym	1.0
1	Zoo Exhibit	0.0
2	Night Market	0.0
3	Pet Café	0.0

4 Peruvian Restaurant 0.0

----McKinley----

	venue	freq
0	Grocery Store	0.25
1	Coffee Shop	0.25
2	Food	0.25
3	Motorcycle Shop	0.25
4	Pakistani Restaurant	0.00

----Meadow Lark Estates----

	venue	freq
0	Park	1.0
1	Zoo Exhibit	0.0
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

----Meadowbrook----

	venue	freq
0	Marijuana Dispensary	0.22
1	Pool	0.11
2	Lake	0.11
3	Pet Store	0.11
4	Furniture / Home Store	0.11

----Meadowbrook/Allendale----

	venue	freq
0	Food Court	1.0
1	Zoo Exhibit	0.0
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

----Mechanicsville----

	venue	freq
0	Restaurant	0.3
1	Sandwich Place	0.1
2	Gas Station	0.1
3	Gym	0.1
4	Gym / Fitness Center	0.1

----Medical Center Area----

	venue	freq
0	Fast Food Restaurant	0.14
1	Coffee Shop	0.14
2	Hotel	0.14
3	American Restaurant	0.10
4	Restaurant	0.07

## ----Memorial----

	venue	freq
0	Automotive Shop	0.2
1	Bank	0.2
2	Department Store	0.2
3	Bookstore	0.2
4	Coffee Shop	0.2

## ----Merry Hills----

	venue	freq
0	Beer Garden	1.0
1	Zoo Exhibit	0.0
2	Night Market	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

## ----Meyerland Area----

	venue	freq
0	Department Store	0.06
1	Furniture / Home Store	0.05
2	Cosmetics Shop	0.05
3	Accessories Store	0.05
4	Women's Store	0.05

## ----Mid West----

	venue	freq
0	Bakery	0.06
1	Food Truck	0.06
2	Fast Food Restaurant	0.06
3	Snack Place	0.06
4	Mobile Phone Shop	0.06

## ----Mid-Beacon Hill----

	venue	freq
0	Bus Station	0.5
1	Light Rail Station	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Café	0.0

## ----Mid-City Industrial----

	venue	freq
0	Pet Store	0.14
1	Gift Shop	0.14
2	Theater	0.14
3	Coffee Shop	0.14
4	Music Store	0.14

## ----Midtown----

	venue	freq
0	American Restaurant	0.05



1	Coffee Shop	0.04
2	Hotel	0.04
3	Clothing Store	0.04
4	Pizza Place	0.03

----Midtown South----

	venue	freq
0	Korean Restaurant	0.16
1	Japanese Restaurant	0.04
2	Hotel	0.04
3	Hotel Bar	0.04
4	Cosmetics Shop	0.04

----Minnehaha----

	venue	freq
0	Border Crossing	0.25
1	Music Venue	0.25
2	Lounge	0.25
3	Light Rail Station	0.25
4	Zoo Exhibit	0.00

----Minor----

	venue	freq
0	Coffee Shop	0.3
1	Convenience Store	0.1
2	Playground	0.1
3	Bar	0.1
4	Burger Joint	0.1

----Mission----

	venue	freq
0	Café	0.06
1	Art Gallery	0.05
2	New American Restaurant	0.04
3	Mexican Restaurant	0.03
4	Bar	0.03

----Montbello----

	venue	freq
0	Park	0.67
1	Food	0.33
2	Zoo Exhibit	0.00
3	Paella Restaurant	0.00
4	Pet Café	0.00

----Montclair----

	venue	freq
0	History Museum	0.2
1	Clothing Store	0.2
2	Bus Stop	0.2
3	Dive Bar	0.2

4 Park 0.2

----Montlake----

	venue	freq
0	Bus Stop	0.18
1	Coffee Shop	0.12
2	Grocery Store	0.12
3	Salon / Barbershop	0.12
4	Park	0.12

----Morningside Heights----

	venue	freq
0	Coffee Shop	0.12
1	Park	0.07
2	Food Truck	0.07
3	Bookstore	0.07
4	American Restaurant	0.07

----Morningside/Lenox Park----

	venue	freq
0	Trail	0.50
1	Pizza Place	0.25
2	Playground	0.25
3	Zoo Exhibit	0.00
4	Paella Restaurant	0.00

----Morris Park----

	venue	freq
0	Playground	0.5
1	Spa	0.5
2	Zoo Exhibit	0.0
3	Pet Service	0.0
4	Peruvian Restaurant	0.0

----Mount Baker----

	venue	freq
0	Pet Store	0.25
1	Harbor / Marina	0.25
2	Pizza Place	0.25
3	Park	0.25
4	Pet Service	0.00

----Mozley Park----

	venue	freq
0	Park	0.50
1	Trail	0.17
2	Wings Joint	0.17
3	Business Service	0.17
4	Zoo Exhibit	0.00

## ----Murray Hill----

	venue	freq
0	Coffee Shop	0.05
1	Hotel	0.04
2	French Restaurant	0.03
3	Sandwich Place	0.03
4	Gym	0.03

## ----Museum Park----

	venue	freq
0	Science Museum	0.22
1	Garden	0.09
2	Trail	0.09
3	Doctor's Office	0.04
4	History Museum	0.04

## ----Near North----

	venue	freq
0	Wine Bar	0.25
1	Health & Beauty Service	0.25
2	Bus Station	0.25
3	Miscellaneous Shop	0.25
4	Zoo Exhibit	0.00

## ----Neartown - Montrose----

	venue	freq
0	Coffee Shop	0.11
1	Cosmetics Shop	0.09
2	Pizza Place	0.09
3	Art Gallery	0.06
4	Italian Restaurant	0.06

## ----Nicollet Island----

	venue	freq
0	Park	0.12
1	Bus Station	0.08
2	Gym	0.08
3	Restaurant	0.04
4	Event Space	0.04

## ----Nob Hill----

	venue	freq
0	Italian Restaurant	0.06
1	Café	0.05
2	Wine Bar	0.04
3	Bar	0.04
4	Hotel	0.04

## ----Noe Valley----

	venue	freq
0	Coffee Shop	0.07

1	American Restaurant	0.04
2	Gift Shop	0.04
3	Park	0.03
4	Italian Restaurant	0.03

----Noho----

	venue	freq
0	Italian Restaurant	0.08
1	French Restaurant	0.05
2	Cocktail Bar	0.04
3	Sushi Restaurant	0.03
4	Mexican Restaurant	0.03

----North Admiral----

	venue	freq
0	Coffee Shop	0.11
1	Grocery Store	0.07
2	Video Store	0.04
3	Theater	0.04
4	Pet Store	0.04

----North Beach----

	venue	freq
0	Coffee Shop	0.08
1	Hotel	0.06
2	Ice Cream Shop	0.05
3	Seafood Restaurant	0.05
4	Diner	0.04

----North Beach/Blue Ridge----

	venue	freq
0	Park	1.0
1	Zoo Exhibit	0.0
2	Paella Restaurant	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

----North Beacon Hill----

	venue	freq
0	Café	0.08
1	Mexican Restaurant	0.08
2	Coffee Shop	0.08
3	Pub	0.08
4	Brewery	0.04

----North Capitol Hill----

	venue	freq
0	Coffee Shop	0.10
1	American Restaurant	0.07
2	Pizza Place	0.05
3	Bar	0.05

4 Noodle House 0.05

----North College Park----

	venue	freq
0	Park	0.67
1	Community College	0.33
2	Zoo Exhibit	0.00
3	Pakistani Restaurant	0.00
4	Pet Service	0.00

----North Delridge----

	venue	freq
0	Skate Park	0.2
1	Soccer Field	0.2
2	Coffee Shop	0.2
3	Bus Station	0.2
4	Park	0.2

----North Druid Hills----

	venue	freq
0	Furniture / Home Store	0.33
1	Pool	0.33
2	Record Shop	0.33
3	Peruvian Restaurant	0.00
4	Persian Restaurant	0.00

----North Loop----

	venue	freq
0	Bar	0.12
1	Brewery	0.12
2	Food Truck	0.09
3	Gym / Fitness Center	0.09
4	Thrift / Vintage Store	0.09

----North Ormewood Park----

	venue	freq
0	Trail	0.42
1	Chinese Restaurant	0.11
2	Donut Shop	0.05
3	Burger Joint	0.05
4	Gym / Fitness Center	0.05

----North Park Hill----

	venue	freq
0	Park	0.5
1	Food	0.5
2	Zoo Exhibit	0.0
3	Paella Restaurant	0.0
4	Pet Café	0.0

## ----North Queen Anne----

	venue	freq
0	Café	0.4
1	Home Service	0.2
2	Basketball Court	0.2
3	Sandwich Place	0.2
4	Pakistani Restaurant	0.0

## ----Northeast Park----

	venue	freq
0	Fast Food Restaurant	0.08
1	Coffee Shop	0.08
2	Arts & Crafts Store	0.08
3	Sandwich Place	0.08
4	Salon / Barbershop	0.04

## ----Northeast Park Hill----

	venue	freq
0	Bakery	0.14
1	Soccer Field	0.14
2	Arts & Crafts Store	0.14
3	Coffee Shop	0.14
4	Marijuana Dispensary	0.14

## ----Northrup----

	venue	freq
0	Massage Studio	0.25
1	Gluten-free Restaurant	0.25
2	Tattoo Parlor	0.25
3	Pizza Place	0.25
4	Zoo Exhibit	0.00

## ----Northside Village----

	venue	freq
0	Mexican Restaurant	0.7
1	Dessert Shop	0.1
2	Italian Restaurant	0.1
3	American Restaurant	0.1
4	Zoo Exhibit	0.0

## ----Northside/Northline----

	venue	freq
0	Bakery	0.67
1	Food	0.33
2	Zoo Exhibit	0.00
3	Pakistani Restaurant	0.00
4	Pet Café	0.00

## ----Oakhurst----

	venue	freq
0	Mexican Restaurant	0.12

1	Pool	0.06
2	Discount Store	0.06
3	Cocktail Bar	0.06
4	Coffee Shop	0.06

----Oakland----

	venue	freq
0	American Restaurant	0.14
1	Fast Food Restaurant	0.09
2	Coffee Shop	0.05
3	Convenience Store	0.05
4	Business Service	0.05

----Oakland Cemetery----

	venue	freq
0	Mexican Restaurant	0.09
1	Breakfast Spot	0.06
2	Coffee Shop	0.06
3	Pub	0.06
4	Noodle House	0.06

----Oakland City----

	venue	freq
0	Art Gallery	0.29
1	Gas Station	0.14
2	Vegetarian / Vegan Restaurant	0.14
3	Paper / Office Supplies Store	0.14
4	Boutique	0.14

----Ocean View----

	venue	freq
0	Grocery Store	0.19
1	Light Rail Station	0.12
2	Food Truck	0.06
3	Garden Center	0.06
4	Thrift / Vintage Store	0.06

----Old Fourth Ward----

	venue	freq
0	Italian Restaurant	0.25
1	Music Venue	0.25
2	Playground	0.25
3	Park	0.25
4	Zoo Exhibit	0.00

----Olympic Hills----

	venue	freq
0	Pool	0.33
1	Food Truck	0.33
2	Gym	0.33
3	Outdoors & Recreation	0.00

4 Persian Restaurant 0.00

----Ormewood Park----

	venue	freq
0	Cupcake Shop	0.08
1	Convenience Store	0.08
2	Dance Studio	0.08
3	Gym / Fitness Center	0.08
4	Thai Restaurant	0.08

----Ost/South Union----

	venue	freq
0	Pizza Place	0.17
1	Sports Bar	0.08
2	Convenience Store	0.08
3	Gym	0.08
4	Gym / Fitness Center	0.08

----Outer Mission----

	venue	freq
0	Mexican Restaurant	0.11
1	Latin American Restaurant	0.11
2	Pizza Place	0.07
3	Vietnamese Restaurant	0.07
4	Bakery	0.04

----Outer Richmond----

	venue	freq
0	Chinese Restaurant	0.09
1	Japanese Restaurant	0.06
2	Sandwich Place	0.06
3	Café	0.06
4	Sporting Goods Shop	0.06

----Outer Sunset----

	venue	freq
0	Chinese Restaurant	0.14
1	Dumpling Restaurant	0.14
2	Toy / Game Store	0.07
3	Pizza Place	0.07
4	Café	0.07

----Overland----

	venue	freq
0	Restaurant	0.09
1	Marijuana Dispensary	0.09
2	Rock Club	0.09
3	Fast Food Restaurant	0.09
4	Park	0.09



## ----Pacific Heights----

	venue	freq
0	Park	0.09
1	Women's Store	0.06
2	Cosmetics Shop	0.06
3	Thrift / Vintage Store	0.06
4	Gift Shop	0.03

## ----Page----

	venue	freq
0	Park	0.22
1	Food Truck	0.11
2	Sculpture Garden	0.11
3	Baseball Field	0.11
4	Soccer Field	0.11

## ----Park Place----

	venue	freq
0	Construction & Landscaping	0.33
1	Burger Joint	0.33
2	Other Repair Shop	0.33
3	Zoo Exhibit	0.00
4	Pakistani Restaurant	0.00

## ----Parkside----

	venue	freq
0	Gym	0.14
1	Park	0.14
2	Weight Loss Center	0.07
3	Bubble Tea Shop	0.07
4	Tennis Court	0.07

## ----Pecan Park----

	venue	freq
0	Travel & Transport	0.33
1	Convenience Store	0.33
2	Taco Place	0.33
3	Zoo Exhibit	0.00
4	Paella Restaurant	0.00

## ----Penelope Neighbors----

	venue	freq
0	Breakfast Spot	0.33
1	Café	0.17
2	Wings Joint	0.17
3	Park	0.17
4	Food	0.17

## ----Peopletown----

	venue	freq
0	Auto Garage	0.33

1	Intersection	0.33
2	Park	0.33
3	Zoo Exhibit	0.00
4	Paella Restaurant	0.00

----Perkerson----

	venue	freq
0	Gas Station	0.50
1	Convenience Store	0.25
2	Pizza Place	0.25
3	Zoo Exhibit	0.00
4	Pakistani Restaurant	0.00

----Phillips----

	venue	freq
0	Coffee Shop	0.50
1	Deli / Bodega	0.25
2	Food Court	0.25
3	Zoo Exhibit	0.00
4	Paper / Office Supplies Store	0.00

----Phinney Ridge----

	venue	freq
0	Zoo Exhibit	0.11
1	Trail	0.06
2	Pub	0.06
3	Park	0.06
4	Dessert Shop	0.06

----Piedmont Heights----

	venue	freq
0	Burger Joint	0.07
1	Bowling Alley	0.07
2	Bike Shop	0.07
3	Grocery Store	0.07
4	Sandwich Place	0.07

----Piedmont Park----

	venue	freq
0	Park	0.11
1	Tennis Court	0.06
2	Garden	0.06
3	Dog Run	0.06
4	American Restaurant	0.06

----Pike-Market----

	venue	freq
0	Seafood Restaurant	0.08
1	Coffee Shop	0.08
2	French Restaurant	0.04
3	Hotel	0.04

4 Gourmet Shop 0.04

----Pinehurst----

	venue	freq
0	Coffee Shop	0.2
1	Playground	0.1
2	Video Store	0.1
3	Pizza Place	0.1
4	Rock Club	0.1

----Pioneer Square----

	venue	freq
0	Coffee Shop	0.08
1	Sports Bar	0.03
2	Art Gallery	0.03
3	Thrift / Vintage Store	0.03
4	Cocktail Bar	0.03

----Pittsburgh----

	venue	freq
0	Gym / Fitness Center	0.50
1	Historic Site	0.25
2	Southern / Soul Food Restaurant	0.25
3	Pet Service	0.00
4	Peruvian Restaurant	0.00

----Platt Park----

	venue	freq
0	Sushi Restaurant	0.07
1	Pizza Place	0.07
2	Women's Store	0.07
3	Mexican Restaurant	0.07
4	Coffee Shop	0.07

----Pleasantville Area----

	venue	freq
0	Brewery	0.5
1	Construction & Landscaping	0.5
2	Zoo Exhibit	0.0
3	Paella Restaurant	0.0
4	Pet Café	0.0

----Poncey-Highland----

	venue	freq
0	Bar	0.06
1	American Restaurant	0.06
2	Art Gallery	0.06
3	History Museum	0.04
4	Shoe Store	0.04

## ----Portage Bay----

	venue	freq
0	Deli / Bodega	0.22
1	Art Gallery	0.11
2	Park	0.11
3	Sushi Restaurant	0.11
4	Bar	0.11

## ----Potrero Hill----

	venue	freq
0	Café	0.08
1	Bar	0.05
2	Playground	0.05
3	Brewery	0.05
4	Grocery Store	0.05

## ----Powderhorn Park----

	venue	freq
0	Pet Store	0.17
1	Park	0.17
2	Bakery	0.17
3	Mexican Restaurant	0.17
4	Caribbean Restaurant	0.17

## ----Presidio----

	venue	freq
0	Brewery	0.14
1	General Entertainment	0.14
2	Park	0.14
3	Playground	0.14
4	Art Gallery	0.14

## ----Presidio Heights----

	venue	freq
0	Park	0.09
1	Women's Store	0.06
2	Cosmetics Shop	0.06
3	Thrift / Vintage Store	0.06
4	Gift Shop	0.03

## ----Prospect Park----

	venue	freq
0	Hotel	0.12
1	Park	0.12
2	Gym	0.12
3	Building	0.06
4	Sports Bar	0.06

## ----Rainier Beach----

	venue	freq
0	Garden	0.33

1	Baseball Field	0.33
2	Dessert Shop	0.33
3	Pakistani Restaurant	0.00
4	Pet Service	0.00

#### ----Rainier View----

	venue	freq
0	Construction & Landscaping	1.0
1	Zoo Exhibit	0.0
2	Pakistani Restaurant	0.0
3	Pet Service	0.0
4	Pet Café	0.0

#### ----Ravenna----

	venue	freq
0	Mediterranean Restaurant	0.17
1	Sushi Restaurant	0.08
2	American Restaurant	0.08
3	Bagel Shop	0.08
4	Coffee Shop	0.08

#### ----Regina----

	venue	freq
0	Garden Center	0.2
1	Gym	0.2
2	Cosmetics Shop	0.2
3	Park	0.2
4	Discount Store	0.2

#### ----Regis----

	venue	freq
0	Food	0.17
1	Golf Course	0.17
2	Liquor Store	0.17
3	Thrift / Vintage Store	0.17
4	Convenience Store	0.17

#### ----Reynoldstown----

	venue	freq
0	Art Gallery	0.18
1	Restaurant	0.09
2	Taco Place	0.09
3	Farmers Market	0.09
4	Coffee Shop	0.09

#### ----Riverview----

	venue	freq
0	Bakery	0.5
1	Bar	0.5
2	Zoo Exhibit	0.0
3	Pet Service	0.0

4 Peruvian Restaurant 0.0

----Roosevelt----

	venue	freq
0	Coffee Shop	0.22
1	BBQ Joint	0.11
2	Bus Stop	0.11
3	Chinese Restaurant	0.11
4	Massage Studio	0.11

----Roosevelt Island----

	venue	freq
0	Park	0.08
1	Sandwich Place	0.08
2	Rental Car Location	0.04
3	Dog Run	0.04
4	Farmers Market	0.04

----Rosedale----

	venue	freq
0	Golf Course	0.33
1	Park	0.33
2	Donut Shop	0.33
3	Zoo Exhibit	0.00
4	Paella Restaurant	0.00

----Roxhill----

	venue	freq
0	Pool	0.25
1	Soccer Field	0.25
2	Intersection	0.25
3	Park	0.25
4	Zoo Exhibit	0.00

----Russian Hill----

	venue	freq
0	Coffee Shop	0.05
1	Park	0.05
2	Sushi Restaurant	0.04
3	Italian Restaurant	0.03
4	Gym / Fitness Center	0.03

----Sand Point----

	venue	freq
0	Food Truck	0.18
1	Dog Run	0.12
2	Soccer Field	0.12
3	Theater	0.12
4	Tennis Court	0.12

## ----Sea Cliff----

	venue	freq
0	Trail	0.2
1	Playground	0.1
2	Café	0.1
3	Tea Room	0.1
4	Golf Course	0.1

## ----Seaview----

	venue	freq
0	Night Market	0.25
1	Gym	0.25
2	Chinese Restaurant	0.25
3	Speakeasy	0.25
4	Peruvian Restaurant	0.00

## ----Second Ward----

	venue	freq
0	Clothing Store	0.12
1	Mexican Restaurant	0.12
2	Bar	0.12
3	Burger Joint	0.12
4	Mattress Store	0.12

## ----Semmes Park----

	venue	freq
0	Farmers Market	0.25
1	Food Truck	0.25
2	Pub	0.25
3	Sports Bar	0.25
4	Zoo Exhibit	0.00

## ----Settegast----

	venue	freq
0	Other Repair Shop	0.5
1	Discount Store	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Service	0.0

## ----Seward----

	venue	freq
0	Bar	0.13
1	Bowling Alley	0.13
2	Sandwich Place	0.07
3	Latin American Restaurant	0.07
4	Gym	0.07

## ----Seward Park----

	venue	freq
0	Scenic Lookout	0.33

1	Farmers Market	0.33
2	Art Gallery	0.33
3	Zoo Exhibit	0.00
4	Pet Café	0.00

----Sharpstown----

	venue	freq
0	Pizza Place	0.15
1	Fast Food Restaurant	0.15
2	Pharmacy	0.08
3	Convenience Store	0.08
4	Latin American Restaurant	0.08

----Sheridan----

	venue	freq
0	Dive Bar	0.16
1	Art Gallery	0.08
2	Bar	0.08
3	American Restaurant	0.08
4	Grocery Store	0.04

----Sherwood Forest----

	venue	freq
0	Golf Course	0.5
1	Tennis Court	0.5
2	Zoo Exhibit	0.0
3	Outdoors & Recreation	0.0
4	Peruvian Restaurant	0.0

----Shingle Creek----

	venue	freq
0	Baseball Field	0.25
1	Construction & Landscaping	0.25
2	Lake	0.25
3	Park	0.25
4	Zoo Exhibit	0.00

----Skyland----

	venue	freq
0	Botanical Garden	0.5
1	Shop & Service	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Café	0.0

----Sloan Lake----

	venue	freq
0	Garden	0.17
1	Wine Shop	0.17
2	Bar	0.17
3	Mexican Restaurant	0.17



## 4 Art Gallery 0.17

## ----Soho----

	venue	freq
0	Clothing Store	0.10
1	Boutique	0.07
2	Women's Store	0.06
3	Shoe Store	0.04
4	Men's Store	0.04

## ----South Acres/Crestmont Park----

	venue	freq
0	Rental Service	0.33
1	Health & Beauty Service	0.33
2	Park	0.33
3	Zoo Exhibit	0.00
4	Paella Restaurant	0.00

## ----South Atlanta----

	venue	freq
0	Park	0.67
1	Sandwich Place	0.33
2	Zoo Exhibit	0.00
3	Paella Restaurant	0.00
4	Pet Café	0.00

## ----South Belt/Ellington----

	venue	freq
0	Construction & Landscaping	0.5
1	Hotel	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Service	0.0

## ----South Delridge----

	venue	freq
0	Eye Doctor	0.25
1	Burger Joint	0.25
2	Convenience Store	0.25
3	Spa	0.25
4	Paper / Office Supplies Store	0.00

## ----South Lake Union----

	venue	freq
0	Coffee Shop	0.24
1	Food Truck	0.12
2	Mexican Restaurant	0.04
3	American Restaurant	0.04
4	Café	0.03

## ----South Main----

	venue	freq
0	Gym	1.0
1	Zoo Exhibit	0.0
2	Night Market	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

## ----South Park----

	venue	freq
0	Brewery	0.15
1	Park	0.15
2	Discount Store	0.08
3	Fast Food Restaurant	0.08
4	Skate Park	0.08

## ----South Park Hill----

	venue	freq
0	Convenience Store	1.0
1	Zoo Exhibit	0.0
2	Pakistani Restaurant	0.0
3	Pet Service	0.0
4	Pet Café	0.0

## ----South of Market----

	venue	freq
0	Coffee Shop	0.08
1	Marijuana Dispensary	0.06
2	Vietnamese Restaurant	0.06
3	Café	0.04
4	Wine Bar	0.04

## ----Southeast Magnolia----

	venue	freq
0	Pharmacy	0.14
1	Pizza Place	0.14
2	Pet Store	0.07
3	Plaza	0.07
4	Baseball Field	0.07

## ----Southmoor Park----

	venue	freq
0	Pool	0.25
1	Martial Arts Dojo	0.25
2	Park	0.25
3	Gym	0.25
4	Zoo Exhibit	0.00

## ----Speer----

	venue	freq
0	Massage Studio	0.15

1	Gym	0.08
2	Trade School	0.08
3	Breakfast Spot	0.08
4	Wine Shop	0.08

----Spring Branch Central----

	venue	freq
0	Business Service	0.50
1	Steakhouse	0.25
2	Health & Beauty Service	0.25
3	Zoo Exhibit	0.00
4	Paella Restaurant	0.00

----Spring Branch East----

	venue	freq
0	Burger Joint	0.50
1	Trail	0.25
2	Park	0.25
3	Pakistani Restaurant	0.00
4	Pet Service	0.00

----Spring Branch North----

	venue	freq
0	Fast Food Restaurant	0.22
1	Business Service	0.22
2	Sporting Goods Shop	0.11
3	Baseball Field	0.11
4	American Restaurant	0.11

----Spring Branch West----

	venue	freq
0	IT Services	0.50
1	Bar	0.25
2	Park	0.25
3	Zoo Exhibit	0.00
4	Pet Café	0.00

----St. Anthony East----

	venue	freq
0	Dive Bar	0.17
1	Ice Cream Shop	0.08
2	Karaoke Bar	0.08
3	Asian Restaurant	0.08
4	Brewery	0.08

----St. Anthony West----

	venue	freq
0	Park	0.12
1	Food Truck	0.12
2	Farmers Market	0.12
3	Bowling Alley	0.12

## 4 Middle Eastern Restaurant 0.12

## ----Standish----

	venue	freq
0	Lounge	0.5
1	Coffee Shop	0.5
2	Zoo Exhibit	0.0
3	Paper / Office Supplies Store	0.0
4	Pet Service	0.0

## ----Stapleton----

	venue	freq
0	Home Service	0.5
1	Shipping Store	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Café	0.0

## ----Stevens----

	venue	freq
0	Playground	0.18
1	Bakery	0.18
2	Taco Place	0.09
3	Vietnamese Restaurant	0.09
4	Greek Restaurant	0.09

## ----Stevens Square----

	venue	freq
0	Coffee Shop	0.11
1	Theater	0.07
2	Park	0.07
3	Thrift / Vintage Store	0.04
4	BBQ Joint	0.04

## ----Stuyvesant Town----

	venue	freq
0	Bar	0.21
1	Playground	0.11
2	Park	0.11
3	Farmers Market	0.05
4	Boat or Ferry	0.05

## ----Summerhill----

	venue	freq
0	Park	0.14
1	History Museum	0.07
2	Outdoors & Recreation	0.07
3	Track	0.07
4	BBQ Joint	0.07

## ----Sumner-Glenwood----

	venue	freq
0	Big Box Store	0.17
1	Food Truck	0.17
2	Park	0.17
3	Clothing Store	0.17
4	Warehouse Store	0.17

## ----Sun Valley----

	venue	freq
0	Light Rail Station	0.11
1	Convenience Store	0.11
2	Café	0.11
3	Hot Dog Joint	0.11
4	Discount Store	0.11

## ----Sunnyside----

	venue	freq
0	Coffee Shop	0.12
1	Restaurant	0.08
2	Spa	0.04
3	Boutique	0.04
4	Mobile Phone Shop	0.04

## ----Sunset Hill----

	venue	freq
0	Harbor / Marina	0.36
1	Boat or Ferry	0.09
2	Park	0.09
3	Post Office	0.09
4	Coffee Shop	0.09

## ----Sutton Place----

	venue	freq
0	Gym / Fitness Center	0.06
1	Italian Restaurant	0.05
2	Juice Bar	0.04
3	Furniture / Home Store	0.04
4	Indian Restaurant	0.04

## ----Swallow Circle/Baywood----

	venue	freq
0	Wings Joint	1.0
1	Zoo Exhibit	0.0
2	Outdoors & Recreation	0.0
3	Peruvian Restaurant	0.0
4	Persian Restaurant	0.0

## ----Sweet Auburn----

	venue	freq
0	Bar	0.07

1	History Museum	0.07
2	Pizza Place	0.05
3	Fried Chicken Joint	0.03
4	Seafood Restaurant	0.03

## ----Sycamore Ridge----

	venue	freq
0	Brewery	0.13
1	Pub	0.13
2	Bakery	0.13
3	Breakfast Spot	0.07
4	Business Service	0.07

## ----Sylvan Hills----

	venue	freq
0	BBQ Joint	0.50
1	Gas Station	0.25
2	Moving Target	0.25
3	Zoo Exhibit	0.00
4	Pakistani Restaurant	0.00

## ----Tacotown----

	venue	freq
0	Mexican Restaurant	0.09
1	Flower Shop	0.09
2	Noodle House	0.06
3	Park	0.06
4	Spa	0.06

## ----Tangletown----

	venue	freq
0	Spa	0.23
1	Grocery Store	0.08
2	BBQ Joint	0.08
3	Mexican Restaurant	0.08
4	Chinese Restaurant	0.08

## ----The Bluff----

	venue	freq
0	Nightclub	0.22
1	Art Gallery	0.11
2	Gym / Fitness Center	0.11
3	Medical Center	0.11
4	Electronics Store	0.11

## ----Thomasville Heights----

	venue	freq
0	Insurance Office	0.33
1	Park	0.33
2	Gym	0.33
3	Zoo Exhibit	0.00

4 Paella Restaurant 0.00

----Treasure Island/YBI----

	venue	freq
0	Athletics & Sports	0.22
1	Gym	0.11
2	Park	0.11
3	Baseball Field	0.11
4	Grocery Store	0.11

----Tribeca----

	venue	freq
0	Italian Restaurant	0.06
1	American Restaurant	0.05
2	Park	0.05
3	Spa	0.04
4	Café	0.04

----Tudor City----

	venue	freq
0	Park	0.06
1	Mexican Restaurant	0.06
2	Greek Restaurant	0.05
3	Pizza Place	0.05
4	Café	0.05

----Turtle Bay----

	venue	freq
0	Italian Restaurant	0.06
1	Sushi Restaurant	0.05
2	Hotel	0.04
3	Wine Bar	0.04
4	Coffee Shop	0.04

----Twin Peaks----

	venue	freq
0	Scenic Lookout	0.5
1	Trail	0.3
2	Reservoir	0.1
3	Bus Station	0.1
4	Pet Café	0.0

----Underwood Hills----

	venue	freq
0	Men's Store	0.22
1	Brewery	0.11
2	Massage Studio	0.11
3	Theater	0.11
4	General Entertainment	0.11

## ----Union Station----

	venue	freq
0	Restaurant	0.06
1	Hotel	0.05
2	Coffee Shop	0.05
3	Mexican Restaurant	0.05
4	American Restaurant	0.05

## ----University----

	venue	freq
0	Pizza Place	0.08
1	Mexican Restaurant	0.06
2	Coffee Shop	0.06
3	Asian Restaurant	0.04
4	College Rec Center	0.04

## ----University District----

	venue	freq
0	Coffee Shop	0.11
1	Thai Restaurant	0.06
2	Sandwich Place	0.06
3	Korean Restaurant	0.05
4	Asian Restaurant	0.05

## ----University Hills----

	venue	freq
0	Playground	1.0
1	Zoo Exhibit	0.0
2	Pet Store	0.0
3	Pet Café	0.0
4	Peruvian Restaurant	0.0

## ----University Park----

	venue	freq
0	Cosmetics Shop	0.33
1	Athletics & Sports	0.33
2	Park	0.33
3	Zoo Exhibit	0.00
4	Pakistani Restaurant	0.00

## ----University Place----

	venue	freq
0	Tennis Stadium	0.33
1	Farmers Market	0.17
2	College Football Field	0.17
3	Art Gallery	0.17
4	Indie Movie Theater	0.17

## ----Upper East Side----

	venue	freq
0	Italian Restaurant	0.08



1	Exhibit	0.06
2	Art Gallery	0.05
3	Coffee Shop	0.04
4	Bakery	0.04

----Upper West Side----

	venue	freq
0	Italian Restaurant	0.06
1	Bar	0.04
2	Vegetarian / Vegan Restaurant	0.03
3	Wine Bar	0.03
4	Bakery	0.03

----Valverde----

	venue	freq
0	Park	0.29
1	Brewery	0.14
2	Indie Theater	0.14
3	Marijuana Dispensary	0.14
4	Factory	0.14

----Venetian Hills----

	venue	freq
0	Cosmetics Shop	0.33
1	Home Service	0.33
2	Clothing Store	0.33
3	Zoo Exhibit	0.00
4	Paper / Office Supplies Store	0.00

----Ventura Village----

	venue	freq
0	Pharmacy	0.10
1	Coffee Shop	0.10
2	Discount Store	0.10
3	Grocery Store	0.10
4	Library	0.05

----Victoria Estates----

	venue	freq
0	Farm	0.5
1	Park	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Café	0.0

----Victory----

	venue	freq
0	Playground	0.17
1	Spa	0.17
2	Road	0.17
3	Theater	0.17

## 4 Ramen Restaurant 0.17

## ----Victory Heights----

	venue	freq
0	Paper / Office Supplies Store	0.11
1	Music Store	0.11
2	Marijuana Dispensary	0.11
3	Coffee Shop	0.11
4	Asian Restaurant	0.11

## ----View Ridge----

	venue	freq
0	Bus Stop	0.67
1	Park	0.33
2	Zoo Exhibit	0.00
3	Paella Restaurant	0.00
4	Pet Café	0.00

## ----Villa Park----

	venue	freq
0	Park	0.50
1	Liquor Store	0.25
2	Food & Drink Shop	0.25
3	Zoo Exhibit	0.00
4	Pakistani Restaurant	0.00

## ----Vine City----

	venue	freq
0	History Museum	0.2
1	Golf Course	0.2
2	Food	0.2
3	Park	0.2
4	Ice Cream Shop	0.2

## ----Virginia Village----

	venue	freq
0	Grocery Store	0.25
1	Convenience Store	0.25
2	Coffee Shop	0.25
3	Bistro	0.25
4	Pakistani Restaurant	0.00

## ----Virginia-Highland----

	venue	freq
0	Boutique	0.14
1	Bar	0.09
2	Burger Joint	0.06
3	Gift Shop	0.06
4	Dessert Shop	0.03

## ----Visitation Valley----

	venue	freq
0	Farm	0.25
1	Music Venue	0.25
2	Park	0.25
3	Garden	0.25
4	Zoo Exhibit	0.00

## ----Waite Park----

	venue	freq
0	Park	0.29
1	Garden	0.14
2	Food & Drink Shop	0.14
3	Pharmacy	0.14
4	Beer Garden	0.14

## ----Wallingford----

	venue	freq
0	Coffee Shop	0.08
1	Pharmacy	0.05
2	Thai Restaurant	0.05
3	Japanese Restaurant	0.05
4	Bookstore	0.03

## ----Washington Avenue Coalition/Memorial Park----

	venue	freq
0	Burger Joint	0.50
1	Trail	0.25
2	Park	0.25
3	Pakistani Restaurant	0.00
4	Pet Service	0.00

## ----Washington Heights----

	venue	freq
0	Café	0.06
1	Bakery	0.05
2	Mobile Phone Shop	0.05
3	Pizza Place	0.05
4	Deli / Bodega	0.02

## ----Washington Park----

	venue	freq
0	Park	0.18
1	Pet Store	0.09
2	American Restaurant	0.09
3	Trail	0.05
4	Volleyball Court	0.05

## ----Washington Park West----

	venue	freq
0	Herbs & Spices Store	0.2

1	Dive Bar	0.2
2	Sandwich Place	0.2
3	Moving Target	0.2
4	Coffee Shop	0.2

----Washington Virginia Vale----

	venue	freq
0	Bagel Shop	0.09
1	Pizza Place	0.09
2	Park	0.04
3	Grocery Store	0.04
4	Greek Restaurant	0.04

----Webber-Camden----

	venue	freq
0	Bar	0.5
1	Convenience Store	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0
4	Pet Café	0.0

----Wedgwood----

	venue	freq
0	Coffee Shop	0.14
1	Park	0.14
2	Supermarket	0.07
3	Video Store	0.07
4	Pub	0.07

----Wenonah----

	venue	freq
0	Garden	0.25
1	Road	0.25
2	Baseball Field	0.25
3	Park	0.25
4	Paella Restaurant	0.00

----West Calhoun----

	venue	freq
0	Juice Bar	0.08
1	Grocery Store	0.08
2	Noodle House	0.08
3	Trail	0.08
4	Event Space	0.08

----West Colfax----

	venue	freq
0	Mexican Restaurant	0.12
1	American Restaurant	0.12
2	Coffee Shop	0.12
3	Fast Food Restaurant	0.06

## 4            Message Studio    0.06

## ----West End----

	venue	freq
0	Fast Food Restaurant	0.11
1	Seafood Restaurant	0.11
2	Southern / Soul Food Restaurant	0.06
3	Sandwich Place	0.06
4	Grocery Store	0.06

## ----West Highland----

	venue	freq
0	Pizza Place	0.17
1	Coffee Shop	0.12
2	Mexican Restaurant	0.12
3	Sushi Restaurant	0.04
4	Liquor Store	0.04

## ----West Midtown----

	venue	freq
0	Coffee Shop	0.08
1	Furniture / Home Store	0.05
2	Art Gallery	0.05
3	American Restaurant	0.05
4	Sporting Goods Shop	0.03

## ----West Queen Anne----

	venue	freq
0	Coffee Shop	0.13
1	Café	0.13
2	Garden	0.07
3	Dive Bar	0.07
4	Park	0.07

## ----West Village----

	venue	freq
0	Italian Restaurant	0.10
1	Cosmetics Shop	0.05
2	New American Restaurant	0.05
3	Jazz Club	0.04
4	Wine Bar	0.04

## ----West Woodland----

	venue	freq
0	Brewery	0.27
1	Food Truck	0.14
2	Coffee Shop	0.09
3	Construction & Landscaping	0.05
4	Burger Joint	0.05

## ----West of Twin Peaks----

	venue	freq
0	Monument / Landmark	0.2
1	Gym	0.2
2	Bus Stop	0.2
3	Park	0.2
4	Trail	0.2

## ----Westbranch----

	venue	freq
0	Nightclub	0.33
1	Park	0.33
2	Business Service	0.33
3	Pakistani Restaurant	0.00
4	Pet Service	0.00

## ----Westbury----

	venue	freq
0	Food	0.2
1	Tennis Court	0.2
2	Coffee Shop	0.2
3	Theater	0.2
4	Dive Bar	0.2

## ----Westchase----

	venue	freq
0	Pharmacy	0.33
1	Fast Food Restaurant	0.33
2	Coffee Shop	0.33
3	Pet Store	0.00
4	Pet Café	0.00

## ----Westchester Hills/Chelsea Heights----

	venue	freq
0	Park	0.5
1	Pool	0.5
2	Zoo Exhibit	0.0
3	Pet Store	0.0
4	Pet Café	0.0

## ----Western Addition----

	venue	freq
0	Tea Room	0.04
1	Ice Cream Shop	0.04
2	Cosmetics Shop	0.04
3	Shopping Mall	0.03
4	Creperie	0.03

## ----Westlake----

	venue	freq
0	Bus Stop	0.20

1	Coffee Shop	0.13
2	Sandwich Place	0.13
3	Airport	0.07
4	Italian Restaurant	0.07

----Westview----

	venue	freq
0	Indian Restaurant	0.14
1	New American Restaurant	0.14
2	Café	0.14
3	Southern / Soul Food Restaurant	0.14
4	American Restaurant	0.14

----Westwood----

	venue	freq
0	Fast Food Restaurant	0.12
1	Mexican Restaurant	0.12
2	African Restaurant	0.12
3	Convenience Store	0.06
4	Filipino Restaurant	0.06

----Whittier----

	venue	freq
0	Vietnamese Restaurant	0.12
1	Coffee Shop	0.06
2	Pizza Place	0.04
3	Café	0.04
4	Caribbean Restaurant	0.04

----Whittier Heights----

	venue	freq
0	Bar	0.13
1	Cocktail Bar	0.07
2	Pizza Place	0.07
3	Caribbean Restaurant	0.07
4	Ice Cream Shop	0.07

----Willard-Hay----

	venue	freq
0	Grocery Store	0.2
1	Construction & Landscaping	0.2
2	Bus Station	0.2
3	Park	0.2
4	Flower Shop	0.2

----Willow Meadows/Willowbend Area----

	venue	freq
0	Electronics Store	0.5
1	Food Truck	0.5
2	Zoo Exhibit	0.0
3	Pakistani Restaurant	0.0

4                    Pet Café    0.0

----Willowbrook----

	venue	freq
0	Hotel	0.07
1	Furniture / Home Store	0.07
2	Sports Bar	0.05
3	Discount Store	0.05
4	Chinese Restaurant	0.05

----Windermere----

	venue	freq
0	Beach	0.67
1	Park	0.33
2	Zoo Exhibit	0.00
3	Night Market	0.00
4	Pet Café	0.00

----Windom----

	venue	freq
0	Brewery	0.08
1	Video Store	0.08
2	Soccer Field	0.08
3	Spa	0.08
4	Food Truck	0.08

----Windom Park----

	venue	freq
0	Park	0.18
1	Gas Station	0.09
2	Yoga Studio	0.09
3	Flower Shop	0.09
4	Pizza Place	0.09

----Windsor----

	venue	freq
0	Pool	0.25
1	Bar	0.25
2	Gym / Fitness Center	0.25
3	Gym	0.25
4	Zoo Exhibit	0.00

----Winnona Park----

	venue	freq
0	Soccer Field	1.0
1	Zoo Exhibit	0.0
2	Paella Restaurant	0.0
3	Peruvian Restaurant	0.0
4	Persian Restaurant	0.0



----Woodland Hills (North)----

	venue	freq
0	Italian Restaurant	0.25
1	Park	0.25
2	Taco Place	0.25
3	Bistro	0.25
4	Zoo Exhibit	0.00

----Woodland Hills (South)----

	venue	freq
0	Pizza Place	0.16
1	Discount Store	0.11
2	Clothing Store	0.05
3	Video Store	0.05
4	Burger Joint	0.05

----Yesler Terrace----

	venue	freq
0	Vietnamese Restaurant	0.31
1	Chinese Restaurant	0.15
2	Noodle House	0.08
3	Performing Arts Venue	0.08
4	History Museum	0.04

----Yorkville----

	venue	freq
0	Italian Restaurant	0.07
1	Bar	0.06
2	Gym	0.06
3	Coffee Shop	0.06
4	Pizza Place	0.04

In [56]: *# Put that into a pandas dataframe*

*# Function to sort the venues in descending order*

**def** return\_most\_common\_venues(row, num\_top\_venues):

    row\_categories = row.iloc[1:]

    row\_categories\_sorted = row\_categories.sort\_values(ascending=**False**)

**return** row\_categories\_sorted.index.values[0:num\_top\_venues]

```

In [57]: # Create the new dataframe and display the top 10 venues for each neighborhood
num_top_venues = 10

indicators = ['st', 'nd', 'rd']

# Create columns according to number of top venues
columns = ['Neighborhood']
for ind in np.arange(num_top_venues):
    try:
        columns.append('{}{} Most Common Venue'.format(ind+1, indicators[ind]
    ))
    except:
        columns.append('{}th Most Common Venue'.format(ind+1))

# Create a new dataframe
neighborhoods_venues_sorted = pd.DataFrame(columns=columns)
neighborhoods_venues_sorted['Neighborhood'] = neighborhood_grouped['Neighborhood']

for ind in np.arange(neighborhood_grouped.shape[0]):
    neighborhoods_venues_sorted.iloc[ind, 1:] = return_most_common_venues(neighborhood_grouped.iloc[ind, :], num_top_venues)

neighborhoods_venues_sorted.head()

```

Out[57]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue
0	Acres Home	Burger Joint	Home Service	Bus Station	Intersection	Fish Market	Fish & Chips Shop	Filipino Restaurant
1	Adair Park	Park	Zoo	Fishing Spot	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant
2	Adams	Coffee Shop	Cocktail Bar	Ice Cream Shop	Mexican Restaurant	Burger Joint	Sushi Restaurant	Bar
3	Addicks/Park Ten	Outdoors & Recreation	Zoo	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant	Farm-to-table Restaurant
4	Afton Oaks/River Oaks Area	Women's Store	Furniture / Home Store	Clothing Store	Bank	Cosmetics Shop	Cupcake Shop	Bistro

## 5. Cluster Neighborhoods

```

In [58]: # Run k-means to cluster the neighborhood into 10 clusters

# Set number of clusters
kclusters = 10
neighborhood_grouped_clustering = neighborhood_grouped.drop('Neighborhood', 1)

# Run k-means clustering
kmeans = KMeans(n_clusters=kclusters, random_state=0).fit(neighborhood_grouped_clustering)

# Check cluster labels generated for each row in the dataframe
kmeans.labels_[0:]

```

```

Out[58]: array([7, 6, 7, 7, 7, 2, 4, 5, 5, 7, 4, 7, 2, 7, 7, 7, 7, 7, 7, 9, 7, 7,
7, 7, 0, 6, 2, 7, 7, 2, 7, 7, 7, 7, 7, 7, 5, 7, 4, 9, 2, 7, 7, 5,
7, 9, 9, 6, 7, 7, 7, 2, 2, 7, 7, 2, 5, 7, 8, 7, 2, 7, 7, 9, 7, 7, 7,
7, 9, 9, 2, 7, 7, 7, 2, 2, 7, 7, 2, 7, 7, 7, 1, 2, 7, 7, 7, 7, 0, 9,
7, 2, 7, 7, 3, 7, 7, 7, 9, 7, 5, 9, 6, 7, 7, 7, 7, 7, 7, 9, 7, 7,
2, 7, 7, 2, 9, 3, 7, 7, 7, 9, 9, 7, 7, 7, 7, 7, 2, 7, 7, 2, 7, 7,
7, 7, 7, 7, 8, 9, 2, 7, 7, 7, 7, 7, 7, 7, 7, 7, 2, 5, 7, 2, 7, 9,
7, 7, 7, 7, 7, 0, 7, 7, 5, 7, 7, 2, 7, 7, 7, 2, 7, 7, 7, 7, 7, 7,
7, 7, 7, 2, 9, 7, 7, 2, 8, 7, 5, 7, 2, 7, 9, 2, 7, 7, 7, 7, 7, 7,
7, 7, 7, 2, 7, 7, 7, 7, 7, 7, 7, 2, 5, 4, 7, 2, 7, 2, 7, 2, 3, 7,
7, 5, 7, 2, 7, 7, 2, 3, 2, 9, 7, 7, 7, 2, 7, 7, 2, 7, 7, 7, 7, 7,
7, 7, 7, 7, 5, 7, 7, 7, 7, 5, 5, 7, 7, 7, 7, 7, 7, 7, 9, 7, 7, 7,
2, 7, 0, 9, 6, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 6, 2, 9,
7, 5, 3, 2, 2, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 6, 7, 7, 6, 2, 7, 7, 5,
2, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 9, 2, 0, 7, 7, 7, 7, 7, 7, 2, 7,
7, 7, 2, 2, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 8, 7, 7, 7, 2, 5, 7, 7, 7,
8, 7, 2, 7, 7, 7, 9, 7, 2, 2, 7, 7, 5, 0, 7, 7, 7, 7, 7, 7, 7, 2,
7, 7, 7, 2, 6, 8, 7, 7, 0, 2, 7, 7, 7, 0, 7, 7, 5, 7, 2, 7, 7, 7,
7, 7, 7, 7, 2, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 2, 7, 7, 7, 7, 5, 7,
7, 7, 7, 3, 2, 7, 7, 7, 2, 7, 9, 2, 7, 7, 2, 2, 2, 9, 7, 2, 2, 7, 5,
7, 2, 7, 7, 7, 7, 2, 7, 7, 7, 7, 7, 7, 7, 5, 2, 7, 7, 2, 7, 7, 9,
7, 7, 7, 2, 7, 7, 2, 7, 2, 0, 7, 2, 7, 7, 7], dtype=int32)

```

```
In [59]: # Create a new dataframe that includes the cluster as well as the top 10 venues
         # for each neighborhood

         # Add clustering labels
neighborhoods_venues_sorted.insert(0, 'Cluster Labels', kmeans.labels_)
neighborhood_merged = neighborhoods

         # Merge neighborhood_grouped with neighborhood_data to add Latitude/Longitude
         # for each neighborhood
neighborhood_merged = neighborhood_merged.join(neighborhoods_venues_sorted.set_index('Neighborhood'), on='Neighborhood')
neighborhood_merged.head() # Check the last columns
```

Out[59]:

	City	Neighborhood	Latitude	Longitude	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
0	Atlanta	Tacotown	33.7450	-84.36550	7.0	Flower Shop	Mexican Restaurant	Breakfast Spot
1	Atlanta	Oakland Cemetery	33.7487	-84.37260	7.0	Mexican Restaurant	Pub	Noodle House
2	Atlanta	High Point	33.7168	-84.39580	2.0	Playground	Park	Chinese Restaurant
3	Atlanta	Atkins Park	33.7756	-84.35050	7.0	Bar	Event Space	Yoga Studio
4	Atlanta	Pittsburgh	33.7276	-84.40235	7.0	Gym / Fitness Center	Historic Site	Southern / Soul Food Restaurant

```
In [65]: # @hiddencode
#neighborhood_merged[["Cluster Labels"]] = neighborhood_merged[["Cluster Labels"]].dropna()
#neighborhood_merged[["Cluster Labels"]].astype(int)
#kmeans.labels_[477]
neighborhood_merged.at[46, 'Cluster Labels'] = kmeans.labels_[46]
neighborhood_merged.at[69, 'Cluster Labels'] = kmeans.labels_[69]
neighborhood_merged.at[97, 'Cluster Labels'] = kmeans.labels_[97]
neighborhood_merged.at[125, 'Cluster Labels'] = kmeans.labels_[125]
neighborhood_merged.at[138, 'Cluster Labels'] = kmeans.labels_[138]
neighborhood_merged.at[151, 'Cluster Labels'] = kmeans.labels_[151]
neighborhood_merged.at[199, 'Cluster Labels'] = kmeans.labels_[199]
neighborhood_merged.at[200, 'Cluster Labels'] = kmeans.labels_[200]
neighborhood_merged.at[226, 'Cluster Labels'] = kmeans.labels_[226]
neighborhood_merged.at[232, 'Cluster Labels'] = kmeans.labels_[232]
neighborhood_merged.at[235, 'Cluster Labels'] = kmeans.labels_[235]
neighborhood_merged.at[238, 'Cluster Labels'] = kmeans.labels_[238]
neighborhood_merged.at[255, 'Cluster Labels'] = kmeans.labels_[255]
neighborhood_merged.at[262, 'Cluster Labels'] = kmeans.labels_[262]
neighborhood_merged.at[264, 'Cluster Labels'] = kmeans.labels_[264]
neighborhood_merged.at[422, 'Cluster Labels'] = kmeans.labels_[422]
neighborhood_merged.at[467, 'Cluster Labels'] = kmeans.labels_[467]
neighborhood_merged.at[474, 'Cluster Labels'] = kmeans.labels_[474]
```

```
In [69]: # @hiddencode
#neighborhood_merged.dtypes
neighborhood_merged[["Cluster Labels"]] = neighborhood_merged[["Cluster Labels"]].astype(int)
```

```

In [70]: # Visualize the resulting clusters

# Create map
map_clusters = folium.Map(location=[latitude, longitude], zoom_start=4)

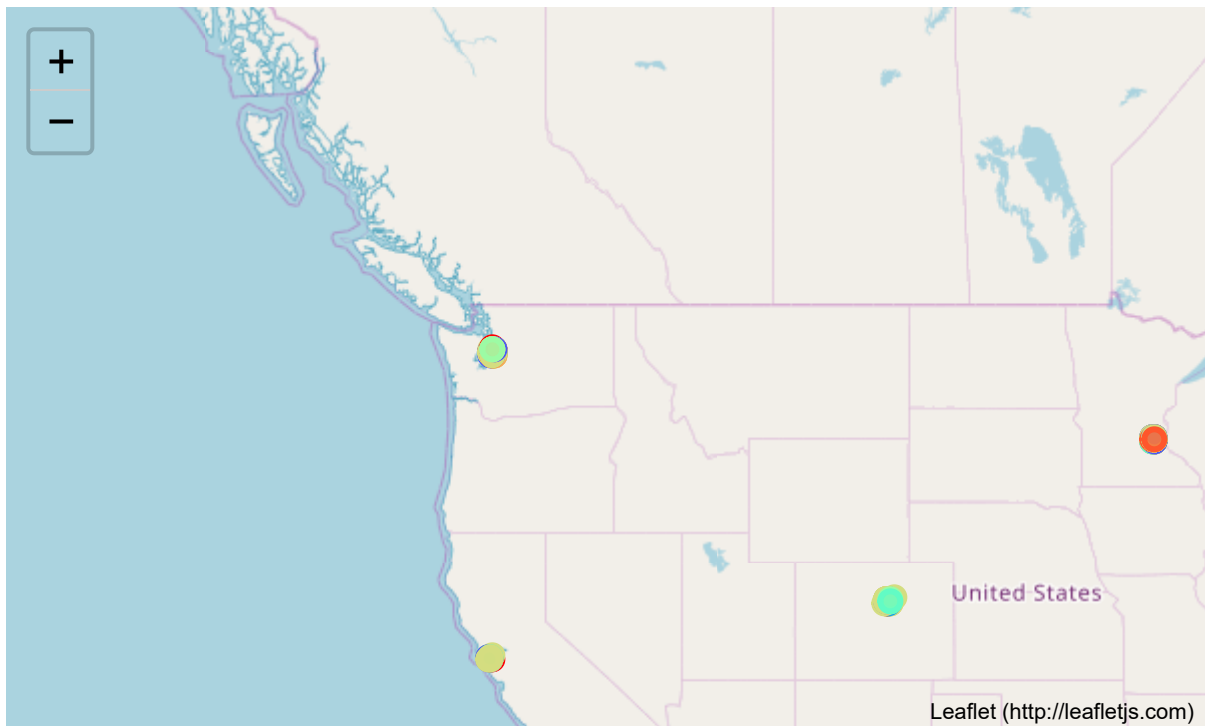
# Set color scheme for the clusters
x = np.arange(kclusters)
ys = [i + x + (i*x)**2 for i in range(kclusters)]
colors_array = cm.rainbow(np.linspace(0, 1, len(ys)))
rainbow = [colors.rgb2hex(i) for i in colors_array]

# Add markers to the map
markers_colors = []
for lat, lon, poi, cluster in zip(neighborhood_merged['Latitude'], neighborhood_merged['Longitude'], neighborhood_merged['Neighborhood'], neighborhood_merged['Cluster Labels']):
    label = folium.Popup(str(poi) + ' Cluster ' + str(cluster), parse_html=True)
    folium.CircleMarker(
        [lat, lon],
        radius=5,
        popup=label,
        color=rainbow[cluster-1],
        fill=True,
        fill_color=rainbow[cluster-1],
        fill_opacity=0.7).add_to(map_clusters)

map_clusters

```

Out[70]:



## 6. Examine the Clusters

```
In [71]: # Cluster 1
neighborhood_merged.loc[neighborhood_merged['Cluster Labels'] == 0, neighborhood_merged.columns[[1] + list(range(5, neighborhood_merged.shape[1]))]]
```

Out[71]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	
122	Windsor	Bar	Gym / Fitness Center	Gym	Pool	Zoo	Fishing Spot	F S
145	Southmoor Park	Park	Gym	Pool	Martial Arts Dojo	Zoo	Fish Market	E D
204	Greater Greenspoint	Pool	Ethiopian Restaurant	Exhibit	Eye Doctor	Fabric Shop	Factory	F R
241	South Main	Gym	Zoo	Furniture / Home Store	Eye Doctor	Fabric Shop	Factory	F R
318	Columbia Park	Furniture / Home Store	Skate Park	Motorcycle Shop	Gym	Fishing Spot	Eye Doctor	F S
383	Bayview	Brewery	Deli / Bodega	Gym	Zoo	Flower Shop	Factory	F R
407	Seaview	Chinese Restaurant	Gym	Speakeasy	Night Market	Czech Restaurant	Dance Studio	F
409	Matthews Beach	Gym	Zoo	Furniture / Home Store	Eye Doctor	Fabric Shop	Factory	F R
470	Olympic Hills	Pool	Food Truck	Gym	Fishing Spot	Eye Doctor	Fabric Shop	F

```
In [72]: # Cluster 2
neighborhood_merged.loc[neighborhood_merged['Cluster Labels'] == 1, neighborhood_merged.columns[[1] + list(range(5, neighborhood_merged.shape[1]))]]
```

Out[72]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue
169	Cole	Ramen Restaurant	Zoo	Fishing Spot	Exhibit	Eye Doctor	Fabric Shop	Factory

```
In [73]: # Cluster 3
neighborhood_merged.loc[neighborhood_merged['Cluster Labels'] == 2, neighborhood_merged.columns[[1] + list(range(5, neighborhood_merged.shape[1]))]]
```



Out[73]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
2	High Point	Playground	Park	Chinese Restaurant	Garden	Vietnamese Restaurant
17	Westchester Hills/Chelsea Heights	Park	Pool	Zoo	Fishing Spot	Eye Doctor
30	Candler Park	Park	Rental Car Location	Gym	Tennis Court	Playground
38	Old Fourth Ward	Italian Restaurant	Music Venue	Park	Playground	Fish Market
48	East Lake	Recreation Center	Park	Zoo	Fishing Spot	Eye Doctor
49	Chosewood Park	History Museum	Baseball Field	Mexican Restaurant	Ice Cream Shop	Park
51	Vine City	Golf Course	History Museum	Food	Ice Cream Shop	Park
55	Washington Park	Park	Pet Store	American Restaurant	Volleyball Court	Gym
62	Victoria Estates	Farm	Park	Zoo	Fishing Spot	Eye Doctor
66	Glennwood Estates	Playground	Soccer Field	Park	Dog Run	Tennis Court
77	Benteen Park	Ice Cream Shop	Smoke Shop	Music Store	Shoe Store	Park
79	Peoplestown	Auto Garage	Intersection	Park	Zoo	Fishing Spot
82	Capitol View	Park	Home Service	Scenic Lookout	Disc Golf	Zoo
88	College Heights	Adult Boutique	Park	Zoo	Flea Market	Fabric Shop
91	Conley Hills	Food Truck	Public Art	Bar	Farmers Market	Park
95	Thomasville Heights	Insurance Office	Gym	Park	Zoo	Fish Market
96	Mozley Park	Park	Trail	Wings Joint	Business Service	Fountain

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
107	Penelope Neighbors	Breakfast Spot	Café	Park	Wings Joint	Food
108	Grove Park	Park	Seafood Restaurant	Wings Joint	Fast Food Restaurant	Gas Station
112	Woodland Hills (North)	Italian Restaurant	Taco Place	Park	Bistro	Flower Shop
120	Valverde	Park	Brewery	Marijuana Dispensary	Dance Studio	Factory
121	Athmar Park	Home Service	Vacation Rental	Art Gallery	Construction & Landscaping	Park
127	Rosedale	Park	Donut Shop	Golf Course	Zoo	Fishing Spot
128	Cheesman Park	Garden	Park	Track	Ice Cream Shop	Bar
129	Hilltop	Italian Restaurant	Deli / Bodega	Park	Fishing Spot	Eye Doctor
130	Montclair	Dive Bar	History Museum	Clothing Store	Park	Bus Stop
132	North Park Hill	Park	Food	Zoo	Fishing Spot	Eye Doctor
134	University Park	Cosmetics Shop	Athletics & Sports	Park	Zoo	Fishing Spot
147	Indian Creek	Cosmetics Shop	Park	Zoo	Fishing Spot	Eye Doctor
153	Harvey Park	Lake	Park	Historic Site	Construction & Landscaping	Mexican Restaurant
159	Belcaro	Marijuana Dispensary	Shopping Mall	Park	Lawyer	Fish Market
160	Washington Park	Park	Pet Store	American Restaurant	Volleyball Court	Gym
166	City Park	Zoo Exhibit	Park	Lake	Music Venue	Outdoor Sculpture

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
167	Clayton	Park	Market	Mexican Restaurant	Food	Discount Store
174	Villa Park	Park	Liquor Store	Food & Drink Shop	Zoo	Fishing Spot
192	Fourth Ward	Hotel	Gay Bar	Café	Portuguese Restaurant	Seafood Restaurant
199	Northshore	NaN	NaN	NaN	NaN	NaN
222	Westbranch	Nightclub	Park	Business Service	Zoo	Flea Market
238	Trinity/Houston Gardens	NaN	NaN	NaN	NaN	NaN
256	South Acres/Crestmont Park	Rental Service	Health & Beauty Service	Park	Fruit & Vegetable Store	Eye Doctor
265	South Park	Brewery	Park	Italian Restaurant	Skate Park	Bar
268	Harrisburg/Manchester	Home Service	Park	Zoo	Event Space	Eye Doctor
270	Lawndale/Wayside	Park	Flower Shop	Zoo	Fishing Spot	Eye Doctor
273	Spring Branch West	IT Services	Bar	Park	Zoo	Fishing Spot
281	Regina	Discount Store	Cosmetics Shop	Garden Center	Park	Gym
283	Page	Park	Sculpture Garden	Asian Restaurant	Lake	Baseball Field
285	Keewaydin	Yoga Studio	Park	Gift Shop	Coffee Shop	Beach
287	Wenonah	Garden	Road	Baseball Field	Park	Zoo
295	Powderhorn Park	Bakery	Pet Store	Caribbean Restaurant	Park	Mexican Restaurant
299	Kenny	Plaza	Park	Brewery	Construction & Landscaping	Fishing Spot

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
303	East Harriet	Garden	Health & Beauty Service	Park	Dog Run	Playground
310	Shingle Creek	Construction & Landscaping	Baseball Field	Park	Lake	Zoo
314	Jordan	Lake	Food	Construction & Landscaping	Park	Zoo
315	Willard-Hay	Construction & Landscaping	Park	Bus Station	Flower Shop	Grocery Store
319	Camden Industrial	Park	Café	Sandwich Place	Liquor Store	Fast Food Restaurant
322	Windom Park	Park	Italian Restaurant	Gas Station	Pizza Place	Bus Station
330	Waite Park	Park	Beer Garden	Café	Garden	Pharmacy
331	Sumner-Glenwood	Clothing Store	Big Box Store	Gym	Food Truck	Warehouse Store
336	Lind-Bohanon	BBQ Joint	Fast Food Restaurant	Mexican Restaurant	Park	Pizza Place
339	King Field	American Restaurant	Park	Toy / Game Store	Bookstore	Coffee Shop
362	Marshall Terrace	Brewery	Music Venue	Food Truck	Park	Gym
371	Excelsior	Park	Lake	Moving Target	Scenic Lookout	Flea Market
387	Lakeshore	Park	Gym	Golf Course	Pizza Place	American Restaurant
392	Visitation Valley	Garden	Music Venue	Farm	Park	Zoo
393	Golden Gate Park	Park	Playground	Disc Golf	Bus Stop	Intersection
404	Green Lake	Park	New American Restaurant	Playground	Trail	Bed & Breakfast

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
408	Alki	Beach	Park	Italian Restaurant	Pharmacy	Scenic Lookout
412	Windermere	Beach	Park	Zoo	Furniture / Home Store	Fabric Shop
413	Laurelhurst	Park	Pharmacy	Juice Bar	Café	Zoo
417	Briarcliff	Bus Stop	Park	Zoo	Flea Market	Fabric Shop
421	South Park	Brewery	Park	Italian Restaurant	Skate Park	Bar
425	Fauntleroy	Park	Market	Pizza Place	American Restaurant	Bus Station
429	Mount Baker	Pet Store	Harbor / Marina	Park	Pizza Place	Zoo
430	Roxhill	Pool	Intersection	Soccer Field	Park	Fish Market
442	View Ridge	Bus Stop	Park	Zoo	Flea Market	Fabric Shop
446	High Point	Playground	Park	Chinese Restaurant	Garden	Vietnamese Restaurant
459	Leschi	Playground	Bakery	Pet Store	Park	Pizza Place
482	North Delridge	Skate Park	Soccer Field	Park	Coffee Shop	Bus Station
488	Cedar Park	Supermarket	Brewery	Dog Run	Vietnamese Restaurant	Gas Station



```
In [74]: # Cluster 4
neighborhood_merged.loc[neighborhood_merged['Cluster Labels'] == 3, neighborhood_merged.columns[[1] + list(range(5, neighborhood_merged.shape[1]))]]
```

Out[74]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Common Venue
58	Lavista Park	Playground	Zoo	Ethiopian Restaurant	Exhibit	Eye Doctor	Fabric Shop	Facility
152	University Hills	Playground	Zoo	Ethiopian Restaurant	Exhibit	Eye Doctor	Fabric Shop	Facility
158	Cory - Merrill	Pharmacy	Gym / Fitness Center	Playground	Zoo	Fish Market	Eye Doctor	Fabric Shop
206	Kingwood Area	Playground	Pool	Zoo	Fishing Spot	Eye Doctor	Fabric Shop	Facility
288	Morris Park	Playground	Spa	Zoo	Event Space	Eye Doctor	Fabric Shop	Facility
450	East Queen Anne	Playground	Park	Zoo	Event Space	Eye Doctor	Fabric Shop	Facility

```
In [75]: # Cluster 5
neighborhood_merged.loc[neighborhood_merged['Cluster Labels'] == 4, neighborhood_merged.columns[[1] + list(range(5, neighborhood_merged.shape[1]))]]
```

Out[75]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue
<b>8</b>	Amal Heights	Trail	Furniture / Home Store	Exhibit	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant
<b>15</b>	Just Us	Trail	Furniture / Home Store	Exhibit	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant
<b>105</b>	Ashview Heights	Trail	Furniture / Home Store	Exhibit	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant
<b>274</b>	Braeswood Place	Trail	Furniture / Home Store	Exhibit	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant



```
In [76]: # Cluster 6
neighborhood_merged.loc[neighborhood_merged['Cluster Labels'] == 5, neighborhood_merged.columns[[1] + list(range(5, neighborhood_merged.shape[1]))]]
```



Out[76]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	
16	Joyland	Trail	Non-Profit	Fishing Spot	Exhibit	Eye Doctor	F S
26	Ansley Park	Gay Bar	Trail	Intersection	Garden	Chinese Restaurant	T R
32	Morningside/Lenox Park	Trail	Pizza Place	Playground	Fish & Chips Shop	Event Space	E
35	Lake Claire	Park	Trail	Art Gallery	Pool	Arcade	Y S
73	Glenwood Park	Trail	Beer Bar	Coffee Shop	Restaurant	New American Restaurant	P P
74	North Ormewood Park	Trail	Chinese Restaurant	Burger Joint	Donut Shop	Fast Food Restaurant	L S
76	Boulevard Heights	Trail	Scenic Lookout	Flower Shop	Concert Hall	Arts & Crafts Store	F M
81	Capitol View Manor	Trail	Fried Chicken Joint	Concert Hall	Fishing Spot	Exhibit	E D
191	Lowry Field	Skating Rink	Trail	Gym / Fitness Center	Soccer Stadium	Park	S L
194	Greater Inwood	Burger Joint	Trail	Park	Fishing Spot	Eye Doctor	F S
197	Washington Avenue Coalition/Memorial Park	Burger Joint	Trail	Park	Fishing Spot	Eye Doctor	F S
201	Spring Branch East	Burger Joint	Trail	Park	Fishing Spot	Eye Doctor	F S
253	Macgregor	Trail	Snack Place	Spa	Fountain	Fish & Chips Shop	E
262	Alief	NaN	NaN	NaN	NaN	NaN	N
291	Hiawatha	Trail	Playground	Bus Station	Pizza Place	Exhibit	E D

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	
<b>300</b>	Armatage	Trail	Convenience Store	Park	Pizza Place	Skate Park	F H S
<b>309</b>	Lynnhurst	Trail	Pool	Baseball Field	Coffee Shop	Playground	F T
<b>365</b>	Sea Cliff	Trail	Tea Room	Golf Course	Café	Playground	S L
<b>379</b>	West of Twin Peaks	Trail	Park	Gym	Bus Stop	Monument / Landmark	F S
<b>386</b>	Diamond Heights	Trail	Salon / Barbershop	Pharmacy	Shopping Mall	Baseball Field	S S
<b>390</b>	Twin Peaks	Scenic Lookout	Trail	Bus Station	Reservoir	Cupcake Shop	E S
<b>398</b>	Presidio	Playground	Wine Bar	Art Gallery	General Entertainment	Park	T
<b>410</b>	Broadview	Trail	Concert Hall	Art Gallery	Flea Market	Eye Doctor	F S

```
In [77]: # Cluster 7
neighborhood_merged.loc[neighborhood_merged['Cluster Labels'] == 6, neighborhood_merged.columns[[1] + list(range(5, neighborhood_merged.shape[1]))]]
```

Out[77]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Common Venue
<b>14</b>	Meadow Lark Estates	Park	Zoo	Fishing Spot	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant
<b>83</b>	Adair Park	Park	Zoo	Fishing Spot	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant
<b>89</b>	South Atlanta	Park	Sandwich Place	Zoo	Event Space	Eye Doctor	Fabric Shop	Factory
<b>101</b>	Bush Mountain	Park	Zoo	Fishing Spot	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant
<b>109</b>	Dixie Hills	Park	Zoo	Fishing Spot	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant
<b>143</b>	Bear Valley	Park	Playground	Zoo	Event Space	Eye Doctor	Fabric Shop	Factory
<b>190</b>	Montbello	Park	Food	Zoo	Fishing Spot	Eye Doctor	Fabric Shop	Factory
<b>436</b>	North Beach/Blue Ridge	Park	Zoo	Fishing Spot	Eye Doctor	Fabric Shop	Factory	Falafel Restaurant
<b>491</b>	North College Park	Park	Community College	Zoo	Fishing Spot	Eye Doctor	Fabric Shop	Factory

```
In [78]: # Cluster 8
neighborhood_merged.loc[neighborhood_merged['Cluster Labels'] == 7, neighborhood_merged.columns[[1] + list(range(5, neighborhood_merged.shape[1]))]]
```

Out[78]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
0	Tacotown	Flower Shop	Mexican Restaurant	Breakfast Spot	Park	No
1	Oakland Cemetery	Mexican Restaurant	Pub	Noodle House	Breakfast Spot	Co
3	Atkins Park	Bar	Event Space	Yoga Studio	Thai Restaurant	Gy Ce
4	Pittsburgh	Gym / Fitness Center	Historic Site	Southern / Soul Food Restaurant	Zoo	Eve
5	Oakland	American Restaurant	Fast Food Restaurant	Moving Target	Food Court	BB
6	Loring Heights	Bakery	Pizza Place	Coffee Shop	Gun Shop	Gy
9	Semmes Park	Food Truck	Farmers Market	Pub	Sports Bar	Zo
10	Swallow Circle/Baywood	Wings Joint	Zoo	Flea Market	Eye Doctor	Fal
11	West End	Fast Food Restaurant	Seafood Restaurant	Grocery Store	Discount Store	Sai Pla
12	Harris Chiles	Concert Hall	Convenience Store	Park	Gym	Am Re
13	Historic Westside Village	Fried Chicken Joint	Sports Bar	Pizza Place	Southern / Soul Food Restaurant	Fas Re
18	Berkeley Park	Gym	Gym / Fitness Center	Recording Studio	Video Store	Bre
20	Harvel Homes Community	Nightclub	Gas Station	Bookstore	Bus Station	Zo
21	Mechanicsville	Restaurant	Gas Station	Gym / Fitness Center	Sandwich Place	Gy
22	Downtown	Hotel	Sandwich Place	Coffee Shop	Bar	Co
23	Midtown	American Restaurant	Hotel	Clothing Store	Coffee Shop	Sai Pla

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
24	Sherwood Forest	Tennis Court	Golf Course	Flea Market	Eye Doctor	Fal
25	Cabbagetown	Park	Breakfast Spot	Burger Joint	Mexican Restaurant	Tur
27	Piedmont Heights	Salon / Barbershop	Pizza Place	BBQ Joint	Nail Salon	Tra
28	Virginia-Highland	Boutique	Bar	Gift Shop	Burger Joint	Bal
29	Druid Hills	Plaza	Italian Restaurant	Pizza Place	Sandwich Place	Bal
31	Sweet Auburn	Bar	History Museum	Pizza Place	Music Venue	Lo
34	Piedmont Park	Park	American Restaurant	Dog Run	Tennis Court	Ga
36	Poncey-Highland	Art Gallery	American Restaurant	Bar	Mexican Restaurant	His Mu
37	Reynoldstown	Art Gallery	Restaurant	Coffee Shop	American Restaurant	Tac
39	The Bluff	Nightclub	Art Gallery	Electronics Store	History Museum	Liq
40	Inman Park	Gym	Trail	Mexican Restaurant	Deli / Bodega	Re
41	Little Five Points	Bar	Pizza Place	Coffee Shop	Thrift / Vintage Store	Mu
42	Lindridge - Martin Manor	Gay Bar	Video Store	Smoke Shop	Gas Station	Bal
43	Armour	Brewery	Art Gallery	Coffee Shop	Arts & Crafts Store	Gy Ce
44	Sycamore Ridge	Bakery	Brewery	Pub	Gastropub	Soi Am Re
45	Hunter Hills	Breakfast Spot	Food	Zoo	Flea Market	Fal

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
46	South River Gardens	NaN	NaN	NaN	NaN	Na
47	Kirkwood	Park	Pet Store	Spa	Vegetarian / Vegan Restaurant	Piz
50	English Avenue	Furniture / Home Store	Deli / Bodega	Gas Station	Gun Shop	Soi Soi Re
52	Georgia Tech	Coffee Shop	Fast Food Restaurant	Bus Stop	Food Court	Sal Pla
53	Home Park	Paper / Office Supplies Store	Sandwich Place	Pizza Place	Japanese Restaurant	Dir
54	Atlantic Station	Clothing Store	American Restaurant	Pizza Place	Boutique	Phi
56	Bankhead	Gun Shop	Zoo	Furniture / Home Store	Eye Doctor	Fal
57	Knight Park/Howell Station	Brewery	Smoke Shop	Pharmacy	Liquor Store	Zo
59	Merry Hills	Beer Garden	Gaming Cafe	Fabric Shop	Factory	Fal Re
60	North Druid Hills	Furniture / Home Store	Record Shop	Pool	Flea Market	Ey
61	Biltmore Acres	Speakeasy	Garden	Basketball Court	Pool	Fle
63	Oakhurst	Mexican Restaurant	Butcher	Discount Store	Event Space	Pa
64	Decatur Heights	Art Gallery	Pool	Zoo	Flea Market	Ey
65	Great Lakes	Train Station	Zoo	Event Space	Eye Doctor	Fal
67	Lenox Place	Pub	Trail	Gym	Dog Run	Pla
68	Winnona Park	Soccer Field	Zoo	Fishing Spot	Eye Doctor	Fal
69	West Lake	NaN	NaN	NaN	NaN	Na
70	Colonial Hills	Massage Studio	Sandwich Place	Jazz Club	Liquor Store	Exl

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
71	Summerhill	Park	BBQ Joint	Liquor Store	Bakery	Gy Ce
72	Grant Park	Zoo Exhibit	Cosmetics Shop	Playground	Park	For
75	Ormewood Park	Cosmetics Shop	Ice Cream Shop	Thai Restaurant	Gym / Fitness Center	Sei Re
78	Capitol Gateway	American Restaurant	Rental Car Location	Women's Store	Intersection	Bu: Sei
80	Jefferson Park	Park	American Restaurant	Mexican Restaurant	Salon / Barbershop	Bre
84	Sylvan Hills	BBQ Joint	Gas Station	Moving Target	Flower Shop	Fal
85	Perkerson	Gas Station	Convenience Store	Pizza Place	Zoo	Fis
86	Hammond Park	Pharmacy	Home Service	Zoo	Fish Market	Exl
87	Mak Historic District	Garden	Gym / Fitness Center	Pool	Planetarium	Zor
90	Frog Hollow	Wings Joint	Breakfast Spot	Burger Joint	Vegetarian / Vegan Restaurant	Piz
92	Egan Park	Hotel	Airport Lounge	Cajun / Creole Restaurant	Fast Food Restaurant	Pa
93	Lakewood Heights	Rental Service	Football Stadium	Convenience Store	Park	Ga
94	Betmar La Villa	Music Venue	Rock Club	Zoo	Flea Market	Ey
97	Polar Rock	NaN	NaN	NaN	NaN	Na
98	West Midtown	Coffee Shop	Furniture / Home Store	American Restaurant	Art Gallery	Sh Pla
99	Atlanta University Center	Café	Pizza Place	Art Museum	Bookstore	Pa



	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
100	Oakland City	Art Gallery	Boutique	Gas Station	Paper / Office Supplies Store	Vegetable Restaurant
102	Underwood Hills	Men's Store	Chinese Restaurant	Plaza	Furniture / Home Store	General Entertainment
103	Future Westside Park	Furniture / Home Store	Campground	Other Great Outdoors	Business Service	Flea Market
106	Venetian Hills	Cosmetics Shop	Clothing Store	Home Service	Zoo	Fish Market
111	Collier Heights	Shop & Service	Scenic Lookout	Zoo	Fish Market	Exhibition
113	Woodland Hills (South)	Pizza Place	Discount Store	Gas Station	Chinese Restaurant	Pastry Shop
115	Sunnyside	Coffee Shop	Restaurant	Breakfast Spot	Cajun / Creole Restaurant	Pastry Shop
116	Highland	American Restaurant	Italian Restaurant	New American Restaurant	Bar	Food Court
117	Globeville	Intersection	Bar	Dive Bar	Sporting Goods Shop	Museum
118	Jefferson Park	Park	American Restaurant	Mexican Restaurant	Salon / Barbershop	Brewery
119	Sun Valley	Taco Place	Pharmacy	Discount Store	Light Rail Station	Gym
123	Northeast Park Hill	Fruit & Vegetable Store	Music Venue	Marijuana Dispensary	Bakery	Coffee Shop
124	Elyria Swansea	Farm	Food	Boxing Gym	Mexican Restaurant	Massage / Disinfection
126	University	Pizza Place	Mexican Restaurant	Coffee Shop	Sandwich Place	Korean Restaurant
131	Hale	Music Venue	Playground	Park	Thrift / Vintage Store	Pharmacy
133	South Park Hill	Convenience Store	Zoo	Flea Market	Eye Doctor	Farm

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
135	Platt Park	Sushi Restaurant	Women's Store	Coffee Shop	Mexican Restaurant	Piz
136	College View/South Platte	Electronics Store	Gym / Fitness Center	Zoo	Exhibit	Fal
137	Overland	Brewery	Restaurant	Fast Food Restaurant	Park	Ro
138	Ruby Hill	NaN	NaN	NaN	NaN	Na
139	Kennedy	American Restaurant	Golf Course	Pet Store	Moving Target	The Ric Att
140	Hampden	Home Service	Pizza Place	Zoo	Fish Market	Exl
141	Baker	Pizza Place	Marijuana Dispensary	Paper / Office Supplies Store	Coffee Shop	Clo
146	Hampden South	Chinese Restaurant	Thai Restaurant	Mobile Phone Shop	Fast Food Restaurant	Ele Stc
148	Goldsmith	Italian Restaurant	Bank	Mediterranean Restaurant	Discount Store	Me Re
150	Gateway/Green Valley Ranch	Fried Chicken Joint	Sandwich Place	Fast Food Restaurant	Pizza Place	Re
151	DIA	NaN	NaN	NaN	NaN	Na
155	Westwood	Mexican Restaurant	African Restaurant	Fast Food Restaurant	BBQ Joint	Dis Stc
156	East Colfax	Mexican Restaurant	Fast Food Restaurant	Restaurant	Pizza Place	Dir
157	Auraria	Light Rail Station	Circus	American Restaurant	Food Truck	Fas Re
161	Washington Park West	Sandwich Place	Moving Target	Coffee Shop	Dive Bar	He Spi
162	Speer	Massage Studio	Cosmetics Shop	Trade School	Gym	Pa

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
163	Cherry Creek	Clothing Store	Cosmetics Shop	Furniture / Home Store	Optical Shop	Asi Re
164	Country Club	Fish Market	Golf Course	American Restaurant	Coffee Shop	Prii
165	Congress Park	Yoga Studio	Bus Station	Tapas Restaurant	Pharmacy	Gif
168	Skyland	Botanical Garden	Shop & Service	Zoo	Fishing Spot	Eyē
170	Marston	Ice Cream Shop	Zoo	Flea Market	Eye Doctor	Fal
171	Washington Virginia Vale	Bagel Shop	Pizza Place	Japanese Restaurant	Sushi Restaurant	Pa
172	Barnum	Market	Food	Convenience Store	Construction & Landscaping	Lav
173	Barnum West	Home Service	Fast Food Restaurant	Hotel	Zoo	Fis
175	West Colfax	Mexican Restaurant	Coffee Shop	American Restaurant	Brewery	Mo
176	West Highland	Pizza Place	Mexican Restaurant	Coffee Shop	Bar	Su: Re
177	Sloan Lake	Garden Center	Garden	Wine Shop	Art Gallery	Ba
178	Berkeley	Coffee Shop	Breakfast Spot	American Restaurant	Mexican Restaurant	Bre
179	Regis	Liquor Store	Burrito Place	Golf Course	Convenience Store	Thi Stc
180	Lincoln Park	Café	Brewery	Steakhouse	Comedy Club	Ba:
181	City Park West	American Restaurant	Brewery	Pizza Place	Coffee Shop	Ph:
182	Whittier	Vietnamese Restaurant	Coffee Shop	Café	Pizza Place	Ca Re
183	Capitol Hill	Pizza Place	Pub	Convenience Store	Breakfast Spot	Mu
184	North Capitol Hill	Coffee Shop	American Restaurant	Burger Joint	Noodle House	Ba

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
185	Civic Center	Sandwich Place	Gym / Fitness Center	Bakery	Italian Restaurant	Spa
186	CBD	Hotel	American Restaurant	Sandwich Place	Theater	Steakhouse
187	Union Station	Restaurant	Mexican Restaurant	Coffee Shop	Hotel	American Restaurant
188	Five Points	Brewery	Bar	Coffee Shop	Rock Club	Ballroom
189	Stapleton	Shipping Store	Home Service	Zoo	Fish Market	Exhibition
193	Greater Uptown	Chinese Restaurant	Food	Yoga Studio	Vegetarian / Vegan Restaurant	Fruit and Vegetable Store
195	Greater Hobby Area	Tex-Mex Restaurant	Italian Restaurant	Wings Joint	Rental Car Location	Meat Market
196	Eldridge/West Oaks	Gas Station	Zoo	Flea Market	Eye Doctor	Farm
200	Minnetex	NaN	NaN	NaN	NaN	NaN
202	Spring Branch North	Fast Food Restaurant	Business Service	Park	American Restaurant	Spa / Grocery
203	Langwood	Business Service	Construction & Landscaping	Taco Place	Zoo	Farm
205	Iah/Airport Area	Rental Car Location	Fast Food Restaurant	Mexican Restaurant	Airport Terminal	Zoo
207	Lake Houston	Stables	Zoo	Flea Market	Eye Doctor	Farm
209	Ost/South Union	Pizza Place	Deli / Bodega	Coffee Shop	Liquor Store	Meat Market
210	Meadowbrook/Allendale	Food Court	Zoo	Flea Market	Eye Doctor	Farm
211	Museum Park	Science Museum	Trail	Garden	Sushi Restaurant	Korean Restaurant
212	Greenway/Upper Kirby Area	Coffee Shop	Food Truck	Hotel	Seafood Restaurant	Liquor

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
213	Mid West	Restaurant	Gym	Snack Place	Bakery	Tra Sei
214	Midtown	American Restaurant	Hotel	Clothing Store	Coffee Shop	Sal Pla
216	Memorial	Automotive Shop	Bank	Coffee Shop	Department Store	Boi
217	Settegast	Discount Store	Other Repair Shop	Flea Market	Eye Doctor	Fal
218	Addicks/Park Ten	Outdoors & Recreation	Zoo	Eye Doctor	Fabric Shop	Fa
219	Second Ward	Mattress Store	Burger Joint	Mexican Restaurant	Fast Food Restaurant	Tac
220	Independence Heights	Fried Chicken Joint	Discount Store	Shoe Store	BBQ Joint	Fo
221	Downtown	Hotel	Sandwich Place	Coffee Shop	Bar	Co
223	Clinton Park Tri-Community	Tourist Information Center	Zoo	Furniture / Home Store	Eye Doctor	Fal
225	Greater Fifth Ward	Arts & Entertainment	Food Truck	Zoo	Flea Market	Fal
226	Denver Harbor/Port Houston	NaN	NaN	NaN	NaN	Na
227	Lazy Brook/Timbergrove	Gym / Fitness Center	Convenience Store	Video Store	Restaurant	Mu
228	Greater Heights	Salon / Barbershop	Pizza Place	Trail	Performing Arts Venue	Da
229	Kashmere Gardens	Fast Food Restaurant	Cosmetics Shop	Fish Market	Bus Stop	Zo
230	Northside Village	Mexican Restaurant	Italian Restaurant	Dessert Shop	American Restaurant	Fle
231	Sharpstown	Fast Food Restaurant	Pizza Place	Recreation Center	Food	Frie Joi
232	El Dorado/Oates Prairie	NaN	NaN	NaN	NaN	Na

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
233	Westbury	Tennis Court	Theater	Food	Coffee Shop	Div
234	Spring Branch Central	Business Service	Health & Beauty Service	Steakhouse	Zoo	Fis
235	Hunterwood	NaN	NaN	NaN	NaN	Na
236	Willow Meadows/Willowbend Area	Electronics Store	Food Truck	Zoo	Fishing Spot	Eye
237	Central Northwest	Burger Joint	Discount Store	Convenience Store	Flower Shop	Fal
239	Braeburn	Caribbean Restaurant	Clothing Store	Mexican Restaurant	Sporting Goods Shop	Zoo
242	Eastex/Jensen Area	Fast Food Restaurant	Fried Chicken Joint	Gas Station	Discount Store	Bus
243	Medical Center Area	Hotel	Fast Food Restaurant	Coffee Shop	American Restaurant	Sai
244	East Houston	BBQ Joint	Wine Bar	Discount Store	Food & Drink Shop	Liq
245	Acres Home	Burger Joint	Home Service	Bus Station	Intersection	Fis
246	Northside/Northline	Bakery	Food	Zoo	Flea Market	Fal
247	Hidden Valley	Cosmetics Shop	Food	Hotel	Zoo	Fis
249	Willowbrook	Hotel	Furniture / Home Store	Lingerie Store	Sports Bar	Dis
250	Fairbanks/Northwest Crossing	Convenience Store	Cosmetics Shop	Ice Cream Shop	Health & Beauty Service	Frie
251	Gulfton	Food Truck	Soccer Field	Mexican Restaurant	Zoo	Fis
252	Westwood	Mexican Restaurant	African Restaurant	Fast Food Restaurant	BBQ Joint	Dis
255	Fondren Gardens	NaN	NaN	NaN	NaN	Na

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
259	Gulfgate Riverview/Pine Valley	Mexican Restaurant	Seafood Restaurant	Pizza Place	Sandwich Place	Zoo
260	Sunnyside	Coffee Shop	Restaurant	Breakfast Spot	Cajun / Creole Restaurant	Pal
261	Westchase	Pharmacy	Fast Food Restaurant	Coffee Shop	Zoo	Ev
263	Pecan Park	Convenience Store	Travel & Transport	Taco Place	Zoo	Fis
264	Clear Lake	NaN	NaN	NaN	NaN	Na
266	Astrodome Area	Japanese Restaurant	Moving Target	Pizza Place	Chinese Restaurant	Gy
267	Park Place	Construction & Landscaping	Burger Joint	Other Repair Shop	Zoo	Fle
269	University Place	Tennis Stadium	College Football Field	Farmers Market	Indie Movie Theater	Art
271	Greater Third Ward	Pizza Place	Asian Restaurant	Coffee Shop	Vietnamese Restaurant	Bu
272	Greater Eastwood	Mexican Restaurant	Art Gallery	Fast Food Restaurant	Liquor Store	Dry
275	Meyerland Area	Department Store	Clothing Store	Women's Store	Furniture / Home Store	Acc Stc
276	Magnolia Park	Snack Place	Athletics & Sports	Mexican Restaurant	Beer Garden	Zoo
277	Afton Oaks/River Oaks Area	Women's Store	Furniture / Home Store	Clothing Store	Bank	Co Shi
278	Briarforest Area	Grocery Store	Cajun / Creole Restaurant	Pizza Place	Bakery	Ma Do
279	Neartown - Montrose	Coffee Shop	Cosmetics Shop	Pizza Place	Art Gallery	Pul
282	Northrup	Massage Studio	Tattoo Parlor	Gluten-free Restaurant	Pizza Place	Fis

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
284	Hale	Music Venue	Playground	Park	Thrift / Vintage Store	Ph
289	Minnehaha	Lounge	Music Venue	Border Crossing	Light Rail Station	Fa Re
290	Ericsson	Tennis Court	Lake	Playground	Soccer Field	Sta
292	Howe	Hobby Shop	Restaurant	Wine Bar	Coffee Shop	Ind The
293	Standish	Lounge	Coffee Shop	Zoo	Fishing Spot	Ey
296	Lyndale	Butcher	Fast Food Restaurant	Chinese Restaurant	Ramen Restaurant	Thi Sto
297	ECCO	Bus Station	Scenic Lookout	Massage Studio	Cosmetics Shop	Pla
298	Fulton	Pizza Place	Coffee Shop	Thrift / Vintage Store	Gourmet Shop	Ani
301	Tangletown	Spa	BBQ Joint	Other Great Outdoors	Mexican Restaurant	Ho
302	Windom	Brewery	American Restaurant	Gym / Fitness Center	Soccer Field	Ath Spi
304	Lowry Hill East	Pizza Place	Coffee Shop	Record Shop	American Restaurant	Ca
305	Phillips	Coffee Shop	Deli / Bodega	Food Court	Zoo	Fle
306	Stevens Square	Coffee Shop	Park	Theater	Gay Bar	Ba
307	West Calhoun	Ice Cream Shop	Juice Bar	Grocery Store	Liquor Store	Me Re
308	Linden Hills	Park	Bakery	Italian Restaurant	Arts & Crafts Store	Pe
311	Humboldt Industrial	Train Station	Construction & Landscaping	Other Repair Shop	Zoo	Fis
312	Webber-Camden	Convenience Store	Bar	Zoo	Flea Market	Fa
313	Cleveland	Music Venue	Concert Hall	Home Service	Zoo	Fis



	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
317	Cedar-Isles	Spa	Bookstore	Pet Store	Sandwich Place	Bik Bik
320	Bottineau	Park	Gym / Fitness Center	Convenience Store	Liquor Store	Bui
321	Logan Park	Art Gallery	Brewery	Convenience Store	Gym	Ho
323	Mid-City Industrial	Theater	Art Gallery	Music Store	Pet Store	Co
324	Marcy-Holmes	American Restaurant	Café	Historic Site	Greek Restaurant	Wa Stc
325	Prospect Park	Gym	Hotel	Park	Bus Line	Scot Loc
326	Lowry Hill	Electronics Store	Park	New American Restaurant	Mini Golf	Ga
327	Downtown West	Coffee Shop	Hotel	Sandwich Place	Pizza Place	Bal
328	Cedar-Riverside	Sandwich Place	Bar	Bagel Shop	Pizza Place	Ch Re
329	Northeast Park	Fast Food Restaurant	Sandwich Place	Arts & Crafts Store	Coffee Shop	Bui
333	Hawthorne	Antique Shop	Video Store	Construction & Landscaping	Concert Hall	Fas Re
334	St. Anthony West	Fast Food Restaurant	Farmers Market	Middle Eastern Restaurant	Park	Pla
335	Folwell	Dessert Shop	Brewery	Bus Stop	Intersection	Bu:
337	Victory	Playground	Spa	Plaza	Theater	Ro
338	Field	Pizza Place	American Restaurant	Gym / Fitness Center	BBQ Joint	Cic
340	CARAG	Coffee Shop	Yoga Studio	Park	Music Store	Ice Shi

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
<b>341</b>	Central	Bar	Coffee Shop	Sandwich Place	Food Truck	Asi Re
<b>342</b>	Longfellow	Fast Food Restaurant	Japanese Restaurant	Dive Bar	Latin American Restaurant	Gif
<b>343</b>	Corcoran	Music Store	Outdoor Supply Store	Train	Hobby Shop	The
<b>344</b>	Cooper	Coffee Shop	Furniture / Home Store	Diner	Fast Food Restaurant	Me Re
<b>345</b>	Whittier	Vietnamese Restaurant	Coffee Shop	Café	Pizza Place	Ca Re
<b>346</b>	East Isles	Pizza Place	Coffee Shop	Mexican Restaurant	Boutique	Ca
<b>347</b>	Kenwood	American Restaurant	Café	Tailor Shop	Bakery	Tra
<b>349</b>	Nicollet Island	Park	Bus Station	Gym	Japanese Restaurant	Piz
<b>350</b>	Near North	Health & Beauty Service	Wine Bar	Bus Station	Miscellaneous Shop	Zo
<b>351</b>	North Loop	Bar	Brewery	Food Truck	Thrift / Vintage Store	Gy Ce
<b>352</b>	Elliot Park	Coffee Shop	Hospital	BBQ Joint	Football Stadium	Bre
<b>353</b>	Downtown East	Theater	Bar	Brewery	American Restaurant	Tha Re
<b>354</b>	University	Pizza Place	Mexican Restaurant	Coffee Shop	Sandwich Place	Koi Re
<b>355</b>	Seward	Bar	Bowling Alley	American Restaurant	Electronics Store	Gy
<b>356</b>	Loring Park	Coffee Shop	Music Venue	Sushi Restaurant	Liquor Store	Sei Re
<b>358</b>	Beltrami	Brewery	Gay Bar	Asian Restaurant	Café	Pla
<b>359</b>	St. Anthony East	Dive Bar	Gay Bar	Hot Dog Joint	Brewery	Scot Loc

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
360	Sheridan	Dive Bar	American Restaurant	Art Gallery	Bar	Bo
361	Holland	Salon / Barbershop	Museum	Café	Gym	The
363	Audubon Park	Pharmacy	Convenience Store	Bakery	Movie Theater	Piz
366	Marina	Pizza Place	Gym / Fitness Center	Sushi Restaurant	Cosmetics Shop	Pa
367	Pacific Heights	Park	Women's Store	Cosmetics Shop	Thrift / Vintage Store	Ne
368	Nob Hill	Italian Restaurant	Café	Bar	Wine Bar	De
369	Presidio Heights	Park	Women's Store	Cosmetics Shop	Thrift / Vintage Store	Ne
370	Downtown/Civic Center	Vietnamese Restaurant	Thai Restaurant	Coffee Shop	Theater	Mu
372	Bernal Heights	Park	Coffee Shop	Bakery	Italian Restaurant	Go Sh
373	Western Addition	Ice Cream Shop	Cosmetics Shop	Tea Room	Japanese Restaurant	Gr
374	Chinatown	Chinese Restaurant	Bubble Tea Shop	Bakery	Cocktail Bar	Co
375	North Beach	Coffee Shop	Hotel	Ice Cream Shop	Seafood Restaurant	Dir
376	Haight Ashbury	Boutique	Thrift / Vintage Store	Coffee Shop	Pizza Place	Clo
377	Outer Mission	Mexican Restaurant	Latin American Restaurant	Pizza Place	Vietnamese Restaurant	Bul Sh
378	Crocker Amazon	Café	Restaurant	Scenic Lookout	Bus Station	Liq
380	South of Market	Coffee Shop	Marijuana Dispensary	Vietnamese Restaurant	Café	Wir

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
381	Potrero Hill	Café	Park	Grocery Store	Brewery	Bal
382	Inner Richmond	Japanese Restaurant	Bakery	Korean Restaurant	Sushi Restaurant	Tha Re
384	Noe Valley	Coffee Shop	Gift Shop	American Restaurant	Breakfast Spot	Me Re
385	Inner Sunset	Ice Cream Shop	Breakfast Spot	Sandwich Place	Bakery	Vie Re
388	Russian Hill	Park	Coffee Shop	Sushi Restaurant	Garden	Div
389	Treasure Island/YBI	Athletics & Sports	Flea Market	Baseball Field	Gym	Am Re
391	Outer Richmond	Chinese Restaurant	Japanese Restaurant	Pizza Place	Sandwich Place	Ca
394	Parkside	Park	Gym	Weight Loss Center	Art Gallery	Ter
395	Financial District	Coffee Shop	Hotel	Food Truck	Italian Restaurant	Gy
397	Mission	Café	Art Gallery	New American Restaurant	Mexican Restaurant	Mu
399	Castro/Upper Market	Gay Bar	Coffee Shop	New American Restaurant	Pet Store	Tha Re
400	Outer Sunset	Chinese Restaurant	Dumpling Restaurant	Gastropub	Toy / Game Store	Gy Ce
401	Glen Park	Trail	Coffee Shop	Breakfast Spot	Mexican Restaurant	Bal
402	Adams	Coffee Shop	Cocktail Bar	Ice Cream Shop	Mexican Restaurant	Bul
403	Wallingford	Coffee Shop	Japanese Restaurant	Pharmacy	Thai Restaurant	Boi
405	Sand Point	Food Truck	Tennis Court	Dog Run	Theater	Soi
406	University District	Coffee Shop	Thai Restaurant	Sandwich Place	Vietnamese Restaurant	Asi Re

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
411	Sunset Hill	Harbor / Marina	Playground	Boat or Ferry	Coffee Shop	Pa
414	Eastlake	Sandwich Place	Italian Restaurant	Coffee Shop	Pizza Place	Bu:
415	South Lake Union	Coffee Shop	Food Truck	Mexican Restaurant	American Restaurant	Ve: Ve: Re
418	Whittier Heights	Bar	Furniture / Home Store	Vietnamese Restaurant	Pizza Place	Co
419	Interbay	Bus Stop	Golf Course	Bike Shop	Gymnastics Gym	Ba: Co
420	Georgetown	Café	Gas Station	Outdoor Sculpture	Park	Gy Ce
422	Harbor Island	NaN	NaN	NaN	NaN	Na
423	Industrial District	Japanese Restaurant	Warehouse Store	Food Truck	Burger Joint	For
424	Crown Hill	Pet Store	Pizza Place	Burger Joint	Coffee Shop	Me Re
426	North Beacon Hill	Pub	Mexican Restaurant	Coffee Shop	Café	Ja: Re
427	Dunlap	Electronics Store	Mexican Restaurant	Discount Store	Coffee Shop	Ter
428	Rainier Beach	Garden	Baseball Field	Dessert Shop	Flower Shop	Fa:
431	Seward Park	Farmers Market	Art Gallery	Scenic Lookout	Zoo	Fis
433	Madison Park	Track	Ice Cream Shop	Ski Area	Bank	Dry
434	Stevens	Bakery	Playground	Gourmet Shop	Bus Station	Gre Re
435	Loyal Heights	Pizza Place	Food Truck	Soccer Field	Park	Co
437	Yesler Terrace	Vietnamese Restaurant	Chinese Restaurant	Performing Arts Venue	Noodle House	Pol
438	West Woodland	Brewery	Food Truck	Coffee Shop	Gastropub	Gy Gy

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
439	Wedgwood	Coffee Shop	Park	Gym	Video Store	ATI
440	Phinney Ridge	Zoo Exhibit	Pub	Park	Dessert Shop	Tra
441	Fremont	Bar	Coffee Shop	Pub	Pizza Place	Pa
443	Ravenna	Mediterranean Restaurant	New American Restaurant	Sushi Restaurant	Park	Co
444	Mann	Ethiopian Restaurant	Coffee Shop	Bar	Fried Chicken Joint	Ice Sh
448	West Queen Anne	Coffee Shop	Café	Sandwich Place	Baseball Field	Ital Re
449	Lower Queen Anne	Theater	Coffee Shop	Mexican Restaurant	Hotel	Gy Ce
451	North Queen Anne	Café	Sandwich Place	Home Service	Basketball Court	Zo
452	Westlake	Bus Stop	Sandwich Place	Coffee Shop	Yoga Studio	ATI
453	First Hill	Hotel	Coffee Shop	Sandwich Place	Bakery	Asi Re
454	Southeast Magnolia	Pharmacy	Pizza Place	Japanese Restaurant	Plaza	Ba
455	Central Business District	Coffee Shop	Hotel	New American Restaurant	American Restaurant	Ital Re
456	Minor	Coffee Shop	Fried Chicken Joint	Convenience Store	Bar	Soi St
457	Madrona	Food & Drink Shop	Italian Restaurant	Hot Spring	Playground	Co
458	Harrison/Denny-Blaine	Spa	Surf Spot	Beach	Café	Fle
460	Atlantic	Skate Park	Dance Studio	Tunnel	Food	Ca
461	International District	Chinese Restaurant	Vietnamese Restaurant	Japanese Restaurant	Bakery	Bul Sh

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
462	Pike-Market	Seafood Restaurant	Coffee Shop	French Restaurant	Hotel	Go Shi
463	Brighton	Mexican Restaurant	Pizza Place	Park	Fast Food Restaurant	Vie Re
464	Belltown	Bar	Coffee Shop	Italian Restaurant	Cocktail Bar	Su: Re
465	Pioneer Square	Coffee Shop	Cocktail Bar	Thrift / Vintage Store	Food Truck	Go Shi
466	Gatewood	Pet Store	Coffee Shop	Gym	Massage Studio	Zo
467	Arbor Heights	NaN	NaN	NaN	NaN	Na
468	North Admiral	Coffee Shop	Grocery Store	Vietnamese Restaurant	Pharmacy	Sal Bai
469	Fairmount Park	Bus Station	Coffee Shop	Pizza Place	Bar	Me Re
471	Genesee	Mexican Restaurant	Pizza Place	American Restaurant	Asian Restaurant	Co
472	Greenwood	Coffee Shop	Bookstore	Spa	Bar	Pla
473	Mid-Beacon Hill	Light Rail Station	Bus Station	Zoo	Flea Market	Fal
474	South Beacon Hill	NaN	NaN	NaN	NaN	Na
475	Holly Park	Vietnamese Restaurant	Grocery Store	Chinese Restaurant	Thai Restaurant	Pla
476	South Delridge	Eye Doctor	Convenience Store	Burger Joint	Spa	Fle
478	Bitter Lake	Marijuana Dispensary	Thai Restaurant	Intersection	Trail	Co Stc
479	Maple Leaf	Video Store	Cocktail Bar	Chinese Restaurant	Toy / Game Store	Co Stc
480	Columbia City	Coffee Shop	Pizza Place	Ice Cream Shop	African Restaurant	Bai
483	Riverview	Bakery	Bar	Zoo	Eye Doctor	Fa

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
484	Portage Bay	Deli / Bodega	Art Gallery	Playground	Bar	Su: Re
485	Victory Heights	Pizza Place	Asian Restaurant	Marijuana Dispensary	Music Store	Pa: Su: Sto
486	Broadway	Cocktail Bar	Coffee Shop	American Restaurant	Japanese Restaurant	Ital Re
487	Meadowbrook	Marijuana Dispensary	Pool	Pet Store	Soccer Field	Pa:
489	Haller Lake	Coffee Shop	Lake	Zoo	Flea Market	Ey:
490	Pinehurst	Coffee Shop	Playground	Park	Bus Stop	Vid
492	Marble Hill	Coffee Shop	Discount Store	Seafood Restaurant	Video Game Store	Gy
493	Chinatown	Chinese Restaurant	Bubble Tea Shop	Bakery	Cocktail Bar	Co:
494	Washington Heights	Café	Pizza Place	Bakery	Mobile Phone Shop	Me Re
495	Inwood	Mexican Restaurant	Lounge	Café	Pizza Place	Re
496	Hamilton Heights	Mexican Restaurant	Coffee Shop	Deli / Bodega	Café	Piz
497	Manhattanville	Chinese Restaurant	Mexican Restaurant	Italian Restaurant	Seafood Restaurant	De
498	Central Harlem	Cosmetics Shop	African Restaurant	Seafood Restaurant	Gym / Fitness Center	Fre Re
499	East Harlem	Mexican Restaurant	Bakery	Deli / Bodega	Latin American Restaurant	Th: Re
500	Upper East Side	Italian Restaurant	Exhibit	Art Gallery	Coffee Shop	Bal
501	Yorkville	Italian Restaurant	Gym	Bar	Coffee Shop	Piz
502	Lenox Hill	Italian Restaurant	Sushi Restaurant	Coffee Shop	Pizza Place	Gy Ce



	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
503	Roosevelt Island	Park	Sandwich Place	Japanese Restaurant	Bus Station	Gy
504	Upper West Side	Italian Restaurant	Bar	Burger Joint	Wine Bar	Ind Re
505	Lincoln Square	Gym / Fitness Center	Theater	Plaza	Concert Hall	Ital Re
506	Clinton	Theater	American Restaurant	Gym / Fitness Center	Coffee Shop	Ital Re
507	Midtown	American Restaurant	Hotel	Clothing Store	Coffee Shop	Sai Pla
508	Murray Hill	Coffee Shop	Hotel	Bar	Italian Restaurant	Gy
509	Chelsea	Coffee Shop	Italian Restaurant	Ice Cream Shop	American Restaurant	Bal
510	Greenwich Village	Italian Restaurant	Clothing Store	Sushi Restaurant	French Restaurant	Ch Re
511	East Village	Ice Cream Shop	Bar	Wine Bar	Mexican Restaurant	Co
512	Lower East Side	Coffee Shop	Café	Japanese Restaurant	Park	Art
513	Tribeca	Italian Restaurant	American Restaurant	Park	Café	Sp:
514	Little Italy	Bakery	Café	Bubble Tea Shop	Seafood Restaurant	Sai Pla
515	Soho	Clothing Store	Boutique	Women's Store	Men's Store	Sh:
516	West Village	Italian Restaurant	New American Restaurant	Cosmetics Shop	Wine Bar	Jaz
517	Manhattan Valley	Coffee Shop	Pizza Place	Indian Restaurant	Bar	Sze Re
518	Morningside Heights	Coffee Shop	Park	Food Truck	Bookstore	Arr Re
519	Gramercy	Italian Restaurant	American Restaurant	Coffee Shop	Cocktail Bar	Wit

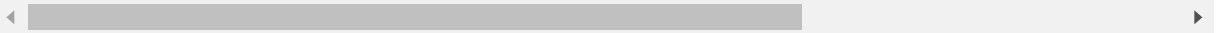
	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	
520	Battery Park City	Coffee Shop	Park	Hotel	Wine Shop	Ital Re
521	Financial District	Coffee Shop	Hotel	Food Truck	Italian Restaurant	Gy
522	Carnegie Hill	Pizza Place	Coffee Shop	Cosmetics Shop	Café	Jaç Re
523	Noho	Italian Restaurant	French Restaurant	Cocktail Bar	Hotel	Me Re
524	Civic Center	Sandwich Place	Gym / Fitness Center	Bakery	Italian Restaurant	Sp:
525	Midtown South	Korean Restaurant	Coffee Shop	Cosmetics Shop	Japanese Restaurant	Ho
526	Turtle Bay	Italian Restaurant	Sushi Restaurant	Hotel	Wine Bar	Co
527	Tudor City	Mexican Restaurant	Park	Café	Greek Restaurant	Piz
528	Stuyvesant Town	Bar	Park	Playground	Harbor / Marina	Co
529	Flatiron	Italian Restaurant	Yoga Studio	Gym	Gym / Fitness Center	Am Re
530	Hudson Yards	Coffee Shop	Italian Restaurant	Hotel	Gym / Fitness Center	Re
531	Sutton Place	Gym / Fitness Center	Italian Restaurant	Juice Bar	Indian Restaurant	Fu Ho



In [79]: *# Cluster 9*  
 neighborhood\_merged.loc[neighborhood\_merged['Cluster Labels'] == 8, neighborhood\_merged.columns[[1] + list(range(5, neighborhood\_merged.shape[1]))]]

Out[79]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	
<b>144</b>	Harvey Park South	Construction & Landscaping	Zoo	Flea Market	Eye Doctor	Fabric Shop	Factory	F
<b>198</b>	Pleasantville Area	Brewery	Construction & Landscaping	Zoo	Flower Shop	Fabric Shop	Factory	F
<b>208</b>	South Belt/Ellington	Construction & Landscaping	Hotel	Zoo	Flea Market	Eye Doctor	Fabric Shop	F
<b>240</b>	Carverdale	Breakfast Spot	Construction & Landscaping	Zoo	Flower Shop	Fabric Shop	Factory	F
<b>254</b>	Fort Bend/Houston	Construction & Landscaping	Zoo	Flea Market	Eye Doctor	Fabric Shop	Factory	F
<b>477</b>	Rainier View	Construction & Landscaping	Zoo	Flea Market	Eye Doctor	Fabric Shop	Factory	F



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In [80]: # Cluster 10
neighborhood_merged.loc[neighborhood_merged['Cluster Labels'] == 9, neighborhood_merged.columns[[1] + list(range(5, neighborhood_merged.shape[1]))]]
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Out[80]:

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
7	Custer-Mcdonough	Sandwich Place	Pharmacy	Fast Food Restaurant	Grocery Store	Video Store
19	East Atlanta	Cemetery	Cosmetics Shop	Diner	Grocery Store	Zoo
33	Edgewood	Pet Store	Coffee Shop	Big Box Store	Grocery Store	Zoo
104	Westview	New American Restaurant	Café	Grocery Store	American Restaurant	Indian Restaurant
110	Center Hill	Historic Site	Grocery Store	Zoo	Event Space	Eye Doctor
114	Chaffee Park	Grocery Store	Pizza Place	Cosmetics Shop	Convenience Store	Thrift / Vintage Store
125	Wellshire	NaN	NaN	NaN	NaN	NaN
142	Fort Logan	BBQ Joint	Zoo	Gaming Cafe	Fabric Shop	Factory
149	Virginia Village	Convenience Store	Bistro	Coffee Shop	Grocery Store	Zoo
154	Mar Lee	Taco Place	Liquor Store	Discount Store	Grocery Store	Mobile Phone Store
215	Edgebrook Area	Grocery Store	Pharmacy	Locksmith	Zoo	Eye Doctor
224	Golfcrest/Bellfort/Reveille	Donut Shop	Grocery Store	Zoo	Exhibit	Fabric Shop
248	East Little York/Homestead	Discount Store	Lounge	Flea Market	Eye Doctor	Fabric Shop
257	Brays Oaks	Discount Store	Sandwich Place	Fast Food Restaurant	Pizza Place	Fried Chicken Joint
258	Central Southwest	Grocery Store	Food	Zoo	Eye Doctor	Fabric Shop
280	Bryant	Coffee Shop	Grocery Store	Italian Restaurant	Bus Station	Trail

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
286	Diamond Lake	New American Restaurant	Tree	Bus Stop	Grocery Store	Outdoors Recreation
294	Bancroft	Yoga Studio	Grocery Store	Caribbean Restaurant	Fast Food Restaurant	Discount Store
316	Bryn-Mawr	Furniture / Home Store	Coffee Shop	Antique Shop	Grocery Store	Pizza Place
332	McKinley	Coffee Shop	Motorcycle Shop	Food	Grocery Store	Zoo
348	Harrison	American Restaurant	Clothing Store	Park	Grocery Store	Convenience Store
357	Como	Restaurant	Bar	Grocery Store	Dive Bar	Zoo
364	Ventura Village	Coffee Shop	Pharmacy	Grocery Store	Discount Store	Breakfast Spot
396	Ocean View	Grocery Store	Light Rail Station	Coffee Shop	Thrift / Vintage Store	Intersection
416	Lawton Park	Grocery Store	Garden	Bookstore	Coffee Shop	Zoo
432	Montlake	Bus Stop	Salon / Barbershop	Park	Grocery Store	Coffee Shop
445	Bryant	Coffee Shop	Grocery Store	Italian Restaurant	Bus Station	Trail
447	Roosevelt	Coffee Shop	Massage Studio	BBQ Joint	Chinese Restaurant	Latin American Restaurant
481	Highland Park	Playground	BBQ Joint	Dog Run	Baseball Field	Bus Stop

