

Covid 19 with London Neighborhoods

Problem

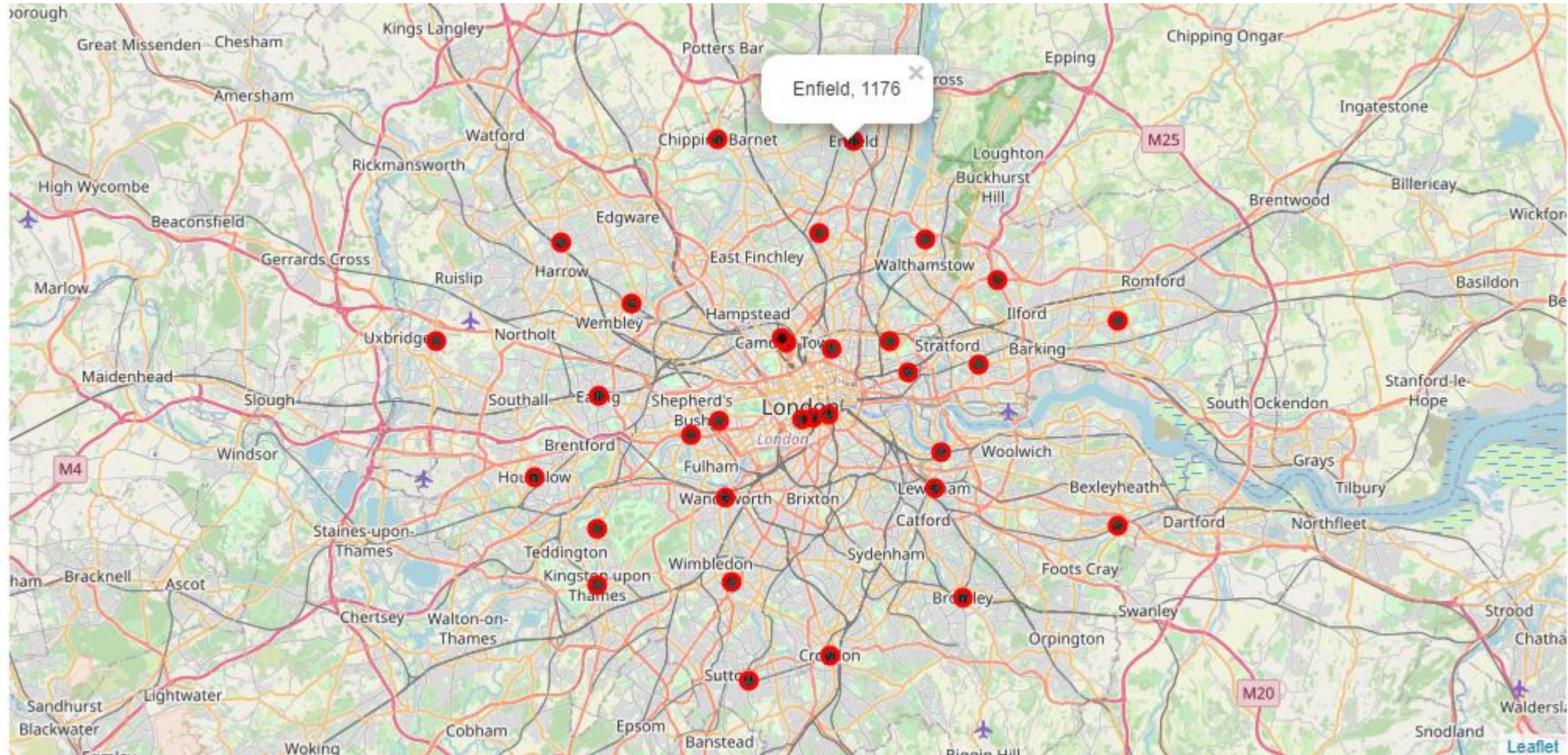
- People try to find the way to preserve their health.
- At which places are people under more risks?
- What is the relation between the popular venues and number of cases per borough?
- Which employees should be more careful when they serve their work?

Data Set

- Data from: https://data.london.gov.uk/download/coronavirus--covid-19--cases/151e497c-a16e-414e-9e03-9e428f555ae9/phe_cases_london_boroughs.csv
- Data: Covid 19 Cases in London per Boroughs
- DataFrame:

	area_name	area_code	date	new_cases	total_cases
0	Barking and Dagenham	E09000002	2020-02-11	0	0
1	Barnet	E09000003	2020-02-11	0	0
2	Bexley	E09000004	2020-02-11	0	0
3	Brent	E09000005	2020-02-11	0	0
4	Bromley	E09000006	2020-02-11	0	0

Areas shown on Map

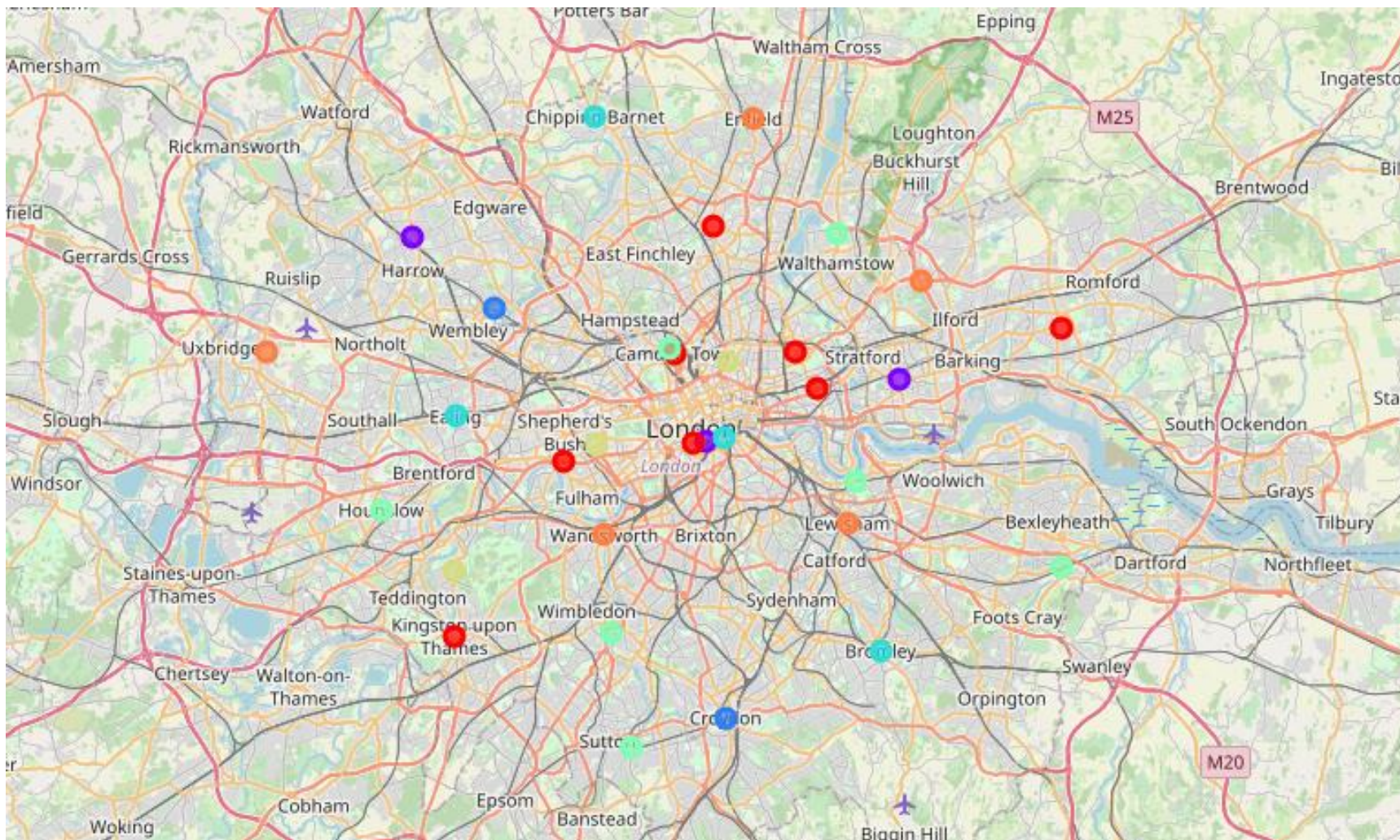


Data from Foursquare (Venues)

[43]:

	area_name	Street Latitude	Street Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Barking and Dagenham	51.554117	0.150504	Tesco Express	51.551536	0.152784	Grocery Store
1	Barking and Dagenham	51.554117	0.150504	Connor Road Bus Stop	51.554345	0.147162	Bus Stop
2	Barking and Dagenham	51.554117	0.150504	Oglethorpe Road Bus Stop	51.555221	0.147136	Bus Stop
3	Barking and Dagenham	51.554117	0.150504	Five Elms Off Licence	51.553878	0.145531	Liquor Store
4	Barking and Dagenham	51.554117	0.150504	Post office	51.551411	0.155003	Convenience Store
...
1261	Westminster	51.500444	-0.126540	Pret A Manger	51.496914	-0.129311	Sandwich Place
1262	Westminster	51.500444	-0.126540	Costa Coffee	51.499585	-0.133064	Coffee Shop
1263	Westminster	51.500444	-0.126540	Conrad Gym	51.499490	-0.132846	Gym
1264	Westminster	51.500444	-0.126540	Simplyfresh	51.499511	-0.133290	Convenience Store
1265	Westminster	51.500444	-0.126540	Flying Tiger	51.499520	-0.133514	Gift Shop

Clusters (based on number of cases)



Cases-Popular Venue Relation

[191]:

	area_name	area_code	date	new_cases	total_cases	City	Borough	Latitude	Longitude	cluster	1. Popular Venue	2. Popular Venue	3. Popular Venue	4. Popular Venue	5. Popular Venue	6. Popular Venue	7. Popular Venue
4514	Bexley	E09000004	2020-07-01	1	1046	London	Bexley, London	51.441679	0.150488	4	Pub	Breakfast Spot	Toy / Game Store	Chinese Restaurant	Fast Food Restaurant	Indian Restaurant	Greek Restaurant
4521	Greenwich	E09000011	2020-07-01	0	947	London	Greenwich, London	51.482084	-0.004542	4	Boat or Ferry	Pub	Grocery Store	Pier	Bakery	Burger Joint	Garden
4526	Havering	E09000016	2020-07-01	1	931	London	Havering, London	51.544369	-0.144303	4	Café	Ice Cream Shop	Pub	Coffee Shop	Market	Grocery Store	Supermarket
4528	Hounslow	E09000018	2020-07-01	4	1056	London	Hounslow, London	51.468613	-0.361347	4	Clothing Store	Coffee Shop	Fast Food Restaurant	Indian Restaurant	Grocery Store	Hotel	Sandwich Place
4534	Merton	E09000024	2020-07-01	1	933	London	Merton, London	51.410803	-0.188099	4	Tram Station	Pub	Deli / Bodega	Sushi Restaurant	Flea Market	Dessert Shop	Park
4539	Sutton	E09000029	2020-07-01	1	999	London	Sutton, London	51.357511	-0.173640	4	Bakery	Park	Grocery Store	Train Station	Italian Restaurant	Event Space	Electronics Store
4541	Waltham Forest	E09000031	2020-07-01	1	1011	London	Waltham Forest, London	51.598169	-0.017837	4	Spa	Pub	Bus Stop	Auto Garage	Yoga Studio	Electronics Store	Fish Market

Results

- Food serving places are more open to spread the disease.
- Places where people wear masks off have more cases.
- People should pay more attention when they wear their masks off (generally eating).