OPENING A GREEK RESTAURANT IN OTTAWA – BATTLE OF THE NEIGHBORHOODS WEEK 2

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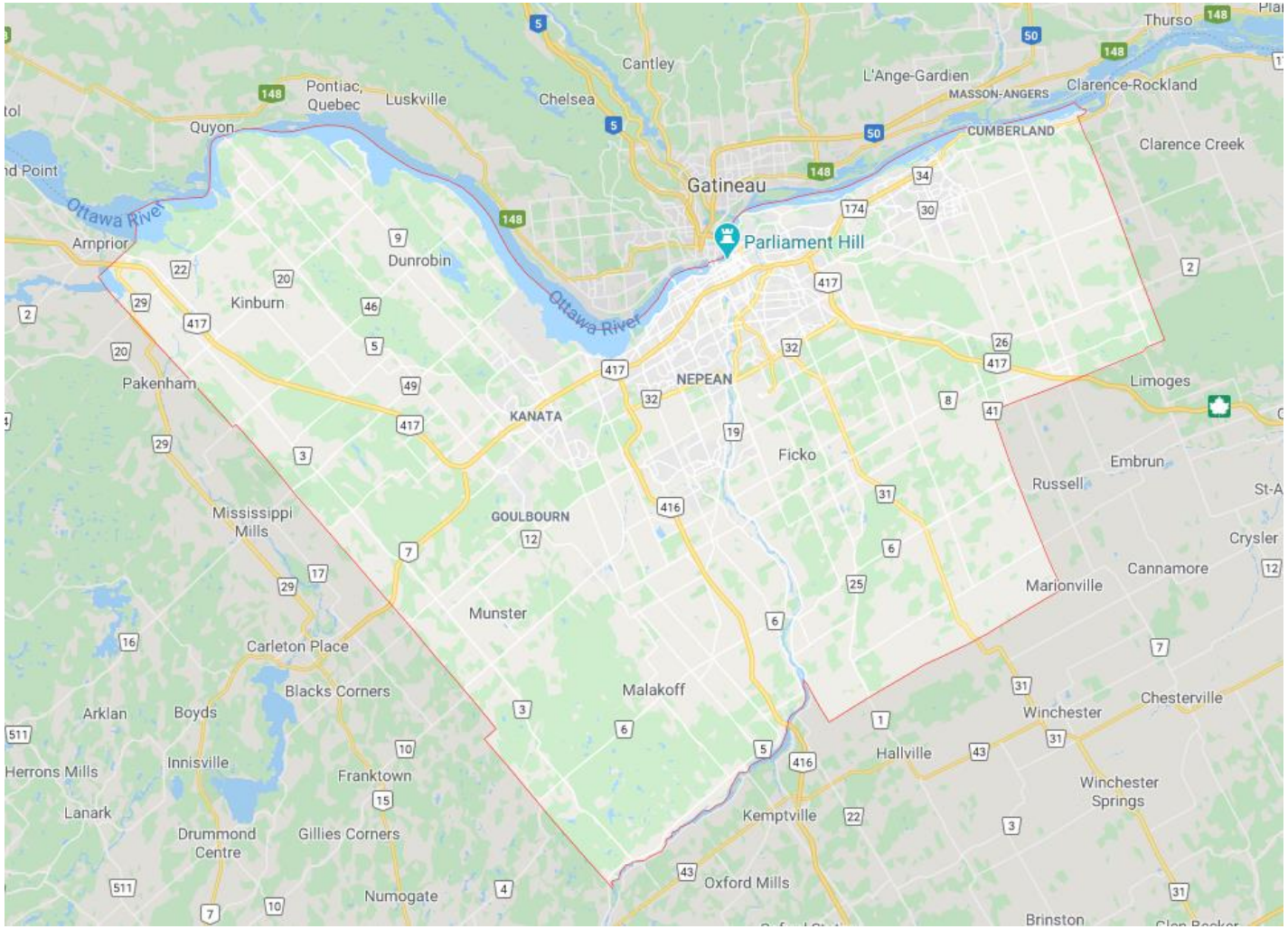
INTRODUCTION TO THE BUSINESS PROBLEM

- The client is looking to open a second location for a very successful Greek restaurant chain in Ottawa.
- A "fast food" type of chain where customers call in and order ahead before simply picking up their order to go.
- Client would prefer an are with high population, lot of residential homes, and a low number of competition fast food.

BACKGROUND

- Ottawa, Population (2016) : 994,837
- Few Greek restaurants in the city, very spread out.
- A rich history of being an inclusive city with a very strong food culture.



DATA

1

Postal code data (available on Github repo in csv format)

2

FourSquare API for venue data

3

Population data from StatsCan (2016 Consensus Data)

METHODOLOGY

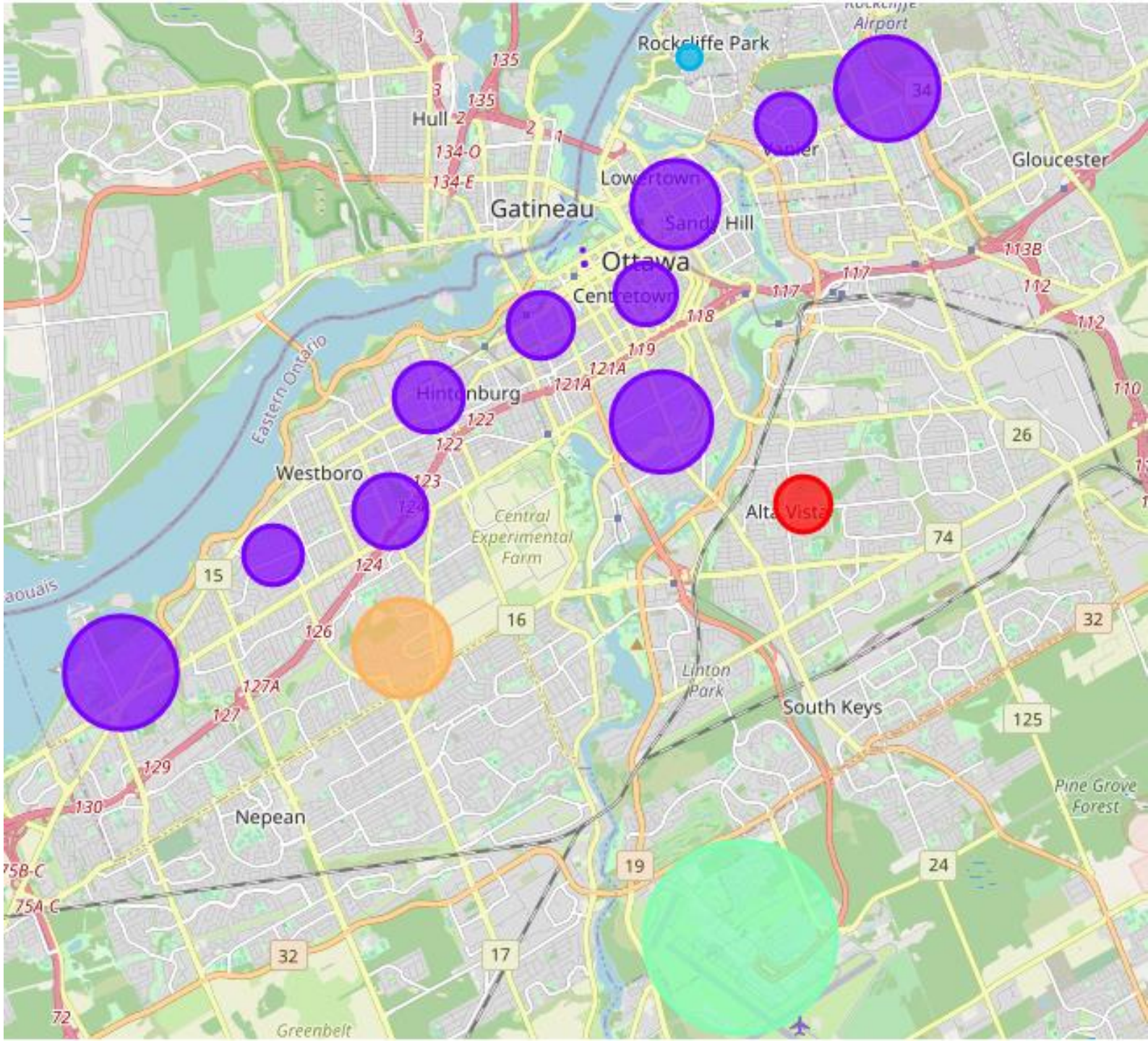
We are looking for high population density, lots of residential dwellings, and an area with few fast food venues.

In the previous step we have collected the required data, including postal codes, neighborhoods, top 10 venues in each neighborhood and population of each neighborhood.

The second step of our analysis will be plotting populations and densities and clustering our neighborhoods based on top 10 venues.

ANALYSIS

- We first aggregate all our data into a pandas dataframe using the postal code data, longitude, latitude, neighborhood name, population (2016), total private dwellings (2016).
- Then using our Foursquare API we can pull our venues for each area and attach those to our dataframe. Having plotted our boroughs onto a map we can label each neighborhood.
- Now we preform cluster analysis to cluster the neighborhoods based on their top 10 venues for each category. Adding in markers based on population of that area we can clearly visualize the clusters in Ottawa with population levels for each neighborhood.



RESULTS AND DISCUSSION

- After having clustered our venues based on their top 10 venues and adding in population sizes as sizes of the labels, we can see the clusters and the population in those areas clearly.
- Our analysis shows cluster 4 has a variety of venues without including fast food restaurants. Looking at the map we can see the density of residential housing and the high population in this area which makes it look like an ideal location for our restaurant. However we have only looked at the available data and it would be a good idea to see the area in person to see if there are other reasons for there being no fast food restaurants in the area. The recommended zone would however be a good starting point for an initial look at suitable buildings.

CONCLUSION

- Since we were looking for areas in Ottawa with high population density, a high number of residential dwellings, and a low number of fast food restaurants. We identified that the boroughs of Queensway / Copeland / Carlington / Carleton Heights as the optimal areas to open a greek fast food restaurant.