

BATTLE OF NEIGHBORHOOD

CAPSTONE PROJECT

INTRODUCTION- BUSINESS PROBLEM

- TORONTO IS THE MOST POPULOUS CITY IN CANADA AND THE FOURTH MOST POPULOUS CITY IN NORTH AMERICA. TORONTO HAS POPULATION OF 2,731,571 (2016, WIKIPEDIA), AND IS AN INTERNATIONAL CENTRE OF BUSINESS, FINANCE, ARTS, AND CULTURE, AND IS RECOGNIZED AS ONE OF THE MOST MULTICULTURAL AND COSMOPOLITAN CITIES IN THE WORLD.
- CANADA'S LARGEST CITY COMES TO MIND AS I STROLL AROUND DOWNTOWN TORONTO WHICH IS PEPPERED WITH BUZZING CAFÉS, EATERIES WITH CHANGING CHALKBOARD MENUS, BARS SERVING ARTISANAL COCKTAILS, VIBRANT FOOD TRUCKS AND DELIS AND BAKERIES REDOLENT OF FRESHLY BAKED GOODS.
- I WOULD LIKE TO MAKE REGIONAL CLUSTERING OF VENUE INFORMATION USING FOURSQUARE LOCATION TO INFORM THE CUISINE DIVERSITY IN TORONTO BY BOROUGH.

INTRODUCTION- TARGET AUDIENCE

- MY WORK IS AIMED TOWARDS ENTREPRENEURS OR BUSINESS OWNERS WHO WANT TO OPEN A NEW RESTAURANT OR GROW THEIR CURRENT BUSINESS.
- THE ANALYSIS WILL PROVIDE VITAL INFORMATION THAT CAN BE USED BY THE TARGET AUDIENCE.

DATA ACQUISITION AND CLEANING

- DATA 1: USE A REAL WORLD DATA SET FROM WIKIPEDIA SHOWING NEIGHBORHOODS IN TORONTO.
- DATA 2: USE A REAL WORLD DATA SET OF POSTAL CODE IN TRONTO FROM '[HTTP://COOCL.US/GEOSPATIAL_DATA](http://coocl.us/geospatial_data)' CSV FILE.
- DATA 3: GATHERING ADDITIONAL INFORMATION ABOUT RESTAURANTS IN TORONTO FROM FOURSQUARE.

METHODOLOGY

- THERE ARE 98 NEIBOURHOODS IN TORONTO AND TOTAL 2127 VENUES ARE EXIST.
- THE VENUES CATEGORIES ARE 268 VARIETY.
- THERE ARE 482 RESTAURANTS IN TORONTO WITH 47 DIFFERENT STYLE OF CUISINES.

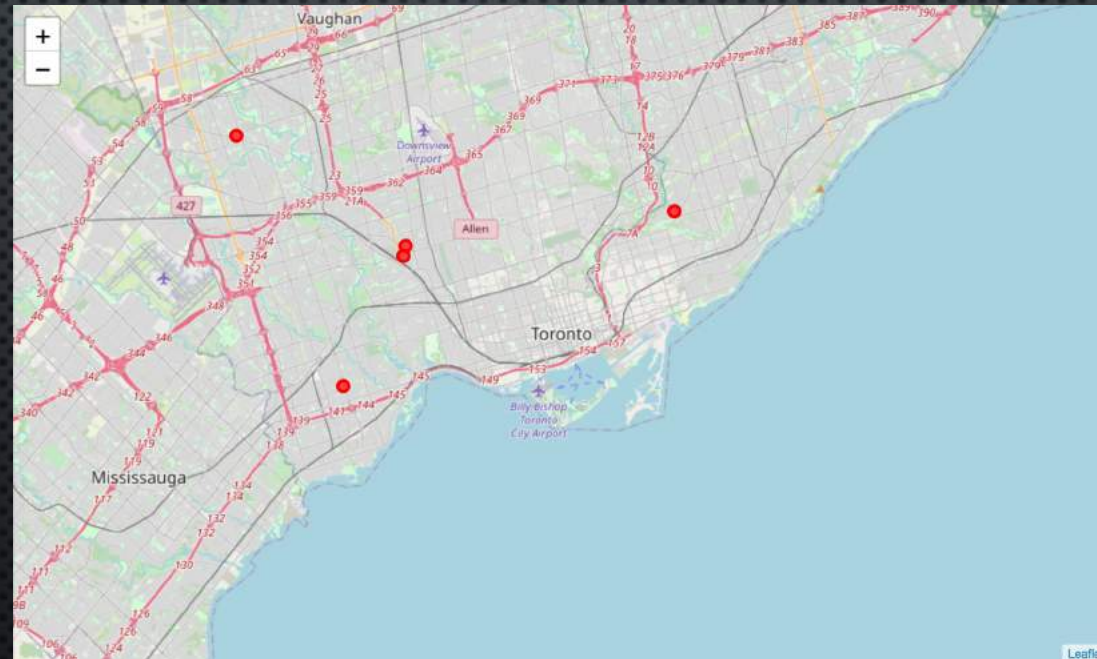
TOP 10 RESTAURANTS IN EACH NEIGHBORHOOD.

CLUSTER 1

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	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
Rouge, Malvern	Fast Food Restaurant	Vietnamese Restaurant	Dim Sum Restaurant	Gluten-free Restaurant	German Restaurant	French Restaurant	Filipino Restaurant	Falafel Restaurant	Ethiopian Restaurant	Eastern European Restaurant
Woodbine Gardens, Parkview Hill	Fast Food Restaurant	Vietnamese Restaurant	Dim Sum Restaurant	Gluten-free Restaurant	German Restaurant	French Restaurant	Filipino Restaurant	Falafel Restaurant	Ethiopian Restaurant	Eastern European Restaurant
Del Ray, Keelesdale, Mount Dennis, Silverthorn	Fast Food Restaurant	Vietnamese Restaurant	Dim Sum Restaurant	Gluten-free Restaurant	German Restaurant	French Restaurant	Filipino Restaurant	Falafel Restaurant	Ethiopian Restaurant	Eastern European Restaurant
Albion Gardens, Beaumont Heights, Humbergate, ...	Fast Food Restaurant	Vietnamese Restaurant	Dim Sum Restaurant	Gluten-free Restaurant	German Restaurant	French Restaurant	Filipino Restaurant	Falafel Restaurant	Ethiopian Restaurant	Eastern European Restaurant
Kingsway Park South West, Mimico NW, The Queen...	Fast Food Restaurant	Vietnamese Restaurant	Dim Sum Restaurant	Gluten-free Restaurant	German Restaurant	French Restaurant	Filipino Restaurant	Falafel Restaurant	Ethiopian Restaurant	Eastern European Restaurant

TOP 10 RESTAURANTS IN EACH NEIGHBORHOOD.

CLUSTER 1



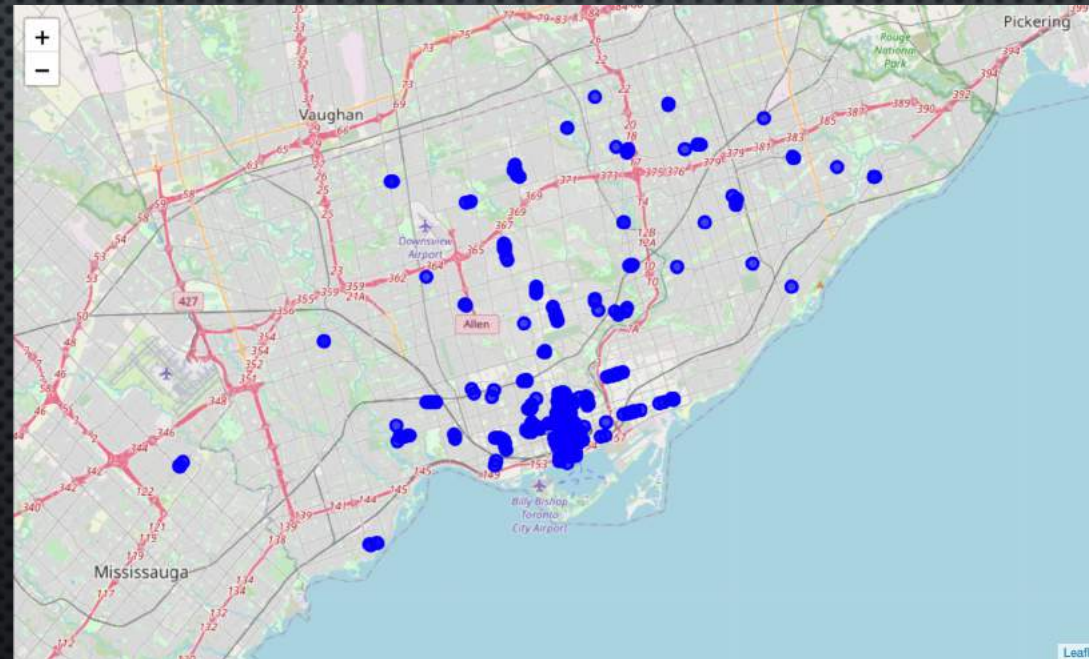
TOP 10 RESTAURANTS IN EACH NEIGHBORHOOD.

CLUSTER 2

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	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
Victoria Village	Portuguese Restaurant	Vietnamese Restaurant	Dim Sum Restaurant	Gluten-free Restaurant	German Restaurant	French Restaurant	Filipino Restaurant	Fast Food Restaurant	Falafel Restaurant	Ethiopian Restaurant
Harbourfront	Asian Restaurant	French Restaurant	Restaurant	Vietnamese Restaurant	Dim Sum Restaurant	Gluten-free Restaurant	German Restaurant	Filipino Restaurant	Fast Food Restaurant	Falafel Restaurant
Lawrence Heights, Lawrence Manor	Vietnamese Restaurant	Dim Sum Restaurant	Gluten-free Restaurant	German Restaurant	French Restaurant	Filipino Restaurant	Fast Food Restaurant	Falafel Restaurant	Ethiopian Restaurant	Eastern European Restaurant
Queen's Park	Sushi Restaurant	Italian Restaurant	Mexican Restaurant	Vietnamese Restaurant	Dim Sum Restaurant	German Restaurant	French Restaurant	Filipino Restaurant	Fast Food Restaurant	Falafel Restaurant
Don Mills North	Japanese Restaurant	Caribbean Restaurant	Vietnamese Restaurant	Doner Restaurant	Gluten-free Restaurant	German Restaurant	French Restaurant	Filipino Restaurant	Fast Food Restaurant	Falafel Restaurant
Ryerson, Garden District	Middle Eastern Restaurant	Japanese Restaurant	Ramen Restaurant	Italian Restaurant	Fast Food Restaurant	Chinese Restaurant	Modern European Restaurant	Ethiopian Restaurant	Thai Restaurant	Seafood Restaurant

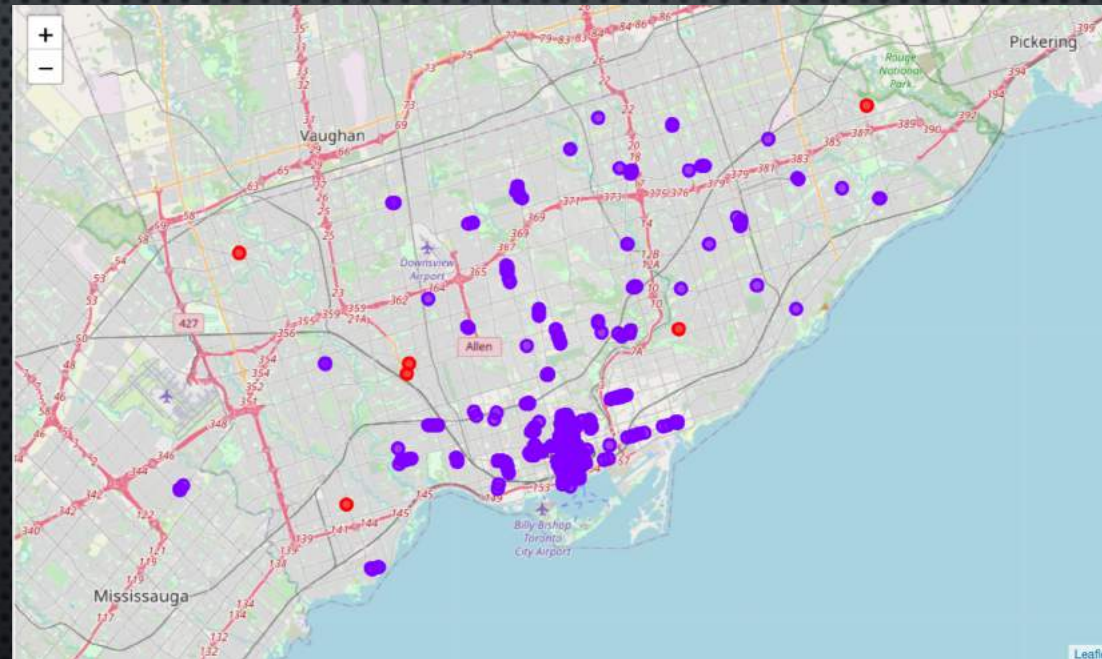
TOP 10 RESTAURANTS IN EACH NEIGHBORHOOD.

CLUSTER 2



TOP 10 RESTAURANTS IN EACH NEIGHBORHOOD.

CLUSTER 1&2



RESULTS AND DISCUSSION

- THE RESULTS CAN BE APPROACHED IN TWO WAYS;
- IF A COMPANY WANT TO OPEN A RESTAURANT IN PREFERRED LOCATION AND IRRESPECTIVE OF CUISINE, REFER TO THAT NEIGHBORHOOD IN SPECIFIC CLUSTER AND CHOSE CUISINE WITH THE LEAST COMMON RESTAURANT FOR BETTER PROFITS
- IF A COMPANY WANT TO OPEN A RESTAURANT WITH A PREFERRED CUISINE AND IRRESPECTIVE OF LOCATION, REFER TO THE CLUSTER WITH THE LEAST NUMBER OF RESTAURANTS WITH THAT SPECIFIC CUISINE AND SELECT ONE AMONG THE NEIGHBORHOODS BASED ON COMPANY'S PREFERENCE.

CONCLUSION

- THIS ANALYSIS IS PERFORMED ON LIMITED DATA. THIS MAY BE RIGHT OR MAY BE WRONG. BUT IF GOOD AMOUNT OF DATA IS AVAILABLE THERE IS SCOPE TO COME UP WITH BETTER RESULTS. IF THERE ARE LOT OF RESTAURANTS PROBABLY THERE IS LOT OF DEMAND.
- TORONTO HAS SO MANY RESTAURANTS, YET CERTAIN NEIGHBORHOOD OR BOROUGH DOESN'T HAVE A SPECIFIC CUISINE RESTAURANT AVAILABLE.
- AS PER THE NEIGHBORHOOD OR RESTAURANT TYPE MENTIONED LIKE FAST FOOD RESTAURANT ANALYSIS CAN BE CHECKED. A VENUE WITH LOWEST RISK AND COMPETITION CAN BE IDENTIFIED.