

Locating a New restaurant place in Toronto

THIS USES MACHINE LEARNING AND FOUR SQUARE API TO DETERMINE
FAVOURABLE PLACE TO OPEN A NEW RESTAURANT IN TORONTO
NEIGHBOURHOOD

There are 11 Borough and 103 Neighbourhoods

- ▶ Each Borough has multiple cuisine and type of restaurants .
- ▶ Four Square API has provided all the venues along with categories.
- ▶ Frequency of the type of restaurant of venue occurring has been calculated.
- ▶ After visualizing the detailed tables few inference can be made.
- ▶ K-means clustering has helped in finding most common and famous restaurant groups which are in boroughs

----Mississauga----

	venue	freq
0	Coffee Shop	0.2
1	Hotel	0.2
2	American Restaurant	0.1
3	Sandwich Place	0.1
4	Mediterranean Restaurant	0.1

----East York----

	venue	freq
0	Coffee Shop	0.05
1	Pizza Place	0.05
2	Park	0.05
3	Bank	0.04
4	Pharmacy	0.04

----Etobicoke----

	venue	freq
0	Pizza Place	0.11
1	Sandwich Place	0.07
2	Pharmacy	0.06
3	Gym	0.04
4	Coffee Shop	0.04

----North York----

	venue	freq
0	Coffee Shop	0.07
1	Fast Food Restaurant	0.05
2	Clothing Store	0.05
3	Japanese Restaurant	0.03
4	Restaurant	0.03

----Queen's Park----

	venue	freq
0	Coffee Shop	0.23
1	Gym	0.05
2	Japanese Restaurant	0.05
3	Diner	0.05
4	Yoga Studio	0.03

----Scarborough----

	venue	freq
0	Fast Food Restaurant	0.06
1	Coffee Shop	0.06
2	Bakery	0.05
3	Chinese Restaurant	0.05
4	Breakfast Spot	0.05

----West Toronto----

	venue	freq
0	Bar	0.08
1	Café	0.06
2	Coffee Shop	0.05
3	Italian Restaurant	0.03
4	Restaurant	0.03

----York----

	venue	freq
0	Park	0.25
1	Convenience Store	0.10
2	Women's Store	0.05
3	Bar	0.05
4	Caribbean Restaurant	0.05

----Central Toronto----

	venue	freq
0	Coffee Shop	0.08
1	Sandwich Place	0.06
2	Pizza Place	0.06
3	Café	0.05
4	Park	0.05

----Downtown Toronto----

	venue	freq
0	Coffee Shop	0.09
1	Café	0.06
2	Restaurant	0.03
3	Hotel	0.03
4	Bakery	0.03

----East Toronto----

	venue	freq
0	Coffee Shop	0.06
1	Greek Restaurant	0.06
2	Café	0.04
3	Ice Cream Shop	0.04
4	Italian Restaurant	0.04

These are the table with frequency of occurrence for all the borough with different type of venues

----Mississauga----		
	venue	freq
0	Coffee Shop	0.2
1	Hotel	0.2
2	American Restaurant	0.1
3	Sandwich Place	0.1
4	Mediterranean Restaurant	0.1

----East York----		
	venue	freq
0	Coffee Shop	0.05
1	Pizza Place	0.05
2	Park	0.05
3	Bank	0.04
4	Pharmacy	0.04

----York----		
	venue	freq
0	Park	0.25
1	Convenience Store	0.10
2	Women's Store	0.05
3	Bar	0.05
4	Caribbean Restaurant	0.05

Above table describes below points:

Mississauga has less Pizza Places.

East York has less Indian or Chinese restaurant

York Region has more Bar than Coffee Places.

Similarly , many of the inference can be made, which will helpful in deciding a neighbourhood to open an restaurant.

Such as, Mississauga will be a perfect place to open a Pizza Place as there are no frequent Pizza Places.

One may open a coffee shop in York Region as there are very less coffee shops.

Assumptions Made for inference

- ▶ Regional nationality of the people was not considered.
- ▶ Actual likeness of the food type and people feedback was not considered.
- ▶ Results are considered based on the occurrence of venues in particular neighbourhood

Thank Note and Result

On the basis of the previous evaluation, and the tables, one can infer that Mississauga will be a great place to open a Pizza Place.

One can open a coffee shop in York region.