Find a suitable location to open new restaurant or coffee shop

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Background

- In this project, the aim is to identify locations of Bangalore where there are less number of restaurants or coffee shops and suggest some of these locations as candidate for opening up new restaurants or coffee shops.

- Bangalore is one of the hi-tech cities of India. There are a number of IT parks and business establishments setup in Bangalore.

- Because of the growing number of establishments in this city, there is good a demand for eateries in locations where there are less number of restaurants or coffee shops.

Data used in the analysis

- Country wise geo data of location from web
  http://www.geonames.org/export/zip/
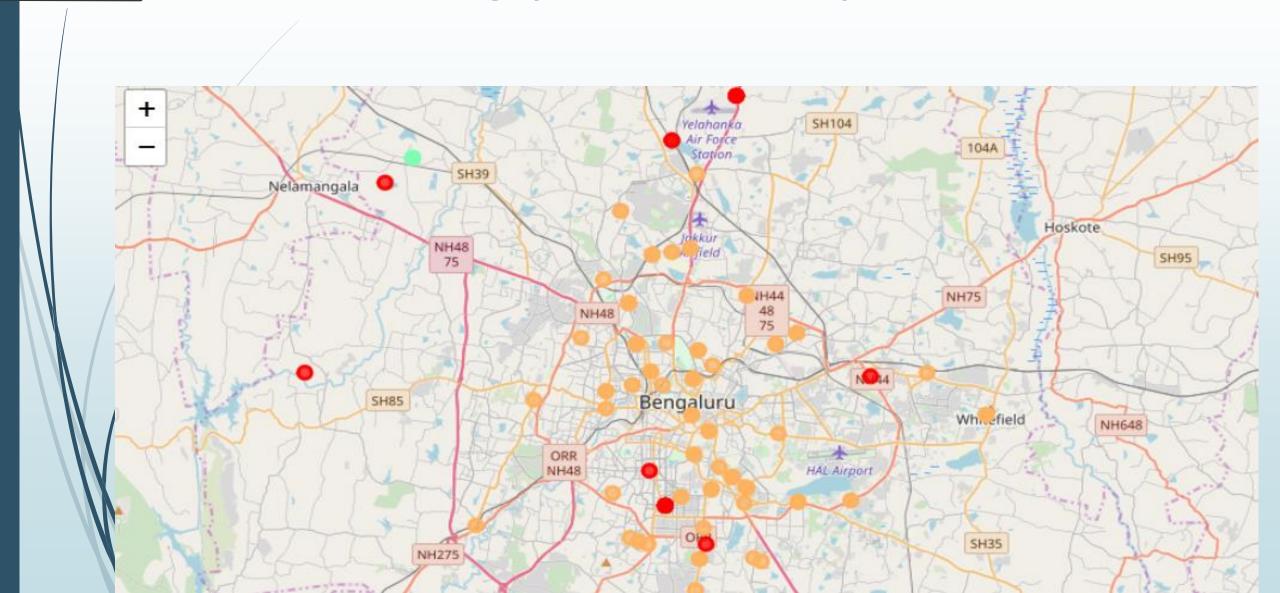
- Data of Bangalore ZIP codes from CSV file

Data of Neighborhoods

(3126, 7)

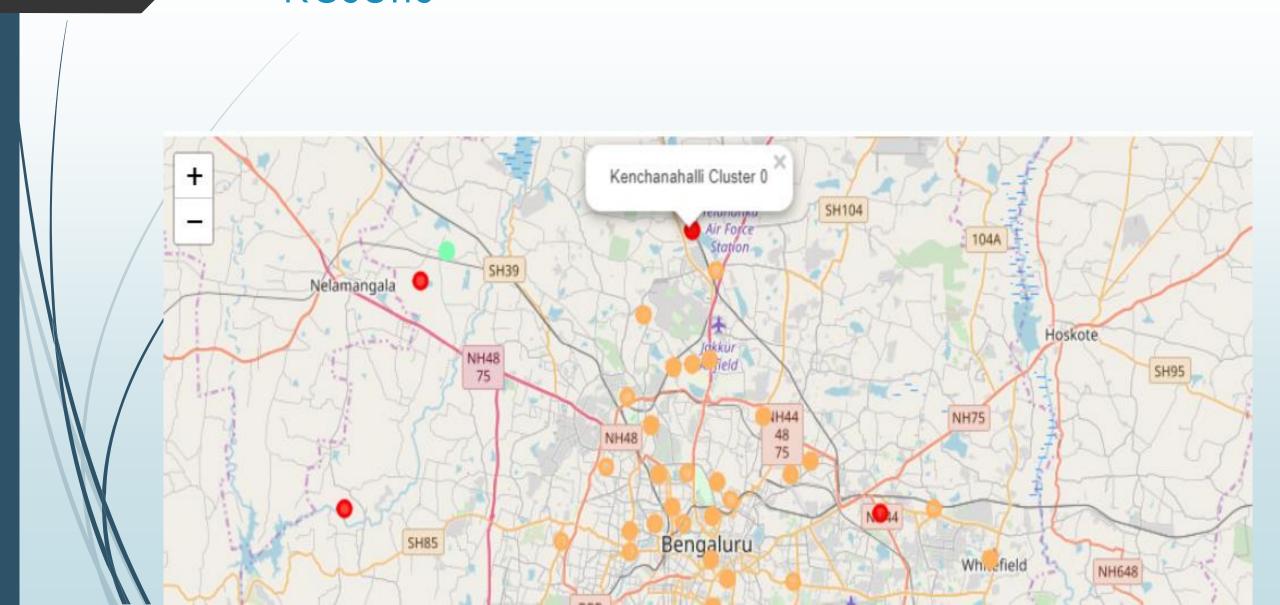|	locality	Neighbourhood Latitude	Neighbourhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Bangalore G.P.O.	12.9914	77.5944	Millers 46	12.991666	77.594207	Steakhouse
1	Bangalore G.P.O.	12.9914	77.5944	Ujwal Bar & Restaurant	12.992280	77.594473	Indian Restaurant
2	Bangalore G.P.O.	12.9914	77.5944	Alliance Française	12.991232	77.596723	Concert Hall
3	Bangalore G.P.O.	12.9914	77.5944	Infinitea	12.987157	77.594835	Tea Room
4	Bangalore G.P.O.	12.9914	77.5944	Imperial Restaurant	12.991150	77.593837	Indian Restaurant

Clustering

	locality	1st Most Frequent Venue	2nd Most Frequent Venue	3rd Most Frequent Venue	4th Most Frequent Venue	5th Most Frequent Venue	6th Most Frequent Venue	7th Most Frequent Venue	8th Most Frequent Venue	9th Most Frequent Venue	10th Most Frequent Venue
0	A F Station Yelahanka	IT Services	Hotel	Fishing Store	Fast Food Restaurant	Farmers Market	Event Service	Electronics Store	Donut Shop	Dive Bar	Diner
1	Adugodi	Fast Food Restaurant	Indian Restaurant	Bus Station	Design Studio	Zoo	Dive Bar	Farmers Market	Event Service	Electronics Store	Donut Shop
2	Agara	Café	Indian Restaurant	Ice Cream Shop	Coffee Shop	Pub	Lounge	Bar	Mexican Restaurant	Brewery	Breakfast Spot
3	Amruthahalli	Hyderabadi Restaurant	Indian Sweet Shop	Café	Italian Restaurant	Resort	Badminton Court	Coffee Shop	Fast Food Restaurant	Deli / Bodega	Department Store
4	Anandnagar (Bangalore)	Tourist Information Center	Flea Market	Fast Food Restaurant	Farmers Market	Event Service	Electronics Store	Donut Shop	Dive Bar	Diner	Zoo

Clustering (Visualization)

Results

Conclusion

- Considering the above clustered data, we can conclude that it will be better to start a new "coffee shop" at cluster 0 location than opening a new "restaurant".

- The most suitable location would be between localities "Kenchanahali" and "A F Station Yelahanka" in cluster 0.