

# The Battle of the Neighbourhoods

By:  
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# INTRODUCTION

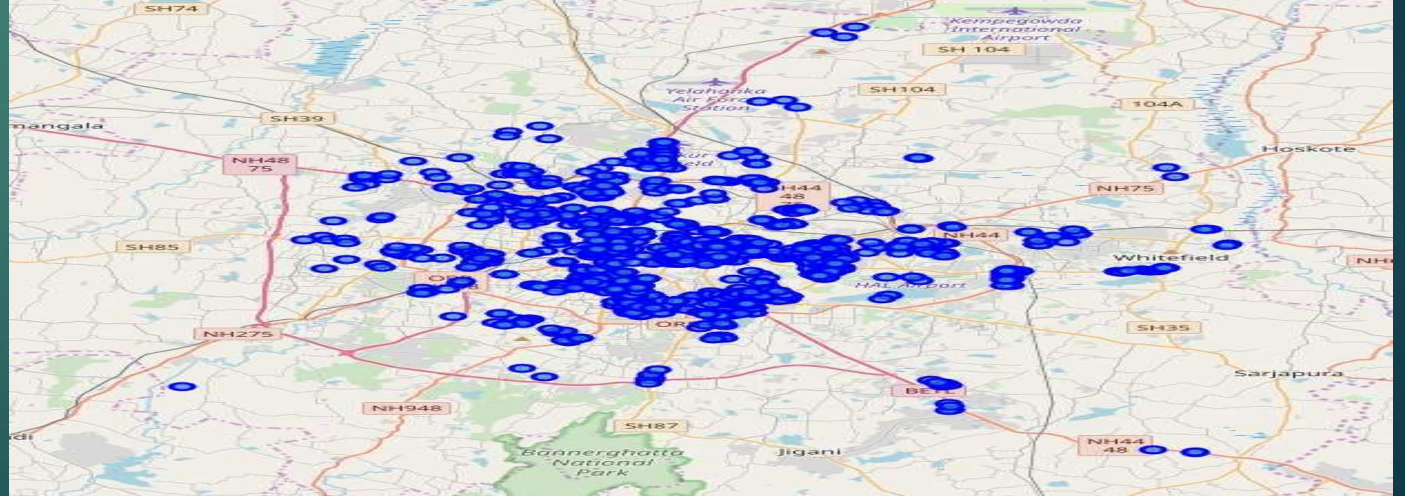
- Bangalore city review for XYZ Company.
- Optimum location for new Restaurant business

## **Business Problem : -**

- Choice of first neighbourhood to start restaurant business.
- Easy to replicate.
- Low competition.
- High demand
- Choice of Menu

## **Success Criteria : -**

- Best neighbourhood which meets above criteria.



# Bangalore City

I was always fascinated by the food culture of Bengaluru. Restaurants from all over the world can be found here in Bengaluru. From United States to Japan, Russia to Antarctica, you get all type of cuisines here. Delivery, Dine-out, Pubs, Bars, Drinks, Buffet, Desserts you name it and Bengaluru has it. Bengaluru is best place for foodies. The number of restaurants is increasing day by day. Currently which stands at approximately 12,000 restaurants. With such a high number of restaurants. This industry hasn't been saturated yet. And new restaurants are opening every day. However, it has become difficult for them to compete with already established restaurants. The key issues that continue to pose a challenge to them include high real estate costs, rising food costs, shortage of quality manpower, fragmented supply chain and over-licensing.





# Problem Description

The basic idea of analyzing the dataset is to get a fair idea about the factors affecting the establishment of different types of restaurant at different places in Bengaluru, Bengaluru being one such city has more than 12,000 restaurants with restaurants serving dishes from all over the world. With each day new restaurants opening the industry hasn't been saturated yet and the demand is increasing day by day. Inspire of increasing demand it however has become difficult for new restaurants to compete with established restaurants. Most of them serving the same food. Bengaluru being an IT capital of India. Most of the people here are dependent mainly on the restaurant food as they don't have time to cook for themselves. With such an overwhelming demand of restaurants it has therefore become important to study the demography of a location. What kind of a food is more popular in a locality? Do the entire locality loves vegetarian food. If yes then is that locality populated by a section of people for e.g. Jain, Marwaris, Gujaratis who are mostly vegetarian. These kinds of analysis can be done using the data, by studying the factors such as:

- Location of the restaurant
- Approx. Price of food
- Theme based restaurant or not
- Which locality of that city serves that cuisines with maximum number of restaurants
- The needs of people who are striving to get the best cuisine of the neighbourhood
- Is a particular neighbourhood famous for its own kind of food.

# Data Description

## Data 1:

I don't found any prepared database for indicating Bangalore places with their Geolocations.

So I decided to make one on my own.

Firstly, I divided Bangalore city with their respective Pin codes. Using this site for reference

["https://www.mapsofindia.com/pincode/india/karnataka/bangalore/"](https://www.mapsofindia.com/pincode/india/karnataka/bangalore/) to identify pin codes of Bangalore City.

## Data 2:

Then using <https://indiamapia.com> site to collect the geolocation of every pin code belong to Bangalore and make one csv file of that data. File name is :

'Bangalore\_pincode\_geolocation.csv'

	Pincode	Location	Latitude	Longitude
0	560001	Bangalore Bazaar, Legislators Home, Dr. ambedk...	12.987485	77.604906
1	560002	Bangalore Fort, Bangalore City, Bangalore Corp...	12.971599	77.594563
2	560003	Vyalikaval Extn, Malleswaram, Palace Guttahall...	13.008350	77.561450
3	560004	Pasmpamahakavi Road, Basavanagudi, Shankarpura...	12.945400	77.577600
4	560005	Jeevanahalli, Fraser Town	13.071300	77.590500

## Data 3:

Bangalore city geographical coordinates data will be utilized as input for the Foursquare API, that will be leveraged to provision venues information for each neighborhood. We will use the Foursquare API to explore neighborhoods in Bangalore City. The below is image of the Foursquare API data.

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Bangalore Bazaar, Legislators Home, Dr. ambedk...	12.987485	77.604906	The Savera Tea Centre	12.985953	77.605011	Tea Room
1	Bangalore Bazaar, Legislators Home, Dr. ambedk...	12.987485	77.604906	Hotel Taj	12.985062	77.607000	Indian Restaurant
2	Bangalore Bazaar, Legislators Home, Dr. ambedk...	12.987485	77.604906	Hotel Hilal	12.985826	77.605160	Indian Restaurant
3	Bangalore Bazaar, Legislators Home, Dr. ambedk...	12.987485	77.604906	Chandini Chowk	12.985919	77.605115	Asian Restaurant
4	Bangalore Fort, Bangalore City, Bangalore Corp...	12.971599	77.594563	JW Marriott Hotel Bengaluru	12.972362	77.595051	Hotel

# Methodology

- Bangalore city geographical coordinates data has been utilized as input for the Foursquare API, that has been leveraged to provision venues information for each neighborhood.
- We used the Foursquare API data to explore neighborhoods in New York City.
- Using the geographical coordinates of each neighbourhood foursquare API calls are made to get top 200 venues in a radius of 1000 meters

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Bangalore Bazaar, Legislators Home, Dr. ambedk...	12.987485	77.604906	Samarkand	12.980616	77.604668	Afghan Restaurant
1	Bangalore Bazaar, Legislators Home, Dr. ambedk...	12.987485	77.604906	Peppa Zzing	12.979700	77.605907	Burger Joint
2	Bangalore Bazaar, Legislators Home, Dr. ambedk...	12.987485	77.604906	Krispy Kreme	12.982630	77.607027	Donut Shop
3	Bangalore Bazaar, Legislators Home, Dr. ambedk...	12.987485	77.604906	Mysore Saree Udyog	12.981433	77.610214	Women's Store
4	Bangalore Bazaar, Legislators Home, Dr. ambedk...	12.987485	77.604906	Shiv Sagar	12.981879	77.608322	Indian Restaurant

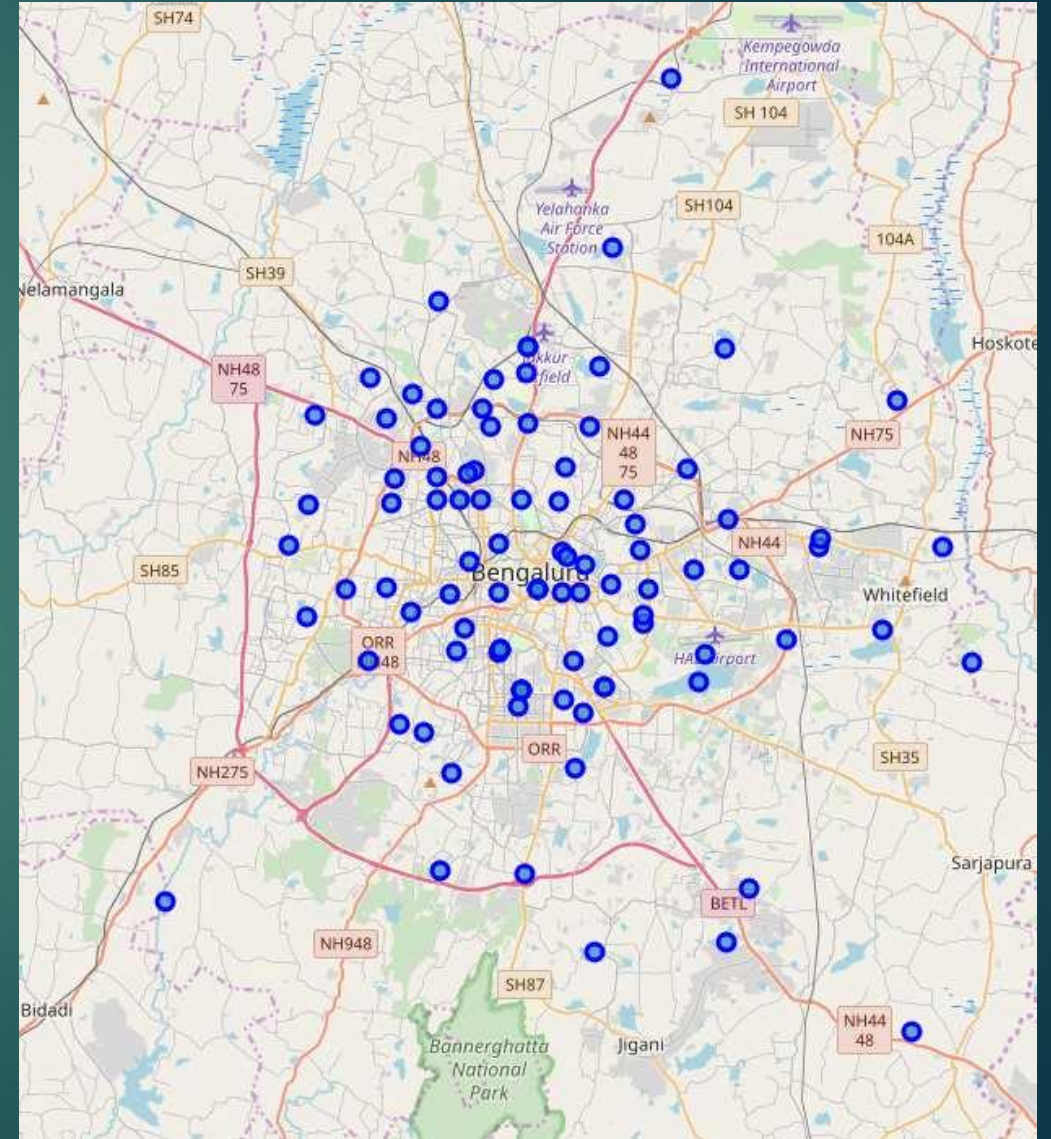


# Analytic Approach

Bangalore city neighbourhood has a total of 99 neighborhoods. In this project first part is clustering of Bangalore City.

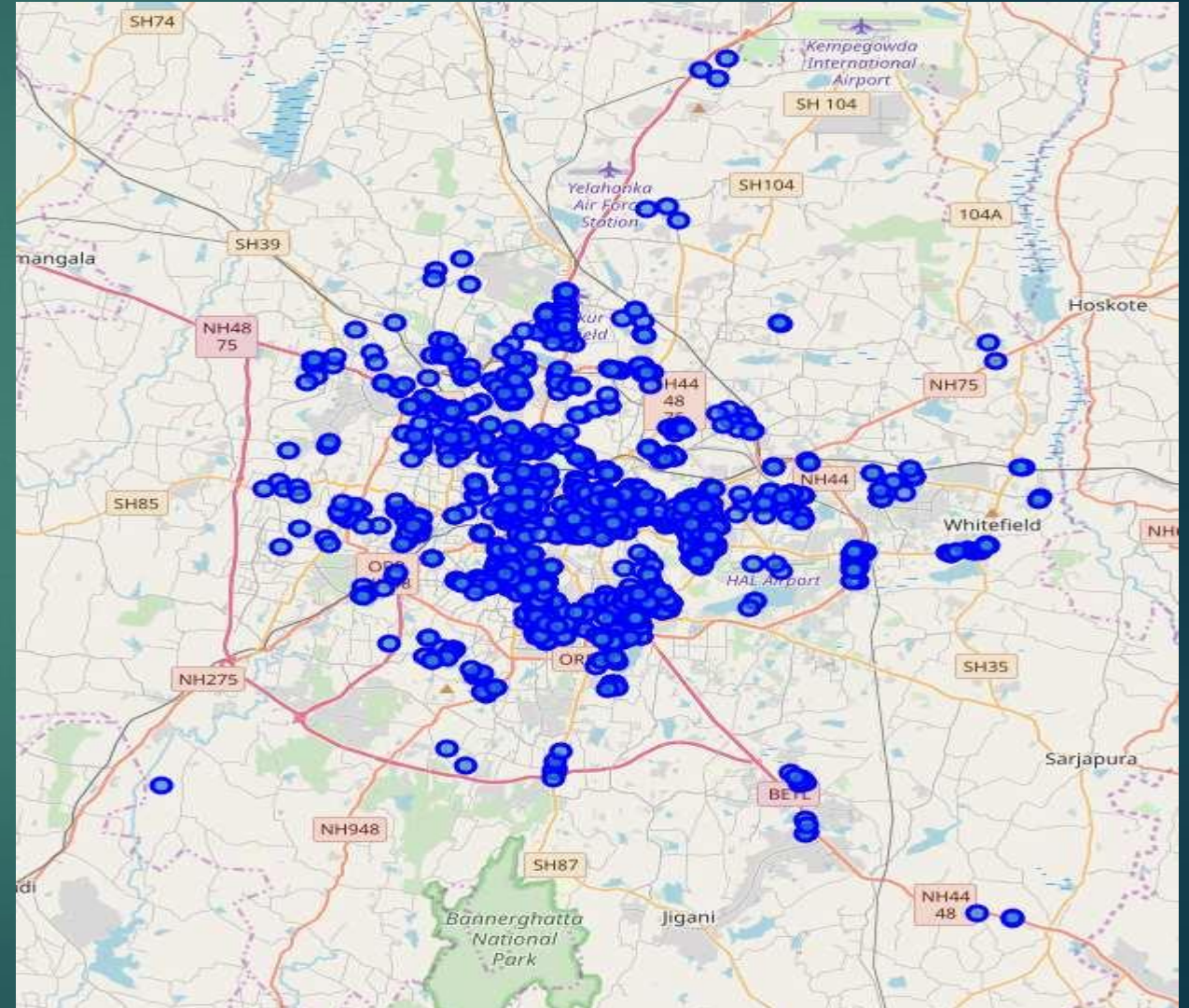
This is done because of the following Exploratory data analysis.  
Exploratory Data Analysis:

**Data 1-** Bangalore city Geographical Coordinates Data according to distributed Pin Codes.





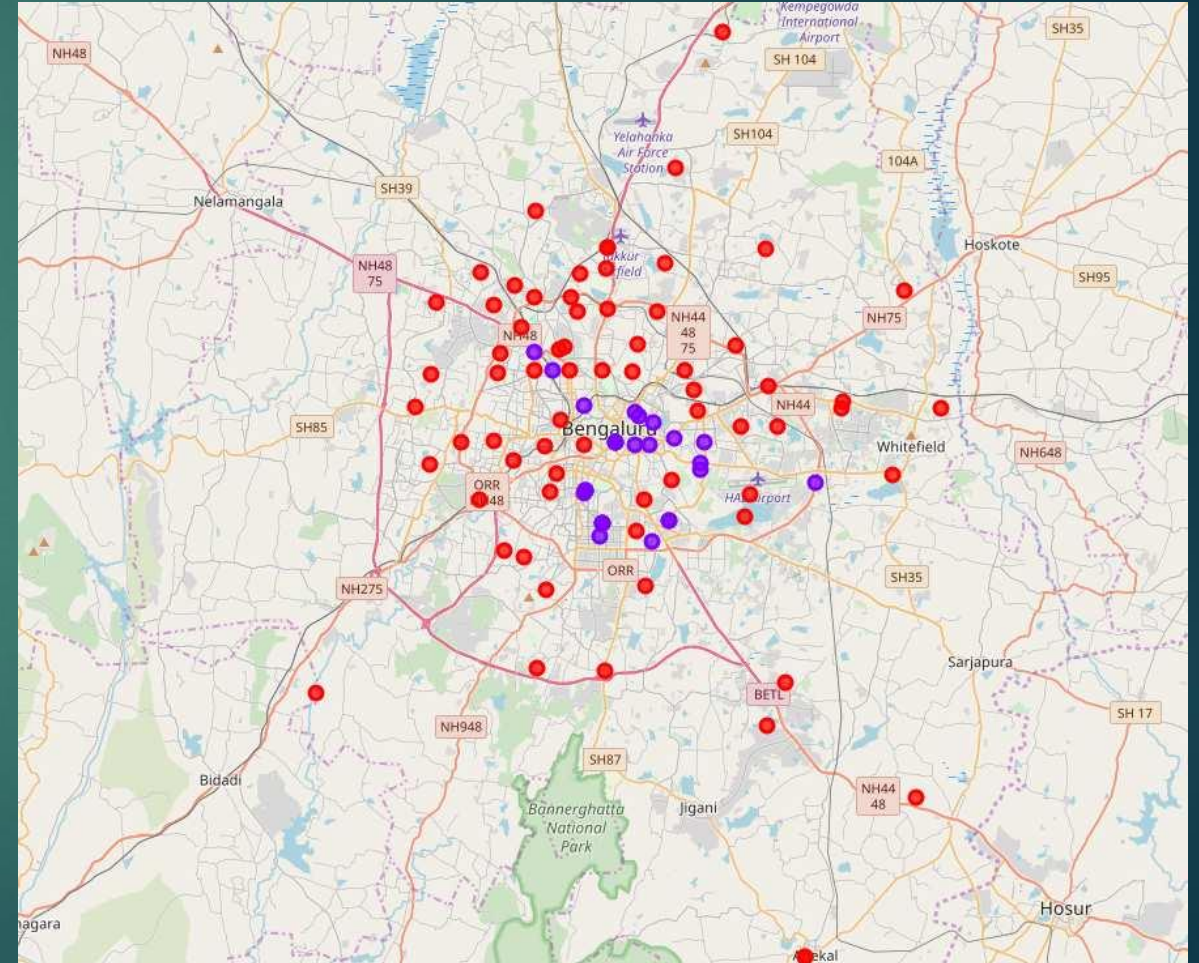
**Data 2** - Bangalore city geographical coordinates data has been utilized as input for the Foursquare API, that has been leveraged to provision venues information for each neighborhood. We used the Foursquare API data to explore neighborhoods in Bangalore City.



# Results

- Segmenting and Clustering Neighborhoods –

- Cluster0 : The Total and Total Sum of cluster0 has smallest value. It shows that the market is not saturated.
- Cluster1 : The Total and Total Sum is very high. Lot of competition. Saturated neighborhoods.





# DISCUSSION

1. There is scope to open restaurants in untapped Markets showing in the table.
2. There is scope to explore cuisines of various countries in Bangalore City.
3. In Bangalore City restaurants of cuisines of many varieties are available. So, if risk can be taken with great menu on board. It also shows people love eating cuisines of various varieties.

ROTI/NAAN		
Roti	20	
Butter roti	25	
Plain naan	25	
Butter naan	30	
Garlic naan	35	
Plain kulcha	30	
Butter kulcha	35	
Staffed kulcha	40	
Paneer kulcha	45	
NOODLES		
Veg noodles	70	
Schezwan veg noodles	80	
Egg noodles	90	
Egg schezwan noodles	100	
Chicken noodles	100	
Chicken schezwan	110	
Veg Hakka noodles	90	
Chicken hakka noodles	110	
SOUP		
Tomato soup	60	
Cream of tomato soup	70	
Veg Sweet corn soup	60	
Sweet corn chicken soup	80	
Vegetable hot & sour soup	80	
Chicken hot & sour soup	60	
Veg manchv soup	60	
Chicken manchav soup	80	
Veg clear soup	60	
Lemon coriander soup	60	

# 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. Central Bangalore City has high concentration of restaurant business. Very competitive market. East Bangalore also has good number of restaurants but not as many as required. So, this can be explored. As per the neighbourhood or restaurant type mentioned like Indian Restaurant analysis can be checked. A venue with lowest risk and competition can be identified.

