

Exploring Optimal Location in Mangalore City for a Restaurant

About Mangalore

Mangalore, officially known as Mangaluru, is the chief port city of the Indian state of Karnataka.

It is a commercial, industrial, educational, healthcare and startup hub. Day by day the population of the city is increasing and there are more visitors to the city.

There is ample scope for opening restaurants.

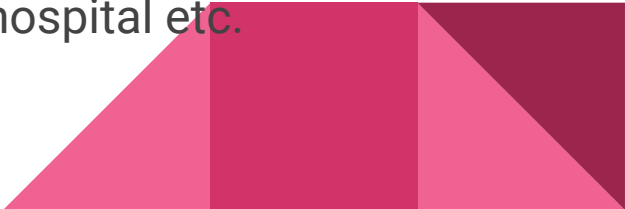


Business Problem

Identifying the optimal location for opening a new restaurant is the business problem of this project.

Restaurants around colleges, healthcare, factories, government buildings and schools normally do good business. Such locations are normally crowded.

We need to identify the optimal location, that should be within the 200 meters (walkable distance) from the main spot such as college/hospital etc.



Identifying the crowded locations

Generally we find crowd near Colleges, Hospitals, Government Offices, Schools or near Factories. We look for the top 5 locations corresponding to these categories

With the help of Foursquare API we can search for nearby venues with provided latitude and longitude.

We search for category based top 5 locations within 5 KM range from Mangalore city center.



Data acquisition and cleaning

- Foursquare API is used to get the top 50 locations for Colleges, Hospitals, Government buildings, Factories and Scholls.
- Duplicate, highly similar or highly correlated locations were dropped.
- Top 5 locations are selected for each category
- For each such locations, nearby existing restaurants are identified
- These restaurants are present within walkable distance from the location

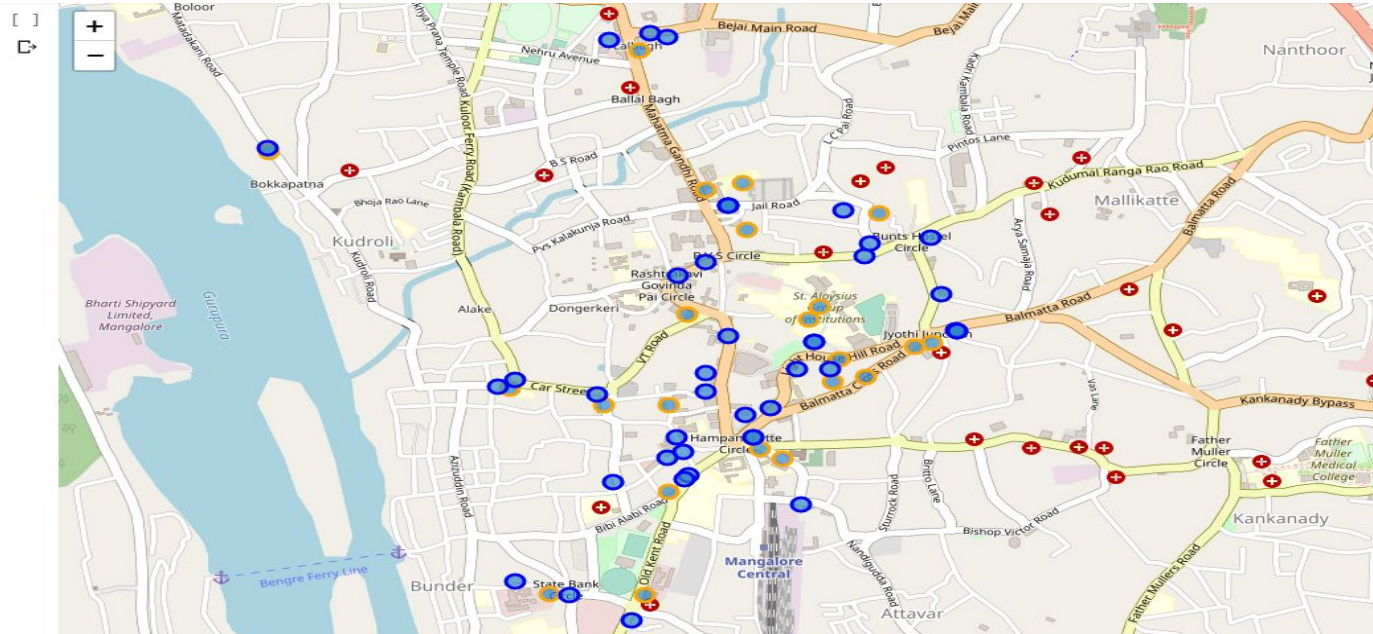


Methodology

- In the first step we have collected top 100 locations data for different categories. We then cleaned the data to include only the top 5 locations for each category.
- Second step is getting the nearby restaurants within 200m distance from each of these locations.
- Third step is to analyse the consolidated data which we obtained in step 2.
- Final step is to recommend the optimal location to the stakeholders.



Map Displaying locations and restaurants



Result dataset

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▶ restaurants_combined.reset_index(drop=True)
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	location	count
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0	Canara College	1
1	St. Aloysius High School	1
2	Sovereign Tile Works	1
3	Sarasija Foods (NARAN'S)	1
4	SDM Law College, Mangalore	1
5	RTO	1
6	shakthi creations	1
7	Milagres School	2
8	Nalanda School	2
9	KMC Ambedkar Hospital	2
10	Government High School	2

11	D C Office	2
12	Canara Girls High School	2
13	KMC Hospital Life's On	2
14	Mangalore City Corporation	3
15	Wenlock Government Hospital	3
16	St Aloysius PU College	3
17	Tara Hospital	3
18	Rudra Industries	4
19	University College Mangalore	5

Result Data Observations

- We found a location which does not have any nearby restaurants
- There are 7 locations which has One nearby restaurant
- There are 7 locations which has Two nearby restaurants
- There are 4 locations which has Three nearby restaurants
- There is 1 location which has Four nearby restaurants
- There is 1 location which has Five nearby restaurants



Recommendations

Based on the obtained result, i would recommend following locations:

- For Mahesh P.U. College location, we didn't find any nearby restaurants within 200m. This location is my first recommendation.
- There are 7 such locations, for which we have only 1 nearby restaurants. They are: Canara College, St. Aloysius High School, Sovereign Tile Works, Sarasija Foods (NARAN'S), SDM Law College, Mangalore and RTO, Shakthi creations.. Interested stakeholders can look into any of these locations.



Conclusion

- Purpose of this project is to identify the optimal location for opening a new restaurant within 5 km range of Mangalore city.
- Initially, I identified the top 5 locations for different categories.
- Then we identified the nearby restaurants for such locations.
- My finding and recommendations are already in prev slide.
- It is upto the stakeholder to decide which location to pick.

