



FINDING THE RIGHT LOCATION FOR A YOGURT BAR

Applied Data Science Capstone

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Business Problem

Bangalore, the silicon valley of India, has a maximum share of the youth population, primarily because of the booming software industry and startup space. This set of the working population is well educated, has good disposable income, and most importantly, is very health conscious. They are always looking for new workout regimens, and also diet conscious.

Greek Yogurt or yogurts, in general, are becoming very popular in some of India lately, but they have their challenges, they are packaged. You can't carry with you to the office or gyms as a snack as they need refrigeration, and also they are priced at a premium point. I am helping my friend to identify a couple of spots in Bangalore where he can start a Yogurt joint, which serves fresh Yogurt, Yogurt shakes, Frozen Yogurt, etc. This will mainly cater to the following segments of the population.

- Gym goers who want a post work out snacks
- Parents looking for replacement of ice cream and other sugar-heavy deserts for their kids
- Office people who are into healthy snacking

Data Description

In order to leverage the four square data about venues in and around a particular geo-coordinates, we need to identify the geo-coordinates of prime areas in Bangalore. In search of this data, I looked at multiple sites. I happened to run into, Indian Govt site, which had data on various post offices in the city with address and geo-coordinates. This data becomes a starting point for us to get more information around various areas in the city. We have to clean this data to remove the rural areas or outskirt from our assessment as these are not targeted segment for our pilot run. Once we have the final set of places, we will leverage foursquare APIs and will find the areas with the maximum number of Gyms, Health clubs, Offices, and Schools in 5 Km radius. We will assign a weight to different venues and will use the total score for a segment to identify the best place to start with.

To keep the areas that are pertinent, we found out the geocode of bangalore and removed all the areas that were more than 25 Kms away from bangalore. By doing this, we limited our data to urban areas of Bangalore. Areas that are most relevant to our project.

Raw Data Frame Downloaded from Govt Website

Out[7]:

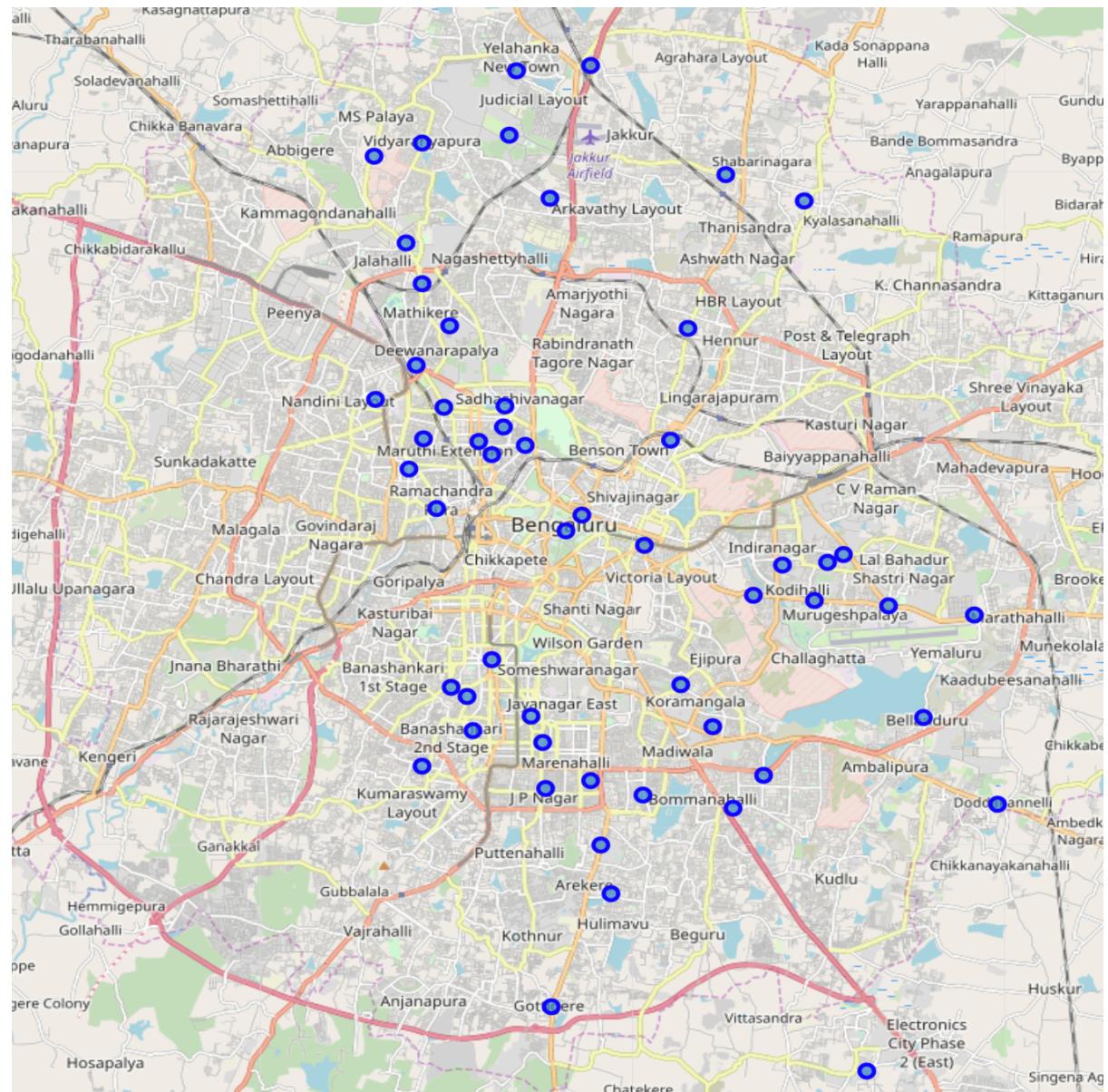
	officename	pincode	officeType	Deliverystatus	divisionname	regionname	circlename	Taluk	Districtname	statename	Telephone	Related Suboffice	Related Headoffice	longitude	latitude
0	Arabic College S.O	560045	S.O	Delivery	Bangalore East	Bangalore HQ	Karnataka	Bangalore North	Bangalore	KARNATAKA	080-25432636	NaN	Bangalore G.P.O.	77.6206	13.0291
1	Bellandur S.O	560103	S.O	Delivery	Bangalore East	Bangalore HQ	Karnataka	Bangalore South	Bangalore	KARNATAKA	080-28441625	NaN	H.A.L II Stage H.O	77.6760	12.9298
2	Domlur S.O	560071	S.O	Delivery	Bangalore East	Bangalore HQ	Karnataka	Bangalore North	Bangalore	KARNATAKA	080-25356966	NaN	H.A.L II Stage H.O	77.6359	12.9611
3	Dr. Shivarama Karanth Nagar S.O	560077	S.O	Delivery	Bangalore East	Bangalore HQ	Karnataka	Bangalore North	Bangalore	KARNATAKA		NaN	Bangalore G.P.O.	77.6293	13.0681
4	Fraser Town S.O	560005	S.O	Delivery	Bangalore East	Bangalore HQ	Karnataka	Bangalore North	Bangalore	KARNATAKA	080-25485125	NaN	Bangalore G.P.O.	77.6164	13.0005

Data Frame after cleaning the Data

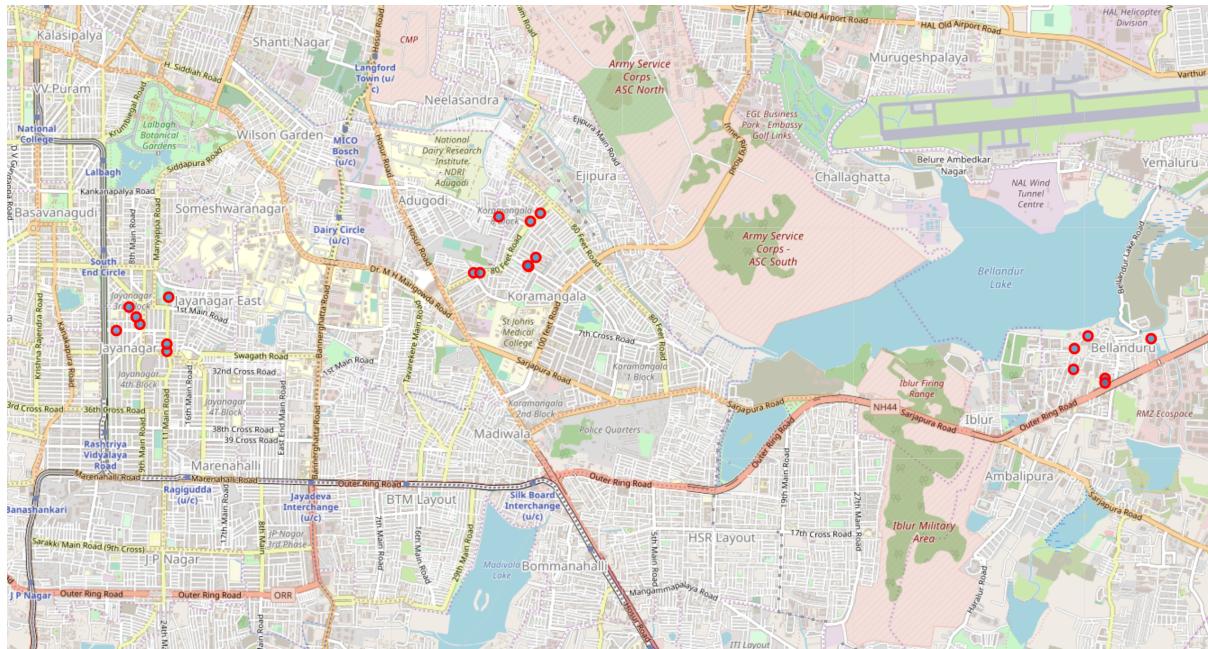
Out[18]:

	Area	longitude	latitude
0	Arabic College	77.6206	13.0291
1	Bellandur	77.6760	12.9298
2	Domlur	77.6359	12.9611
3	Dr. Shivarama Karanth Nagar	77.6293	13.0681
4	Fraser Town	77.6164	13.0005

Initial Map of Bangalore and major areas



After applying various logics following three areas were identified



Conclusion

After performing the assessment on data returned by four square, we found that in the following 4 areas, the chances of finding the potential consumer are maximum, and hence we should start the first yogurt shop in one of these areas.

Koramangala VI Bk	8
Jayanagar III Block	7
Bellandur	7
H.A.L II Stage H.O	4