

Best locality to open a new restaurant in Pune City

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1.Introduction

1.1 Background

Pune city is considered to be the cultural capital of Maharashtra in India. It is also known as the "Oxford of the East" due to the presence of several well-known educational institutions. Also, Restaurants from all over the world can be found here in Pune. Pune is home to numerous long-standing bakeries and regional restaurants; quiet and unassuming Pune loves its food. While the city's burgeoning dining scene now has both global restaurant chains, as well as trendy eateries, each of these age-old eating joints, have stood the test of time because of their unique local flavor and atmosphere. There are many restaurants in Pune City, each belonging to different categories like Chinese, Italian, French etc. So as part of this project, I will list and visualize all major parts of Pune City with the kind of restaurants in those regions.

1.2 Problem

Pune is a big city with lot of different localities, it is also one of the biggest IT hub and Education hub in the country. Top open a restaurant in such an area is challenging. To select right place in Pune where a restaurant can be opened with respect to the kind of cuisine it will serve. So, we will find this based on finding some answers to the questions as mentioned below:

- Which all areas have a smaller number of restaurants?
- Which are the top voted Restaurants and locality in Pune?
- Which are the less voted Restaurants and locality in Pune?
- Which is the best place to stay if I prefer Chinese Cuisine?
- Which places have best restaurant in Pune?
- What is best location in Pune City for Chinese Cuisine?
- Which areas have large number of Chinese Restaurant Market?

1.3 Interest

This project will help to understand the best location in Pune to open a restaurant, to understand that i will find the top rated and best restaurants in Pune, also in its neighborhood. I will try to show the localities which has maximum number of restaurants, top voted and top-rated restaurants, also restaurants famous for Chinese cuisine, which will help to understand which will be the right place to open a new restaurant.

2. Data acquisition and cleaning

2.1 Data Sources

For this project we need the following data:

- Data source: [Zomato kaggel dataset](#), The data source has been downloaded and uploaded to my git account from where i will be reading for my project needs.
- The data source provides following details about the restaurants which will help to create maps using folium also will help understanding best locations with best restaurants in Pune:
- ['res_id', 'Restaurant Name', 'establishment', 'url', 'address', 'city', 'city_id', 'Locality', 'Latitude', 'Longitude', 'zipcode', 'country_id', 'locality_verbose', 'Cuisines', 'timings', 'average_cost_for_two', 'price_range', 'currency', 'highlights', 'Aggregate rating', 'Rating text', 'Votes', 'photo_count', 'opentable_support', 'delivery', 'takeaway']
- Description: [This data set contains the required information](#). And we will use this data set to explore various locality of Pune city.
- Nearby places in each locality of Pune city.
- Data source: [Fousquare API](#)
- Description: By using this API we will get all the venues in each neighborhood.

3 Approach

- Collect the Pune city data from Pune Zomato Kaggle dataset
- Filter out all venues that are nearby by locality.
- Using aggregative rating for each restaurant to find the best places.
- Using votes find top rated restaurants in the city.
- Using FourSquare API we will find all venues for each neighborhood.
- Visualize the Ranking of neighborhoods using folium library(python)

4 Exploratory Data Analysis

4.1 Read the Zomato restaurant data from csv file

We use panda's library to read the data from the csv file which is available on git account. The csv has total 4217 rows and 26 columns.

res_id	Restaurant Name	establishment	url	address	city	city_id	Locality	Latitude	Longitude	...	price_range	currency	highlights	Aggregate rating	Rating text	Votes	photo_count	openable_support	delivery	takeaway	
0	11283	Harajuku - The O Hotel	[Fine Dining]	https://www.zomato.com/pune/harajuku-the-o-ho...	The O Hotel, North Main Road, Koregaon Park, Pune	Pune	5	The O Hotel, Koregaon Park	18.540239	73.887518	...	4	Rs.	['Cash', 'Debit Card', 'Lunch', 'Credit Card', ...]	3.7	Good	96	38	0.0	-1	-1
1	10663	Mix@36 - The Westin	[Lounge]	https://www.zomato.com/pune/mix@36-the-westin-...	The Westin, Survey 36/3B, KP Annexे Mundhwa Ro...	Pune	5	The Westin, Mundhwa	18.540040	73.905910	...	4	Rs.	['Cash', 'Debit Card', 'Serves Alcohol', 'Take...', ...]	4.0	Very Good	682	78	0.0	-1	-1
2	10743	Kangan - The Westin	[Fine Dining]	https://www.zomato.com/pune/kangan-the-westin-...	The Westin, 36/3B, KP Annexे, Mundhwa Road, Mu...	Pune	5	The Westin, Mundhwa	18.539455	73.906040	...	4	Rs.	['Serves Alcohol', 'Cash', 'Debit Card', 'Take...', ...]	4.0	Very Good	310	285	0.0	-1	-1
3	18938162	Palette - The Westin	[Fine Dining]	https://www.zomato.com/pune/palette-the-westin-...	The Westin, 36/3B, KP Annexे, Mundhwa Road, Mu...	Pune	5	The Westin, Mundhwa	18.539430	73.906009	...	4	Rs.	['Serves Alcohol', 'Credit Card', 'Lunch', 'Ca...', ...]	3.3	Average	9	31	0.0	-1	-1
4	18310167	Coriander Kitchen - Conrad Pune	[Fine Dining]	https://www.zomato.com/pune/coriander-kitchen-...	Conrad, Mangaldas Road, Bund Garden Road, Pune	Pune	5	Conrad Pune, Bund Garden Road	18.535409	73.883592	...	4	Rs.	['Lunch', 'Serves Alcohol', 'Takeaway Available', ...]	4.4	Very Good	500	1116	0.0	-1	-1
...	
4212	13061	Lonavla Restaurant & Bar- Hotel Lonavla	[Casual Dining]	https://www.zomato.com/pune/lonavla-restaurant-...	Gawilgali, Mumbai-Pune Highway, Lonavala, Pune	Pune	5	Lonavala	18.754747	73.405682	...	3	Rs.	['Dinner', 'Cash', 'Takeaway Available', 'Deb...', ...]	4.3	Very Good	474	81	0.0	-1	-1
4213	18555341	Utopia	[Casual Dining]	https://www.zomato.com/pune/utopia-lonavla?ut...	CTS 159, Old Mumbai-Pune Road, Lonavala, Pune	Pune	5	Lonavala	18.754342	73.402737	...	3	Rs.	['Dinner', 'Cash', 'Takeaway Available', 'Deb...', ...]	3.9	Good	336	204	0.0	-1	-1
4214	18767059	Mapro Garden	[Casual Dining]	https://www.zomato.com/pune/mapro-garden-lonav...	3 & 4, Old Mumbai - Pune Highway, Valvan, Lona...	Pune	5	Lonavala	18.760234	73.419775	...	2	Rs.	['Dinner', 'Takeaway Available', 'No Alcohol A...', ...]	4.3	Very Good	143	227	0.0	-1	-1
4215	6503906	Hotel Chandralok	[Casual Dining]	https://www.zomato.com/pune/hotel-chandralok-...	Near Bus Stand & Post Office, Opposite Mumbai...	Pune	5	Lonavala	18.753223	73.405655	...	2	Rs.	['No Alcohol Available', 'Dinner', 'Takeaway A...', ...]	4.3	Very Good	317	86	0.0	-1	-1
4216	18711838	Lion's Dhaaba	[Casual Dining]	https://www.zomato.com/pune/lions-dhaaba-6-lon...	Besides Lion's Point, Ambey Valley, Alvan, Lon...	Pune	5	Lonavala	18.687172	73.393627	...	3	Rs.	['Lunch', 'Takeaway Available', 'Dinner', 'Cas...', ...]	3.9	Good	67	171	0.0	-1	-1

4217 rows x 26 columns

Fig.1 Data-set read from the csv file

4.2 Data Cleaning

Remove the unwanted columns and rows from dataset.

	Restaurant Name	Locality	Longitude	Latitude	Cuisines	Aggregate rating	Rating text	Votes
0	Harajuku - The O Hotel	The O Hotel, Koregaon Park	73.887518	18.540239	Japanese, Sushi	3.7	Good	96
1	Mix@36 - The Westin	The Westin, Mundhwa	73.905910	18.540040	Finger Food, Asian, Continental, North Indian	4.0	Very Good	682
2	Kangan - The Westin	The Westin, Mundhwa	73.906040	18.539455	Mughlai, North Indian	4.0	Very Good	310
3	Palette - The Westin	The Westin, Mundhwa	73.906009	18.539430	Asian, Continental	3.3	Average	9
4	Coriander Kitchen - Conrad Pune	Conrad Pune, Bund Garden Road	73.883592	18.535409	North Indian, Asian, Mediterranean	4.4	Very Good	500
...
4212	Lonavla Restaurant & Bar- Hotel Lonavla	Lonavala	73.405682	18.754747	North Indian, Chinese, Mughlai, Biryani, Desserts	4.3	Very Good	474
4213	Utopia	Lonavala	73.402737	18.754342	Mughlai, North Indian, Asian	3.9	Good	336
4214	Mapro Garden	Lonavala	73.419775	18.760234	Desserts, Fast Food, Pizza, Sandwich	4.3	Very Good	143
4215	Hotel Chandralok	Lonavala	73.405655	18.753223	Gujarati	4.3	Very Good	317
4216	Lion's Dhaaba	Lonavala	73.393627	18.687172	North Indian, Chinese	3.9	Good	67

4087 rows x 8 columns

Fig.2 Dataframe after removing unwanted columns and rows from data set

4.3 Map to show the restaurant clusters in Pune and Neighborhood

The Pune city has been divided to total 5 clusters a shown in the image

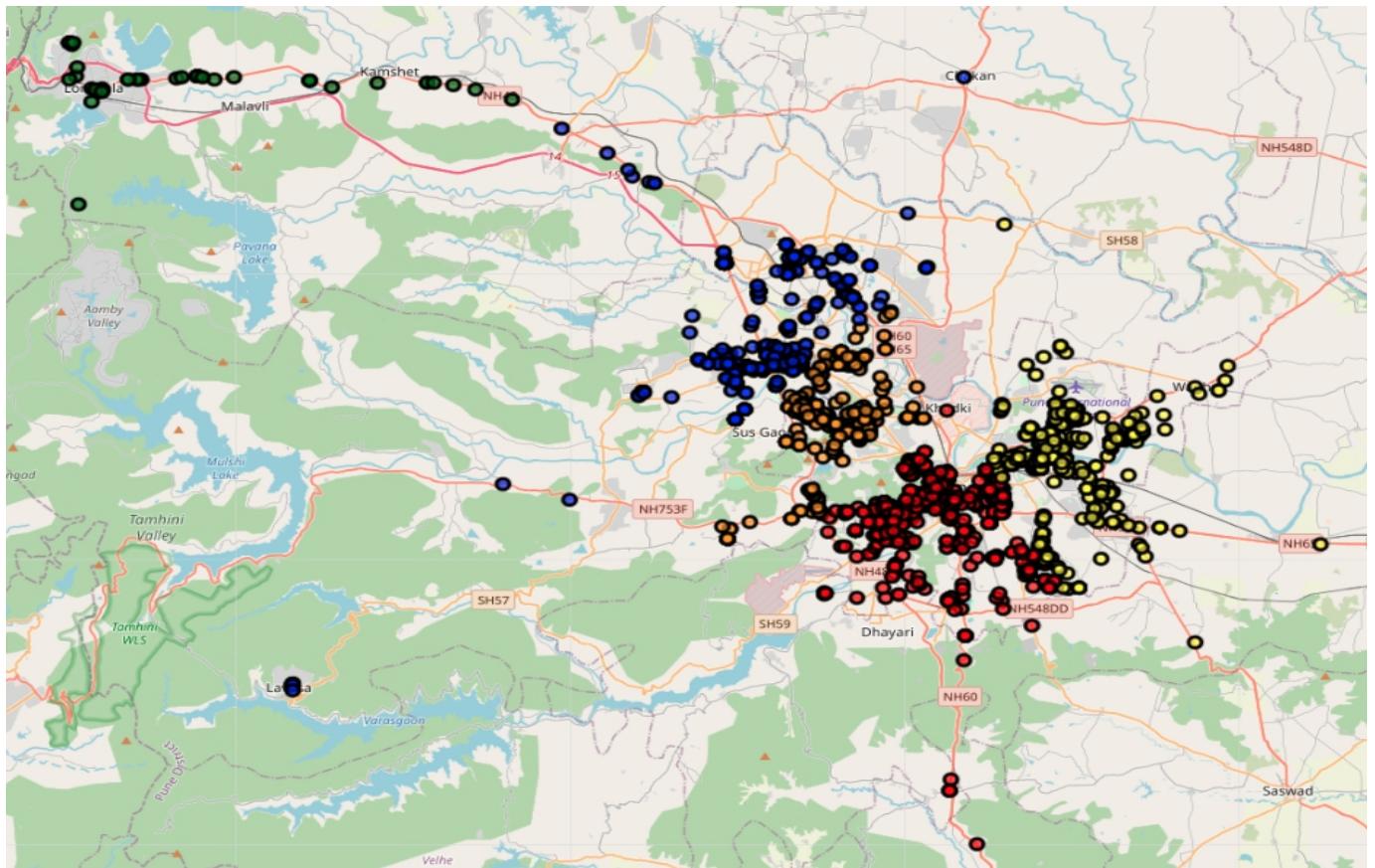


Fig.3 clusters of localities in Pune

	Restaurant Name	Locality	Longitude	Latitude	Cuisines	Aggregate rating	Rating text	Votes	Cluster
0	Harajuku - The O Hotel	The O Hotel, Koregaon Park	73.887518	18.540239	Japanese, Sushi	3.7	Good	96	3
1	Mix@36 - The Westin	The Westin, Mundhwa	73.905910	18.540040	Finger Food, Asian, Continental, North Indian	4.0	Very Good	682	3
2	Kangan - The Westin	The Westin, Mundhwa	73.906040	18.539455	Mughlai, North Indian	4.0	Very Good	310	3
3	Palette - The Westin	The Westin, Mundhwa	73.906009	18.539430	Asian, Continental	3.3	Average	9	3
4	Coriander Kitchen - Conrad Pune	Conrad Pune, Bund Garden Road	73.883592	18.535409	North Indian, Asian, Mediterranean	4.4	Very Good	500	3
...
4212	Lonavla Restaurant & Bar- Hotel Lonavla	Lonavala	73.405682	18.754747	North Indian, Chinese, Mughlai, Biryani, Desserts	4.3	Very Good	474	1
4213	Utopia	Lonavala	73.402737	18.754342	Mughlai, North Indian, Asian	3.9	Good	336	1
4214	Mapro Garden	Lonavala	73.419775	18.760234	Desserts, Fast Food, Pizza, Sandwich	4.3	Very Good	143	1
4215	Hotel Chandralok	Lonavala	73.405655	18.753223	Gujarati	4.3	Very Good	317	1
4216	Lion's Dhaaba	Lonavala	73.393627	18.687172	North Indian, Chinese	3.9	Good	67	1

4087 rows x 9 columns

Fig.4 Dataframe with a column showing clusters of localities in Pune

4.4 Which places have highest rated restaurants in Pune?

In reference to the image below it clearly tells that the best restaurants are available in **Kalyani Nagar**

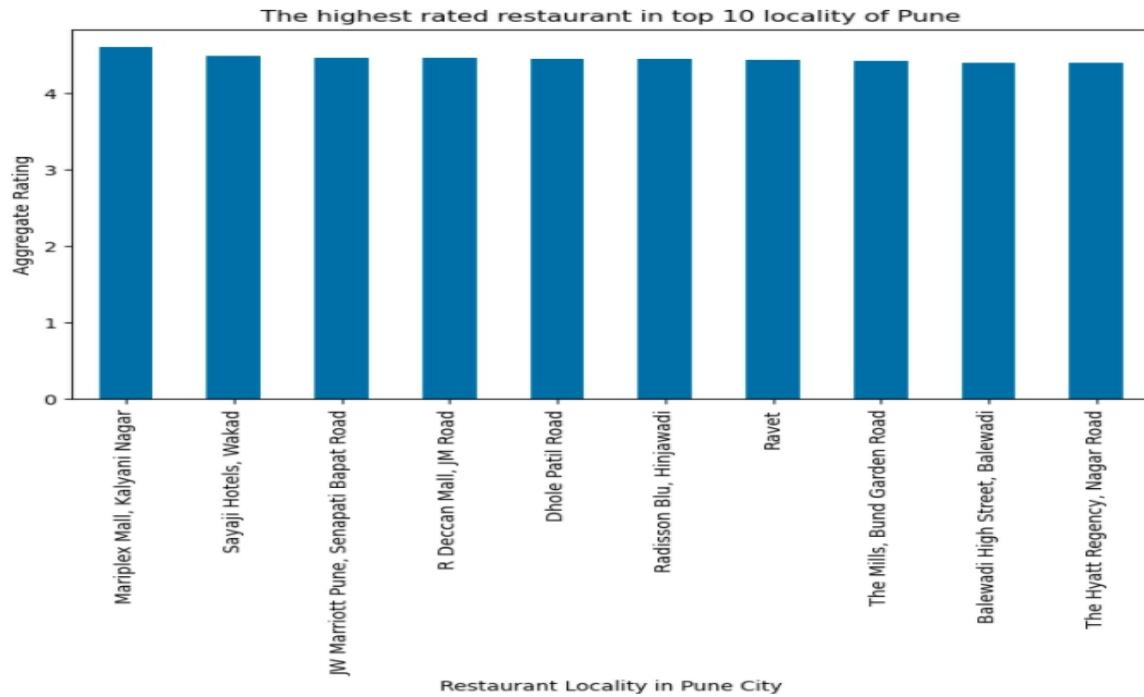


Fig.6 Highest rated restaurants in Pune

4.5 Which places have lowest rated restaurants in Pune?

In reference to the image below it clearly tells that the worst restaurants are available in **St Laun Koregaon Park**

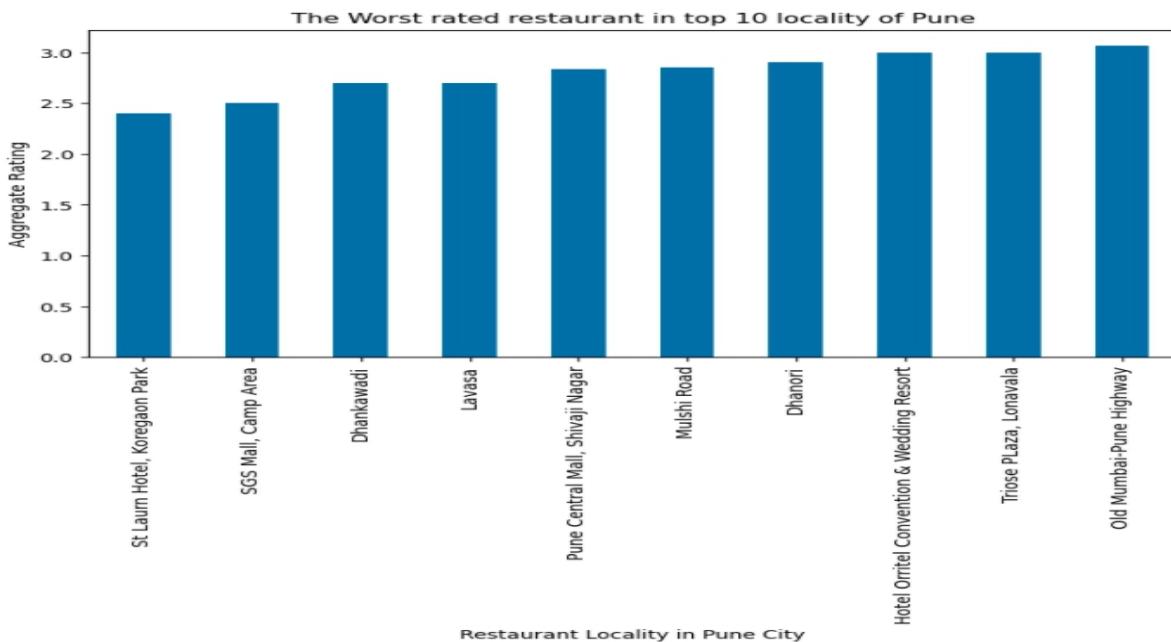


Fig.7 Lowest rated restaurants in Pune

4.6 Which places has more number of restaurants to choose from?

In reference to the image below **Baner** is the best places for a person who have lot of restaurants to choose from.



Fig.8 Locality with highest number of restaurants in Pune

4.7 Which place has small number of restaurants to choose from?

In reference to the image below Singhad Road area has lowest number of restaurants to choose from.

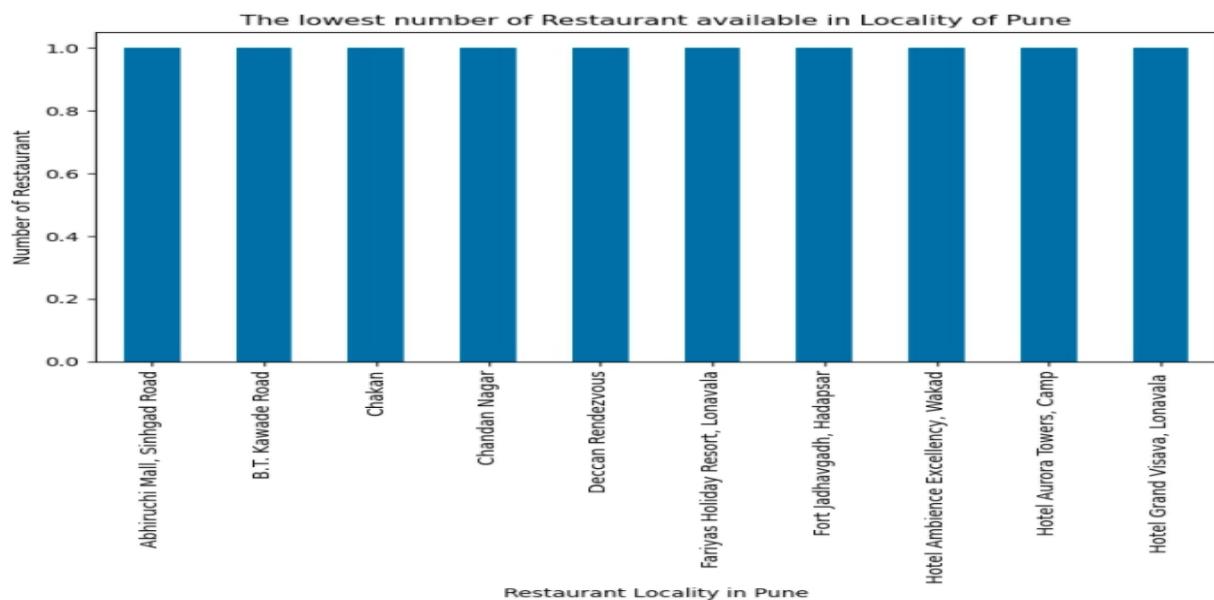


Fig.9 Locality with lowest number of restaurants in Pune

4.8 What are the best places for Chinese restaurant in Pune City?

In reference to the image below **Kharadi** is the best locality Chinese restaurants.

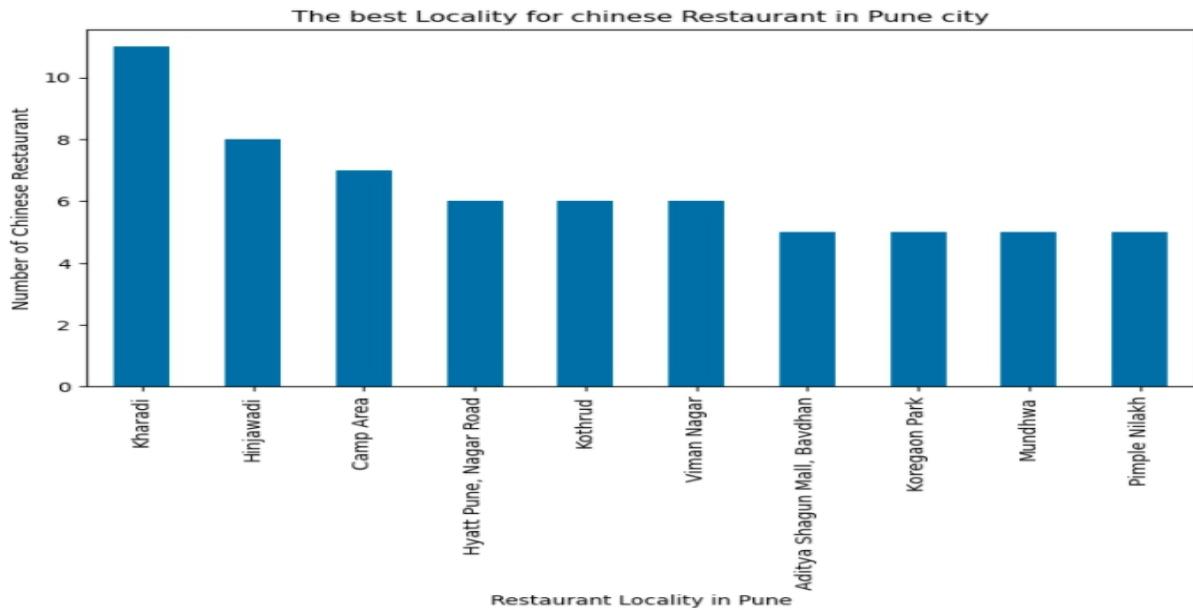


Fig.10 Best locality for Chinese restaurants in Pune

4.9 Which places has the best Chinese restaurants in Pune?

In reference to the image below Mundhwa has the best Chinese restaurants in Pune

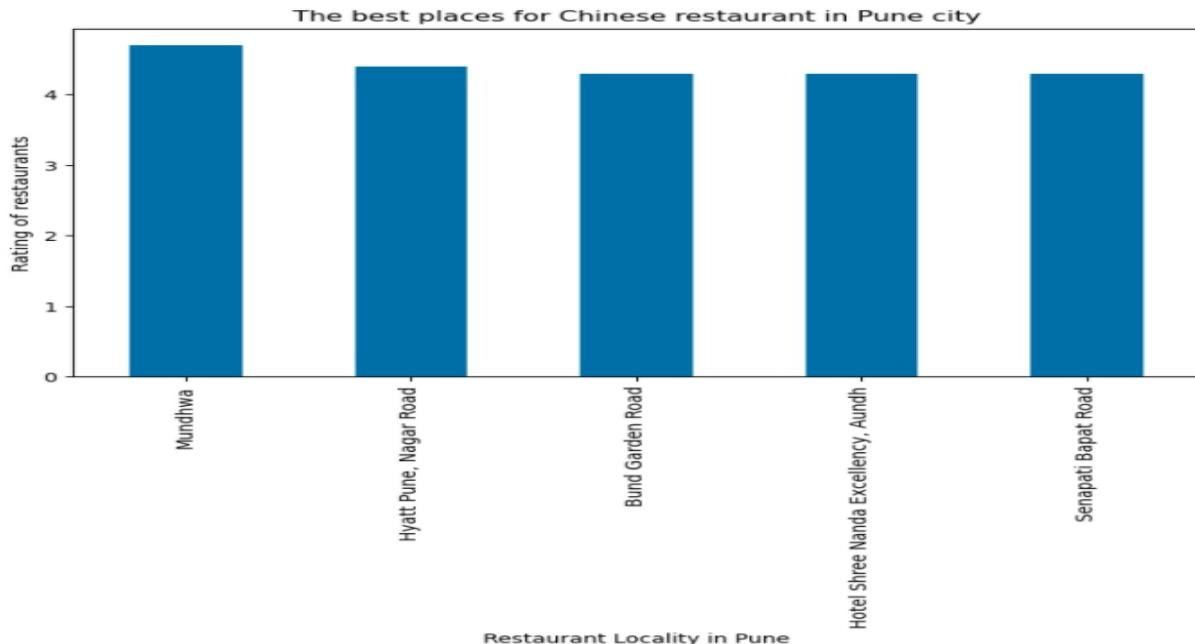


Fig.11 Locality for Best Chinese restaurants in Pune

4.10 Which area has more top voted restaurants in Pune?

In reference to the image below JM Road has highly voted restaurants in Pune.

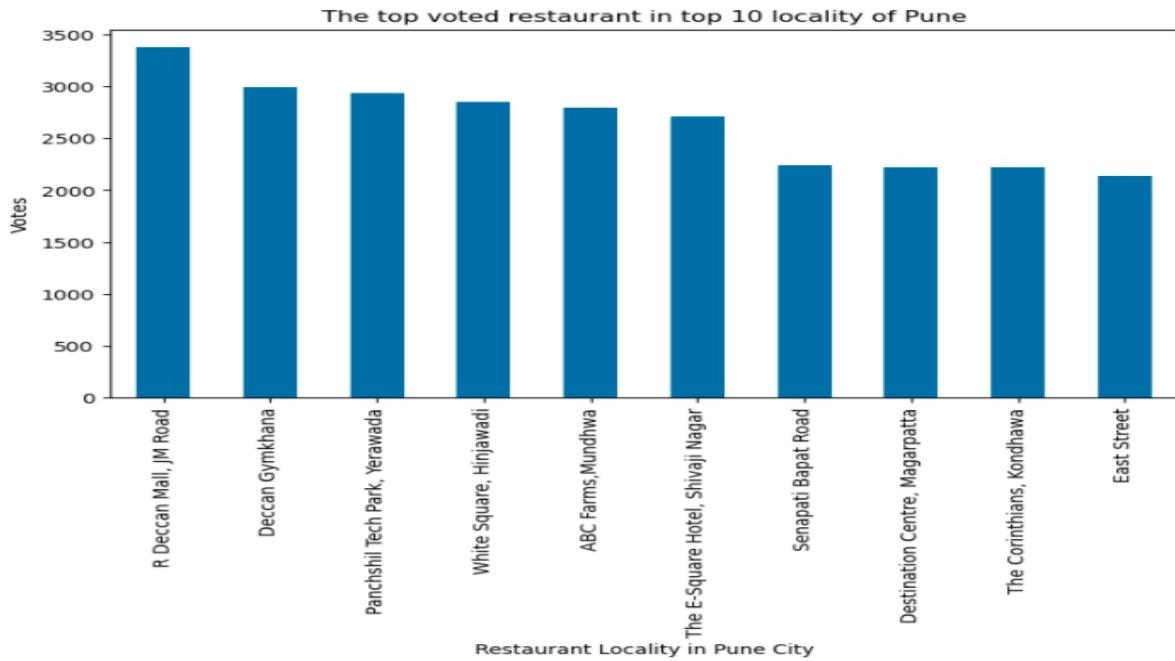


Fig.11 Top voted restaurants in Pune

4.11 Which area has less voted restaurants in Pune?

In reference to the image below Wedding resorts has the less voted restaurants in Pune.

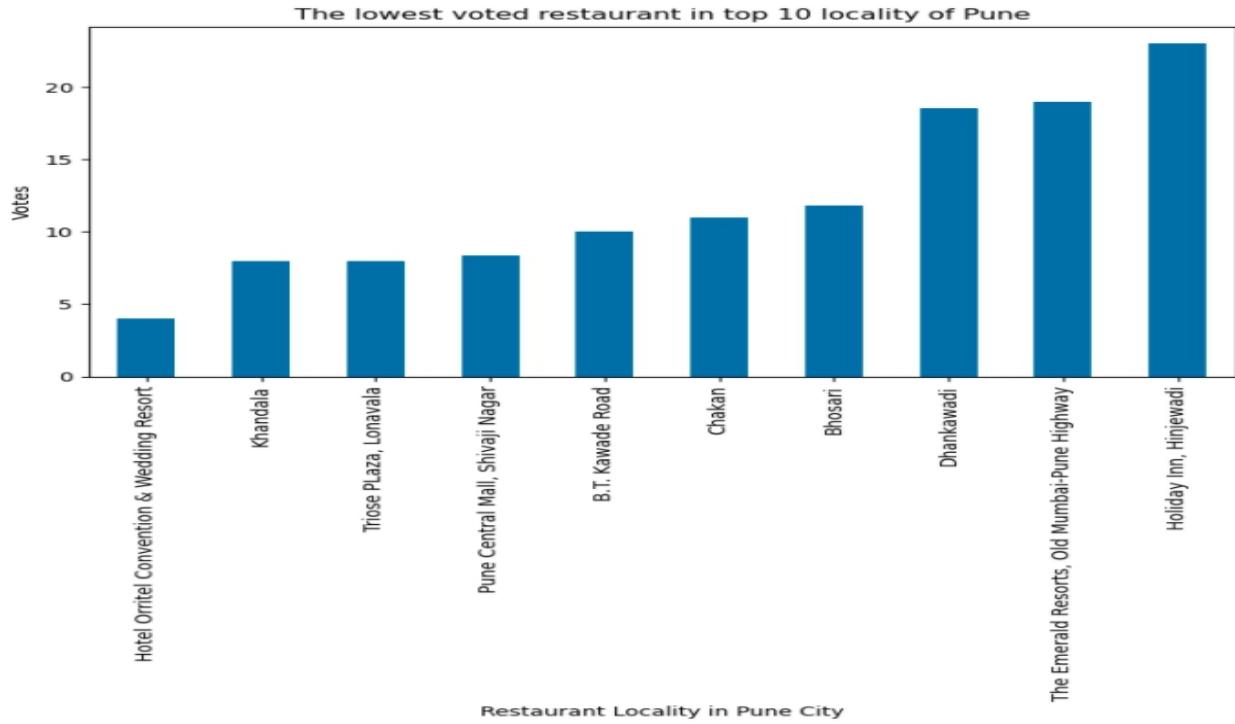


Fig.12 Lowest voted restaurants in Pune

4.12 Data Transformation based on locality grouping of the data

	Locality	Lat	Lng	No_of_Restaurant	Cusines	Agg_Rating	Comments	No_of_Votes
0	ABC Farms,Mundhwa	18.539101	73.904827	6	Iranian, North Indian, Continental, Iranian, N...	4.200000	Very Good	16740
1	Abhiruchi Mall, Sinhgad Road	18.463905	73.832473	1	North Indian, South Indian, Chinese, Biryani	3.300000	Average	38
2	Aditi Mall, Baner Road	18.558200	73.792624	4	Bakery, Desserts, Mughlai, Biryani, North Indi...	3.950000	Good, Very Good	3934
3	Aditya Shagun Mall, Bawdhan	18.519293	73.778530	7	Chinese, Thai, Malaysian, Indonesian, Asian, N...	3.957143	Very Good, Good, Bom	7101
4	Akurdi	18.647840	73.769679	16	Chinese, North Indian, Mughlai, Cafe, North In...	3.650000	Average, Very Good, Good	3272
...
160	Warje	18.488166	73.795274	4	South Indian, North Indian, Chinese, Indian, C...	3.300000	Poor, Average, Good	1142
161	Westend Mall, Aundh	18.561626	73.806990	25	Chinese, Pizza, Fast Food, Italian, North Indi...	3.736000	Poor, Average, Very Good, Good	24109
162	White Square, Hinjawadi	18.590707	73.753110	58	Continental, North Indian, Chinese, North Indi...	4.305172	Excellent, Very Good	165351
163	Xion Mall, Hinjawadi	18.592601	73.745019	10	Continental, Italian, North Indian, Finger Foo...	3.780000	Very Good, Good, Average	13688
164	Yerawada	18.554072	73.886021	4	Street Food, North Indian, Chinese, Mithai, St...	3.425000	Average, Good	175

165 rows x 8 columns

Fig.13 Data transformation based on locality

5. FourSquare Data Analysis to find best restaurants based on cuisines they serve with respect to clusters

5.1 Finding all the venues in Pune Locality

There are 179 unique categories

Locality	Locality Latitude	Locality Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
ABC Farms,Mundhwa	23	23	23	23	23	23
Abhiruchi Mall, Sinhgad Road	3	3	3	3	3	3
Aditi Mall, Baner Road	31	31	31	31	31	31
Aditya Shagun Mall, Bawdhan	8	8	8	8	8	8
Akurdi	11	11	11	11	11	11
...
Warje	5	5	5	5	5	5
Westend Mall, Aundh	33	33	33	33	33	33
White Square, Hinjawadi	9	9	9	9	9	9
Xion Mall, Hinjawadi	14	14	14	14	14	14
Yerawada	4	4	4	4	4	4

159 rows x 6 columns

Fig.14 All the venues in Pune Locality

5.2 Finding each locality along with the top 10 most common venues

	Locality	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	ABC Farms, Mundhwa	Italian Restaurant	Indian Restaurant	Nightclub	Lounge	Shopping Mall	Pub	Pizza Place	Other Nightlife	Dessert Shop	Fast Food Restaurant
1	Abhiruchi Mall, Sinhgad Road	Breakfast Spot	Restaurant	Fast Food Restaurant	Yoga Studio	English Restaurant	Food Truck	Food Court	Food & Drink Shop	Food	Flower Shop
2	Aditi Mall, Baner Road	Indian Restaurant	South Indian Restaurant	Café	Dessert Shop	Ice Cream Shop	Gym	Mobile Phone Shop	Snack Place	Molecular Gastronomy Restaurant	Bubble Tea Shop
3	Aditya Shagun Mall, Bavdhan	Bakery	Indian Restaurant	Asian Restaurant	Pizza Place	Café	Sandwich Place	Bar	Distillery	Donut Shop	Department Store
4	Akurdi	Café	Fast Food Restaurant	Gym	Food Truck	Thai Restaurant	Middle Eastern Restaurant	Asian Restaurant	Coffee Shop	Food Court	Food & Drink Shop
...
154	Warje	Indian Restaurant	Pizza Place	Diner	Coffee Shop	Fast Food Restaurant	Falafel Restaurant	Food Truck	Food Court	Food & Drink Shop	Food
155	Westend Mall, Aundh	Indian Restaurant	Fast Food Restaurant	Bakery	Shopping Mall	Dessert Shop	Ice Cream Shop	Grocery Store	Restaurant	Jewelry Store	Food Court
156	White Square, Hinjewadi	Indian Restaurant	Restaurant	Tea Room	Other Nightlife	Shopping Mall	Breakfast Spot	Ice Cream Shop	Athletics & Sports	Falafel Restaurant	French Restaurant
157	Xion Mall, Hinjewadi	Hotel	Indian Restaurant	Restaurant	Chinese Restaurant	Multiplex	Café	Food Truck	Department Store	Italian Restaurant	American Restaurant
158	Yerawada	ATM	Gastropub	Golf Course	Buffet	Falafel Restaurant	Food Truck	Food Court	Food & Drink Shop	Food	Flower Shop

159 rows x 11 columns

Fig.15 Each locality with top 10 common venues

5.3 Clustering recommended restaurants based on cuisines they serve

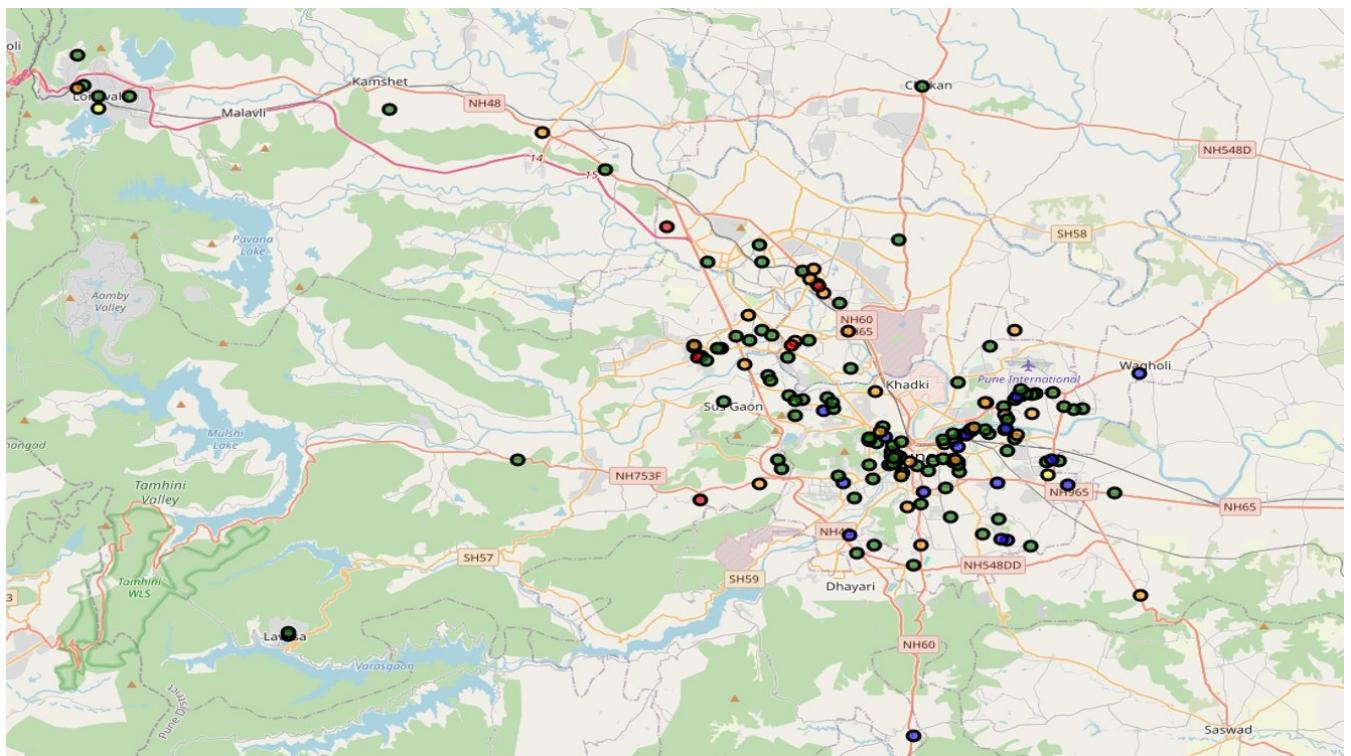


Fig.16 Clustering of restaurants based on the kind of cuisine they serve

5.4 Cluster:1: The most recommended venues of Indian restaurants in nearby locations

	Lat	Agg_Rating	Comments	No_of_Votes	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
15	18.493569	4.300000	Very Good, Muy Bueno, Good	29776	0	Hookah Bar	Café	Resort	Yoga Studio	English Restaurant	Food Court	Food & Drink Shop	Food	Flower Shop	Fast Food Restaurant
35	18.670633	3.366667	Good, Average	93	0	Nan									
45	18.521724	4.145000	Very Good, Excellent, Poor, Average, Good, Å... A...	234046	0	Indian Restaurant	Restaurant	Coffee Shop	Burger Joint	Chinese Restaurant	Pizza Place	Dessert Shop	Ice Cream Shop	Sandwich Place	Bakery
69	18.631809	3.400000	Average	25	0	Indian Restaurant	Pizza Place	Hotel	Fast Food Restaurant	Dance Studio	Shopping Mall	Gym / Fitness Center	Gym	Men's Store	Clothing Store
79	18.585632	4.100000	Very Good	2012	0	Hotel	Fast Food Restaurant	Indian Restaurant	Motel	Sandwich Place	Chaat Place	Café	Snack Place	Food Court	Food Truck
133	18.593741	3.522222	Good, Average	12983	0	Indian Restaurant	Lounge	Diner	Restaurant	Sandwich Place	Fast Food Restaurant	Shopping Mall	Snack Place	Bus Station	Gastropub

Fig.17 Venues of Indian restaurants

5.5 Cluster:2: The most recommended Hotels and nightclub nearby the locations

	Lat	Agg_Rating	Comments	No_of_Votes	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	18.539101	4.200000	Very Good	16740	1	Italian Restaurant	Indian Restaurant	Nightclub	Lounge	Shopping Mall	Pub	Pizza Place	Other Nightlife	Dessert Shop	Fast Food Restaurant
1	18.463905	3.300000	Average	38	1	Breakfast Spot	Restaurant	Fast Food Restaurant	Yoga Studio	English Restaurant	Food Truck	Food Court	Food & Drink Shop	Food	Flower Shop
2	18.558200	3.950000	Good, Very Good	3934	1	Indian Restaurant	South Indian Restaurant	Café	Dessert Shop	Ice Cream Shop	Gym	Mobile Phone Shop	Shack Place	Molecular Gastronomy Restaurant	Bubble Tea Shop
3	18.519293	3.957143	Very Good, Good, Bon	7101	1	Bakery	Indian Restaurant	Asian Restaurant	Pizza Place	Café	Sandwich Place	Bar	Distillery	Donut Shop	Department Store
4	18.647840	3.650000	Average, Very Good, Good	3272	1	Café	Fast Food Restaurant	Gym	Food Truck	Thai Restaurant	Middle Eastern Restaurant	Asian Restaurant	Coffee Shop	Food Court	Food & Drink Shop
...
148	18.407114	3.133333	Good, Poor	151	1	Resort	Hotel	Indian Restaurant	Pizza Place	Bakery	Café	Middle Eastern Restaurant	Sandwich Place	Chinese Restaurant	Coffee Shop
153	18.564931	3.987179	Very Good, Average, Good, Excellent, Poor	168501	1	Café	Indian Restaurant	Coffee Shop	Asian Restaurant	Clothing Store	Cheese Shop	Southern / Soul Food Restaurant	Mexican Restaurant	Shopping Mall	Sandwich Place
154	18.569235	3.300000	Good, Average	104	1	Chinese Restaurant	Pizza Place	Dessert Shop	Vegetarian / Vegan Restaurant	Fast Food Restaurant	Shopping Mall	Café	Gym	English Restaurant	Food & Drink Shop
155	18.591690	4.050000	Good, Very Good	1048	1	Hotel	Indian Restaurant	Restaurant	Chinese Restaurant	Multiplex	Café	Food Truck	Department Store	Italian Restaurant	American Restaurant
158	18.596904	3.997143	Good, Excellent, Poor, Average, Very Good	119323	1	Indian Restaurant	Pizza Place	Café	Falafel Restaurant	Food Truck	Food Court	Food & Drink Shop	Food	Flower Shop	Fast Food Restaurant

Fig.18 Venues of Hotels and Nightclubs

5.6 Cluster 3 and 5: The most recommended Fast-Food restaurants nearby the locations

Lat	Agg_Rating	Comments	No._of_Votes	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue	
17	18.538373	4.090909	Good, Very Good	3980	2	Café	Hotel	Indian Restaurant	Italian Restaurant	South Indian Restaurant	Bakery	Coffee Shop	Garden	Japanese Restaurant	Jewelry Store
19	18.535692	3.971429	Average, Good, Very Good	2982	2	Hotel	Chinese Restaurant	Indian Restaurant	Café	Hotel Bar	Kebab Restaurant	Bakery	Bistro	Farm	Food Truck
28	18.535462	4.292857	Very Good, Good	3715	2	Hotel	Chinese Restaurant	Yoga Studio	Multicuisine Indian Restaurant	Café	Hotel Bar	Italian Restaurant	Lounge	Indian Restaurant	Trail
29	18.591648	4.233333	Very Good, Good, Muito Bom	6588	2	Hotel	Indian Restaurant	Restaurant	Chinese Restaurant	Department Store	American Restaurant	Italian Restaurant	Café	Shopping Mall	Multiplex
41	18.467092	3.650000	Average, Good, Dobrze	3393	2	Shopping Mall	American Restaurant	Multiplex	Restaurant	Gym	Yoga Studio	English Restaurant	Food & Drink Shop	Food	Flower Shop
47	18.504228	3.675000	Very Good, Average, Good	364	2	Shopping Mall	Multiplex	Indian Restaurant	Gym	Electronics Store	Nightclub	Motorcycle Shop	Breakfast Spot	Dessert Shop	Department Store
50	18.503082	3.312500	Good, Poor, Average, Very Good	3053	2	Indian Restaurant	Coffee Shop	Breakfast Spot	ATM	Wedding Hall	Electronics Store	Food Court	Food & Drink Shop	Food	Flower Shop
51	18.592469	3.946309	Very Good, Average, Good, Excellent, Poor, Bom	189514	2	Mexican Restaurant	Vegetarian / Vegan Restaurant	Fast Food Restaurant	North Indian Restaurant	Yoga Studio	English Restaurant	Food Truck	Food Court	Food & Drink Shop	Food
56	18.551076	3.933333	Very Good, Good	3686	2	Indian Restaurant	Ice Cream Shop	Café	Restaurant	Lounge	Gym	Punjabi Restaurant	Food Court	Sandwich Place	English Restaurant
60	18.520188	3.700000	Good	41	2	Indian Restaurant	Chinese Restaurant	Ice Cream Shop	Fast Food Restaurant	Juice Bar	Coffee Shop	Hotel	Vegetarian / Vegan Restaurant	Sports Bar	Gym
75	18.504623	3.987500	Average, Good, Excellent, Poor, Very Good	115910	2	Ice Cream Shop	Indian Restaurant	Bank	Food Court	Seafood Restaurant	Café	Chinese Restaurant	Tea Room	Pool Hall	Plaza
77	18.405528	2.700000	Poor, Average	78	2	Indian Restaurant	Hotel	Resort	Café	Diner	Middle Eastern Restaurant	Pub	Bakery	Coffee Shop	Pizza Place
89	18.468123	3.952174	Very Good, Average, Good	12120	2	Café	Shopping Mall	Deli / Bodega	American Restaurant	Gastropub	Coffee Shop	Multiplex	Gym	Falafel Restaurant	Food & Drink Shop
108	18.534480	2.833333	Average	25	2	Lounge	Indian Restaurant	Italian Restaurant	Bookstore	Clothing Store	Theme Park	Dessert Shop	Diner	Farm	Food Truck
124	18.519068	4.081481	Very Good, Good, Excellent, Poor, Average, Å... Å...	66488	2	Coffee Shop	Donut Shop	Indian Restaurant	Bar	Chinese Restaurant	Fast Food Restaurant	Italian Restaurant	Multiplex	Sandwich Place	Shopping Mall
130	18.339926	3.760000	Excellent, Poor, Average	2857	2	Indian Restaurant	Cupcake Shop	French Restaurant	Food Truck	Food Court	Food & Drink Shop	Food	Flower Shop	Fast Food Restaurant	Farm
132	18.470709	3.383333	Good, Poor, Average, Very Good	4552	2	Indian Restaurant	Food	Ice Cream Shop	American Restaurant	Falafel Restaurant	French Restaurant	Food Truck	Food Court	Food & Drink Shop	Afghan Restaurant

Fig.19 Venues of Fast-food restaurants

5.7 Cluster:4: The most recommended Cafes and Pizza nearby the locations

Lat	Agg_Rating	Comments	No._of_Votes	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue	
6	18.503555	3.850000	Good	2002	4	Indian Restaurant	Hotel	Diner	Lounge	English Restaurant	Food Truck	Food Court	Food & Drink Shop	Food	Flower Shop
20	18.518210	3.992000	Very Good, Good, Excellent, Average	42245	4	Indian Restaurant	Fast Food Restaurant	Ice Cream Shop	Chinese Restaurant	Breakfast Spot	Juice Bar	Lounge	Café	Hotel	
24	18.627589	3.400000	Average	54	4	Indian Restaurant	Hotel	Dance Studio	Mobile Phone Shop	Coffee Shop	Electronics Store	Pizza Place	Dim Sum Restaurant	Diner	Department Store
30	18.556347	4.200000	Very Good	1152	4	Indian Restaurant	Furniture / Home Store	Food Truck	Chinese Restaurant	Café	Concert Hall	BBQ Joint	Fast Food Restaurant	Bar	Nightclub
32	18.612857	3.240000	Average, Good	2104	4	Indian Restaurant	Vegetarian / Vegan Restaurant	Asian Restaurant	Chinese Restaurant	Fast Food Restaurant	Garden	ATM	Vietnamese Restaurant	Dumpling Restaurant	Food & Drink Shop
38	18.464099	2.700000	Poor, Average	37	4	Snack Place	Yoga Studio	Frozen Yogurt Shop	Food Truck	Food Court	Food & Drink Shop	Food	Flower Shop	Fast Food Restaurant	Farm
42	18.642914	3.766667	Good	611	4	Indian Restaurant	Hotel	Restaurant	Bakery	Sandwich Place	Electronics Store	Food Court	Food & Drink Shop	Food	Flower Shop
48	18.431200	3.600000	Good	75	4	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
52	18.581144	3.500000	Good	92	4	Indian Restaurant	Hotel	Comfort Food Restaurant	Diner	Restaurant	English Restaurant	Food Court	Food & Drink Shop	Food	Flower Shop
58	18.731713	3.000000	Average	4	4	Multicuisine Indian Restaurant	Hotel	Yoga Studio	English Restaurant	Food Truck	Food Court	Food & Drink Shop	Food	Flower Shop	Fast Food Restaurant
66	18.548353	4.330282	Good, Excellent, Very Good, Average, Muy Bueno...	146808	4	Café	Vegetarian / Vegan Restaurant	Fast Food Restaurant	Breakfast Spot	Indian Restaurant	Italian Restaurant	Gift Shop	Park	Cantonese Restaurant	Sandwich Place
70	18.563328	4.315385	Good, Excellent, Very Good	15614	4	Indian Restaurant	Bakery	Department Store	Breakfast Spot	Chinese Restaurant	Italian Restaurant	Vietnamese Restaurant	Dessert Shop	Diner	Cafeteria
71	18.759797	3.100000	Average	8	4	Breakfast Spot	Hotel	Snack Place	Train Station	Shop & Service	Resort	Yoga Studio	Electronics Store	Food	Flower Shop
80	18.603398	3.375000	Average, Very Good	318	4	Mountain	Business Service	Yoga Studio	Frozen Yogurt Shop	Food Truck	Food Court	Food & Drink Shop	Food	Flower Shop	Fast Food Restaurant
88	18.535601	4.157647	Excellent, Very Good, Good, Å... Å... ok iyí, Average	132107	4	Indian Restaurant	Nightclub	Lounge	Hookah Bar	Italian Restaurant	Bar	Gym	Bistro	Pub	Greek Restaurant
99	18.488905	3.933333	Very Good, Good	2577	4	Playground	Sandwich Place	Dessert Shop	Vegetarian / Vegan Restaurant	Smoke Shop	Food & Drink Shop	Food	Flower Shop	Fast Food Restaurant	Farm
106	18.636230	3.150000	Poor, Average	1524	4	Pizza Place	Ice Cream Shop	Café	Shopping Mall	Men's Store	Jewelry Store	Gym / Fitness Center	Gym	Electronics Store	Bookstore

Fig.20 Venues of cafes and Pizzerias

6. Conclusion

- The best restaurants are available in Kalyani Nagar.
- The worst restaurants are available in St Laun Koregaon Park.
- Baner is the best places with maximum number of restaurants to choose from.
- Abhiruchi Mall, singed road has lowest number of restaurants to choose from
- Kharadi is the best place for Chinese restaurants.
- Mundwa has the best Chinese restaurants in Pune
- JM Road has Highly voted restaurants in Pune.
- **Cluster 1:** It is most recommended for Indian Restaurants.
- **Cluster 2:** It is most recommended for hotels and nightclub.
- **Cluster 3 and Cluster 5:** It is most recommended for Fast food.
- **Cluster 4:** It is most recommended for the cafe and pizza.

1- Based on above all conclusions we got to know that which location has the maximum restaurants with high ratings and maximum votes which will definitely help in understanding the best place to open the restaurant.

2- Based on the clusters we understood that which cluster is best for which kind of restaurant. This help to understand which kind of restaurant can be opened and in which locality.

So above both conclusions can help anyone to understand the right place in Pune to open a new restaurant