Business Ideas for different areas of Gurugram, India
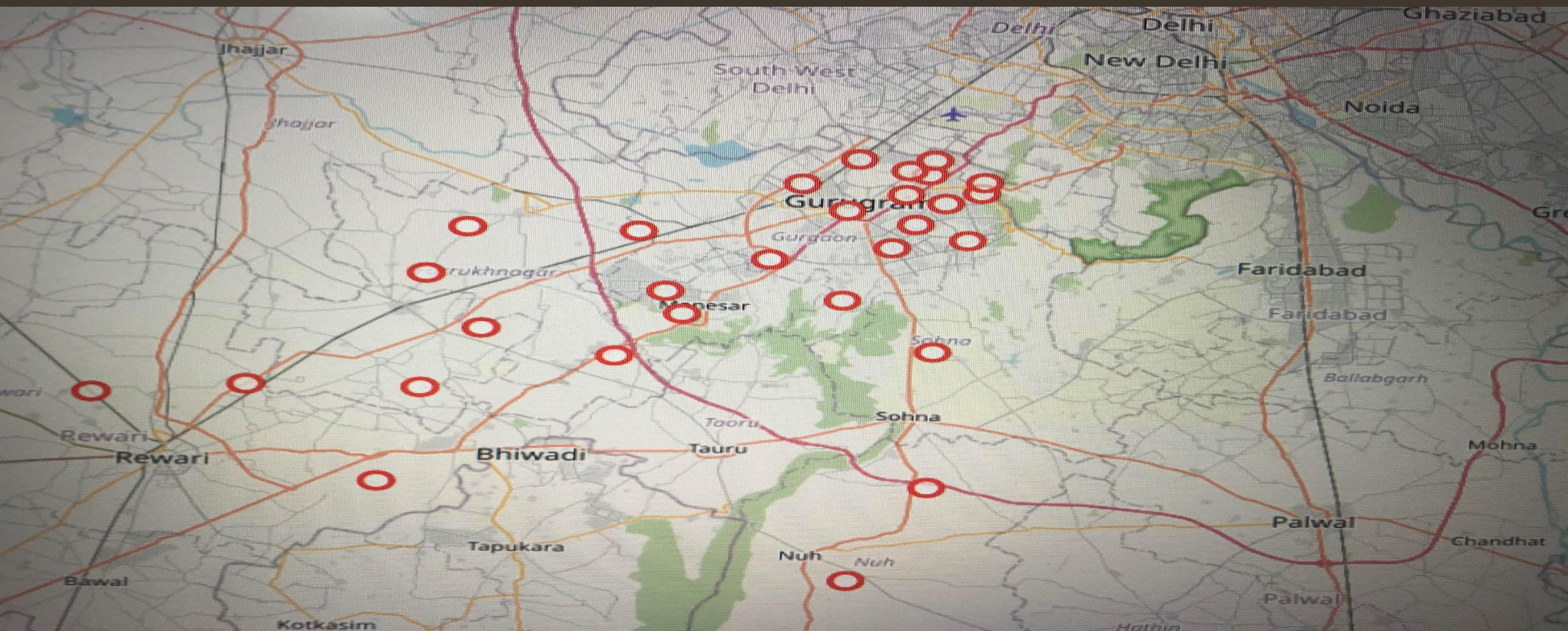
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Background

- Location plays an important in the success of any physical business.

- The initial business of a new store depends on its visibility to the target audience.

- For ex. A new beauty parlor becomes a success if placed near a famous women-centric store, since women visiting the store notice the parlor easily.

- The project aims at suggesting potential business ideas considering this factor of location for different areas of Gurugram, India.

Data Considered

- Areas in Gurgaon represented by different pin codes. (scraped from https://gurugram.gov.in/std-pin-codes/)

- Coordinates (latitudes and longitudes) of the pin codes representing Gurgaon. (extracted from https://www.google.com/search?q=coordinates+of+pincodes+of+gurgaon&rlz=1C1CHBF_enIN883IN883&oq=coordinates+of+pincodes+of+gurgaon&aqs=chrome..69i57.17612j0j7&sourceid=chrome&ie=UTF-8)

- Average plot price in different areas of Gurgaon (extracted from 99acres.com, propertywala.com)

- Exploratory data representing top 10 most visited venues around an area. For ex. Cafes, ATM, etc around Palam Vihar. (Data received by making calls to Foursquare API)

Map of Gurgaon with Areas Considered

API
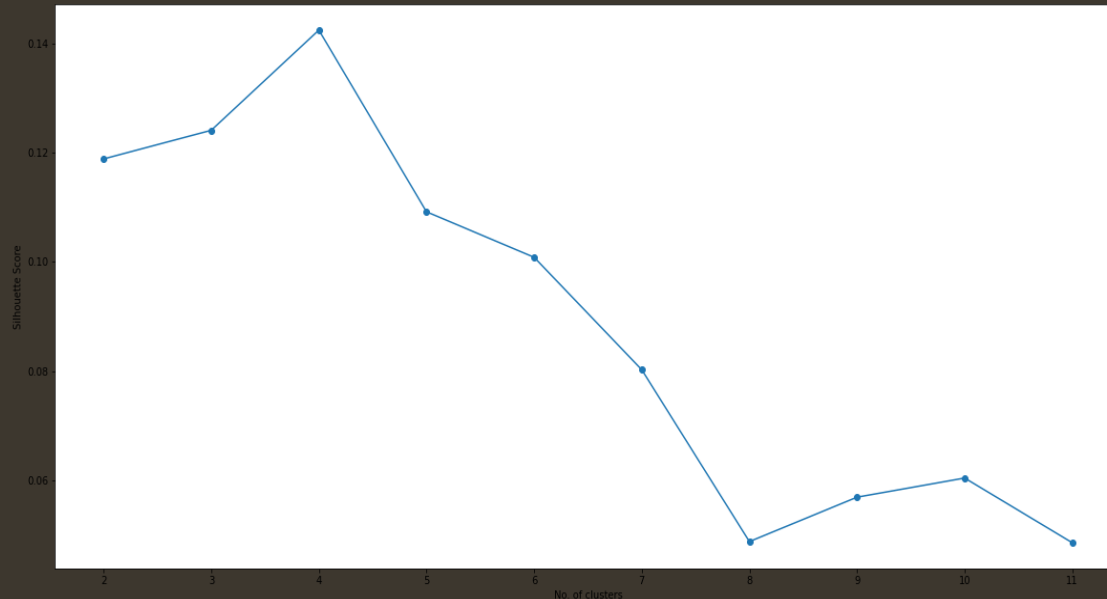
Foursquare

- The Foursquare Places API provides location-based experiences with diverse information about venues, users, photos, and check-ins.

- The API supports real time access to places, Snap-to-Place that assigns users to specific locations, and Geo-tag.

- Foursquare allows developers to build audience segments for analysis and measurement. JSON is the preferred response format.

- **K-means** algorithm is an iterative algorithm that tries to partition the dataset into *K* pre-defined distinct non-overlapping subgroups (clusters) where each data point belongs to **only one group.**

- The value of k used was 4 based on Silhouette score.

- Features used: Top 10 most visited venues in the different areas, relative plot prices.

Clustering

K-means algorithm (k=4)

Cluster-1

Pin code	Area	1st Most Common Venue	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Relative Plot Price
122003	Gurgaon Sector 45 S.O, Gwal Pahari B.O , Hailym...	Food Truck	Women's Store	Café	Garden Center	Fast Food Restaurant	Electronics Store	Donut Shop	Diner	Department Store	Coffee Shop	0.848485

Cluster-2

Pin code	Area	1st Most Common Venue	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Relative Plot Price
122004	Khandsa B.O, Kherki Kaula B.O, Lakhnaula B.O, …	Business Service	Shopping Mall	Women's Store	Food Truck	Fast Food Restaurant	Electronics Store	Donut Shop	Diner	Department Store	Coffee Shop	0.424242
122007	Industrial Estate S.O (Gurgaon)	Hotel	Garden Center	Indian Restaurant	Bed & Breakfast	Shoe Store	Japanese Restaurant	Pizza Place	Brazilian Restaurant	Chinese Restaurant	Fast Food Restaurant	0.000000
122009	Galleria DLF-IV S.O	Café	Indian Restaurant	Hotel	Bakery	Coffee Shop	Italian Restaurant	Sandwich Place	Restaurant	Bistro	Market	0.248485
122015	Palam Road S.O, Sarhaul B.O	ATM	Indian Restaurant	Café	Food Truck	Fast Food Restaurant	Electronics Store	Donut Shop	Diner	Department Store	Coffee Shop	0.000000
122017	Carterpuri B.O, Palam Vihar S.O (Gurgaon)	Tennis Court	Shopping Mall	Market	Café	Women's Store	Business Service	Fast Food Restaurant	Electronics Store	Donut Shop	Diner	0.280606

Cluster-3

Pin code	Area	1st Most Common Venue	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Relative Plot Price
123401	Kankarwali Rewari S.O	Women's Store	Café	Garden Center	Food Truck	Fast Food Restaurant	Electronics Store	Donut Shop	Diner	Department Store	Coffee Shop	0.515152

Cluster-4

Pin code	Area	1st Most Common Venue	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Relative Plot Price
122001	Arjun Nagar S.O, Basai Road S.O, Gurgaon H.O, ...	Electronics Store	Shopping Plaza	Lighting Store	Gift Shop	Women's Store	Café	Food Truck	Fast Food Restaurant	Donut Shop	Diner	0.484848
122002	Chakkarpur B.O, DLF QE S.O, Nathupur B.O	Indian Restaurant	Café	Sandwich Place	Chinese Restauran	Office	Pharmacy	Pizza Place	Liquor Store	Bakery	Coffee Shop	0.763636
122010	DLF Ph-III S.O	Café	Asian Restaurant	Department Store	Mediterrane an Restaurant	Women's Store	Food Truck	Fast Food Restaurant	Electronics Store	Donut Shop	Diner	0.569697
122011	Gurgaon Sector	Gym	Market	Snack Place	Bakery	Pizza Place	Miscellane ous Shop	Fast Food Restaurant	Electronics Store	Donut Shop	Diner	0.909091
122016	Dundahera B.O , Indir Mewat B.O, Industrial Com...	Pizza Place	Fast Food Restaurant	Thai Restaurant	Tea Room	Donut Shop	Indian Restauran t	Diner	Sandwich Place	Café	Business Service	0.515152
122018	Gurgaon South City II S.O	Shopping Mall	BBQ Joint	Department Store	Club House	Women's Store	Café	Food Truck	Fast Food Restaurant	Electronics Store	Donut Shop	1.000000

Conclusion

Cluster	Target Audience	Plot Price	Ideas
1	Women	High	**Salon, Spa, beauty parlors, etc.**
2	General	Low	**Jewelry store, high-end bakery, etc.**
3	Women	Moderate	**Salon, clothing store, beauty parlors, bakery etc.**
4	Age 16-30	No generalization	**Gaming arena, Clubs, Party halls, etc.**