CAPSTONE PROJECT DATA SCIENCE

Opening a new
F.R.I.E.N.D.S themed Cafe
in Bangalore,India

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F.R.I.E.N.D.S
Favourite coffee shop at Bengaluru Now !!!!
GET READY TO CHILL !!!!!!

Business Problem

- The location of the **Cafe** is one of the most important decisions that will determine whether the Cafe will be a success or failure.

- If an investor wants to open a new FRIENDS themed Cafe in Bangalore city, what would be the best place that you recommend to open?

Data

- List of neighborhoods in Bangalore.

- Latitude and longitude coordinates of those neighborhoods.

- Venue data specially Cafe are used to perform clustering.

- Bangalore Pincode page:

https://www.mapsofindia.com/pincode/india/karnataka/bangalore
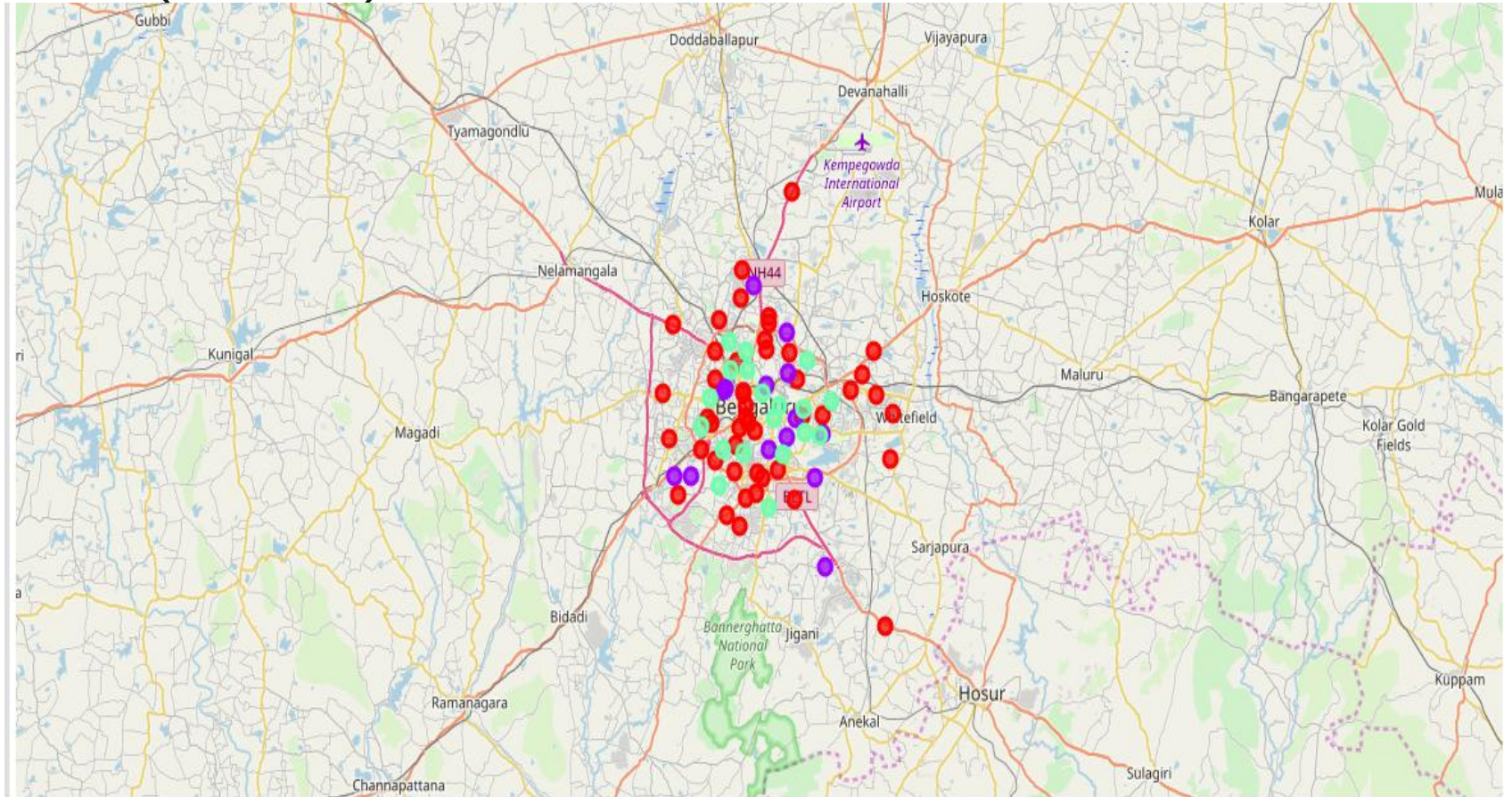
Methodology

- Web scraping

- Geographical coordinates in the form of latitude and longitude

- Using Foursquare API to get the 100 venues within radius of 500 meters

- Prepared data is stored all together in Pandas dataframe

- Machine learning algorithm K-means clustering is used to cluster the neighborhoods ofBangalore city

Results

- Cluster 1: Neighborhoods with less number of cafe.

- Cluster 2: Neighborhoods with average number of Cafe.

- Cluster 3: Neighborhoods with higher number of Cafe.

Results(Cont'd)

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In map visualization, red color indicates cluster 1, purple and green color specifies cluster 2 and cluster 3 respectively.

Discussion

- Cluster 2 and cluster 3 contain Cafe.
- Cluster 1 contains neighborhoods with no or very few cafe in certain areas. So these are the high potential places to open a new Cafe as there will be less competition.
- Investors of Friends cafe are advised to avoid neighbourhoods in cluster 3 which are high concentrated area of Cafe and suffering from intense competition.
- I consider one factor, frequency of occurrence of Cafe in this project.

Conclusion

- A business problem has been identified.
- The processes of data cleaning, data wrangling and sources of the specified data has been detailed to prepare data.
- K-means clustering has been executed to cluster the neighborhoods and recommend the opportunistic neighborhoods to open a new Cafe.

Thank You 😃