Battle of Neighborhoods

Travel Recommendations for short-trip travelers to Seoul, South Korea

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Contents

Introduction

- Seoul, is the capital of South Korea, is a huge metropolis where modern skyscrapers, many modern buildings and high-tech subways and famous k-pop culture.
- There are many Notable attractions like Dongdaemun Design Plaza, Gyeongbokgung Palace, and many more tourist spots.
- There are many people who visit Seoul on a short trip and cannot visit all the neighborhood places they wish.
- Seoul is the principal tourist destination for visitors.
- The number of international tourists to Korea for this year is expected to reach a record 17.5 million amid efforts to draw more independent Chinese travelers and diversify markets.
- There are a number of short trip travelers to Seoul who are attending conferences and taking business trips. This project is to make an effort to help these travelers and help them get the best of experience in Seoul.

Project Description

- This project demonstrates an analysis of venues in Seoul, South Korea using heterogeneous data sources including data science methods.
- The process includes extraction, load, transformation and analysis of all data sources from Foursquare.
- Since Seoul is a busy city with high density of population there are lots of venues in Seoul which has a high probability of places to visit. In this project we will try to segment venues into Clusters of the Seoul city based on geographical location.
- I am particularly interested in helping people who will be visiting Seoul and want to explore the city without any chaotic situations. Furthermore, I would also prefer popular locations as there will also be people on a short-trip or visiting for conferences, or visitors from nearby countries.

Project Description

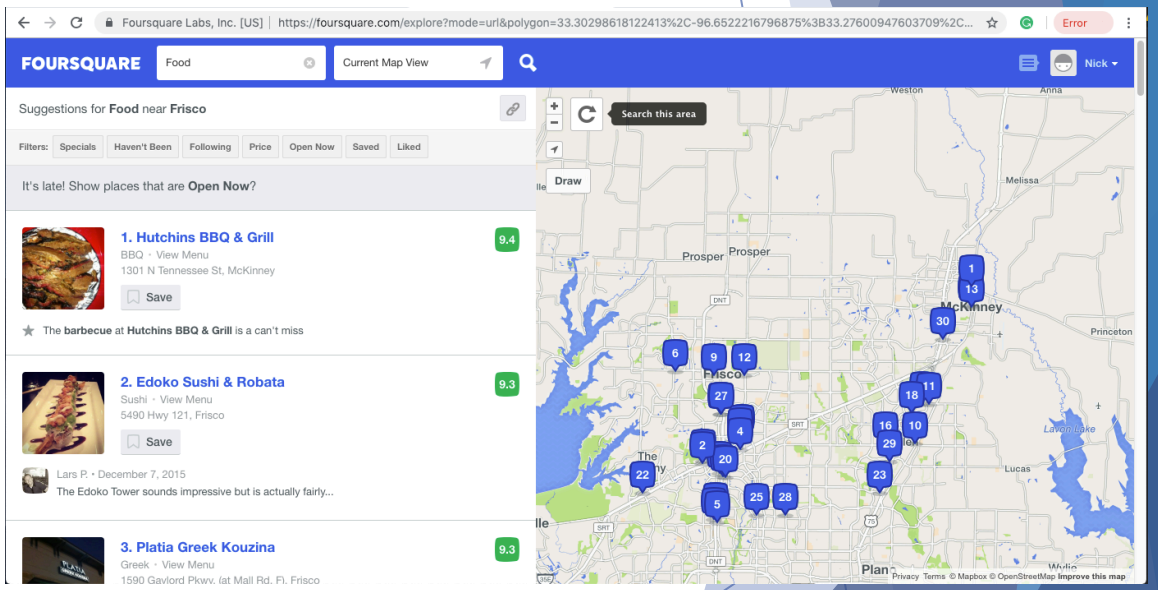
- Seoul has a high inflow of visitors from neighboring counties like China.
- I will try to use our data science capabilities to generate a few most promising neighborhoods based on these criteria. Advantages of each area will then be clearly expressed so that best possible final location can be chosen by visitors to Seoul.
- In this project we will try to help individuals travelling to Seoul by recommending venues segmented in different clusters. Specifically, this report will be targeted to travelers who are going on a short trip interested in exploring different Venue in Seoul, South Korea.

Data Sources

- **Data Sources for the project:**
- Foursquare - a location technology platform that provides various API's under the parent 'Places API' to help us fetch data. There are numerous API's for venues, users, photos, check-ins', list. In this project I have used FourSquare two API's.
- 1) Search for Venues
- 2) Get Venue Recommendations
- Now once we got the districts' latitude and longitude, let's use Foursquare Location to get the best venues from Seoul which will give us an idea of where the tourist can visit in Seoul.

Data Sources

- Data Cleaning:
- Foursquare API's used in this project return data in JSON format.
- These API's mainly return the fields like Venue Name, Address, Latitude, Longitude and Subcategory.
- While exploring the project category function is used to add category column to the data frame.
- Two data frames are made using the above API's to form recommended and venues respectively. Also, none of the columns have any missing values in any of the two data frames.

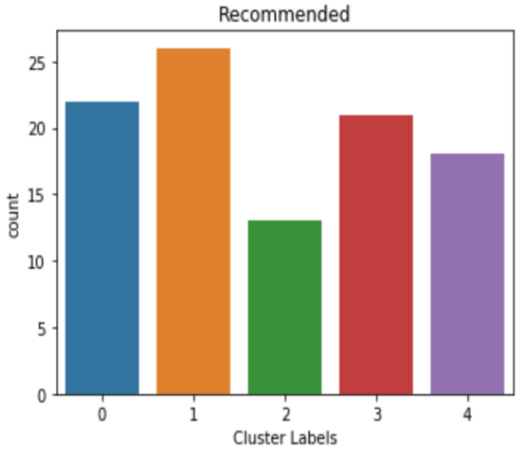


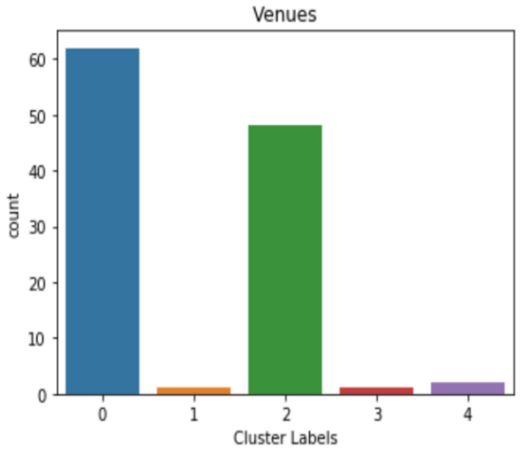
Methodology for the project

- For the methodology of the project first we tried finding the most number of venues and recommended venues in cluster using the foursquare API.
- This is based on the previous reviews from the travelers who have visited the places earlier.
- Next, we segmented all the venues in the cluster to find recommended restaurants, cafes, lounges and also hotels because these are the places frequently visited by short-trip travelers while sightseeing.

Results and Discussion

- Plot to find the most number of venues and recommended venues in cluster:

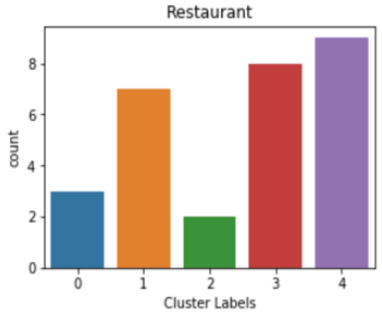


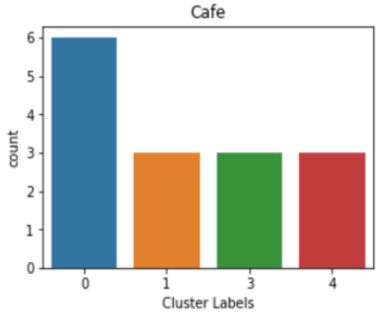


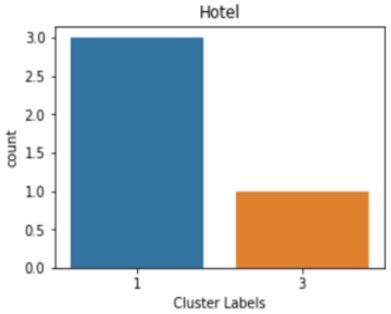
- From the plot we can see that cluster 1 has the most number of recommended venues and cluster 0 has the most number of venues.

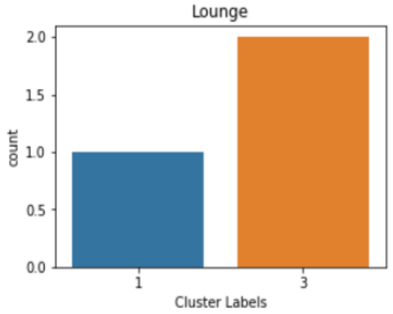
Results and Discussion

- Plotting to show the recommended venues across different Clusters:





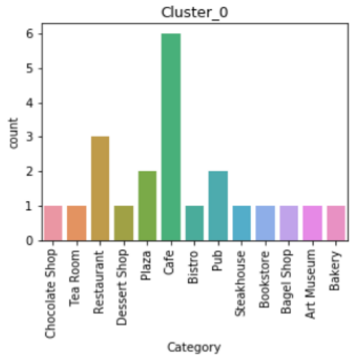


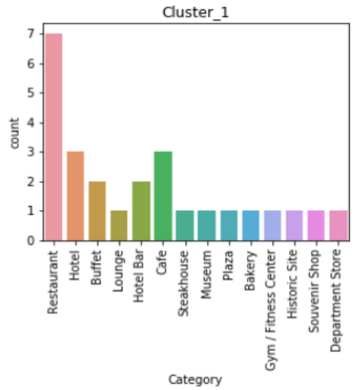


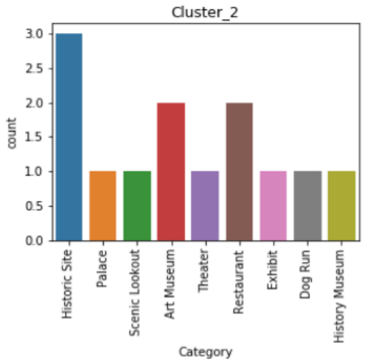
From the plots we can visualize there are more recommended restaurants in Cluster 4, more cafes in Cluster 0, more hotels in Cluster 1 and more lounges in Cluster 3.

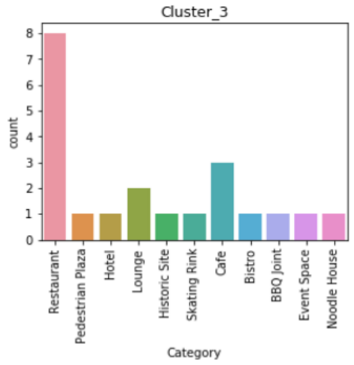
Results and Discussion

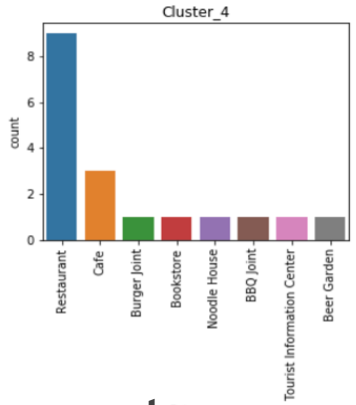
- Plots to visualize recommended places to visit in each cluster:







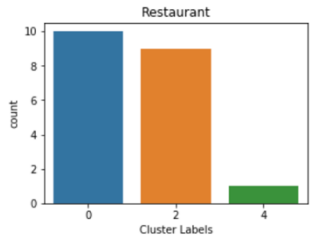


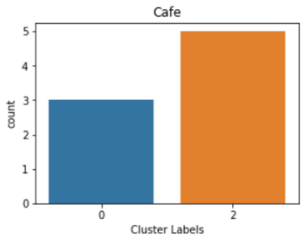


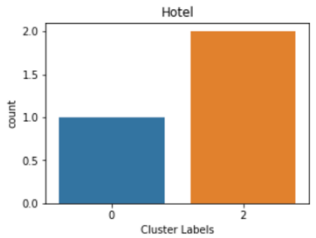
We can see Cluster 2 has most recommended venues followed by Cluster 0 and Cluster 1.

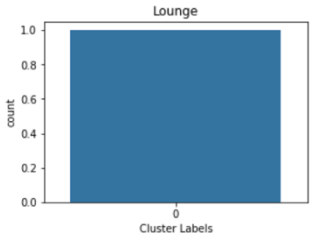
Results and Discussion

- Segmenting all venues in all the clusters:





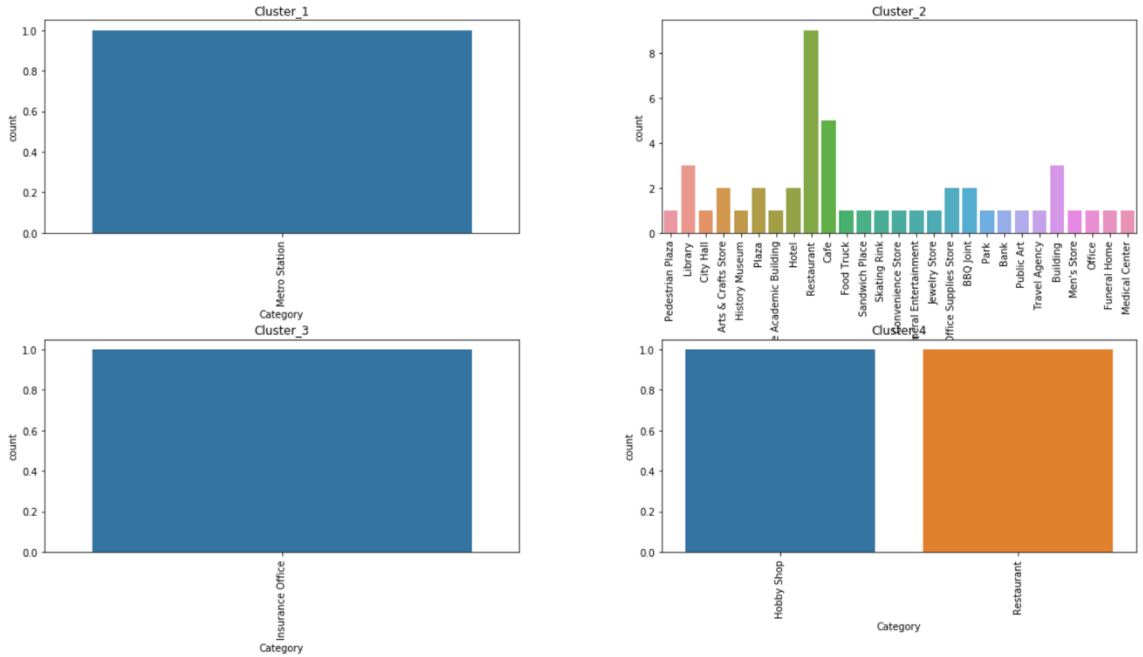




- Cluster 0 Has the most number of restaurants, cafes, hotels and bars, while cluster 4 follows it

Results and Discussion

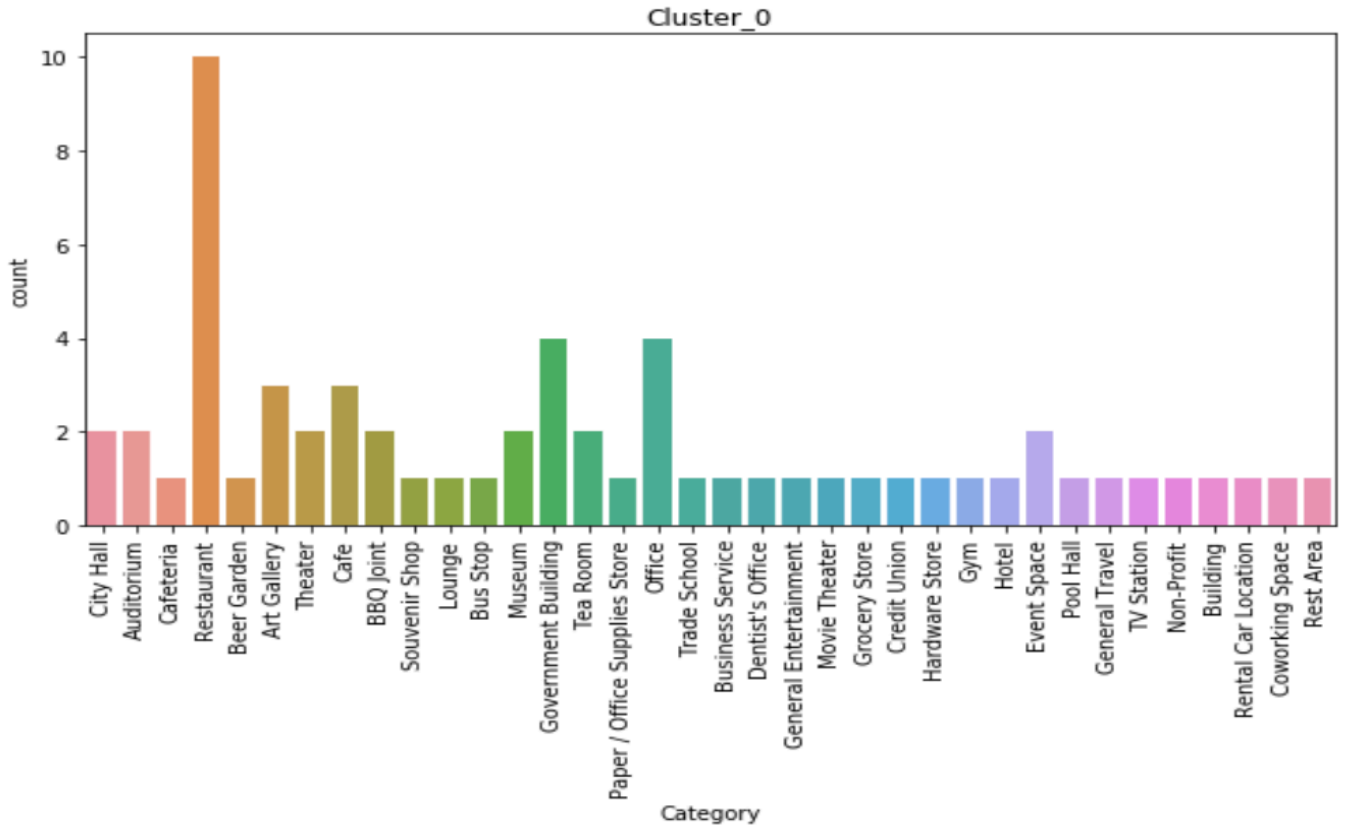
- Visualize various venues in all the Clusters:



- Cluster 0 has the most number of venues in all the clusters while cluster 2 follows behind

Results and Discussion

- **Cluster 0 Detailed view:**



Results and Discussion

- Based on our analysis to suggest recommended venues for short-trip travelers to Seoul, South Korea we have the following findings.
- Cluster 1 has the most number of recommended venues and cluster 0 has the most number of venues to visit
- We can visualize there are more recommended restaurants in Cluster 4, more cafes in Cluster 0, more hotels in Cluster 1 and more lounges in Cluster 3.
- Cluster 0 Has the most number of restaurants, cafes, hotels and bars, while cluster 4 follows it
- Cluster 0 has the most number of venues in all the clusters while cluster 2 follows behind
- Cluster 0 has the most number and variety of venues with also a number of hotels, restaurants, cafes and lounges.
- So short trip travelers can experience the real Seoul in Cluster 0.

Conclusion

- The main objective and Purpose of this project was to identify good recommended venues for short-trip travelers to visit in Seoul. T
- his can narrow down the search time for travelers and also give them the best experience. The Foursquare Data has helped us in identifying the recommended venues visited by the earlier travelers and customers.
- Creating clusters among these venues helped us to segment and segregate the whole of Seoul area and provide a easy view for the travelers to decide.
- The final decision taken by the travelers can include the type of neighborhood and additional factors like commuting, prices and their lifestyle.