



Best Neighborhood for Starting Restaurant in Tokyo

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Finding Suitable Neighborhood is Needed for new Restaurant Because

- Neighborhood with high number of restaurant will have more competition
- Neighborhood with high number of restaurant will have less profit
- Finding neighborhood with business growing opportunity



Data acquisition and cleaning

- Creating excel file with Tokyo neighborhood names taken from wikipedia page https://en.wikipedia.org/wiki/Category:Neighborhoods_of_Tokyo
- Adding latitude and longitude for corresponding Neighborhood
- Format the excel file into csv file
- Load the Csv file into Data frame in Google Colaboratory

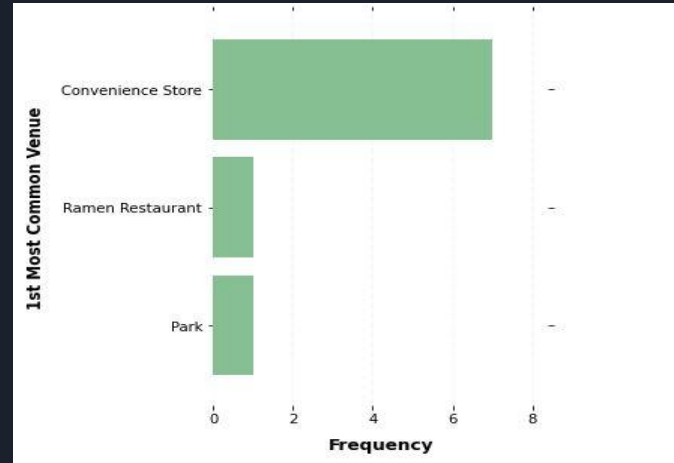
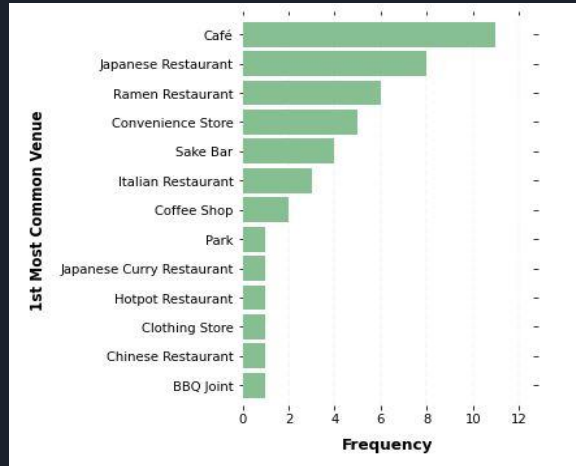


Methodology section And Exploratory data analysis

- Importing pandas, numpy, matplotlib libraries into colaboratory
- Using folium to map out the neighborhoods
- Using Foursquare api to get most common venues of each neighborhood
- Using K-means Clustering to group the Neighborhoods with similar characteristics

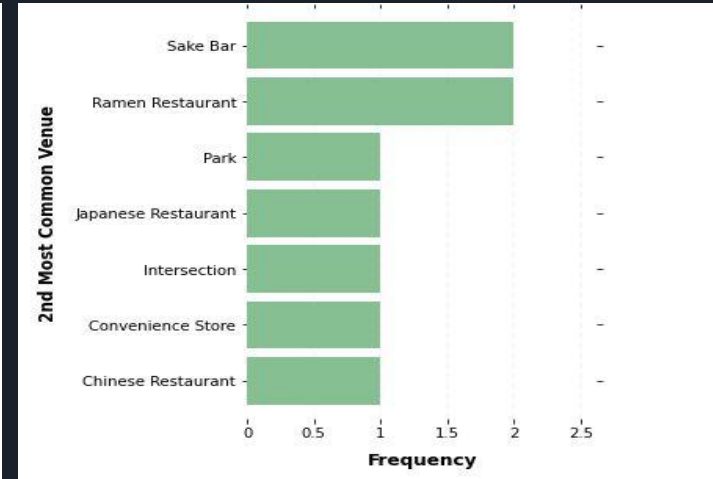
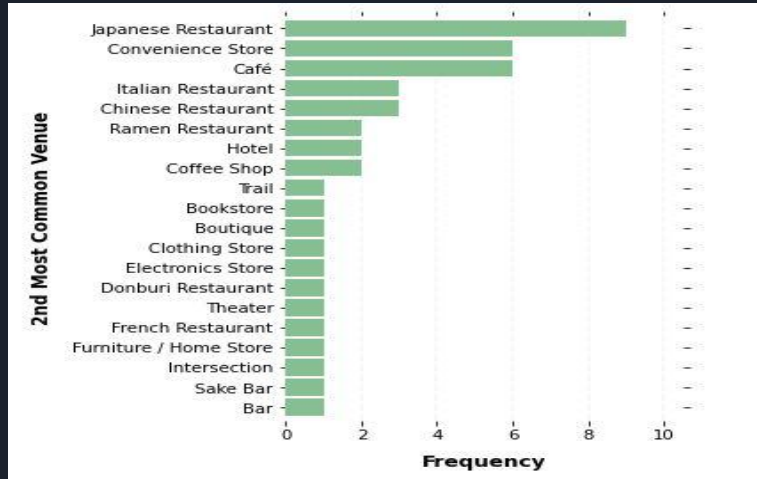
Visualizing The Clusters with Bar and Pie Chart

- Viewing First two clusters for the 1st most common venues with bar chart



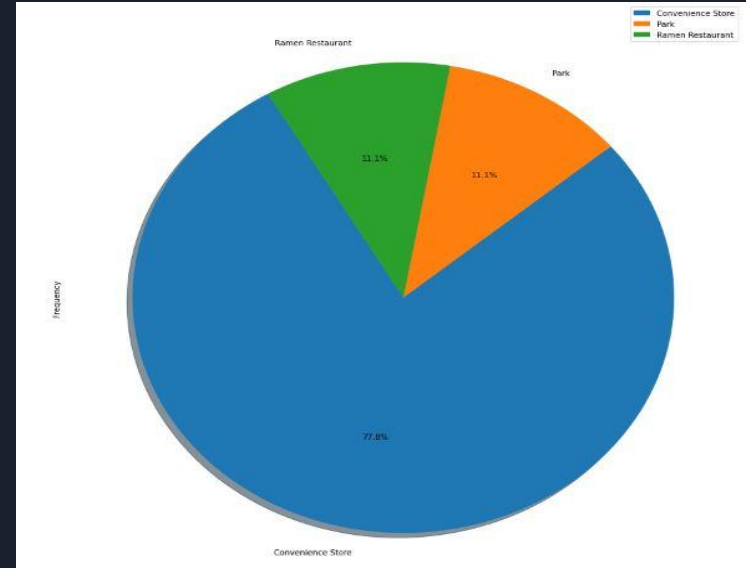
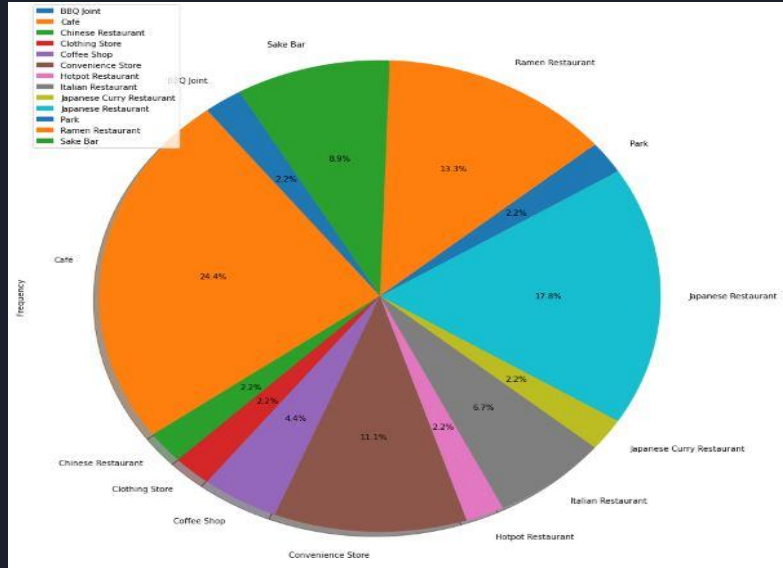
Visualizing The Clusters with Bar and Pie Chart

- Viewing First two clusters for the 2nd most common venues with bar chart



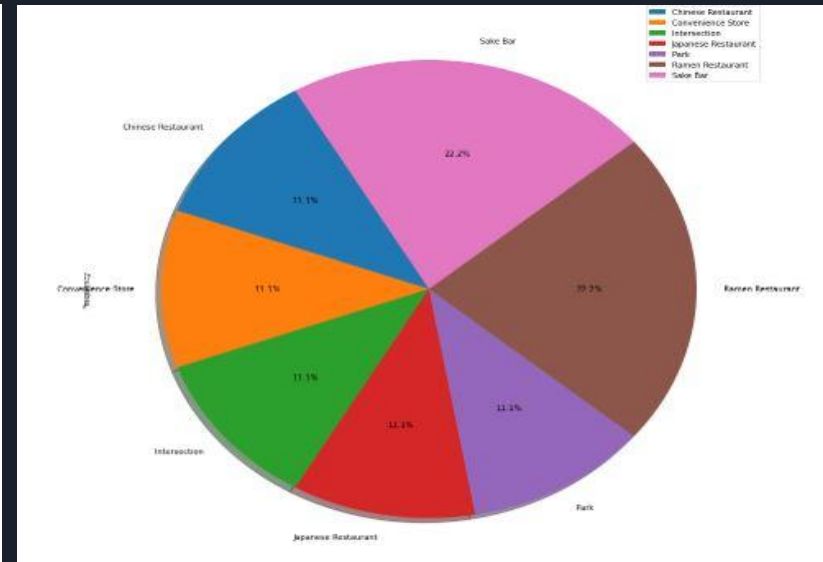
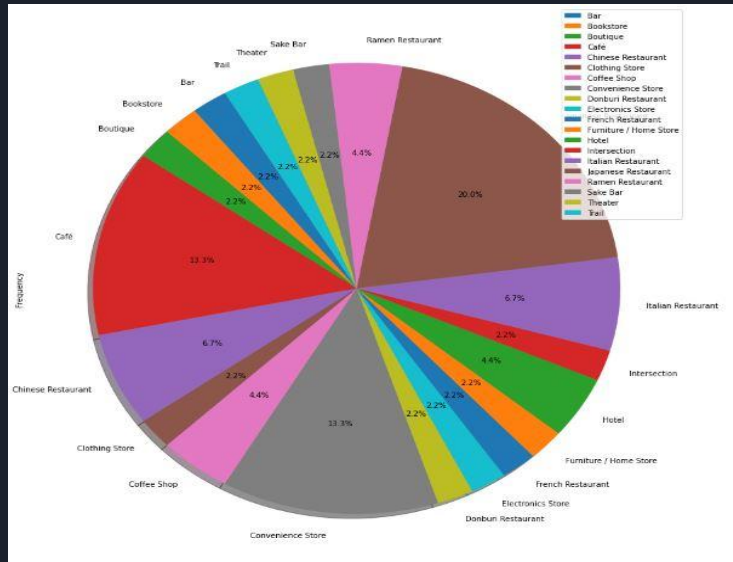
Visualizing The Clusters with Bar and Pie Chart

- Viewing First two clusters for the 1st most common venues with pie chart



Visualizing The Clusters with Bar and Pie Chart

- Viewing First two clusters for the 2nd most common venues with pie chart





Reviewing Visualization Result and outcome of Clustering

- Bar chart and Pie chart result shows 1st cluster Neighborhoods has more restaurants than 2nd cluster Neighborhoods
- 1st cluster grouped with Neighborhoods with high percentage of restaurants
- 2nd cluster grouped with Neighborhoods with low percentage of restaurants
- Neighborhoods of 2nd cluster are best suitable for new restaurants as it has less number of restaurants