Recommend a Neighborhood to Open an Indian Restaurant @ San Jose, CA

Business Context and The Problem

➢ San Jose is a large city surrounded by rolling hills and the largest city in Northern California

➢ It is a multicultural and very diverse due to a large population of migrants from various parts of world

➢ This has resulted in the establishment of various authentic ethnic restaurants in the city, ranging from Indian, Korean, Mexican, and Chinese, to Ethiopian

➢ In this project we will try to find an optimal neighborhood to open a restaurant in San Jose

➢ Specifically, this report will be targeted to stakeholders interested in opening an Indian restaurant in San Jose, CA

➢ Since there are lots of restaurants in San Jose, we will try to find locations with less Indian cuisines

➢ We are also particularly interested in neighborhoods known for restaurants but not with many Indian cuisines in vicinity

DATA

The following data sources will be used in this project to do the relevant analysis:
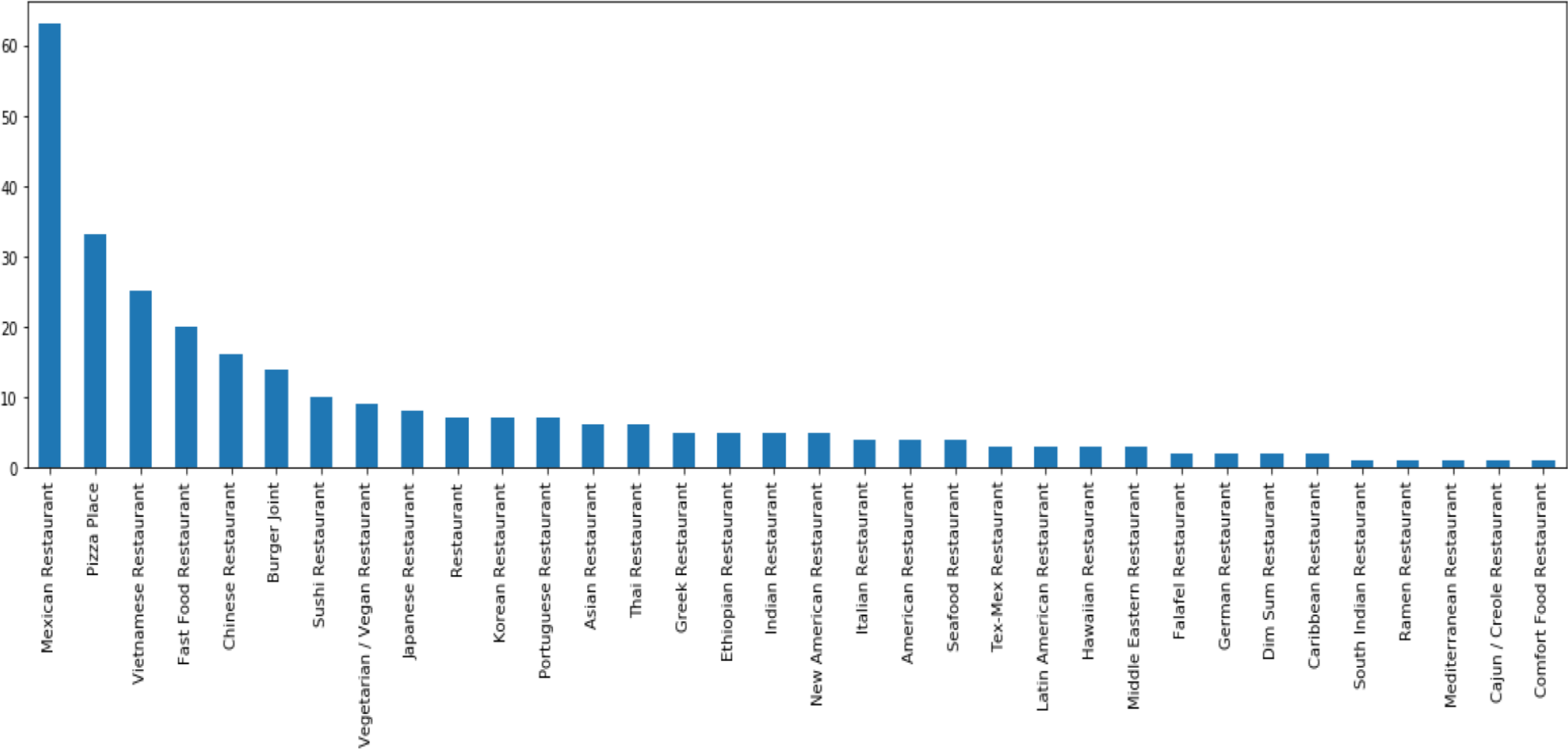
1. Neighborhoods in San Jose Wikipedia:
   https://en.wikipedia.org/wiki/Category:Neighborhoods_in_San_Jose,_California

2. Geocoder – Geocoder library and Nominatim API to determine the latitude and longitude for each of the neighborhoods

3. Location Data - Foursquare API will be leveraged to get the list of current restaurants and other most popular venues for each of those neighborhoods
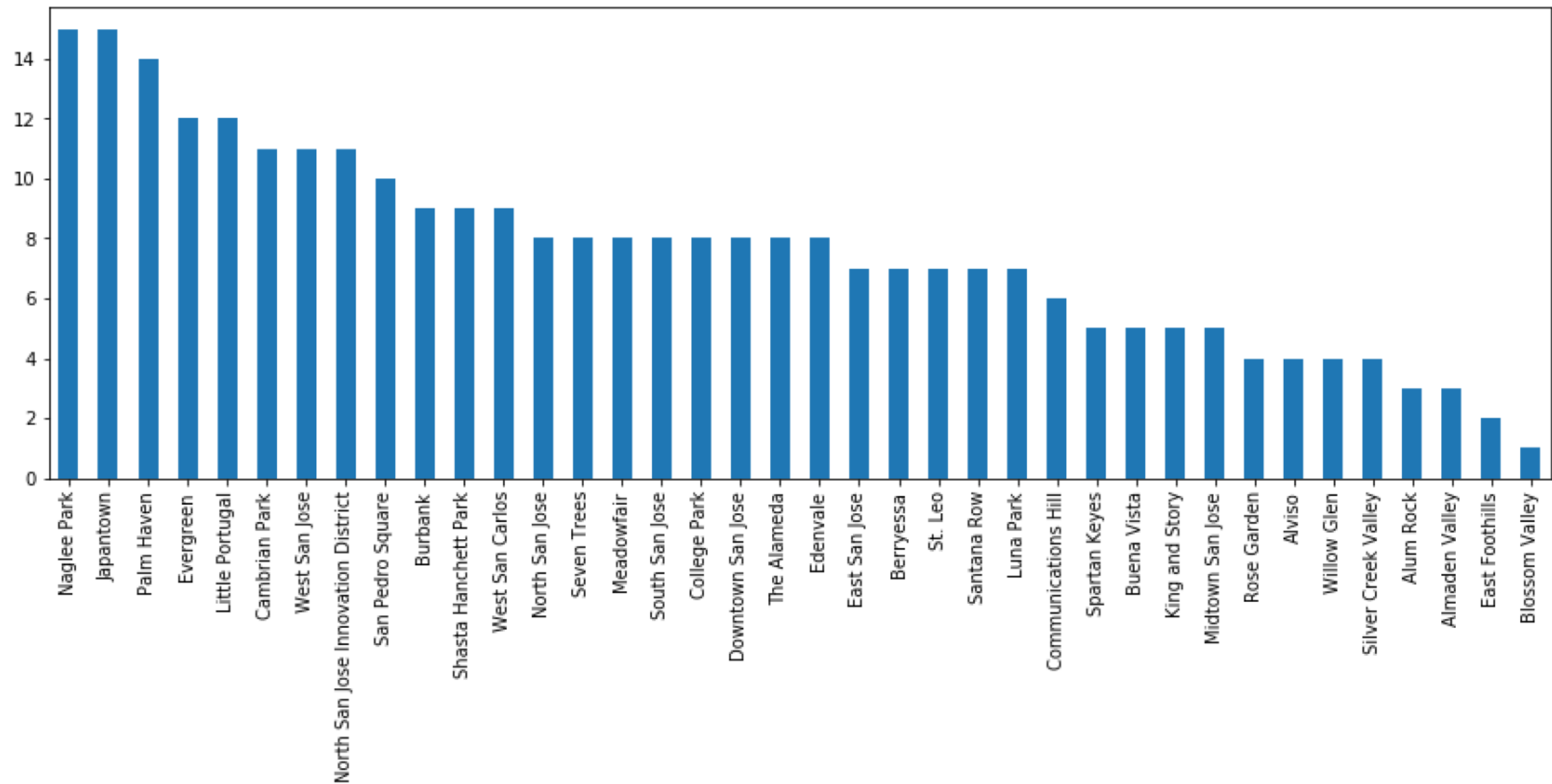
Methodology

The following analysis will be used to find a best neighborhood:

- ➤ Perform Data Wrangling to cleanup and reformat the data

- ➤ Retrieve Retaurant and related categories from Venue category

- ➤ See the distribution of Restaurants by Cuisine type

- ➤ Identify neighborhoods with Indian restaurants

- ➤ Find neighborhoods known for Restaurants

- ➤ Pick a neighborhood that has the least ratio of Indian restaurants to overall restaurants

Distribution of Restaurants by Cuisine type:

Neighborhoods that have more # of Restaurants:

Neighborhoods with Indian restaurants:

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
48	Cambrian Park	37.275156	-121.940299	Royal Taj	37.269457	-121.944910	Indian Restaurant
88	Evergreen	37.313290	-121.790650	Peacock Indian Cafe	37.313507	-121.793007	Indian Restaurant
105	Japantown	37.348010	-121.896430	Sagar Sweets	37.345903	-121.900682	Indian Restaurant
157	Naglee Park	37.337120	-121.873120	Punjab Cafe	37.339317	-121.883750	Indian Restaurant
186	Palm Haven	37.315552	-121.898154	New Indian Cuisine	37.310389	-121.897145	Indian Restaurant

Results and Discussion

➢ Our analysis shows that there are great number of restaurants in San Jose

➢ There are pockets of low restaurant density as well

➢ Highest concentration of restaurants was detected on 3 neighborhoods: 1) Naglee Park 2) Japantown 3) Palm Haven

➢ Surprisingly, there aren't many Indian restaurants in these neighborhoods

➢ It is entirely possible that there is a very good reason for small number of Indian restaurants in any of those areas, reasons which would make them unsuitable for a new restaurant regardless of lack of competition in the area

➢ Recommended zones should therefore be considered only as a starting point for more detailed analysis which could eventually result in location which has not only nearby competition but also other factors taken into account and all other relevant conditions met.

Conclusion

➢ Purpose of this project was to identify San Jose neighborhoods with low ratio of Indian restaurants in order to aid stakeholders in narrowing down the search for optimal neighborhood for an Indian restaurant

➢ By calculating #restaurants distribution from Foursquare data we have identified 3 neighborhoods that justify further analysis and can be used as starting points for final exploration by stakeholders

➢ Final decision on optimal restaurant location will be made by stakeholders based on specific characteristics of neighborhoods and locations in every recommended zone, taking into consideration additional factors like attractiveness of each location (proximity to park or water), levels of noise / proximity to major roads, real estate availability, prices, social and economic dynamics of every neighborhood including parking etc.