BATTLE OF NEIGHBORHOODS

Finding the best office location in San Francisco

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Introduction

San Francisco is the one of the world's most prosperous financial centers, and many business owners and entrepreneurs dream of setting open their own office in the city of San Francisco. For this project, I will use data analysis to assess the neighborhoods and try to provide some useful recommendation and insights for those who want to find the optimal place to set up their office in San Francisco.

A good office can make or break your company. It has a direct impact on your finances and a significant influence on your employees' morale and productivity. This is especially true for startup companies who, more often than not, have limited cash and need to retain their best talent. Location can play a major role in your organization's success. Let's say you locate your business in a major tech hub like San Francisco, for instance. You'll be competing for talent in an incredibly fierce employment ecosystem.
Based on the research I did, the first thing is transportation. A good place with convenient public transportations will definitely be helpful for your employees to commute and clients to visit. Also, it would be great to have some nice restaurants nearby that can provide quality meals for your employees. Having some nice restaurants can somewhat motivate employees to work harder. Moreover, it is important to consider the crime rate of the neighborhood because a safe neighborhood will reassure your employees and prevent the company from potential loss. Lastly, we surely need to consider the price of the place and see if make some tradeoff between the price and the quality of neighborhood. Foursquare API enables me to collect the nearby restaurants and their ratings determine the whether the transportation is good based on number of public transportations nearby.

Data

Since I plan to use choropleth to show how crime rates vary across analysis neighborhoods, the first data I will use is the GeoJson file containing the borders of San Francisco neighborhoods. Also, to show how crime rates vary across neighborhoods, I am going to use the crime rate data which is in csv format, so it is easy to be converted to pandas DataFrame to create the choropleth. The above two datasets are available on San Francisco open data website. Foursquare API enables me to explore some venues in each neighborhood and compare them. Some questions can be answered using Foursquare API such as: does the neighborhood have adequate restaurants? How is the quality? Does the neighborhood have convenient transportation? These questions will all be answered by looking at the data Foursquare provides.
Take Bueno Vista for example, we might want to see how many restaurants there are in the neighborhood. Then by processing the query response we can get a data frame

like the following:

	name	categories	address	lat	lng	labeledLatLngs	distance	postalCode	cc	city	state	country	formattedAddress	cr
0	Kezar Bar & Restaurant	Food	900 Cole St	37.769476	-122.432570	[{'label': 'display', 'lat': 37.769476, 'lng':...	950	94117	US	San Francisco	CA	United States	[900 Cole St, San Francisco, CA 94117, United ...	
1	Kezar Bar & Restaurant	Restaurant	900 Cole St	37.765751	-122.449909	[{'label': 'display', 'lat': 37.76575094246821...	678	94117	US	San Francisco	CA	United States	[900 Cole St (at Carl St), San Francisco, CA 9...	
2	The Restaurant at the End of the Universe	Spiritual Center	722 Duboce Ave	37.769290	-122.435622	[{'label': 'display', 'lat': 37.76929000000000...	709	94117	US	San Francisco	CA	United States	[722 Duboce Ave (Castro), San Francisco, CA 94...	
3	Twist Restaurant and Bar	Food	1066 14th St	37.767356	-122.437492	[{'label': 'display', 'lat': 37.767356, 'lng':...	458	94114	US	San Francisco	CA	United States	[1066 14th St, San Francisco, CA 94114, United...	
4	Thailand Restaurant	Thai Restaurant	438 Castro St	37.761955	-122.435128	[{'label': 'display', 'lat': 37.7619550287555,...	742	94114	US	San Francisco	CA	United States	[438 Castro St (btwn Market & 18th), San Franc...	bt

And the same applies if we want to examine the accessibility of the neighborhood.