The Battle of Neighborhoods project

Using Foursquare Data to upscale my business

Introduction/ Problem Statement :

Philadelphia is a well known food and dining destination and finds mention in various leading journals and magazines.

I own a coffee shop in Philadelphia which is among top rated destinations in the city. Recently, I have seen a decline in the number of customers visiting my coffee shop and i want to solve this problem by utilizing Data Science Methodology.

I have thought of introducing a scheme which will not only serve as an efficient solution to my problem but can also increase my customer outreach in the city. Basically, I want to reward users who check-in to my coffee shop for say, 5 times in a month by offering them a free meal in their next visit. A person who checks in very frequently is accorded with his picture displayed on my Coffee shop's website among 'loyal customers'. On weekends, they can get their families along and enjoy a complementary meal for free. Further, I can utilize the data to promote and expand my business in the region. The increased consumer retention rate could result in more business through referral of happy and contended customers

Data:

The problem was then divided into segments for further analysis:

1. **Defining Target Audience**
2. **Identifying current trends**
3. **Getting Foursquare user data and check ins**
4. **Utilizing Foursquare Analytics Dashboard**

Foursquare data precisely USER CHECK ins will be collected and evaluated to get the frequently visiting customers data.

Usage of foursquare analytics dashboard will also be done to evaluate how many check-ins are recorded each day, who the most recent and most frequent visitors are, how visitors who check in break down by gender, and what time of day the most people check in.

Methodology:

Foursquare API

1. **Nearby Venue Data:** Nearby Venue data was collected and stored in a dataframe
2. **User Check Ins :** User check in data was requested by defining a URL and storing results in a variable
3. **User Visit count:** Data related to frequency of users visiting various coffee shops was also gathered

Results:

id	location.address	location.cc	location.city	location.country	location.crossStreet	location.dis
4a5eba3cf964a5201cbf1fe3	1636 Walnut St	US	Philadelphia	United States	at 17th St	440
40b28c80f964a520d3f81ee3	264 S 16th St	US	Philadelphia	United States	btwn Locust & Spruce St	597
4a7daa29f964a52012ef1fe3	1701 Market St, 1st Floor, 6 Penn Ctr	US	Philadelphia	United States	John F Kennedy Blvd	302
4abbbee5f964a520a98420e3	1113 Market St	US	Philadelphia	United States	at N 12th St	478
4ac7705bf964a5203eb720e3	110 N 16th St	US	Philadelphia	United States	at Benjamin Franklin Pkwy	324

location.formattedAddress	location.labeledLatLngs	location.lat	location.lng	location.neighborhood	location.postalCode
[1636 Walnut St (at 17th St), Philadelphia, PA...	[{'lng': -75.16899160571018, 'label': 'display...	39.949920	-75.168992	NaN	19103
[264 S 16th St (btwn Locust & Spruce St), Phil...	[{'lng': -75.1680031887503, 'label': 'display'...	39.947681	-75.168003	Rittenhouse Square	19102
[1701 Market St, 1st Floor, 6 Penn Ctr (John F...	[{'lng': -75.168467, 'label': 'display', 'lat'...	39.953650	-75.168467	NaN	19103
[1113 Market St (at N 12th St), Philadelphia, ...	[{'lng': -75.15962265339033, 'label': 'display...	39.952121	-75.159623	NaN	19107
[110 N 16th St (at Benjamin Franklin Pkwy), Ph...	[{'lng': -75.16668257276343, 'label': 'display...	39.955285	-75.166683	NaN	19102

name	referralId	stats.checkinsCount	stats.tipCount	stats.usersCount	stats.visitsCount	venueChains	venuePage
Capital One 360 Café	v-1555692433	0	0	0	0	[]	NaN
Monk's Cafe	v-1555692433	0	0	0	0	[]	67757749
Corner Bakery Cafe	v-1555692433	0	0	0	0	[]	NaN
Hard Rock Cafe Philadelphia	v-1555692433	0	0	0	0	[]	NaN
Capriccio Cafe	v-1555692433	0	0	0	0	[]	NaN

Discussion:

Foursquare data can give us important information which can be used to understand how people flow between locations. Just by identifying check-in patterns of users in a restaurant, we can gain useful insights about trending venues in the city

Conclusion:

By gathering data with the usage of foursquare analytics dashboard and generated dataframe in results we drew insights about how many check-ins are recorded each day, who the most recent and most frequent visitors are, how visitors who check in break down by gender, and what time of day the most people check in.

The data will be utilized to train my team and adapt to the current taste and needs of customers.

We also drew insights about nearby destinations and what is the frequency of users visiting them. This efficient tracking methodology can provide us a good boost over competitors.