



Battle of Neighbourhoods

Capstone Project

02/14/2020

Kalesha Mohammad

Overview

Tokyo is one of the largest cities in the world and it is well known for its culture and business. It's a multicultural city. Lots of indian/south asian population lives there. And in

recent times Indian cuisine has picked up its popularity. It will be a good business opportunity to setup an Indian restaurant in a good neighborhood.

Goal

1. Goal of the project is to find a good location in Tokyo city to setup an indian restaurant
2. To run a good restaurant there should be a good footfall around the locality/neighborhood

Data Acquisition and Cleaning

Data is acquired from Kaggle datasets on Foursquare NYC, Tokyo check ins. Here is the link for the dataset.

<https://www.kaggle.com/chetanism/foursquare-nyc-and-tokyo-checkin-dataset>

Dataset:

The dataset contains following columns

- userId
- venueId
- venueCategoryId
- venueCategory
- latitude
- longitude
- timezoneOffset
- utcTimestamp

Cleanup

First of all we need to find out the Venue category for Indian Restaurant(4bf58dd8d48988d10f941735). As this data is related to checkins we will have multiple entries related to a single venueId. Overall we have 2639 rows related to Indian

restaurant.

	userid	venueId	venueCategoryId	venueCategory	latitude	longitude	timezoneOffset	utcTimestamp
1077	61	4e167b47483b3ee57cde7cb1	4bf58dd8d48988d10f941735	Indian Restaurant	35.585347	139.725556	540	Wed Apr 04 03:04:31 +0000 2012
1226	577	4b6cdfa0f964a520c45a2ce3	4bf58dd8d48988d10f941735	Indian Restaurant	35.668827	139.651013	540	Wed Apr 04 03:35:09 +0000 2012
1302	2027	4bd113bfc95212c3cd0f0	4bf58dd8d48988d10f941735	Indian Restaurant	35.673047	139.795044	540	Wed Apr 04 03:49:23 +0000 2012
1381	160	4c207c17920076b0e543c6e9	4bf58dd8d48988d10f941735	Indian Restaurant	35.632160	139.712407	540	Wed Apr 04 04:05:47 +0000 2012
1451	756	4c15a49082a3c9b6ed38fff8	4bf58dd8d48988d10f941735	Indian Restaurant	35.697391	139.759654	540	Wed Apr 04 04:19:45 +0000 2012
...
573098	255	4b738418f964a5202cb22de3	4bf58dd8d48988d10f941735	Indian Restaurant	35.700225	139.774401	540	Thu Feb 14 10:14:25 +0000 2013
573101	473	4b738418f964a5202cb22de3	4bf58dd8d48988d10f941735	Indian Restaurant	35.700225	139.774401	540	Thu Feb 14 10:14:35 +0000 2013
573196	1352	50fa90e1e4b0ba413b561131	4bf58dd8d48988d10f941735	Indian Restaurant	35.645962	139.669761	540	Thu Feb 14 10:36:54 +0000 2013
573208	779	4b57ca50f964a520524128e3	4bf58dd8d48988d10f941735	Indian Restaurant	35.713826	139.704385	540	Thu Feb 14 10:39:23 +0000 2013
573469	587	4b89f610f964a520e35832e3	4bf58dd8d48988d10f941735	Indian Restaurant	35.705770	139.577469	540	Thu Feb 14 11:50:53 +0000 2013

2639 rows × 8 columns

We need to get the unique VenueIDs to identify all the Indian restaurants located in Tokyo. There are 265 unique venueIds related to indian restaurants. It means we have 265 Indian restaurants located in Tokyo.

	userid	venueId	venueCategoryId	venueCategory	latitude	longitude	timezoneOffset	utcTimestamp
1226	577	4b6cdfa0f964a520c45a2ce3	4bf58dd8d48988d10f941735	Indian Restaurant	35.668827	139.651013	540	Wed Apr 04 03:35:09 +0000 2012
4643	2151	4f407b37e4b0085fed87706f	4bf58dd8d48988d10f941735	Indian Restaurant	35.715560	139.672422	540	Thu Apr 05 08:25:21 +0000 2012
5257	1963	4f3490a3e4b0993aec906d11	4bf58dd8d48988d10f941735	Indian Restaurant	35.777019	139.723455	540	Thu Apr 05 10:11:38 +0000 2012
5432	1474	4bee6b7fd355a5936cde0a60	4bf58dd8d48988d10f941735	Indian Restaurant	35.697160	139.785450	540	Thu Apr 05 10:53:03 +0000 2012
5576	245	4b9b0ec1f964a52069ef35e3	4bf58dd8d48988d10f941735	Indian Restaurant	35.653552	139.542270	540	Thu Apr 05 11:47:45 +0000 2012
...
564195	855	5023361ce4b0e522d483ab91	4bf58dd8d48988d10f941735	Indian Restaurant	35.674428	139.793740	540	Mon Feb 11 03:34:04 +0000 2013
564395	54	4bad9d28f964a5200f5f3be3	4bf58dd8d48988d10f941735	Indian Restaurant	35.707111	139.666830	540	Mon Feb 11 04:50:50 +0000 2013
564635	277	51188b7de4b0261e059a3fe5	4bf58dd8d48988d10f941735	Indian Restaurant	35.711858	139.810148	540	Mon Feb 11 06:11:28 +0000 2013
565655	921	4d4d08c49ee1a35df25621df	4bf58dd8d48988d10f941735	Indian Restaurant	35.653583	139.547428	540	Mon Feb 11 10:26:00 +0000 2013
571794	1830	4c22cb5e7e85c9285bb1bc21	4bf58dd8d48988d10f941735	Indian Restaurant	35.680311	139.762211	540	Thu Feb 14 02:42:00 +0000 2013

265 rows × 8 columns

```
df.index = df.venueId.reset_index()
```

We are mostly interested in venueId, venueCategoryId, venueCategory, latitude, longitude. Using this data we will be able to locate the Indian restaurants and their locations.