Exploring venues in Las Vegas, USA leveraging Foursquare API and Zomato API

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1. INTRODUCTION

1.1 Business Problem as an Objective

Las Vegas, USA is the place with highest Tourism annually in USA. There were 42.52 million **visitors** to **Las Vegas in** 2019. Each new visitor is naturally expected to have a confusion "What to eat?" and "Where to eat?" visiting a new place. The person might want to know how good a given restaurant is i.e. rating or the price range it falls under i.e. price for two . This extra information would help travelers decide which venue to choose amongst the many venues in the city. Combining the location of the venues in the city with their price and rating information would surely help visitors in a city make better informed decisions about the places they should visit as per their cuisine preferences.

1.2 Targeted Users

Las Vegas is spread over 135.9 sq. miles. Vegas is an internationally renowned major RESORT CITY with the popular attractions of Gambling, shopping, fine dining, entertainment and nightlife. The main catch is the Expensiveness of the dining in Vegas. Thus, this project explores various venues with the attributes like location, rating and even price for two to have a meal in a particular restaurant. To explore this information, this project involves the juxtaposition of both the Foursquare API and the Zomato API to fetch complete information of various venues (including name, address, category, rating, and price). Further, a map of the venues with specific color attributes will be plotted to highlight their position, and information about these venues. Such plots imbibe bountiful information in the form of their colored representations and location on the map. This enables any visitor i.e. our main targeted users to take a quick glance and decide what place to visit.

2. DATA

2.1 Resources

First, the coordinates of “Las Vegas, Nevada” obtained using geolocator of google.
Second, feeding the coordinates to the Foursquare’s Explore API, details about the nearby recommended venues within a specified radius range i.e. 2 miles are fetched.
Third, leveraging the Zomato API for the fetched venues in Second step, details about the ratings and price range are collected for each venue.
Following are the detailed steps:

From Foursquare API, using the EXPLORE request, following information are retrieved for the recommended venues within 2-mile radius from Las Vegas Central point:

1. Name: The name of the venue
2. Category: The category type as defined by the API used for classification
3. Latitude: The latitude value for the coordinates of the venue
4. Longitude: The longitude value for the coordinates of the venue

From Zomato API, using the Detailed Information request for the venues listed in above step, following information are retrieved:

1. Name: The name of the venue
2. Address: The complete address of the venue
3. Rating: The ratings provided by the users
4. Price Range: Estimated price range that the venue belongs to as per Zomato
5. Price for two: Estimated cost for the average meal of two people – excluding drinks and tips/tax
6. Latitude: The latitude value for the coordinates of the venue
7. Longitude: The longitude value for the coordinates of the venue

Joining the two above datasets on the basis of common features i.e. either Name, Latitude or Longitude.