Opening a New Vegan/Veg Venue in Austin,Texas

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Introduction

- There is no better time to capitalize on the health "craze" market than now. The best way to do this is through Vegetarian and Vegan restaurants

- Through this project, I plan to determine which locations in my home city of Austin would be best suited for adding a Vegetarian or Vegan restaurant

- the results that come out of this project would be of very high interest to investors and entrepreneurs that plan on venturing into this new market of healthy eating

Data

Data Required:

- List of neighborhoods in Austin,Texas
  - Found by scraping wikipedia page
- Geographical coordinates of neighborhoods
  - Found by using python's geocoder package
- Venue data relating to Vegan venues
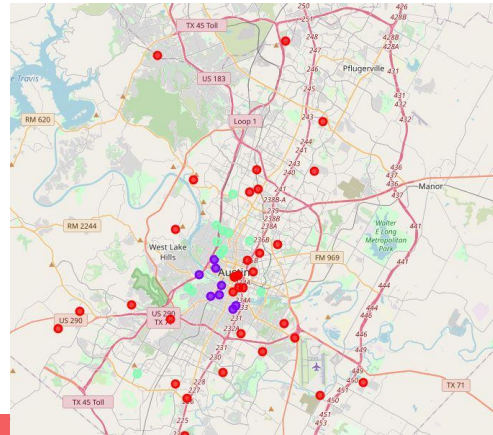 - Found using Foursquare's API

Methodology

- Web scraping of Wiki page to get neighborhood list
- Get geographical coordinates of each neighborhoods using Geocoder
- Use Foursquare API to get venue data for each neighborhood
- Group neighborhoods based on frequency of occurrence of Vegan/Veg restaurants
- Perform clustering using k-means clusters
- Visualize clustering using Folium package

Results

The results from the k-means clustering was able to show us how we can categorize Austin neighborhoods based on the frequency of Vegan/Vegetarian venues:

- Cluster 0:Neighborhoods with no Vegan/Vegetarian
- Cluster 1: Neighborhoods with the highest concentration of Vegan/Vegetarian venues
- Cluster 2: Neighborhoods with a moderate concentration of Vegan/Vegetarian venues

Discussion

- The lack of competition in those areas in Cluster 0 from other Vegan/Vegetarian venues would be second to none
- Opening a Vegan/Vegetarian venue in the area with the highest concentration of Vegan/Vegetarian venues would bring a large amount of competition
- Cluster 2:
  - not have as much completion as cluster 1 neighborhoods
  - can be determined that the people living in those neighborhoods already have an interest in Vegan/Vegetarian food

Conclusion

The neighborhoods in cluster 2 are likely the locations to open a Vegan/Vegetarian venue in the city of Austin, Texas. The findings of this project will help investors and entrepreneurs interested in opening a Vegan/Vegetarian venue take advantage of high potential areas while dismissing overcrowded areas and those without an ideal customer base