IBM Applied Data Science Capstone

Food Trucks – Opening a New Business in Austin, Texas

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Business Problem

- New food truck owners in Austin, Texas do not know where to park their food truck to minimize competition
- Considering Austin is one of the top food truck cities in the United States, owners will need to know this information early on if they want to succeed.

Data

Type of Data

- Austin neighborhoods
- Longitude/Latitude of neighborhoods
- Food truck data

Data Sources

- Wikipedia
- Geopy package
- FourSquare API

Methodology

Source Data

- Scrape Wikipedia with Beautifulsoup
- Remove non-necessary information
- Loop neighborhood through Geopy to get coordinates

FourSquare

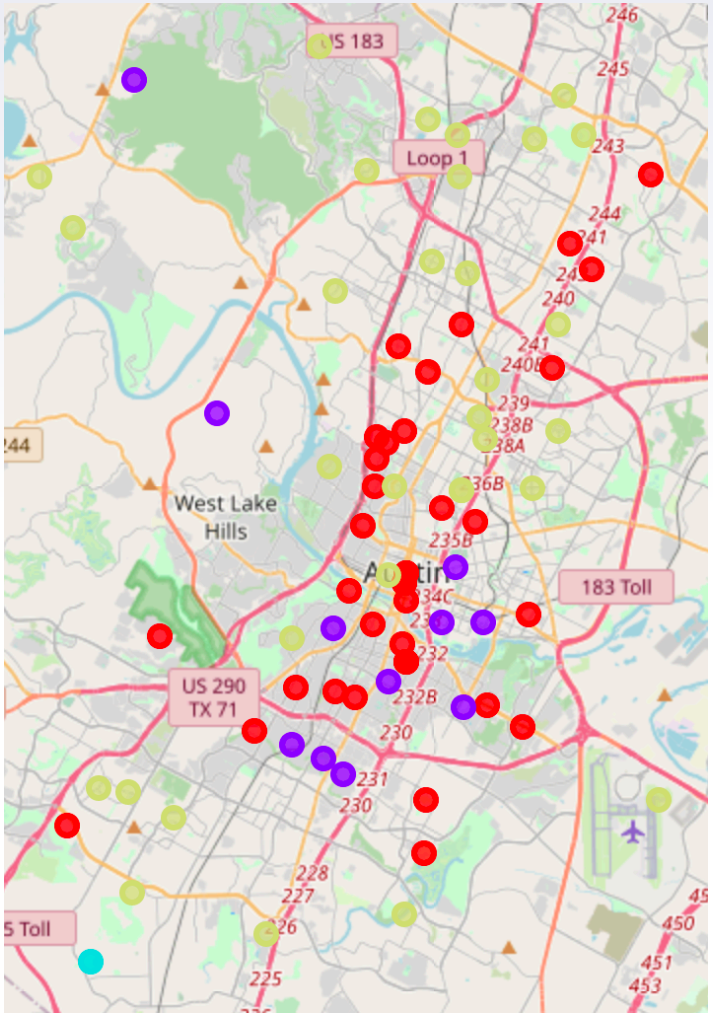
- Loop Geopy coordinates to get venue data
- Group by venue category and get mean per neighborhood
- Filter by food truck

Visualization

- K-Means Clustering to segment data
- Clean data
- Impose data onto Folium Map

Results

- Created 4 Clusters
  - Cluster 0: Red circles with low Food Truck count
  - Cluster 1: Purple circles with moderate Food Truck count
  - Cluster 2: Blue circle with only one Food Truck count (anomaly)
  - Cluster 3: Yellow circles with low Food Truck count (residential areas)



Recommendations and Conclusion

- Open food truck in Cluster 1
- There is mobility between Cluster 0 and 1, due to the nature of the business
- Avoid Cluster 2 and 3
- Food truck owners can now see how saturated each neighborhood is using this analysis.