Coffee Shop Project: Austin, Texas

Capstone Project - The Battle of Neighborhoods (Week 2)

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Introduction:

Location is one of the most important aspects when establishing a coffee shop business or any type of merchandise business. The sales and revenue of these types of businesses will depend on where the establishment is located. There will be a difference between the profits between a business in the hub of a city and another one in the suburbs or outskirts of that same city. Any merchandise business around the world requires a quality location for it to succeed, and the same holds true for coffee shops.

Problem:

The primary purpose of this project is to find the best location for a café in the city of Austin, Texas. Using methods of data analysis, visualization, and Python modules, we will discover the best location to open a brand-new coffee shop in Austin, Texas.

Target Audience:

The target audience for this project are people, who are thinking about starting a coffee shop in Austin, Texas. Technically by altering some parts of the code though, this project could be for a person wanting to open a restaurant in New Delhi, India or another person wishing to open a bakery in Paris, France. With a change of code, this project could be for anyone wishing to open a business in their city. However in this instance, this project will be solely for the people thinking about starting a coffee shop in Austin, Texas.

Data:

The data required for this project will come from multiple sources:

1. The latitude and longitude coordinates for the city of Austin, Texas will be obtained through "geocoder". These coordinate points are important for marking the various coffee shops on the map of Austin, Texas.

2. All the data associated with the coffee shops in the city of Austin, Texas will be provided by the Foursquare API and the Python modules such, Folium. This data is important to find the coffee shops in Austin, Texas and also to predict the best location for a coffee shop in the same city.

Methodology (Part 1):

- Loading the Modules (Pandas, Numpy, Folium, etc.)
- Inputting Foursquare Credentials
- Obtaining the Master Data for the coffee shops in the city of Austin, Texas

|	uid	name	shortname	address	postalcode	lat	lng
0	50981188e4b0f94e062c8664	Houndstooth Coffee	Coffee Shop		78701	30.266194	-97.743025
1	4d21da6dd7b0b1f7c980209f	Royal Blue Grocery	Grocery Store		78701	30.268378	-97.742678
2	56170c17498ecd6b0a1e7930	Voodoo Doughnut	Donuts		78701	30.267602	-97.740785
3	423a1a00f964a5202f201fe3	Halcyon Coffee, Bar & Lounge	Coffee Shop		78701	30.266935	-97.745717
4	575825ea498e6d816e1142cb	Caffé Medici	Coffee Shop		78701	30.270119	-97.742154

Methodology (Part 2):

- Plotting all the coffee shops in the city of Austin, Texas
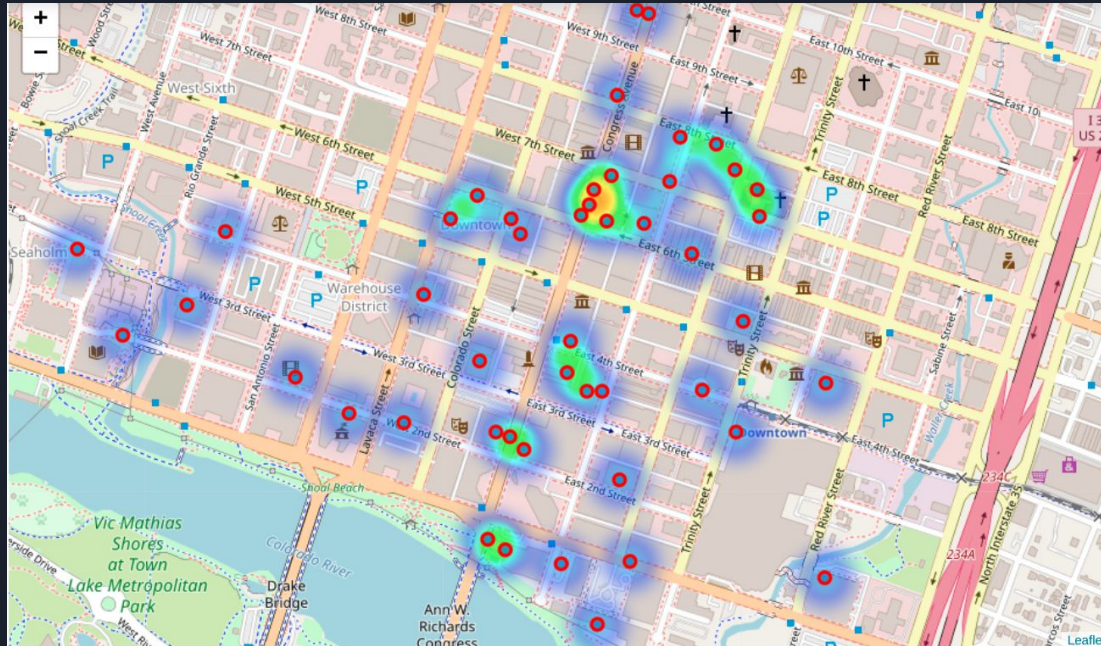
Result:

The Clustered Map, which shows the best location to start a coffee shop
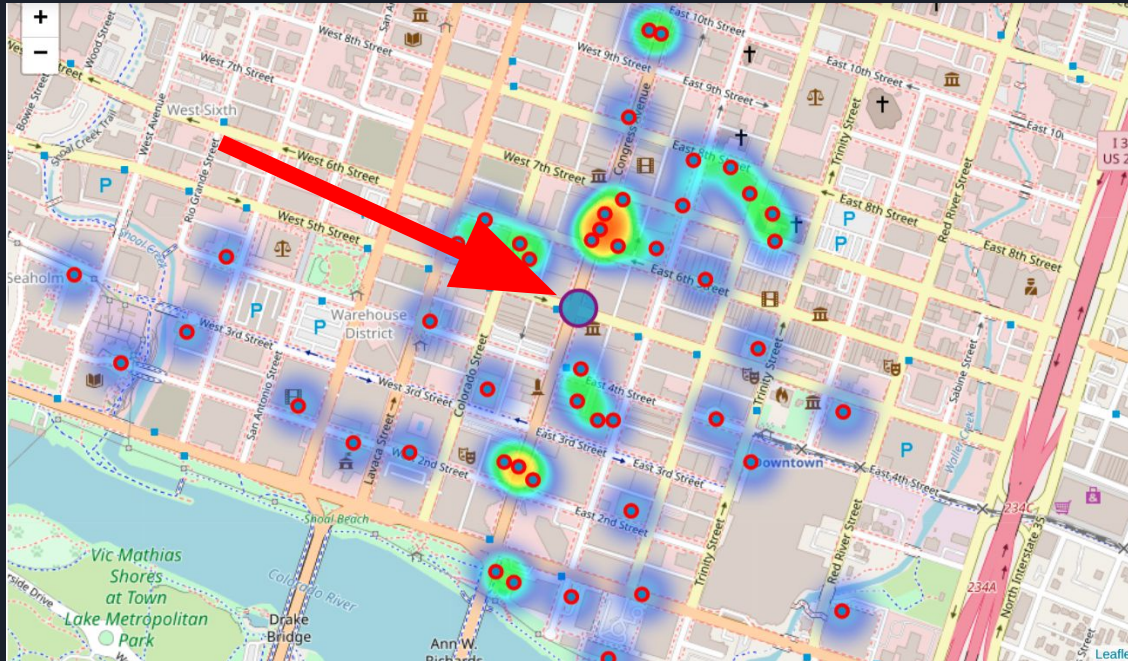
Discussion and Conclusion:

      Because of this project, we are able to find the optimal location for starting a coffee shop. Because of the many nearby attractions, a close by highway, and also located near downtown Austin, Texas, this spot would indeed be an ideal location for starting a coffee shop.

Thank You!