Capstone Final Project

BATTLE OF THE NEIGHBORHOOD

Introduction

Cuenca commonly referred as 'Santa Ana de los Cuatro Rios', is the capital and largest city of the Azuay Province of Ecuador. Cuenca is located in the Andes Region of South America at about 8400 feet (2560 meter) above the sea. Down town of the city is listed as Unesco World Heritage site due to its many historical churches and buildings. Also, almost all government entities are there too. Therefore, every day there are many people who visit the center for tourism or work, and looking for places to eat while taking a break from their day a good place for a food business.

Business Problem

This final project seeks to explore and find a good place to start a new business where people can eat and drink alcoholic beverages such as cocktails or beers and where there are few or no places similar business. Question to answers: Where is a good place in downtown of Cuenca to start a new bar-restaurant business?

Data

The databases that will be used are:

- "World Cities Database" available in https://simplemaps.com/data/world-cities: This database contains the names of all the countries and cities of the world, with their respective geographic location information in terms of longitude and latitude.

- Foursquare database of Cuenca: This database will contain location of bars and restaurants in the downtown of the Cuenca city and will be constructed starting from the World Cities Database.

Methodology

The methodology be used is:

- Collect the dataset of the world cities.

- Clean the data and extract only the information related to the city of Cuenca in the country of Ecuador.

- Using Foursquare and the clean data, extract the information of the location of food business around 500 meters to the central park of Cuenca. The radius was selected considering that around to the central park is located the most commercial zone in the downtown of Cuenca.

- The analysis approach is based on, finding areas where there are few or no food businesses (restaurants or bars) and also is like 3 blocks near to the central park.

- In the final step, the data are used to generate map visualization and the area of interest is select with a green color.
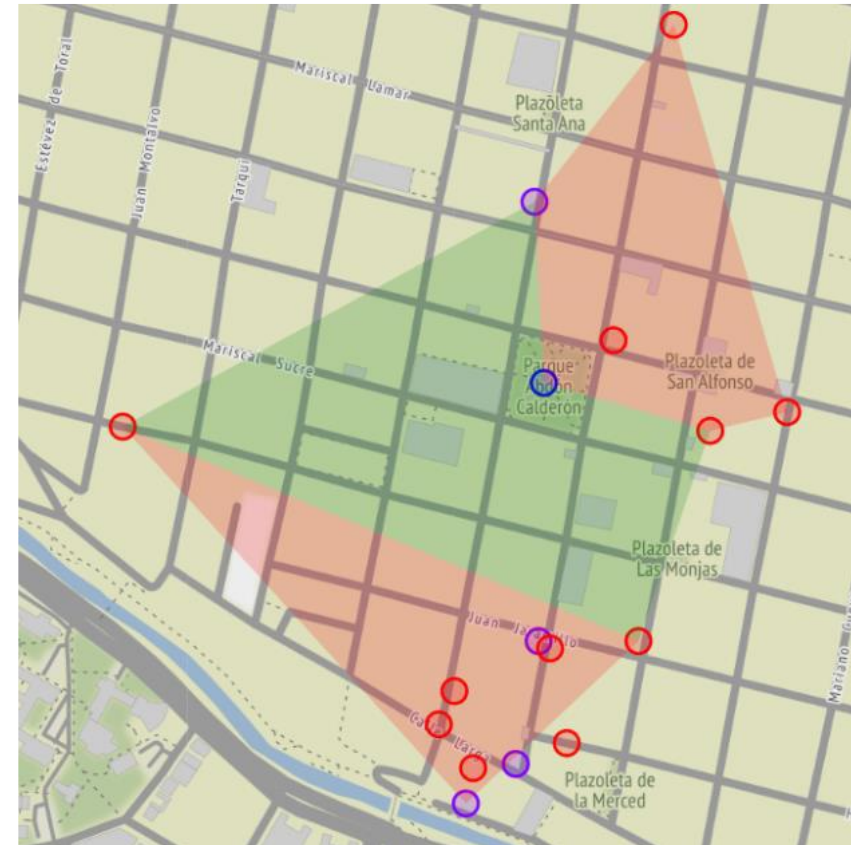
Results

The results of the analysis show that most of the food business are grouped at the south and the east of the central park. In the figure, the location of the food business is shown, consider that red dots represent restaurants, violet dot represent bars and blue dot represent the central park.
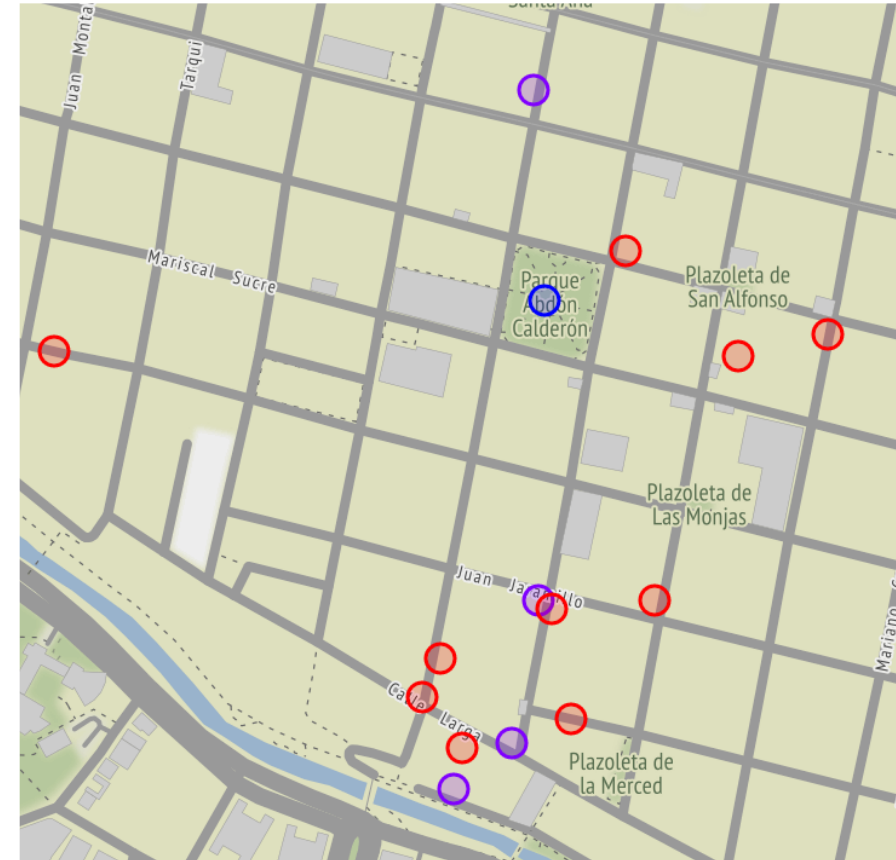
Results

In addition, it can be noticed that there are areas that are close (about 2 or three blocks) to the central park and there is not food business.

Based on this geospatial analysis, a good place to start a new bar-restaurant could be in the green area of the

Conclusion

Based on the results of the project, there is an area neat the downtown where there are no food businesses and consider only this fact could be a good place to start the new food business. Furthermore, it could be noted that in the database extracted from Foursquare there is only 14 food business that don't represent the real quantity of food business and also there are other parameters to consider in order to made a deeper and real analysis. This fact is important to consider, but due to the idea of this project is for educational purposes the analysis approach meets the goal.