BEST PLACE TO OPEN A BREWERY AROUND CHARLESTON, SC

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Introduction

Charleston, SC has recently seen an explosion in local breweries, and we want in on the action. We will use 4 square to determine the ideal site to open an new brewery by analyzing distance from and popularity of competitive breweries to identify an ideal area to open a new brewery.

Interest

This project would be of interest to anyone planning to open a brewery in the Charleston area.

Data

Data used to perform this analysis will include census data for each Charleston and the surrounding cities and data obtained from 4square to assess the number of breweries in each area, and the popularity of each one.

Methodology

I will first analyze the population density of each city through census data, and compare that to how many breweries there are in that city to see if any particular city has a high population-per-brewery, indicating the potential for higher demand. Then I will produce a cluster map of the existing breweries in the cities surrounding Charleston SC to visualize any areas that have too many or too few breweries. The ideal location will be far away from existing breweries. If existing breweries are nearby, we would want to use the reviews on 4square to determine if their popularity would tend to draw business away from a new up and coming brewery.

Results

Even though the two breweries that currently exist in Mount Pleasant received high reviews, a particular area of Mount Pleasant would be the ideal place to open a brewery due to the large population, lack of breweries in comparison to other areas, and distance from existing competitors.

Discussion

We were able to confirm that Mount Pleasant has the highest population per brewery by dividing the population mined from the census database by the number of breweries obtained by searching each city for breweries on 4 square, indicating a higher demand than the surrounding areas. After mapping out all existing breweries in the surrounding area, I obtained ratings from 4square for select breweries to explore additional areas and ensure Mount Pleasant would still be a good fit and the breweries in the other areas received good reviews as well.

I then increased the radius of the markers on the map as a way to visualize areas that are too close to existing breweries, and areas that don’t have any nearby breweries. Fortunately, there was a large area in Mount Pleasant that was not near any existing breweries, which again is beneficial. Before making a final decision, I analyzed the surrounding venues to ensure there were no nearby venues that would make opening a new brewery in that area a challenge. Fortunately, there were no red flags and the area appeared to be ideal.

Conclusion

In conclusion, based on the large population, the population to existing breweries ratio, distance from existing competitors, lack of available alternatives, and lack of surrounding venues that would hinder a new brewery from developing, the area marked in red would be the best area to open a brewery in the Charleston area.

The link to the notebook is: <https://github.com/johnnydbags/Coursera_Capstone/blob/main/Battle%20of%20the%20neighborhoods%202.ipynb>

Unfortunately, the maps won’t appear in the workbook in github. I have cut and pasted the images below, hopefully that works. The maps below are in the order they should appear in the notebook in Github.







