IBM Applied Data Science Capstone

Case study to open a Brazilian Pizzeria in Maricá Rio de Janeiro

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Introduction

This study is part of the completion of the IBM Applied Data Science Capstone from Coursera Platform course.

In this study we will make a mapping of pizzerias, in the city of Maricá / Rio de Janeiro to verify the amount of pizzerias in the region and if there is a market need to start or not a business of Brazilian pizzeria.

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Project Proposal

The city of Maricá is a city located in the Metropolitan Region of Rio de Janeiro State. In recent years, while the state (highlighting the capital) has been suffering from the crisis, Marica has been moving in the opposite direction, growing economically and socially.

According to a survey conducted in 2018 (CAGED - General Register of Employees and Unemployed by the Ministry of Labor), Maricá is among the five cities in the state of Rio de Janeiro that have generated the most employment with a formal contract in the last 12 months. Such employment growth is mainly due to investments in oil royalties and social programs.

Considering that Maricá is the city with the highest return on oil royalties in the entire state of Rio de Janeiro, also considering the increase in investments in the city by the public authorities and the rapid development of the region, it is interesting to do a feasibility study. to open a pizza place.

Business Problem

The objective of this study is to analyze if there is a need in the city of Maricá to open a pizzeria and, if there is, the choice of the best place to set up the company.

Target Audience

Investors and entrepreneurs from the region who are looking for partnership for business society.

Data to solve the problem

- Address list of pizzerias within the city of Maricá
- Latitude and longitude coordinates of these addresses
- Total of Pizzerias in 3 main subregions: Inoã, Itaipuaçu and Center of Maricá

Methodology

The city of Maricá / RJ is divided into 3 major regions: Center of Maricá, Itaipuaçu and Inoã.

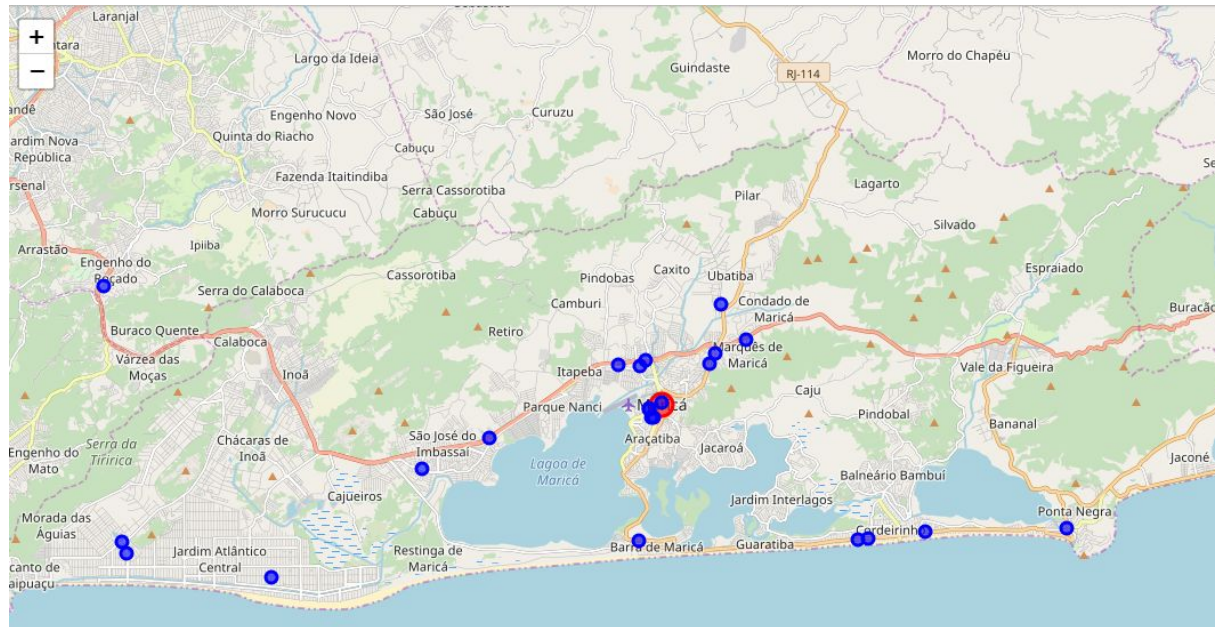A mapping will be made of the quantity of pizzerias in the 3 major regions.

The decision to set up a pizzeria will be based on the amount of competition in the surrounding area and the demographic density of the region.
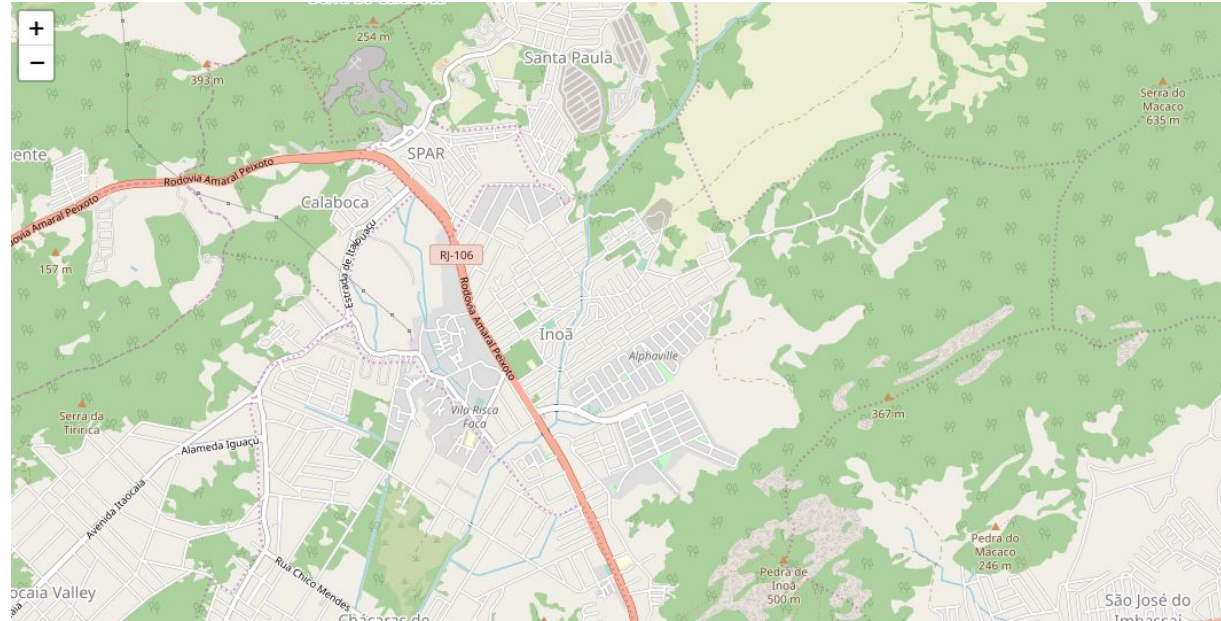
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Results

Total Results

Total of 29 pizzerias in the city of Maricá/RJ.
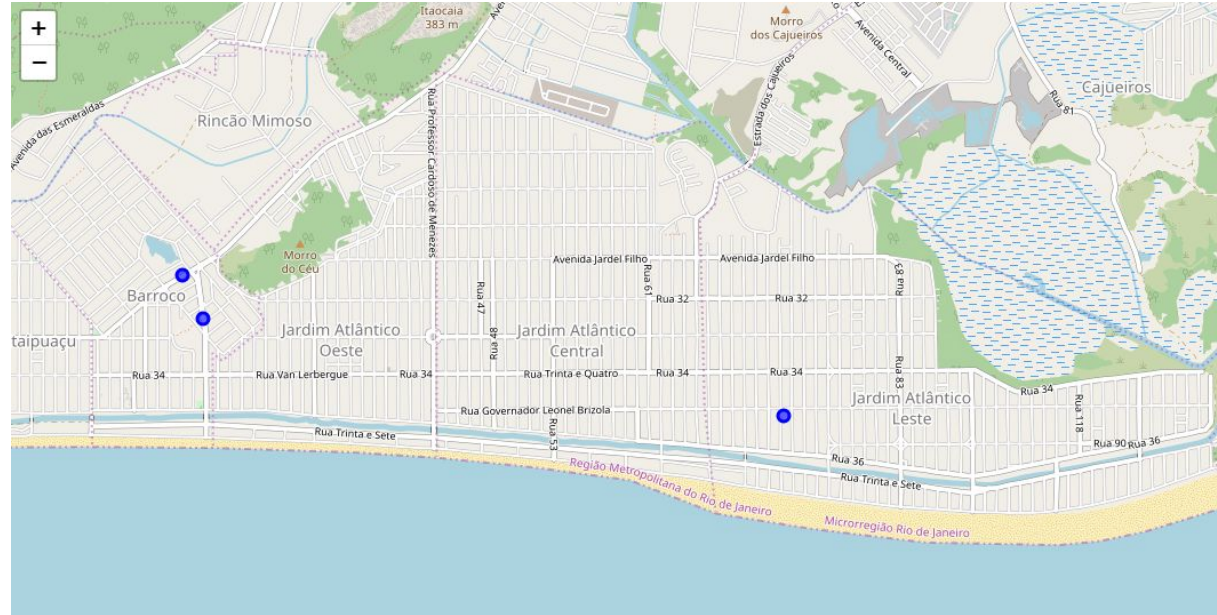
Sub Region 1 - Inoã

No pizzeria and low population density due to large amount of green area in the region
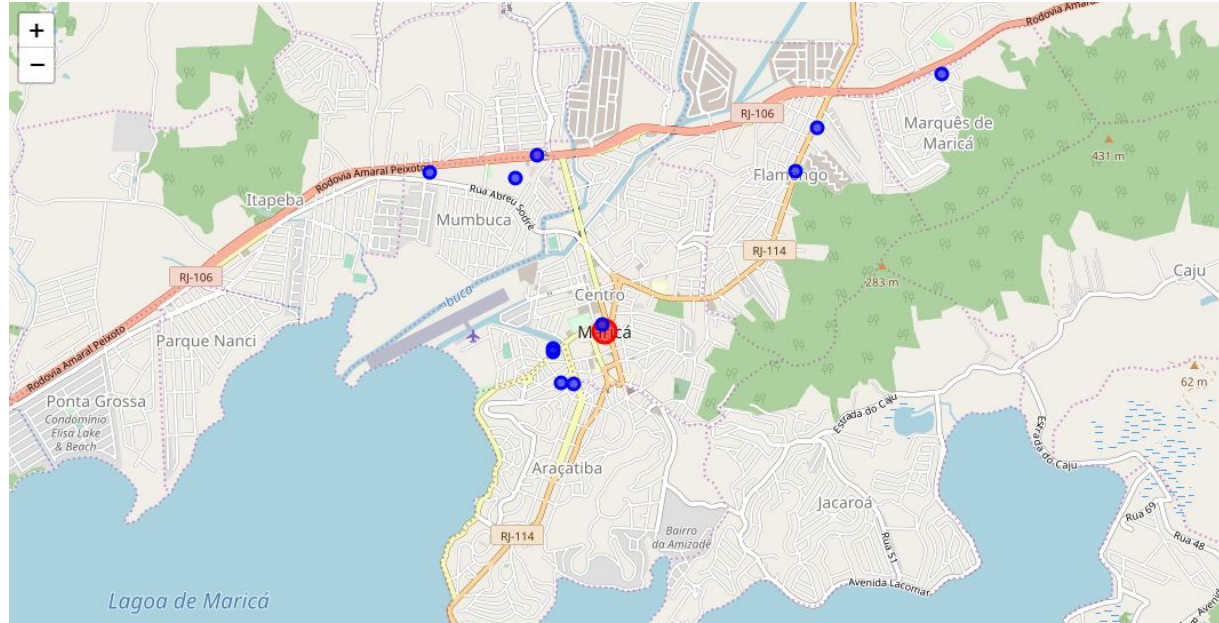
Sub Region 2 - Itaipuaçu

High demographic density and only 3 pizzerias.

Sub Region 3 - Center of Maricá

High demographic density and 11 pizzerias.

Discussion

It is possible to verify a higher concentration of pizzerias in the region of Center of Maricá. Despite the high population density there is also a large number of pizzerias to serve this region and consequently a high number of competitors. So, the recommendation is that the new pizzeria is not created in this subregion of the city.

The Inoã region has low population density due to the large amount of green area, and no nearby pizzeria. The low demographic density may be a negative point for setting up the new pizzeria as it could limit the service to a few people, when in fact, the intention is to serve as many people with the lowest competition as possible.

The Itaipuaçu region has a high population density and few pizzerias (only 3). These data show us that the best recommendation is that the pizzeria be created in this subregion, specifically in the Jardim Central Atlantic region (red square). The location is strategic even so that motoboys can deliver pizza to both Inoã (green square) and Itaipuaçu (red square and red arrows) areas, maximizing the possibility of service and consequently increasing profits.
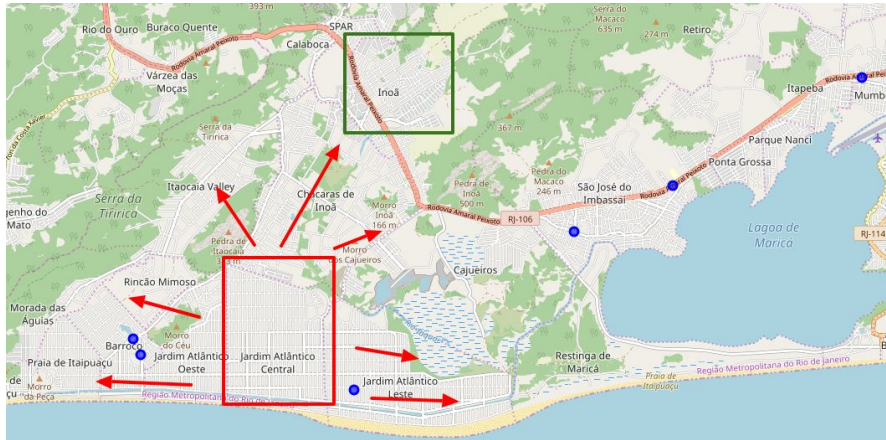
Conclusion

This case study was able, through demographic data, to arrive at relevant information for the creation of a new venture. It is estimated that the pizzeria will have a better chance of success if it is created in the region mentioned above.

This case study aimed to understand a little better the quantity of pizzerias in the whole region of Maricá / RJ.

All the data gathered and all the information gathered from this data was responsible for a recommendation of what the business owners should do to maximize their service and consequently their profits having the fewest possible competitors to compete for customers.