The background is a complex digital composition. It features several overlapping bar charts in shades of teal, green, and red. A network of glowing blue lines connects various points, suggesting a data network or social media structure. Faint binary code (0s and 1s) is scattered throughout the scene. A bright blue lens flare is visible in the lower-left quadrant, and another is near the center-right. The overall color palette is dominated by blues, greens, and reds, creating a high-tech, analytical atmosphere.

ANALYSIS OF BRAZIL'S MAJOR CITIES, DIFFEREN CES AND SIMILARITIES

THE ROLE OF CONSUMER MARKET CLUSTERS

- In a highly competitive market, decisions must be supported by several sources of information
 - Cities and regions can have differences in preferences and culture
 - The difference between those regions is a valuable information that can be game changing in business success
-

ANALISYS OF BRAZIL'S CAPITAL CITIES

- Brazil is:
 - 5th biggest country in the world
 - 6th largest population
 - These characteristics creates a very diverse market that must be explored and better understood before any marketing decision
-

OUR TOOLS

- In this analysis we will gather data from the Foursquare API, with information about most popular venues
- This is a categorical feature, therefore, data processing must be done to convert that data into something that can be evaluated
- Then, we used clustering to define cluster markets in brazil

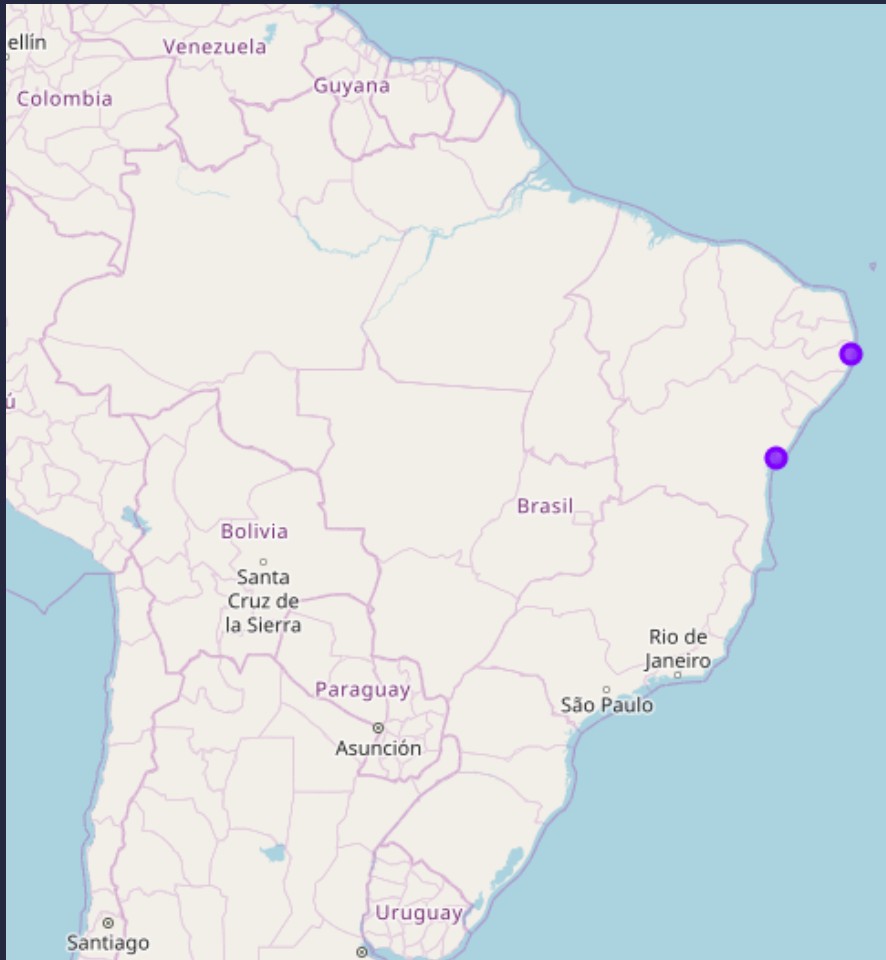
CLUSTER 0



- Cluster formed by São Luis and Florianopolis
- The most “unbalanced” result
- Despite the difference, both are costal cities, therefore, this can have some influence.

Gym / Fitness Center	16
Bakery	10
Restaurant	9
Café	7
Burger Joint	7
Sushi Restaurant	6
Bar	6
Ice Cream Shop	5
Plaza	5
Pizza Place	5

CLUSTER I



- Cluster formed by Recife and Salvador
- These are the two biggest Northeast region cities
- They have a high number of Plazas (characteristic of big cities) and touristic attractions (beaches, museums and theaters)

Plaza	9
Bakery	8
Restaurant	8
Brazilian Restaurant	8
Art Museum	7
Coffee Shop	6
Ice Cream Shop	6
Café	6
Theater	5
Beach	5

CLUSTER 2



- Cluster Rio Branco and Palmas
- Palmas is the capital city with least inhabitants in Brazil, Rio Branco is the 4th least.
- These places don't have a high number of touristic venues, and they have more “common” venues that would be find in smaller cities.

Brazilian Restaurant	16
Ice Cream Shop	15
Gym / Fitness Center	12
BBQ Joint	9
Snack Place	8
Hotel	7
Sandwich Place	6
Gym	6
Park	5
Pizza Place	5

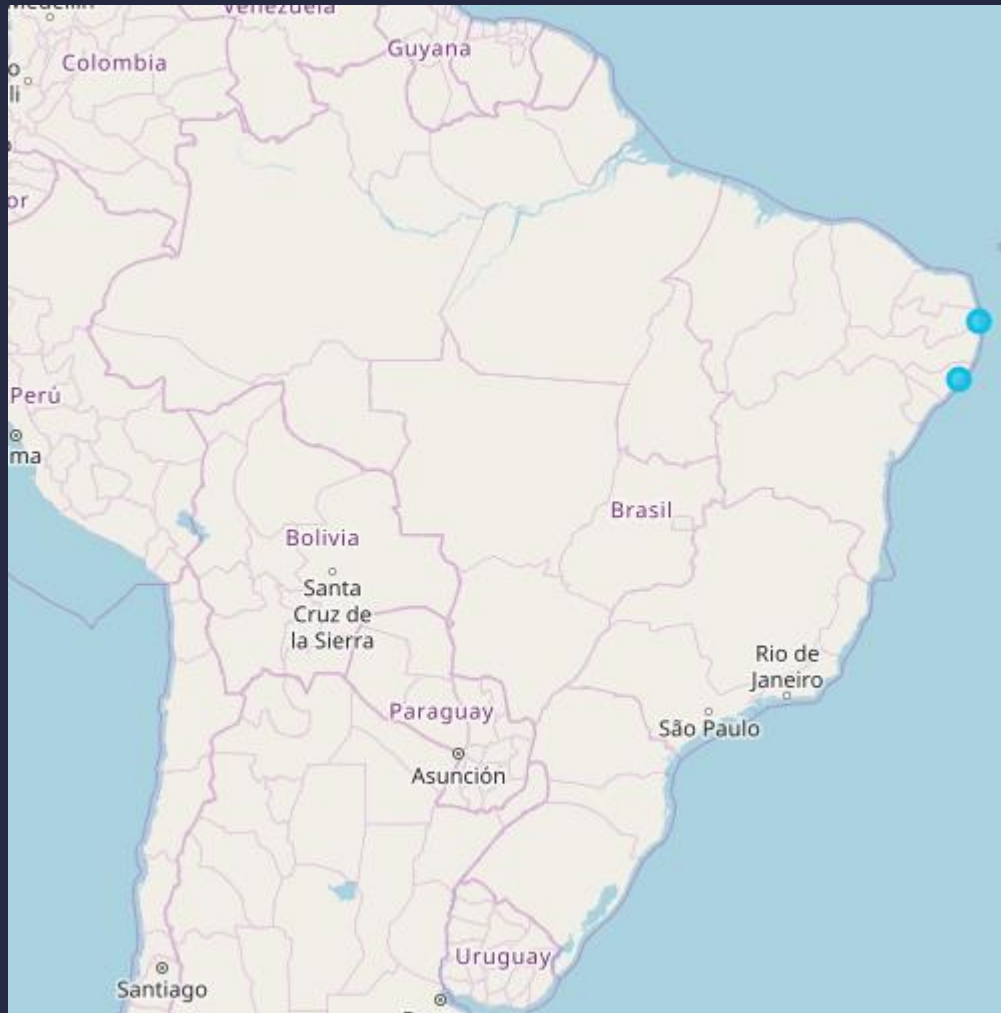
CLUSTER 3



- Cluster contains Sao Paulo and Belo Horizonte
- Sao Paulo is the largest city in Brazil, Belo Horizonte is the 6th.
- They are both on Southeast region of Brazil and have venues that are common in big cities, like theaters.

Ice Cream Shop	13
Theater	12
Restaurant	11
Pizza Place	9
Brazilian Restaurant	8
Bookstore	6
Bar	6
Park	5
Italian Restaurant	5
Hotel	5

CLUSTER 4



- Cluster contains Joao Pessoa and Maceio
- Both are in the Northeast region of Brazil and they are very close cities.
- These cities are touristic and they have famous beaches, therefore, this can be confirmed by the high presence of seafood restaurants and beaches.

Hotel	13
Bar	12
Restaurant	11
Seafood Restaurant	10
Beach	8
Ice Cream Shop	7
Dessert Shop	6
Gym / Fitness Center	6
Northeastern Brazilian Restaurant	5
Pizza Place	5

CLUSTER 5



- Cluster contains Manaus, Macapa, Boa Vista and Belem
- They all belong to the Northern region of Brazil.
- These cities are inside the Amazon rainforest, therefore, this may have some influence on the clusterization. Manaus and Belem are big cities (with more than 2 million people) therefore, the presence of Plaza may be justified by these two cities.

Brazilian Restaurant	26
Restaurant	23
Ice Cream Shop	21
Plaza	19
Gym / Fitness Center	16
BBQ Joint	12
Café	11
Bakery	11
Pizza Place	9
Japanese Restaurant	8

CLUSTER 6



- Cluster contains Brasilia and Campo Grande
- Both are from the Central-West region of Brazil.
- Brasilia is a very young capital city (and it's also the capital of Brazil) both cities have na influx of immigrants (from other regions of Brazil).

Bar	14
Gym / Fitness Center	11
Ice Cream Shop	9
Café	7
Burger Joint	6
Gym	6
Bakery	6
Pastelaria	6
Middle Eastern Restaurant	5
Italian Restaurant	5

CLUSTER 7



- Cluster contains Porto Velho, Cuiaba, Teresina, Goiania, Fortaleza and Natal.
- Largest cluster, includes cities from Northeast and Central-West regions of Brazil.
- Most cities from this cluster don't have much touristic potential (except Fortaleza and Natal), then this can have some influence on the clusterization.

Brazilian Restaurant	41
Bar	32
Restaurant	28
Ice Cream Shop	21
Gym	21
Gym / Fitness Center	19
Hotel	15
Bakery	15
Coffee Shop	14
Pizza Place	14

CLUSTER 8



- Cluster only has Rio de Janeiro city
- This unique clusterization can indicate a very different city, and Rio de Janeiro may fit that classification. It is the main touristic city in Brazil and the venues reflect that, with the main venues related to cultural and touristic activities.

Coffee Shop	9
Bookstore	6
Historic Site	4
Church	4
Park	4
Music Venue	4
Art Museum	3
Scenic Lookout	3
Bar	3
Plaza	3

CLUSTER 9



- Cluster only has Acaraju
- It is a medium city (about 700 thousand people), but it looks to have a high variety of restaurants, this could have affected this cluster result.

Brazilian Restaurant	14
Café	6
Japanese Restaurant	4
Northeastern Brazilian Restaurant	4
Coffee Shop	4
Ice Cream Shop	4
Bakery	4
Gym / Fitness Center	3
Pharmacy	3
Park	3

CLUSTER 10



- Cluster contains Porto Alegre, Curitiba and Vitória
- Two cities are from the South Region and one from the Southeast
- These cities have a big influence of italian immigration, then, this can explain the high quantity of Italian restaurants.

Hotel	15
Coffee Shop	14
Pizza Place	13
Italian Restaurant	13
Gym / Fitness Center	10
Café	9
Burger Joint	8
Brazilian Restaurant	7
Ice Cream Shop	6
Vegetarian / Vegan Restaurant	6

CLUSTER 10



- Cluster contains Porto Alegre, Curitiba and Vitória
- Two cities are from the South Region and one from the Southeast
- These cities have a big influence of italian immigration, then, this can explain the high quantity of Italian restaurants.

Hotel	15
Coffee Shop	14
Pizza Place	13
Italian Restaurant	13
Gym / Fitness Center	10
Café	9
Burger Joint	8
Brazilian Restaurant	7
Ice Cream Shop	6
Vegetarian / Vegan Restaurant	6

CONCLUSION

- Although simple, the clusterization of city's venues can give us interesting insights of how similar (and different) the Brazilian Capital cities are
- Most clusters are formed by cities from the same region, therefore, this can be an indicator of good quality clusterization
- Clusters like that can help companies to have a better expansion/growth plan, as similar cities may have a similar consumer market and interests