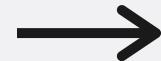


ENTREPRENEURIAL ECOSYSTEM IN PUERTO RICO



Introduction



Why are we doing this?



An entrepreneurial ecosystem consists of stakeholders such as non profits, government, academia, private practitioners, financial institutions, among other support organizations.

These stakeholders provide support in different areas such as education, access to capital, prototyping and even business plan.

In order to maximize the resources of these support organizations they should know the business stage, size, and industry of the client they are helping. Specially, they should consider the location of the business since that data provides an additional layer of context.





Context

Where are we doing this?

In Puerto Rico, a territory of 3.1 million, there are more than 250 entrepreneurial support organizations. Sometimes, however, these organizations do not have the data in an accessible and digestible form that allows them to make data-driven decisions to improve their services.



Use Cases

In this project we will be exploring geographic data with the idea of providing input to organizations that could help them to:

- provide a better service in a personalized way
- be able to design projects and develop grants based on the data
- hire specialized personnel to serve the geographic area in which they are located
- develop public policy projects that help businesses in their area.



Data

Sources of information

For this project we will be using Foursquare's Places API. The membership tier is the Sandbox. It includes:

- 950 Regular Calls/Day
- 50 Premium Calls/Day
- 1 Photo per Venue
- 1 Tip per Venue.

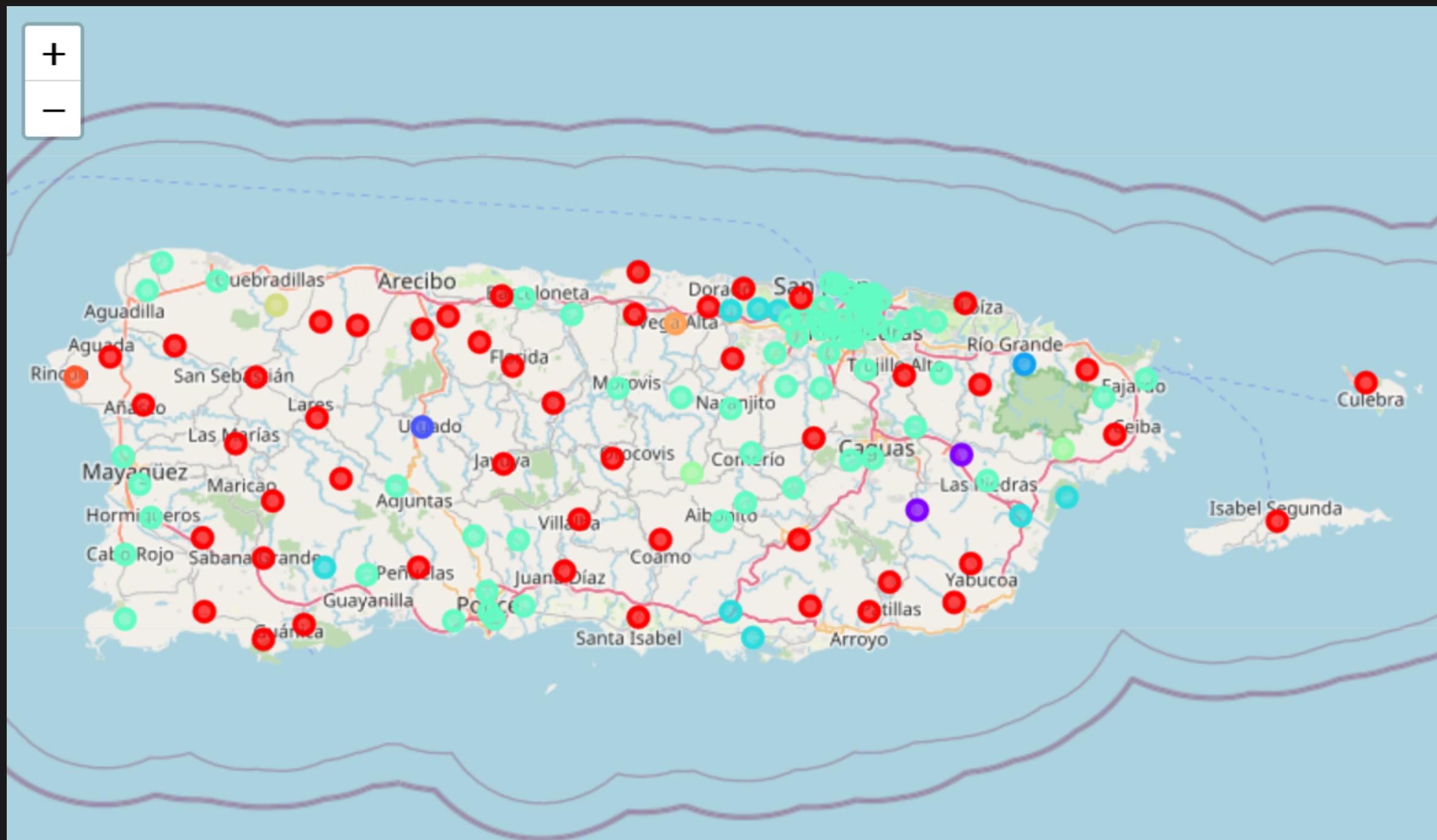
With this API it is possible to search, explore, get trends and recommendations regarding venues. In the same way it is possible to get data about users such as details, check-ins, venue history, among other information.

The zip codes were accessed through
<https://www.zipdatamaps.com/list-of-zip-codes-in-puerto-rico.php>.



Clusters

10



Results



There are 554 venues in the Foursquare's Places API under zip codes from Puerto Rico. These venues belong to 156 unique categories in 42 counties.

The following counties had the greatest number of venues:

1. San Juan - 276
2. Guaynabo - 61
3. Bayamon - 48
4. Carolina - 34
5. Caguas - 18

These counties are located in the metro area of Puerto Rico. It is mostly presented before an audience. →

Results (pt. 2)



The following counties had the lowest number of venues (just one):

1. Adjuntas
2. Barranquitas
3. Catano
4. Corozal
5. Juncos
6. Naguabo
7. Quebradillas
8. Rincon
9. Rio Grande
10. Salinas
11. Toa Baja
12. Utuado
13. Vega Alta
14. Yauco



Most of these counties are located out of the metro area of Puerto Rico.

Discussion



Patterns

There are some clear patterns in the clusters:

- Cluster 1 is composed of San Lorenzo and Juncos. Making this cluster an area for sports such as Baseball Fields.
- Cluster 8 is composed of Vega Alta. Making this cluster an area for Music Stores.
- Cluster 9 is composed of Rincon. Making this cluster an area for Latin American restaurants.



Conclusion

Although we can say that this strategy for data analysis is a correct and useful approach for decision making in a business ecosystem, the project has some limitations. The main limitation is the low representation of Puerto Rican businesses in the API used. This makes the determination of clusters not so effective. In order to make decisions based on these results, the effort must be accompanied with a strategy for more businesses to complete their profile on the Foursquare platform.

