Data analysis of oceanfront boroughs in Rio de Janeiro



Oceanfront boroughs in Rio de Janeiro

- They are the most desired places to invest, live and visit.
- The most important tourist spots are in or around them.
- They have many offices and main shopping centers.

Data

 Housing average sales prices and average rental prices per square meters in SECOVIRIO – Housing Union

(https://www.secovirio.com.br/wp-content/uploads/2020/07/precos-dos-imoveis-jul20.pdf).

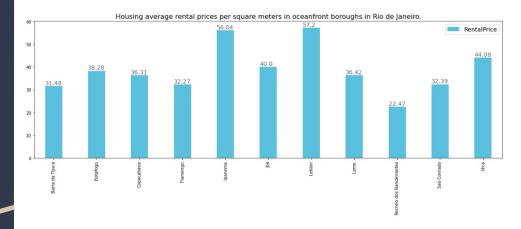
 All the beaches coordinates from official government website of INEA – Instituto Estadual do Ambiente

(http://www.inea.rj.gov.br/wp-content/uploads/2018/12/Coordenadas-Geogr %C3%A1ficas-das-Esta%C3%A7%C3%B5es-de-Amostragem-Praias.pdf).

 All areas of Rio de Janeiro's boroughs from official government website of Instituto
 Pereira Passos

(https://opendata.arcgis.com/datasets/8454eb0454b7424d89c61b67742286a 1_15.geojson).

 It was searched in Google and checked all the information about international schools. Housing average sales prices per square meters



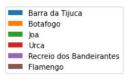
Housing average rentals prices per square meters

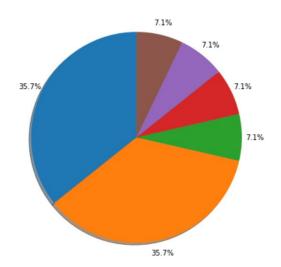


International Schools in oceanfront boroughs

- It was found English, French and German schools.
- There are 13 international schools in oceanfront boroughs.
- There isn't international school in some boroughs as Leme, Copacabana, Leblon, Ipanema and São Conrado.

Number of international schools in oceanfront boroughs in Rio de Janeiro





Maps of boroughs in Rio de Janeiro





Copacabana Foursquare venues categories



10 most common venue with international schools

0	ceanfrontBorough	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	Commo	n Common	Commo	Common	10th Most Common Venue	InternationalSchool
0	Barra da Tijuca	Surf Spot	Bar	Beach Bar	Pizza Place	Burger Joint	Japanes Restaurar		Pet Store	Brazilian Restaurant	Middle Eastern Restaurant	[Rio International School, Maple Bear Canadian
1	Botafogo	Hotel	Japanese Restaurant	Ice Cream Shop	Health & Beauty Service	Dessert		el Food Truck	Bookston	e Nightclub	Beach	[Our Lady of Mercy School, Escola Alema Corcov
2	Copacabana	Hotel	Italian Restaurant	Bar	Spa	Hotel Bar	Portugues Restaurar	se Café	Churrascari	a Coffee Shop	Restaurant	There isn't international school
3	Flamengo	Hotel	Brazilian Restaurant	Park	History Museum	Gym / Fitness Center	Soco		Ice Crear Sho		Gym	[Lycee Moliere]
4	Ipanema	Food Stand	Beach	Brazilian Restaurant	Italian Restaurant	Hotel	Farmer Marke		Paper Offic Supplie Store	Mexican Restaurant	Jewelry Store	There isn't international school
5	Joa	Hotel	Tunnel	Clothing Store	Beach	Women's Store			Food Stan	d Food	Fish & Chips Shop	[Swiss International School]
6	Leblon	Food Stand	Brazilian Restaurant	Gym / Fitness Center	Bar	Italian Restaurant	Beach Bar	Steakhouse	Bathing Area	Hotel	Food Truck	There isn't international school
7	Leme	Hotel	Scenic Lookout	Beach	Pizza Place	Seafood Restaurant	Mountain	Beer Garden	Historic Site	Supermarket	Pool	There isn't international school
8	Recreio dos Bandeirantes	Beach Bar	Athletics & Sports	Skate Park	Hotel	Brazilian Restaurant	Bathing Area	Beach	Fast Food Restaurant	Mountain	Board Shop	[Maple Bear Canadian School]
9	Sao Conrado	Hotel	Pedestrian Plaza	Women's Store	French Restaurant	Dance Studio	Deli / Bodega	Department Store	Dessert Shop	Dive Bar	Drugstore	There isn't international school
10	Urca	Cable Car	Tram Station	Trail	Shoe Store	Souvenir Shop	Heliport	Supermarket	Coffee Shop	Dive Bar	Farmers Market	[The British School]

K-means algorithm

The clusters oceanfront boroughs are the following:

- 1 Recreio dos Bandeirantes;
- 2 Joá;
- 3 São Conrado;
- 4 Urca;
- 5 Barra da Tijuca, Leblon, Ipanema, Copacabana, Leme, Botafogo and Flamengo.



Map with all information



Conclusion

The information about these boroughs, identified in this project, can be very useful for investors, multinational companies, tourists, foreigners and Brazilians, if they need to work, live and make business in Rio de Janeiro.