The background is a light beige or cream color with numerous black ink splatters and dots of varying sizes scattered across it, particularly concentrated on the left side.

# Battle of the neighborhoods

Cape Town VS Johannesburg – South Africa

BHAVUK SINGH



# PROBLEM

- When thinking about relocating to a new city or country for work purposes or to start a new life, people tend to research areas before moving. This research includes population rate, average house price, school ratings, crime rates, weather conditions, recreational facilities etc.
- Based on the above, a search engine algorithm would be an efficient tool to use that will allow users to enter cities and get the neighborhood name that best suits their lifestyle or living conditions. This could be done using an algorithm that will perform an extensive analysis on the similarities and dissimilarities between neighborhoods in the two cities of the user's search criteria, and determine which neighborhoods best suits their lifestyle

# OBJECTIVE

- Collect the suburbs top venues using Foursquare
- Form suburb clusters based on venue categories using unsupervised k-means clustering algorithm
- Identify and understand the similarities and differences between Johannesburg and Cape Town suburbs to obtain insights into the suburbs



# Cape Town

○ Cluster 1

- 17 Suburbs
- Common Venues include Coffee Shops, Restaurants, Nightclubs and Hotels

## Cluster 2

- 22 Suburbs
- Common Venues include Bookstores, Coffee Shops, Convenience Stores and Restaurants

### Cluster 3

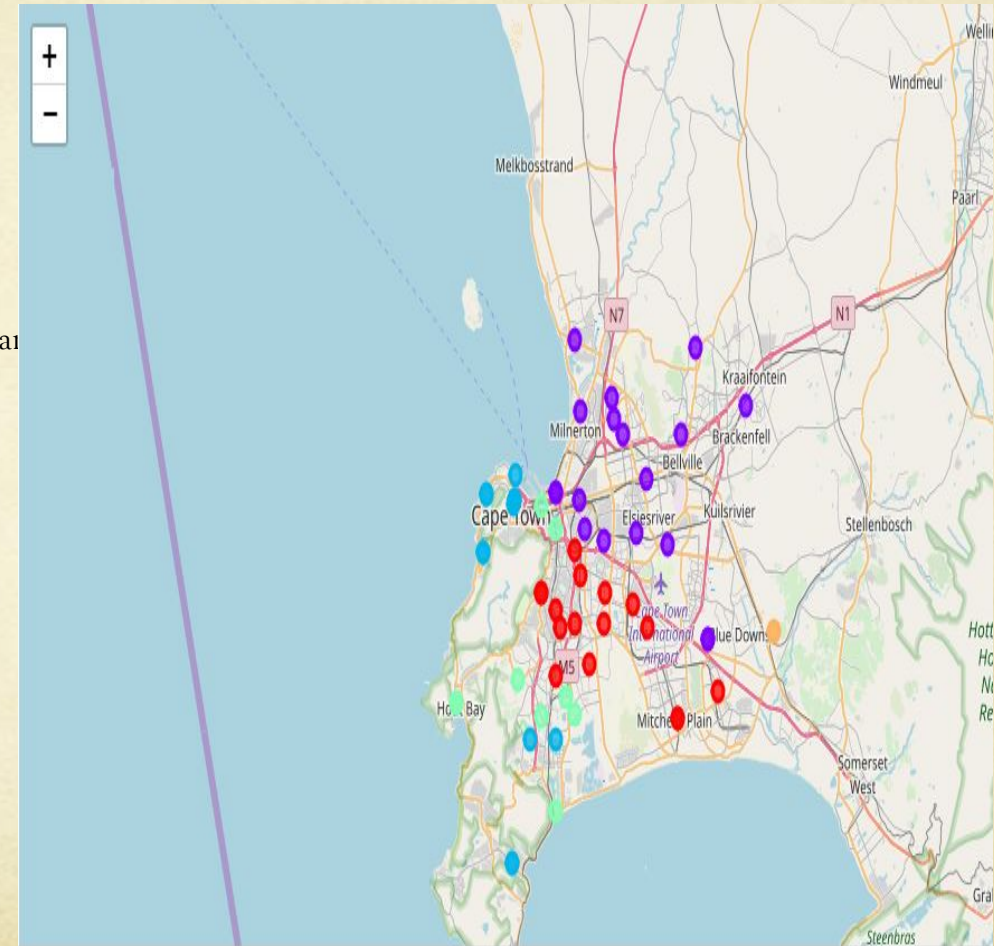
- 29 Suburbs
- Common Venues include Hotels, Pubs, Accessory Stores and Coffee Shops

## Cluster 4

- 10 Suburbs
- Common Venues include Fast Food Restaurants, Winery, Beaches and Cafes

### Cluster 5

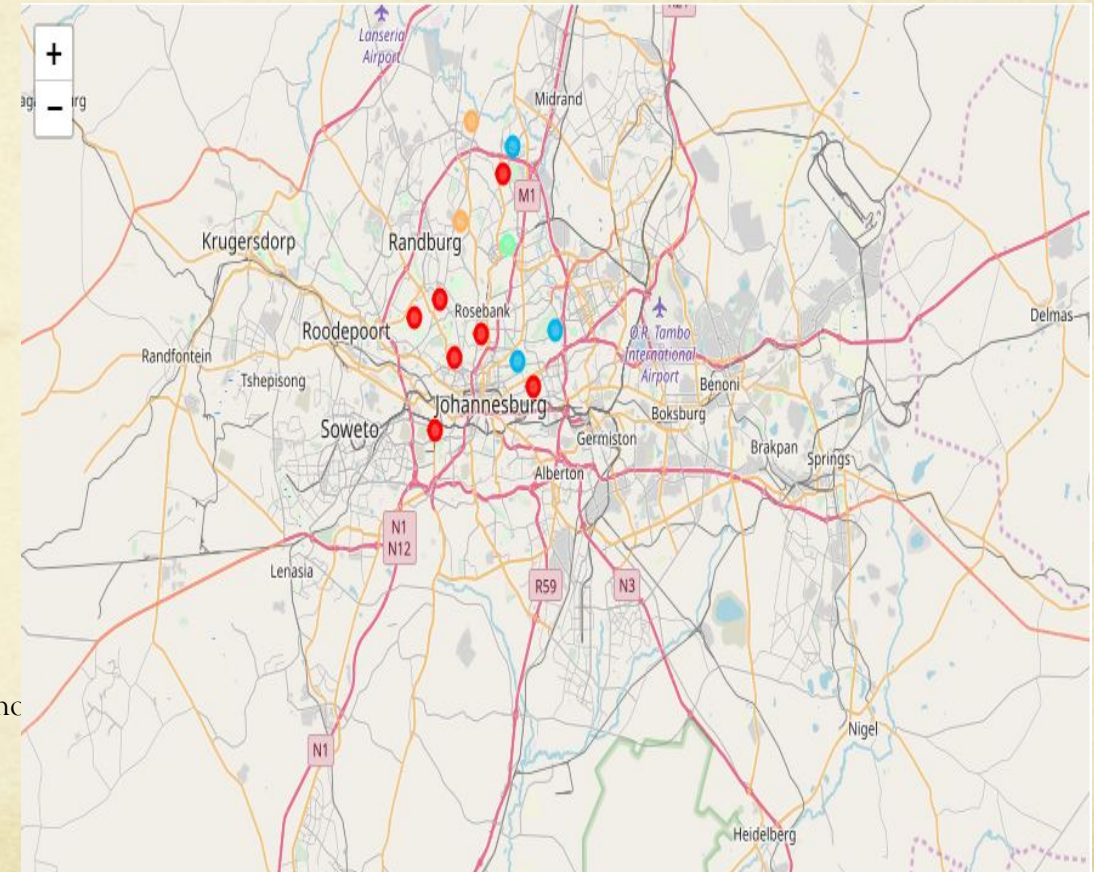
- 2 Suburbs
- No common venues found





# Johannesburg

- Cluster 1
  - 30 Suburbs
  - Common Venues include Hotels, Spas, Parks and Coffee Shops
- Cluster 2
  - 24 Suburbs
  - Common Venue is Hotels
- Cluster 3
  - 28 Suburbs
  - Common Venues include Hotels, Turkish Restaurants and Gyms
- Cluster 4
  - 21 Suburbs
  - Common Venues include Hotels, Greek Restaurants, and Food and Drink Shops
- Cluster 5
  - 16 Suburbs
  - Common Venues include Hotels, Shopping Malls and Steakhouse





# Cape town vs johannesburg

- Cape Town has 83 suburbs with 675 venues. In addition, the geographical coordinate of Cape Town, South Africa is -33.928992, 18.417396. The best suburb to stay in is Durbanville with the following venues:
  - 1st Most Common Venue Café
  - 2nd Most Common Venue Gym
  - 3rd Most Common Venue Thai Restaurant
  - 4th Most Common Venue Pub
  - 5th Most Common Venue Breakfast Spot
  - 6th Most Common Venue Coffee Shop
  - 7th Most Common Venue Fast Food Restaurant
  - 8th Most Common Venue Steakhouse
  - 9th Most Common Venue Grocery Store
  - 10th Most Common Venue American Restaurant
- Johannesburg has 119 suburbs with 198 venues. In addition, the geographical coordinate of Johannesburg, South Africa is -26.205, 28.049722. The best suburb to stay in is Bergvlei with the following venues:
  - 1st Most Common Venue Hotel
  - 2nd Most Common Venue Turkish Restaurant
  - 3rd Most Common Venue Gym
  - 4th Most Common Venue Greek Restaurant
  - 5th Most Common Venue Golf Course
  - 6th Most Common Venue French Restaurant
  - 7th Most Common Venue Food & Drink Shop
  - 8th Most Common Venue Exhibit
  - 9th Most Common Venue Deli / Bodega
  - 10th Most Common Venue Convenience Store
- Many of the neighborhoods are homogenous and are very similar to each other. Both Johannesburg and Cape Town consist of suburb clusters that contain majority of the suburbs.

# CONCLUSION

- Cape Town had a significant more number of suburbs and venues than Johannesburg therefore it would be the better option to relocate to Cape Town, specifically Durbanville as the most efficient choice. Cape Town offers a variety in choices for restaurants, gyms, grocery stores, and extracurricular activities for individuals and families.