

Coursera Capstone Project

*IDENTIFYING LOCATION FOR A MALL IN THE SUBURBS
OF NEW ZEALAND*

IBM Data Science Professional

By

Anand Sundaresan

February 2020

Introduction

- Shopping malls are usually located in a city center
- Various uses in terms of Social activity and Relaxation
- dining, clothing, beauty, movies and playing games and amusements for children etc
- Choicest destination for businessmen
- Location and frequency – important characteristics in identifying malls
- Use of Data Science and Exploratory techniques

Business Problem

- Identification of the appropriate location within the city is an important deciding factor
- Obtaining Data for extensive analysis
- Selection of data samples
- Associated data areas and information on the current business strategy

Question is if a property developed was interested in opening a shopping mall in the city of Auckland, which is the best place suited for it?

Actors

- Mall developers especially property development agencies
- Advertising agencies
- Realty and Business promoters
- Government councils and neighbourhood centres

Data

- List of neighbourhoods in Auckland, New Zealand
- Coordinates of the neighbourhoods
- Venue Information

Sources of Data

- Internet
- Google Maps
- Geocoder
- Foursquare API

Data Extraction Methods

- Webscraping of internet data
- Grouping by neighbourhood data by category
- Mean of the frequency of occurrence by category
- Filtering
- Clustering
- Visualisation

Results

- Categorisation of neighbourhood by Clusters
- Grouping into 3 Clusters
- Moderate
- Low
- High
- Decide based on the frequency of occurrence

Recommendations

- Open new Shopping malls in neighbourhoods of cluster 0
- Most of the shopping malls are concentrated in the central area of Auckland with cluster 0 having many malls in the neighbourhoods.
- Presents a great opportunity and high potential areas to open new shopping malls as there is very little to no competition from existing malls.

Conclusion

- The cluster identified presents as the most preferred location to open a shopping mall
- The Project findings will help additional actors to adopt similar techniques in the respective neighbourhoods