

MEDICAL STORES

Background:

I chose Karachi, Capital of province Sind Pakistan. First problem while opening a Medical Store is its location. Depending on the perfect location one can earn or loss a lot of money.

Problem:

Main goal of this problem is to find out if Karachi is a perfect place to open a Medical Store.

Data We Need:

Neighborhoods of Karachi and their co-ordinates and venue data.

Source of Data:

Foursquare API for venue data and https://en.wikipedia.org/wiki/Category:Neighbourhoods_of_Karachi for neighborhood list and Python beautifulsoup to extract that and Python Geocoder for co-ordinates.

Methodology:

We extract the neighbors of Karachi city by extracting data from the wiki page and used beautifulsoup to extract them. Then we get their co-ordinates using Geocoder. Then we use these co-ordinates to get data from Foursquare API to get top 100 results within 2000 meters. By making this call we get a JSON output. We extract name, category and co-ordinates. Then we filter shopping mall as venue category. Then we use K-means clustering based on the frequency of occurrence of shopping mall. By this we can answer which place is best for Medical Store.

Result:

There are three kinds of clusters.

1. Red: Low numbers of Medical Store
2. Purple: High density of Medical Store
3. Light Blue: Medium density of Medical Store



Concussion:

As red markers indicate low numbers of Medical Store, it is best to open Medical store there. By this the investor can get much more benefits.