
Housing Sale Prices and Venues Data Analysis of Jeddah City

Introduction

1.1 Background

Jeddah is second largest city of Saudi Arabia with 3.5 million people and growth rate of 3.5% per annum. Jeddah population represents 14% of the country population. The City is an economical hub with a seaport and spread over 1762 square km. The population density of Jeddah is 2.5 km.

The city of Jeddah is located on the west coast of the Kingdom (latitude 29.21 north & longitude 39.7 east), in the middle of the eastern shore of the Red Sea south of the Tropic of Cancer. To the east are the plains of Tihama, which are considered the low heights of the Hijaz region. To the west along the beach there are parallel chains of coral reefs.

Jeddah has grown during the last two decades of the 20th Century, which made the city a center for money and business in the Kingdom of Saudi Arabia and a major and important port for exporting non-oil related goods as well as importing domestic needs.

There are 140 districts in the city. Each disct consist of commercial and residential venues.

Here I want to develop a system that will help investors and residents for selecting an area for investments.

1.2 Problem

The city with high populations and 140 districts, investors and shop owners need a system that will help them to select a suitable place for their next store having low real state values and more business activities. As there is not such information available at any platform to guide the investors for a better and effective decision making.

we will map an information chart where the real estate index is placed on the city and each district is clustered according to the venue density.

1.3 Interest

The system has a great demand from fast food chain restaurants, saloons, beaty parlors and service centers. This project will be very helpful for them in their next move of opening a new business unit.

2. Data Acquisition and Cleaning

As the data is not available in readymade format, so we collect it from different sources spread on the internet and other data repositories.

2.1 Data Source

- As Jeddah have 140 administrator units so we need to have the name of each district and it location coordinates e.g. latitudes and longitudes.

We collect the list of Dist. from the url below and scrap it
Jeddah - Wikipedia

The scraped list dist is stored in into a data frame. As we just have the list of Dist. names, we also need the latitudes and longitudes of the those dist. So we collect latitude and longitude through google.

- Foursquare API is used to collect the venues in the nearby Borough.

- We go through and manually search the house prices in each Borough

2.2 Data Cleaning

We have 140 Dist in the list. We short list this to 45.

2.3 Feature Selections

For our purpose we need name of Borough, Latitude, longitude. Here is the list.

	Borough	Latitude	Longitude
0	Al Mohamadiya	21.651635	39.138113
1	Ash Shati	21.611924	39.112922
2	An Nahda	21.618846	39.129335
3	An Naeem	21.620123	39.146220
4	An Nozha	21.621233	39.169962

References

1. https://www.jeddah.gov.sa/
2. Jeddah - Wikipedia
3. Google maps