

Prediction of New Hotel

Introduction

Addis Ababa is the capital city of Ethiopia and the African Union and is often called the "African Capital" due to its historical, diplomatic, and political significance for the continent. Located in the foothills of the Entoto Mountains and standing 7,726 feet (2,355 meters) above sea level, it is the third highest capital in the world. It is located in the geographic center of the country. The fossilized skeleton, and a plaster replica, of the early hominid Lucy (known in Ethiopia as Dinkinesh) is preserved at the Ethiopian National Museum in Addis Ababa. The city is home to the Ethiopian National Library, the Ethiopian Ethnological Museum (and former palace), the Addis Ababa Museum, the Ethiopian Natural History Museum, the Ethiopian Railway Museum and the National Postal Museum.

Business Problem

I would like to open a hotel/restaurant at the center of Addis Ababa. As it is a tourist and diplomatic spot, there is already lots of attention towards it. I know there will be many competitors in terms of hotel and restaurant. But keeping them in mind, I need to locate my hotel in place where more people are attracted and comfortable for a stay and a good meal. I want to bring foreign and local peoples attention towards my new hotel. I would like to flavour my restaurant recipe with Italian, American, typical Cultural foods to grab their taste.

The challenge is to find a suitable location for opening a new hotel / restaurant attracted to all local and foreign people in the centre of all famous venues.

Expected / Interested Audience

60% local and 40% foreign peoples visit hotel / restaurant once in a year. Some people stay for couple of days or more. Also they find some place for hangout or a good meal. Their main focus might be belonging to stay somewhere near to reach venues.

Data section What data is used?

We will be completely working on Foursquare data to explore and try to locate our new hotel where more venues like church, temples, beach, museums, memorials that are present nearby.

How will we be solving using this data?

We will be looking for midpoint area of venues to locate our new hotel. Before that our major focus will be on all venues present in and around the core place.

Methodology section

In this sections we will perform some data analysis and EDA to find insight from data. We will try to understand the current stats of all given data. Probably, clustering or centroid of all venues will help us to locate new hotel.

Result section

Average distance between hotels and core location is 902 metres

Sana Restaurant is far than rest of hotels and restaurant

Vectory restaurant remains close to the core spot.

Explore for other venues around Addis Ababa

A tourist person always wants to visit nearby iconic places. So he wants to reside somewhere nearby to all major venues. We will be exploring more venues around the core location. We will be digging more on main areas or place around 1 km

Discussion section

From above reports, we could get an idea why the predicted one is pointed/clustered on the given spot. First most thing could be the center of attraction for the place.

KMeans have figured out the most common place for all the venues. This output was very adjacent to the core location. This proves the accurate spotting of our predicted algorithm.

Despite of the findings,there were some lack in data.Tips and ratings were missing for most of the venues.Also when I compared foursquare data with google map ,i could see there were many hotels and venues found missing in foursquare.

Conclusion section

As a business person,one would be able to set up a hotel/restaurant on given spot.This will bring revenue automatically as we have located in very near to core one.We proved this with Kmeans.