

Introduction

As part of my first real-world project for IBM Data Science, We will be looking at Dubai.

The project's theme is to leverage location data to come up with a problem that you can use the Foursquare location data to solve. To achieve this, we will be exploring different neighborhoods in Dubai.

Dubai being a tourism magnet of the world due to its high street fashion, extravagant highrise architecture, and melting-pot of culture, becomes the best candidate for Foursquare.

Problem to solve

Being a Pakistani, we are heavy in food culture. As much as I love the opportunity to savor world cuisine in Dubai, I'm always looking for an eatery serving the authentic flavors of my country.

Let's try to assess. If I had to open a Pakistani restaurant in Dubai, what would be an ideal place?

Where to start? And What to do?

The starting point for any such exploratory analysis will be to acquire the data you need. In this case, I will require a list of neighborhoods in Dubai. One such source I found is Wikipedia. There is a comprehensive list of communities available at a [list of communities in Dubai](#).

As usual, we will be scrapping this list using BeautifulSoup, cleanse the data and transform it into a form that can be used to extract geo-coordinates for each community, which will help us interactively visualizing the clusters of neighborhoods.

For cleansing the data, we will use our data frame expertise to get the desired results, and then use GeoPy libraries to get latitude and longitude for each community.

Once we refined locations for each of our neighborhoods, we will utilize Foursquare APIs to get venue data for each community and perform statistical analysis based on the type of cuisine offered in these venues.

We will also visualize the concentration of venues in communities based on their offering profile, i.e., type of cuisine offered.

The audience

With this exploratory analysis, I aim to give a starting point and outline for anyone who wants to perform such type of study, regardless of what problem they are trying to solve.

The above analysis is directly beneficial to people looking to open a new restaurant business and cannot decide where to.