Pointing out the low rated places in the vicinity of the city

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Introduction: Business Problem

In this project we will try to point out the places where people shouldn't go at all.

Since there are lots of places with very low ratings, we will try to detect them and highlight it to the users so they can avoid a bad experience. We are interested in every type of places, be it a restaurant, a park, a club, etc..

We will use our data science powers to generate some of the worst places based on their ratings. The evaluation for each place will be expressed clearly, so the place can be noted and avoided by end users.

All the end user will need to do is to set the city center he/she wants and we will highlight where he/she should get away.

Data:

Based on definition of our problem, factors that will influence our decission are:

- Number of existing places where their grades are less than the minimum rating value specified

- Distance of the place from specified city center

We decided to use regularly spaced grid of locations, centered around city center, to define our neighborhoods.

Following data sources will be needed to extract/generate the required information:

- Evaluation rating from the places, their type and location will be obtained using **Foursquare API**

- To start the analysis, we will extract a latitude and longitude from New York City center using the Google. For new analysis, the user will only need to specify the new latitude and longitude data.

Methodology:

In this project we will direct our efforts on detecting areas of a specified city (in this samples is New York City center) and their low rated places. We will consider all kind of venues, the minimum rating value will be determined by the user (in this sample is 6.0) and the area radius that will be checked is = 500.

The first step was to plot a map of the specified address, marking it with a blue spot.

In the second step we collected the data of the place nearby the specified address, using the foursquare API. With the venues id we were able to access its information, such as name, latitude, longitude and the rating.

In the third and final step, with all the venues and their ratings, we were able to filter the values based on the minimal rating value specified by the user (in this sample = 6.0). And with this filtered value, we could plot a new map, marking in red the places to be avoided by the user.

Results and Discussions:

My analysis can be flexible and customizable by the user, once a new address can be set, as well as the minimum rating value that will be considered by the analysis. If the user considers a place with rating = 7.5 as a bad rating, he can set the minimum rating value as 7.5 and all places with rating under 7.5 will be highlighted in the map as red, meaning that the user must avoid that place.

When extracting the foursquare data, we are considering a limit of 30 records, once there is a limitation in the API consumption.

Also a radius area = 500 is being considered when extracting the venues results.

The result of red circles in the map will vary depending on the address inserted by the user and also based on the minimum rating inserted. The blue spot in the graph will always be the address entered by the user.

Conclusion:

Purpose of this project was to identify the areas close to center with low rating, so the user could get away of a bad experience. All kind of places is being considered. By extracting the venues from the foursquare data, we were able to access their ratings and with that we could select only the venues with low rating in order to avoid a bad experience.

With all the low rated places in hand, we were able to highlight in the map, with red circles, which were the places to be avoid.

The sample was done with the New York City center, but can be replaced to any other place the user wants, the only thing needed it to define a new address in the beginning of the code.

With the map and visual information, the user can now avoid a bad experience.