

Hospitals with good neighborhood search in Oklahoma State

Introduction/Business Problem

It is very challenging to find a best hospital in any state or city. There are many websites out there from which you can get hospital review and ratings like Hospital Compare, Consumer Reports, The Leapfrog Group, Quality Check, Health Grades. But even then finding a best hospital with good neighborhood that will help you out with any emergency need during hospital visits is a manual work. Finding a perfect neighborhood area can be very tedious and time consuming process.

This project attempts to help you with the search for the hospital according to your need about the neighborhood in Oklahoma State. For example, one might want to choose the area which has proximity to medical store, cafes, public transport etc. This project attempts cluster hospitals based on provided categories of neighborhood. We can visualize those clusters on the map to get better idea of area. That will make it easy to choose a certain hospital to look for and narrow down your search.

Stakeholders/Target Audience: People who are looking for a hospital with perfect neighborhood in Oklahoma State, especially the people who are visiting the particular hospital for the first time or starting any long term treatment at particular hospital.

This project will help you to get answers of some basic questions while choosing hospitals in Oklahoma state, but not all the questions. You can always use above mentioned website with this project to get all the answers.

Data

I plan to use two datasets:

1. Oklahoma State Healthcare Facilities data downloaded from <https://catalog.data.gov/dataset/oklahoma-health-care-facilities>. I reduced the data set to focus on 'Oklahoma' City only to decrease the number of the call made to the Four-Square API.
2. This dataset has some column which will be of no use for our project so I have dropped it from the dataset. We will mainly use Latitude, Longitude, Address to query the FourSquare API and get the desired result.

That data will be use to create clusters of neighborhood with different need.

After some basic pre-processing the data is as below :

	HEALTH CARE FACILITY NAME	ADDRESS	CITY	ZIP	PHONE1	LONGITUDE	LATITUDE	LOCATION
0	A Better Way of Care	2828 NW 57th, Suite 315	Oklahoma City	73112	(405) 819-4696	-97.563946	35.529659	(35.529659, -97.563946)
1	Abiding Home Health of Oklahoma City	5929 North May #204	Oklahoma City	73112	(405) 607-2302	-97.565848	35.531457	(35.531457, -97.565848)
2	Accentra Home Healthcare	4350 Will Rogers Parkway, Suite 500	Oklahoma City	73108	(405) 488-2222	-97.597747	35.452096	(35.452096, -97.597747)
3	Accentra Home Healthcare, Inc.	4350 Will Rogers Pkwy, Suite 500	Oklahoma City	73108	(405) 917-1094	-97.597747	35.452096	(35.452096, -97.597747)
4	Accredo Health Group, Inc.	4901 West Reno, Suite 950	Oklahoma City	73127	(405) 942-3961	-97.607725	35.464552	(35.464552, -97.607725)

3. Foursquare venues data with categories

Assumptions: Data is downloaded from DATA.GOV site. So I am assuming that provided HealthCare Facilities data for Oklahoma covers all the hospitals in the state. I am going to focus on 'Oklahoma' city only to get better results for this project.