

IBM DATA SCIENCE PROFESSIONAL CERTIFICATE

CAPSTONE PROJECT

COURSERA

Determining the best location for a new business location in
Salt Lake City, Utah, USA

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BUSINESS PROBLEM

- Salt Lake City, Utah is experiencing a rapid growth of new businesses
- Competition for professional level employees (i.e. Programmers, Data Engineers, etc.) is high
- The convenient location of restaurants, coffee shops, and other food/drink establishments is a factor used by potential employees when make their decision

Question for the proposed research

In Salt Lake City, Utah, what is the recommended neighborhood to locate a new business or expand an existing business, based on nearby amenities?

RESEARCH DATA

Data needed

- List of Salt Lake City neighborhoods
- Latitude and longitude of above neighborhoods
- Data on all businesses currently located in each neighborhood, specifically restaurant/coffee shop data

Data sources

- Wikipedia.org for a list of all Salt Lake City, Utah neighborhoods
- Geocoder for latitude and longitude data of each neighborhood
- Foursquare API to collect neighborhood restaurant data

RESEARCH METHOD

- Create a list of all neighborhoods in Salt Lake City, Utah by scraping the Wikipedia page
- Obtain latitude and longitude coordinates using Geocoder
- Use Foursquare API to identify business venues in each neighborhood
- Filter venue data by all types of restaurants and coffee venders
- Perform analysis on the data using k-means clustering
- Visualize resulting clusters using Folium