A description of the problem, a discussion of the background and target audiences of the project

I recently came across a job opportunity that would require me to relocate to one of three cities with which I am relatively unfamiliar. I would have to choose between moving to Philadelphia, Pennsylvania; Charlotte, North Carolina; or Scottsdale, Arizona. Prior to having children, I would have picked a location that would have had the best weather or was closest to the beach. Now that I have children, I am interested in knowing which city is the most family friendly and conducive to my current lifestyle.

Since family friendliness and lifestyle are both subjective measurements, I'll define them based on my personal preference. What I like about where I currently live is my close proximity to many things. I am able to enjoy my current lifestyle and participate in family friendly activities without driving for miles to get there. l live within a ten mile radius (16 km) of my office, church, grocery store, gas station, several parks, shopping mall, my favorite Thai restaurant, museum, zoo, a golf course, the school my kids attend, and our local library branch.

If I take the job and move, I would like to live in a neighborhood that provides similar amenities within a relatively short distance (10 miles or 16 km). My problem is that I am not familiar enough with either city to know where the neighborhoods are in proximity to all of these.

I will use the foursquare API to do data analysis on the three cities: Philadelphia, Pennsylvania; Charlotte, North Carolina; and Scottsdale, Arizona. I will put in the address of the office for where I would be working. From there I will run searches within a ten mile (16 km) radius to discover the neighborhoods within the area. I will then run searches within the neighborhoods with a ten mile radius (16 km) for the following amenities: churches, grocery store, gas station, parks, shopping mall, Thai restaurants, museum, zoo, golf course, grade schools, and library branches. I will then plot the data to visualize the groupings of the amenities within the neighborhoods using the K-means method. The city that wins will be the city that has the most opportunities based on the number of outcomes and density of the graphs.

Target Audience

1. Individuals looking to relocate

As I was thinking of my situation, it occurred to me that I am not alone. Every year, people are moving to different locations and have to decide based on various proximities and neighborhood amenities which is the best location. This project could be used to help individuals in a similar situation as me. The new user could change the address to the location that is causing them to move (office, place of worship, family, university, etc.) and change the venues to what appeals to them (restaurants, beaches, sports, places of worship, gyms, etc.) to help them decide on where to live.

2. Corporate recruiters

Talent acquisition is often a key component to business success. Whether for a start-up company or a well-established enterprise, a corporate recruiter could help entice talent to relocate to an unfamiliar location by showcasing their city or neighborhood. The recruiter could gather some features and benefits of their prospects' current neighborhood and use this project as a way to demonstrate how the new location offers similar amenities or a potentially better lifestyle.