Coursera Capstone Project

June 2020

**Building a Recommendation System for Finding Cities to Live in the United States of America**

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Introduction

*This project is part of the IBM Applied Data Science Capstone Project offered on Coursera.*

According to Wordometers the United States of America currently has a total population of 330.8 million people[[1]](#footnote-1). Although cities comprise of just 3.5% of the total land area in the country, 62.7% of the population chooses to live in these metropolitan centers[[2]](#footnote-2). These cities are most often not just a congregation of people, but culture and services.

I am currently a graduate student studying in a small college town; however, I am graduating soon and I would like to know which major cities could offer me the best services. Like me, there are many people who are looking to find cities to live in that could offer the services they need. Therefore, this project would be suitable for people who are looking to move to a new city in the United States.

This project will ask people to rate their preferences on what services they prefer and recommend cities that would be the most suitable for them. To achieve this, cities will be clustered on how similar they are based on the services they offer as listed in the Foursquare API, and the entered data will be used to identify the cluster of choice that will be displayed.

Data

The data I will be using for this project is listed below:

1. Foursquare API: This API will be used to identify services, restaurants and shops available in each city.
2. U.S. Largest Cities (Source: <https://public.opendatasoft.com/explore/dataset/1000-largest-us-cities-by-population-with-geographic-coordinates/table/?sort=-rank>): This dataset will holds data on the major cities in the U.S. and the location and population columns will be used for the analysis required in this project.

1. <https://www.worldometers.info/world-population/us-population/> [↑](#footnote-ref-1)
2. <https://www.census.gov/newsroom/press-releases/2015/cb15-33.html#:~:text=U.S.%20Cities%20are%20Home%20to%2062.7%20Percent%20of%20the%20U.S.,3.5%20Percent%20of%20Land%20Area&text=A%20majority%20of%20the%20U.S.,by%20the%20U.S.%20Census%20Bureau.> [↑](#footnote-ref-2)