

Clustering Apartment Communities by Surrounding Venues

Background

When it comes to renting an apartment, one of the most important factors people consider is the surrounding venues. In other words, people care a lot about what is the kind of vicinity they are living in. For example, some people would like to live in a busy area with supermarkets and restaurants while others prefer a quiet and green neighborhood. Therefore, it will be significantly helpful if the information of surrounding venues can be collected and analyzed. Moreover, considering the large number of apartment communities in big cities, such as Houston, it will be overwhelming to go through all the communities of the entire city. So, it will make people's life much easier to segment the apartment communities into a few clusters, so that the communities in a single cluster share similar types of surrounding venues. In this way, a person that is interested in a particular kind of neighborhood can simply look for the corresponding cluster and focus only on the communities in that cluster. Or one can conveniently compare different apartments by checking which cluster each apartment belongs to.

Business Problem

Can we cluster the apartment communities in Houston on the basis of the neighboring venues of each apartment community?

Target audience

The target audience of this project will be the people who are looking for new apartments to rent in Houston. Besides, it may also provide useful information for the managers and leasing agents of the apartment communities.