4600 Progress Report

Suitability Analysis for Housing

Ryan Nguyen, Nadine Norman, Lithira Angammana

Based on the timeline that we had set up, we are on track with the weekly deliverables that had been set out. Comparing the current amount of map layers that are expected for the suitability analysis, it can be seen that some layers have either been removed or replaced. This was done to reduce the number of map layers we would have in total for the analysis process.

Based on the final map layers selected, we have been able to get the various datasets needed. Some of the datasets are from prior projects. Our data consists of excel lists (prior projects), ArcGIS data, and online resources. This week (March 4-11), we are trying to learn how to integrate our online data resources into our project. We found average housing rent prices for 2014, but we need that same data for 2 other years so that we can have historical data to determine the rental prices.

We also have to figure out how to present our final product which will be in the form of a map and how to use the API from some websites to get daily rental prices in some areas.

Using the AHP method, we were able to create a matrix based on pair-wise comparisons between the layers. This was done using the Delphi method.

<u>Weighting</u>

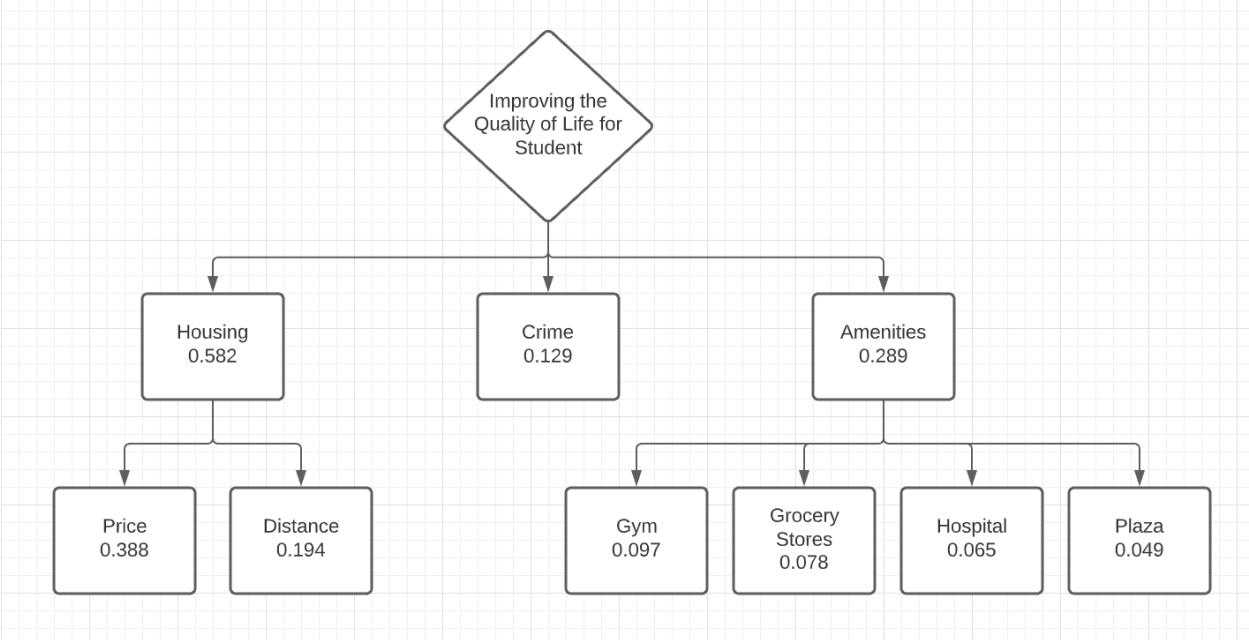

Figure 1: Map layers and their weightings.

Walkability score

We were able to get good data on the location of bus stops in Toronto, we intend to use that information along with the amenities available around the area and create our own walkability score. We might also use google API to determine the shortest distance to get to the school from a given area.

We will create the suitability analysis first then find the amenities/houses in those areas.We would then provide the walkability score of the houses available for rent and the shortest distance to get to school from any of the houses.

Potential Data

Restaurant and cafe (arcgis.com)
TTC Routes and Stops (arcgis.com)
Update Restaurant and Cafes count of points (arcgis.com)
Toronto Average Rent Price per Neighbourhood 2014 (arcgis.com)
Neighbourhood Profiles - City of Toronto Open Data Portal
https://www.torontorentals.com/blog/toronto-gta-may-rent-report-2021 -Toronto Rent 2021
https://www03.cmhc-schl.gc.ca/hmip-pimh/en#Profile/1/1/Canada