Selecting a Restaurant Location in Toronto

Predicting revenue for a location is critical to success

- Computing the relative revenue share for a location in the city is a measure of its viability.
- Understanding the number of competing establishments can predict future revenue changes.
- Mapping locations along with their revenue potential may allow for consideration of factors other than just revenue.

Data Acquisition and Cleaning

- Sources
  - Canadian postal code breakdown for the city of Toronto from Wikipedia: https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M
    - Geospatial data for the city of Toronto: https://cocl.us/Geospatial_data
  - Financial information from the Canadian census data sets: https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/download-telecharger/comp/page_dl-tc.cfm?Lang=E
  - Venue information will be acquired from the Foursquare APIs.
- Preparation
  - Data sets are sourced from different times so not all records can be mapped. Records that cannot be mapped are dropped.
  - Classification of what is a competing venue. There are many types of a restaurant from fast food to fine dining. Identifying the types that would be considered competition is important to the analysis.

Data Analysis

Results

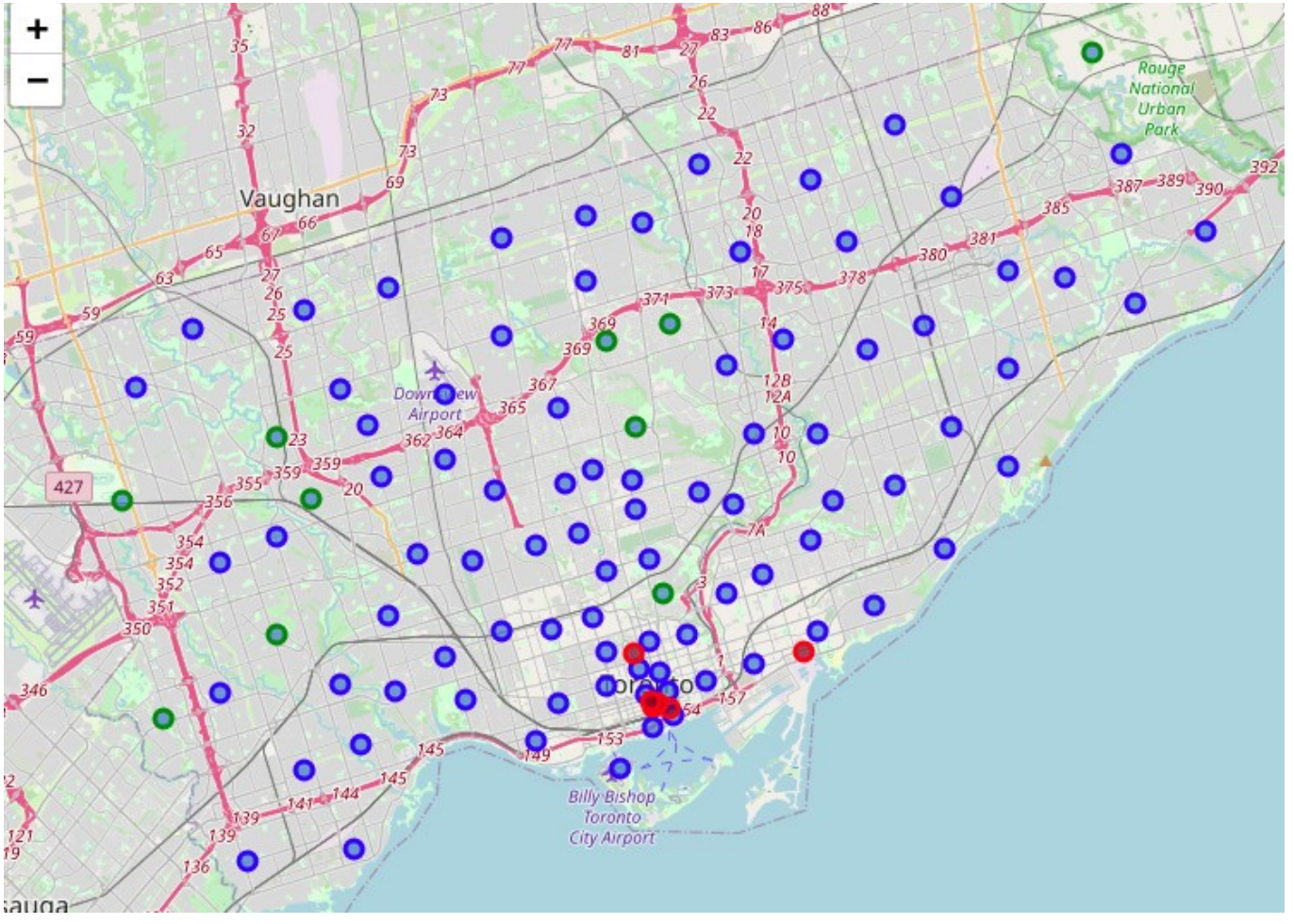
Top 10 locations by potential revenue

Postcode	Relative Revenue	Competing Venue Count	Average Income
M2L	$306,301.00	0	$306,301.00
M4N	$203,739.00	1	$407,478.00
M9A	$160,481.00	0	$160,481.00
M1X	$105,913.00	0	$105,913.00
M9C	$98,891.00	0	$98,891.00
M4W	$89,832.75	3	$359,331.00
M9W	$77,220.00	0	$77,220.00
M9M	$73,319.00	0	$73,319.00
M2P	$67,243.00	3	$268,974.00
M9N	$65,571.00	0	$65,571.00

Results

Map of locations

- Locations in green represent the top 10 locations by revenue.
- Locations in red represent areas of no data.



Conclusion

- The data analysis was able to rank locations in the city by potential relative revenue.
- Top locations are not near locations with unmapped data which verifies that dropping unmapped data did not significantly skew results.
- A question exists as to why most of the top locations have no identified competition. This data facet should be identified and integrated in future analysis.
- Improvements
  - Consider other attributes
    - Account for cuisine type
    - Account for demographic composition of the location vs. style of restaurant
    - Account for zoning restrictions
  - Leverage multiple years of census data to identify financial trends and areas of growth
  - Integrate urban planning data sets to identify future trends