

Finding an Ideal Location to Open an Art Gallery in Downtown Toronto

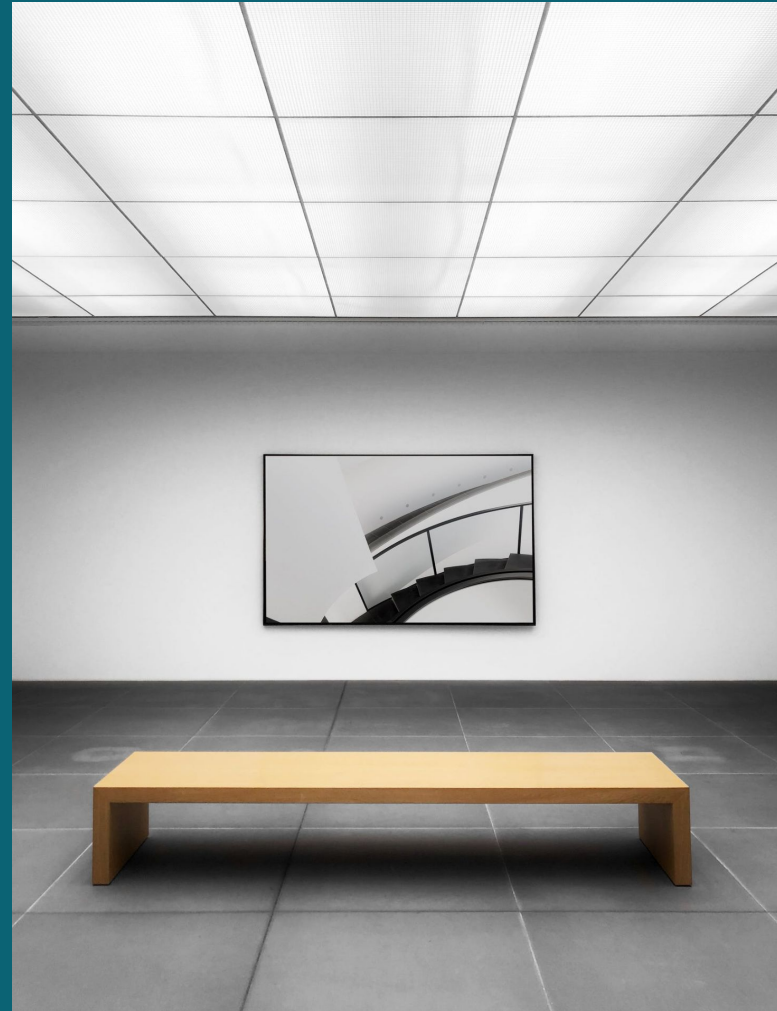
Coursera Capstone Project

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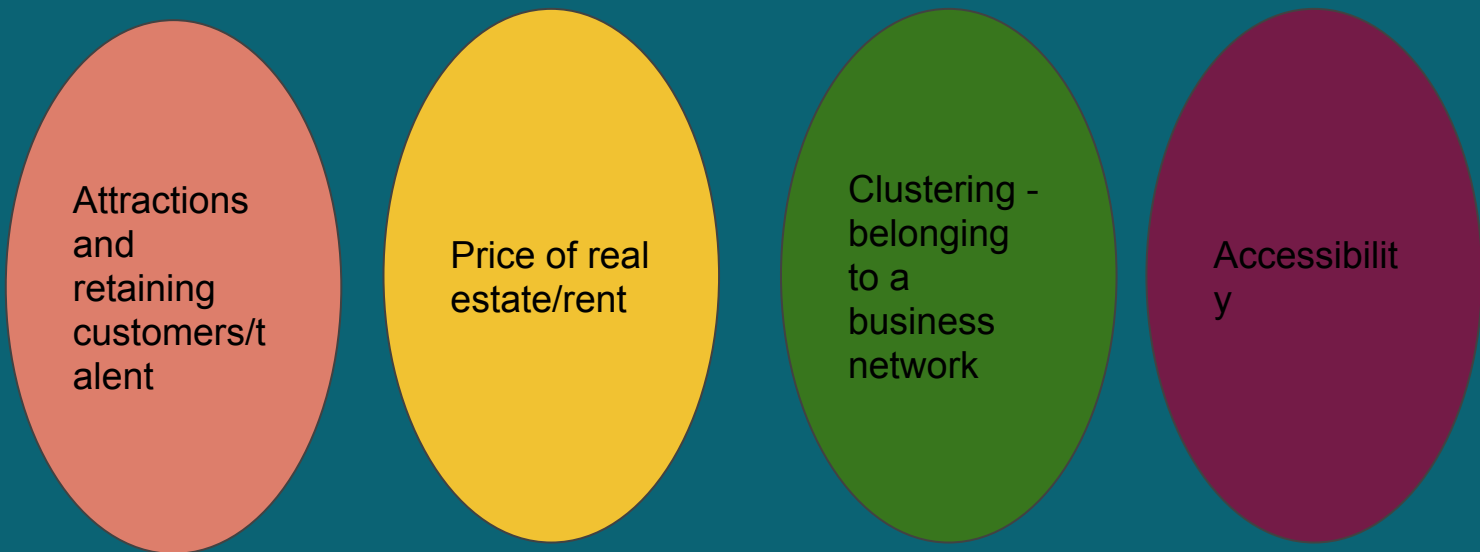


Introduction

If you were to open a business, setting up a proper location for your business is one of the most important tasks.



How location impact a business?



Attractions
and
retaining
customers/
talent

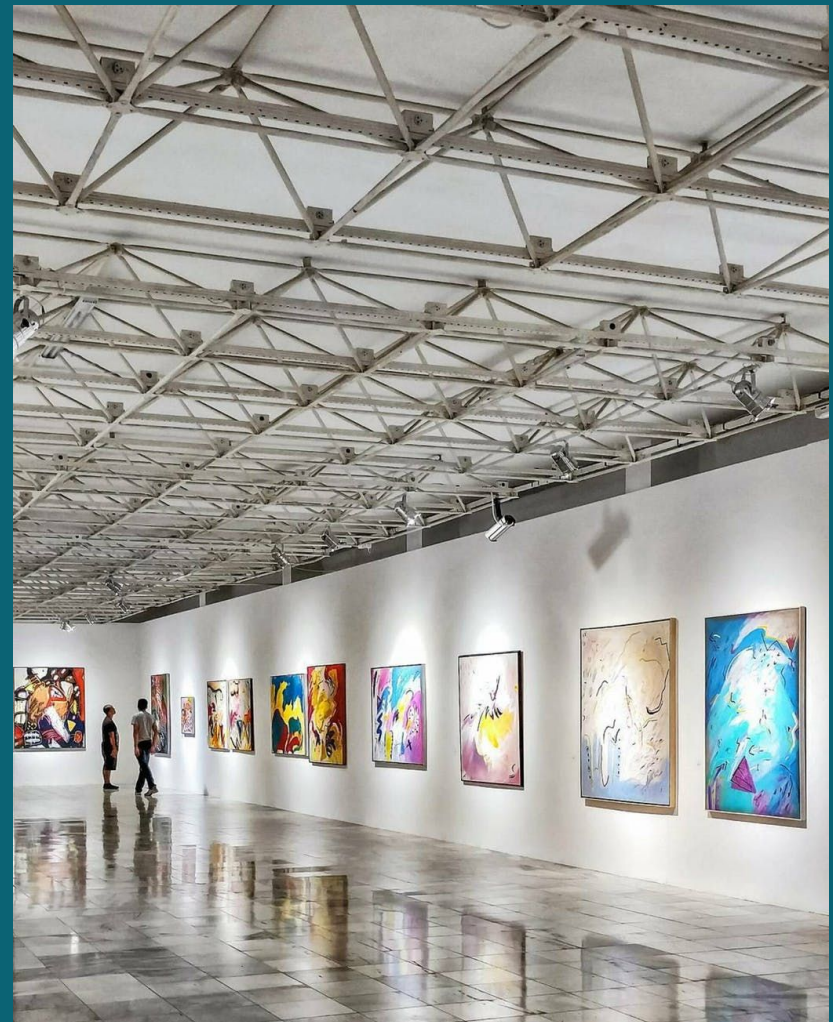
Price of real
estate/rent

Clustering -
belonging
to a
business
network

Accessibilit
y

Interest

This project is targeted towards all individuals interested in platform to divulge visual and performing arts in the city of toronto



Objective

This project aims to find an ideal location to open an art gallery in downtown Toronto using data-driven solutions



Collecting Location Database of the city of Toronto

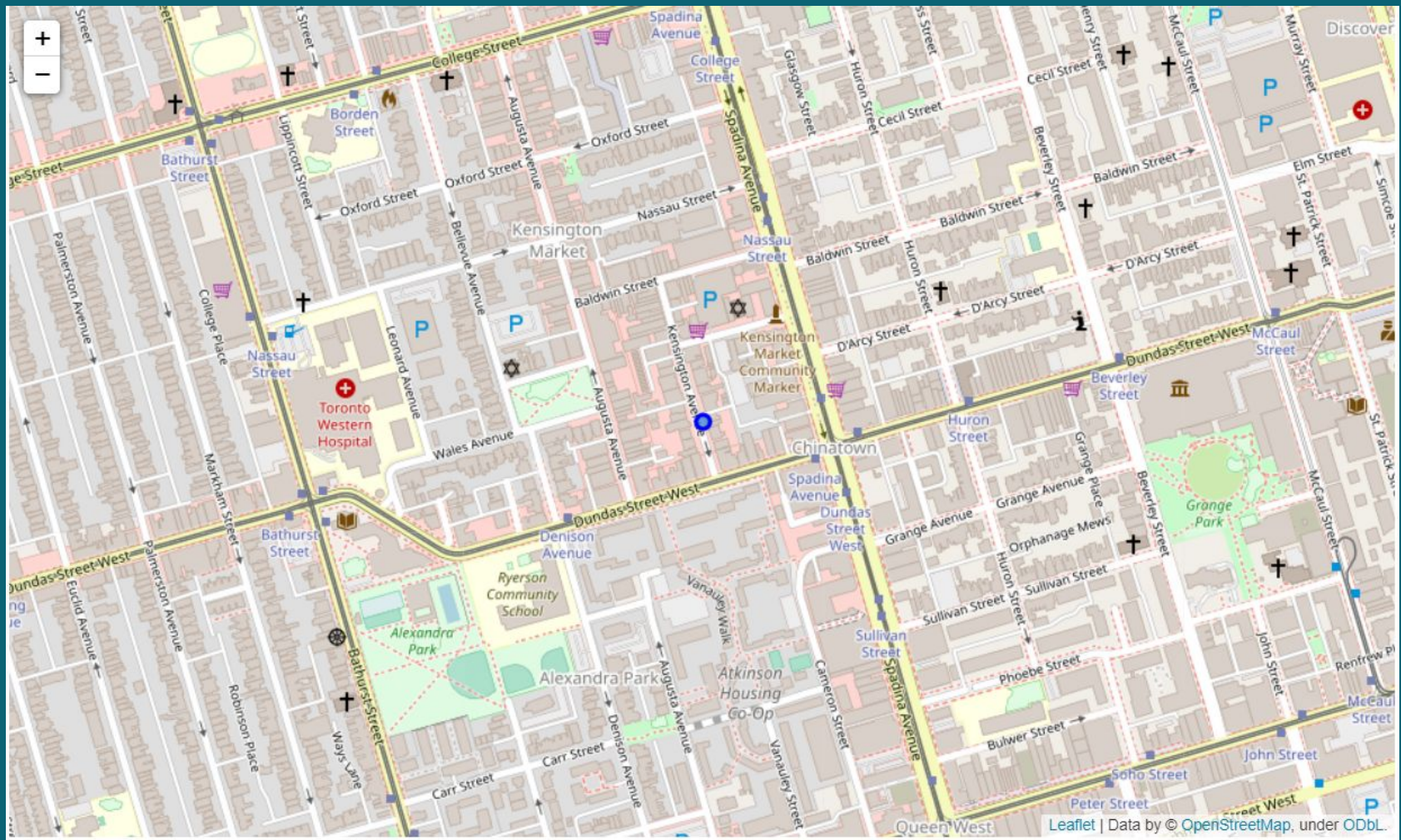
	Postal Code	Borough	Neighbourhood
0	M1A	Not assigned	Not assigned
1	M1B	Scarborough	Malvern, Rouge
2	M1C	Scarborough	Rouge Hill, Port Union, Highland Creek
3	M1E	Scarborough	Guildwood, Morningside, West Hill
4	M1G	Scarborough	Woburn
5	M1H	Scarborough	Cedarbrae
6	M1J	Scarborough	Scarborough Village
7	M1K	Scarborough	Kennedy Park, Ionview, East Birchmount Park
8	M1L	Scarborough	Golden Mile, Clairlea, Oakridge
9	M1M	Scarborough	Cliffside, Cliffcrest, Scarborough Village West

	Postal Code	Latitude	Longitude
0	M1B	43.8066863	-79.1943534
1	M1C	43.7845351	-79.1604971
2	M1E	43.7635726	-79.1887115
3	M1G	43.7709921	-79.2169174
4	M1H	43.773136	-79.2394761
5	M1J	43.7447342	-79.2394761
6	M1K	43.7279292	-79.2620294
7	M1L	43.7111117	-79.2845772
8	M1M	43.716316	-79.2394761
9	M1N	43.692657	-79.2648481

Examining Database

Having the database of all neighbourhoods in Toronto including their postal codes, latitude and longitude it is necessary to find exact characteristics of each neighbourhood.

We use Foursquare API to retrieve specific information about each area, which includes business venues in the city of Toronto.



Criteria to Select Location

Using proximity to competitor businesses: other art galleries or even art museums

Taking advantage of complementary businesses: art and crafts stores for example

	Neighbourhood	Art Gallery	Art Museum	Arts & Crafts Store
0	Agincourt	0.0	0.0	0.0
1	Alderwood, Long Branch	0.0	0.0	0.0
2	Bathurst Manor, Wilson Heights, Downsview North	0.0	0.0	0.0
3	Bayview Village	0.0	0.0	0.0
4	Bedford Park, Lawrence Manor East	0.0	0.0	0.0

Reason behind selected criteria



Healthy
competition
encourages
innovation

Gaining
valuable
business
insight

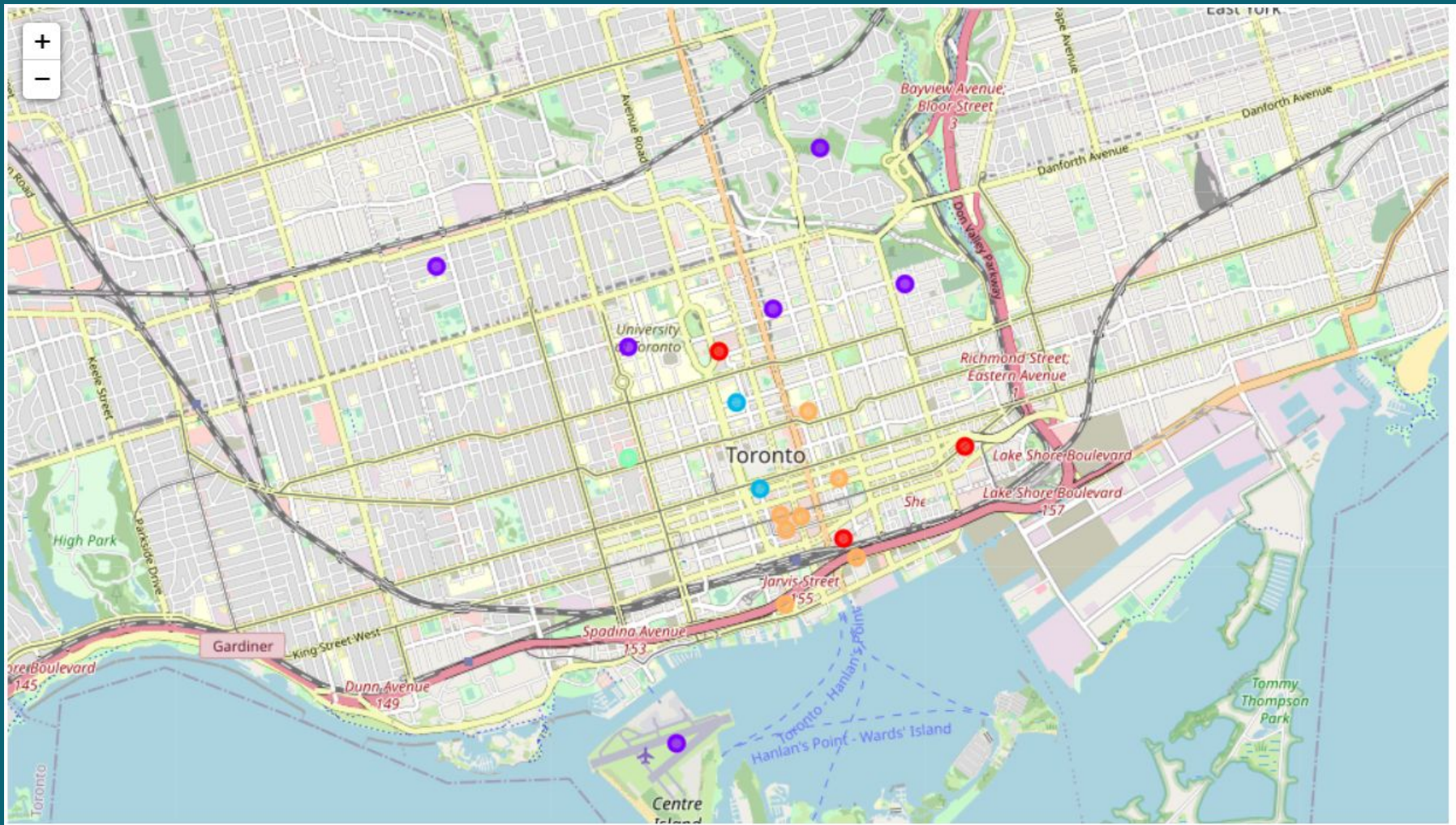
Saving time
and money
in
placement
research

Facilitating
sharing
resources
and
information

	Postal Code	Borough	Neighbourhood	Latitude	Longitude	Art Gallery	Art Museum	Arts & Crafts Store
0	M4W	Downtown Toronto	Rosedale	43.6795626	-79.3775294	0.000000	0.000000	0.000000
1	M4Y	Downtown Toronto	Church and Wellesley	43.6658599	-79.3831599	0.000000	0.000000	0.000000
2	M5A	Downtown Toronto	Regent Park, Harbourfront	43.6542599	-79.3606359	0.021739	0.000000	0.000000
3	M5B	Downtown Toronto	Garden District, Ryerson	43.6571618	-79.3789371	0.010000	0.000000	0.000000
4	M5E	Downtown Toronto	Berczy Park	43.6447708	-79.3733064	0.016949	0.000000	0.000000
5	M5G	Downtown Toronto	Central Bay Street	43.6579524	-79.3873826	0.000000	0.016667	0.000000
6	M5H	Downtown Toronto	Richmond, Adelaide, King	43.6505712	-79.3845675	0.010526	0.010526	0.000000
7	M5K	Downtown Toronto	Toronto Dominion Centre, Design Exchange	43.6471768	-79.3815764	0.010000	0.000000	0.000000
8	M5L	Downtown Toronto	Commerce Court, Victoria Hotel	43.6481985	-79.3798169	0.010000	0.000000	0.000000
9	M5C	Downtown Toronto	St. James Town	43.6514939	-79.3754179	0.012346	0.000000	0.000000

Using Cluster to promote proximity to competitors

Art Museum	Arts & Crafts Store	Cluster Labels
0.000000	0.000000	1
0.000000	0.000000	1
0.000000	0.000000	0
0.000000	0.000000	4
0.000000	0.000000	4
0.016667	0.000000	2
0.010526	0.000000	2
0.000000	0.000000	4
0.000000	0.000000	4
0.000000	0.000000	4
0.000000	0.000000	1
0.000000	0.015625	3
0.000000	0.000000	1
0.000000	0.000000	0
0.000000	0.000000	1
0.000000	0.000000	4



Results

	Cluster Labels	Number of Postal Codes	Cluster Description
0	0	3	High frequency of art galleries
1	1	6	No presence of target venues
2	2	2	Art museums and art galleries
3	3	1	Art and crafts stores
4	4	7	Low frequency of art galleries

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	Postal Code	Neighbourhood	Art Gallery	Art Museum	Arts & Crafts Store	Cluster Labels
2	M5A	Regent Park, Harbourfront	0.021739	0.0	0.0	0
13	M7A	Queen's Park, Ontario Provincial Government	0.033333	0.0	0.0	0
16	M5W	Stn A PO Boxes	0.020202	0.0	0.0	0

Based on the cluster analysis the cluster label 0 has more similar business therefore using the theory of proximity this would be the ideal location to open an art gallery in Downtown Toronto.



Recommendations

Increase the scope of factors that affect location selection such as demographic, real estate prices, transit accessibility, social implication and finances.