

Capstone Project

The Battle of the Neighborhoods (Week 2)

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Introduction: Business Problem

In this Project, we are trying to show the maximum possibility for a startup companies to start their companies in the City of Markham by presenting the city's increase prosperities. In their developing and the economy and talents to choose. Then city of Markham as the home for Life and start up their Family most cities succeed only if business people, who risk their own capital, Time, effort and ready to gamble on their Futures. To Retain the talents within the Canada The Federal Government came up with new Program called Global Talent Stream, Which is ready to help fast growing Canadian tech Companies recruit and retain highly skilled talent from going around the world.

I have chosen City of Markham where I leverage the foursquare location data to solve the imagined business opportunity for the Startup tech companies. Why choosing the City of Markham Background on City of Markham. City of Markham located within the Greater Toronto Area of South of Ontario and located approximately 30km northeast of Downtown Toronto. Markham changed its status from Town of Markham to City of Markham in July 1 2012. Nearly produces 22% of its Labors force and has over 1000 technology and life science companies. Most high-tech companies like IBM, Honda Canada, Hyundai, AMD, Johnson and Johnson, Avaya, Motorola, Oracle, Toshiba, Huawei, Honeywell, CDI, Toshiba, GE Energy, Informatics, Nexeya Lenovo and Genesys. This also means that the market is highly competitive.as it is highly developing city cost of doing business is also high. Thus, any new business ventures or expansion needs to be analyze carefully to reduce risk and get back its ROI. Markham is under construction and developing stage of its own Downtown with more Entertainment Districts, Restaurants and Communities Parks with high raised Condominium, and University.

Data

Based on the Business Problem

The Most Factors that will influence the Decision are:

- Number of existing Schools in the neighborhood
- Community Centre for Children and seniors
- Schools, Kinder garden to High Schools, College and University
- Hotels Golf Course and Restaurant with all the space to engaging the business related activities

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We decided to use regularly spaced grid of locations, centered on Markham Downtown center, to define our neighborhoods.

Following data sources, we will needed to extract/generate the required information:

- Centers of candidate areas will be generated algorithmically and approximate addresses of centers of those areas will be obtained using **Google Maps API reverse geocoding**
- Number of restaurants and their type and location in every neighborhood will be obtained using **Foursquare API**

Let us create latitude & longitude coordinates for centroids of our candidate neighborhoods. We will create a grid of cells covering our area of interest, which is approx. 300000 Radius centered on Downtown City of Markham.

City of Markham Downtown Latitude and Longitude

Downtown Markham latitude & longitude:

Latitude: 43.828193 longitude:-79.3259721525424

Foursquare Now that we have our location, let us use Foursquare API to get info on School, Community Center, Hotel, and Restaurant, and Golf Course. In Downtown Markham.

Methodology

In this project, our effort is to detecting areas in facilities around Downtown Markham for a startup companies to have their location as Markham. In order to facilitate, the Employees who located in the Markham and around not relocated for the job reason leaving behind their families. As the Markham has neighbor town, which has best schools, and Universities, which produces best talents as well.

First steps I have collected the date location Longitude and Latitude of the Downtown Markham with radius of 300000 collected the Neighborhood community parks, Schools, Hotels Business Services, and office locations. Grouping the Venues under Categories with available data.

Second, step in our analysis there more facilities available to facilitate the Startup Tech companies its advantage for the companies to explore and establish in this area.

Final Steps focus on the Area under Developing and Construction of the City particularly the Downtown Markham. As it is going to be the High-tech Entrainment Town of the City Facilities for the Restaurant, Transportation, Schools Community Center, Gym etc., within and around 30kms range.

Community Center and Parks

name	categories	address	lat	lng	postalCode	state
Bayview Hill Community Centre & Pool	Community Center	114 Spadina Rd	43.869588	-79.401943	L4B 2Y9	ON
Old Unionville Library Community Centre	Community Center	15 Library Lane	43.870095	-79.310559	L3R 5T7	ON
Angus Glen Community Centre & Library	Community Center	3990 Major Mackenzie Dr. E	43.894548	-79.335758	L6C 1P8	ON
Rouge Woods Community Center	Community Center	110 Shirley Dr.	43.883743	-79.404012	L4S 2M5	ON
Thornhill Community Centre	Community Center	7755 Bayview Ave.	43.819578	-79.400508	L3T 4P1	ON
Cornell Community Centre & Library	Community Center	3201 Bur Oak Ave	43.884826	-79.230287	L6B 0T2	ON
Garnet A. Williams Community Centre	Community Center	501 Clark Ave. W	43.804561	-79.440004	L4J 4E5	ON
Earl Bales Community Centre	Community Center	4169 Bathurst St	43.754447	-79.434910	M3H 3P7	ON

Schools College and University

name	categories	address	city	lat	lng	postalCode	state
Eitz Chaim Day Schools - Spring Farm Branch	College Classroom	80 York Hill Blvd.	Toronto	43.803416	-79.444965	L4J 2P6	ON
Eitz Chaim Day Schools - Administrative/Patric...	General College & University	475 Patricia Ave.	Toronto	43.783502	-79.444801	M2R 2N1	ON
Eitz Chaim Day Schools - Viewmount Branch	Elementary School	1 Viewmount Ave.	Toronto	43.709946	-79.428388	M5B 1T2	ON
Beaches ITF Taekwon-Do Schools	Martial Arts Dojo	2975 Victoria Park Ave	Toronto	43.758972	-79.315605	M1R 1V5	ON
Spirit of Math Schools Markham East	Private School	9293 Markham Road	Markham	43.894553	-79.263375	L6E 1A3	ON
Amberson High School - South Campus	High School	3470 Pharmacy Avenue	Toronto	43.808889	-79.333649	M1W 2S7	ON
Best Driving Schools in Scarborough	Driving School	3464 kingston Road	Scarborough	43.736887	-79.218818	M1M 1R5	ON
Spirit of Math Schools Vaughan	Private School	9860 Keele Street	Vaughan	43.850901	-79.511876	L6A 3Y4	ON
Spirit of Math Schools The Beach	School	415 Broadview Ave	Toronto	43.666413	-79.352725	M4K 2M9	ON
Northern Karate Schools - Midtown	Martial Arts Dojo	756 St Clair Ave W	Toronto	43.681208	-79.428296	M6C 1B5	ON
Felix's Swim Schools	Pool	181 Broadview Avenue	Toronto	43.661119	-79.350455	M4M 2G3	ON
Blessed Sacrament School Soccer Field	Soccer Field	24 Bedford Park Ave	Toronto	43.727192	-79.404945	M5M 1H9	ON
Mississauga ITF Taekwon-Do Schools	Martial Arts Dojo	874 Brimley Ave	Mississauga	43.583704	-79.684738	M5S 2B3	ON

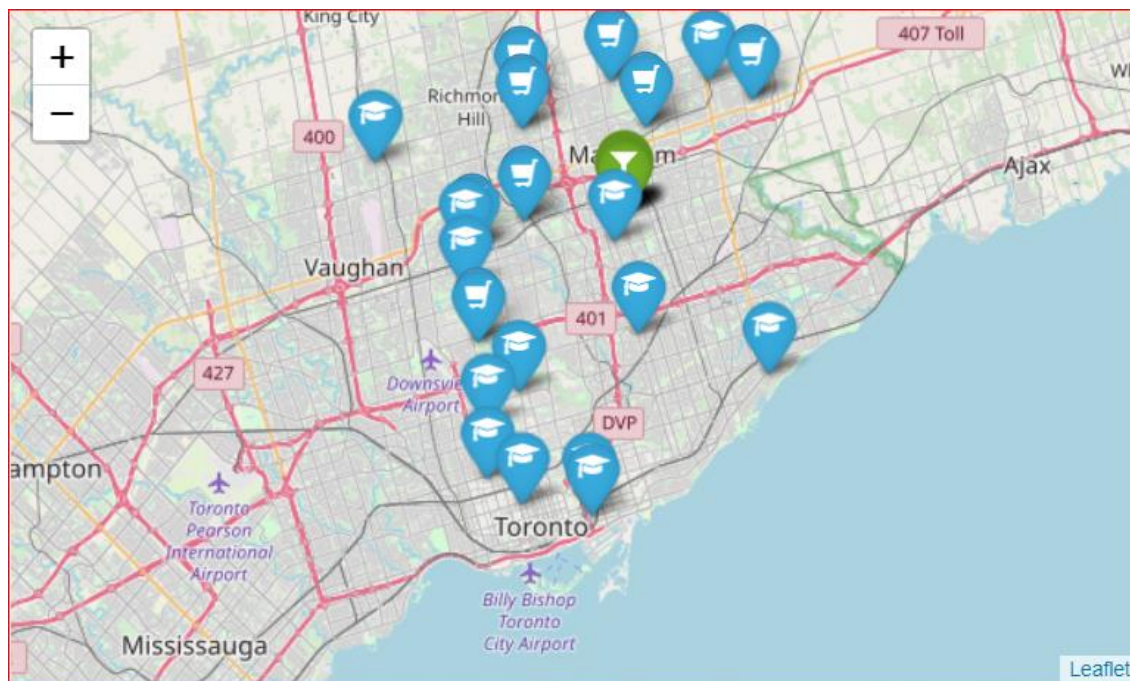
Hotels, Restaurant, and Place to hang out after office hours Business Meeting Avenues.

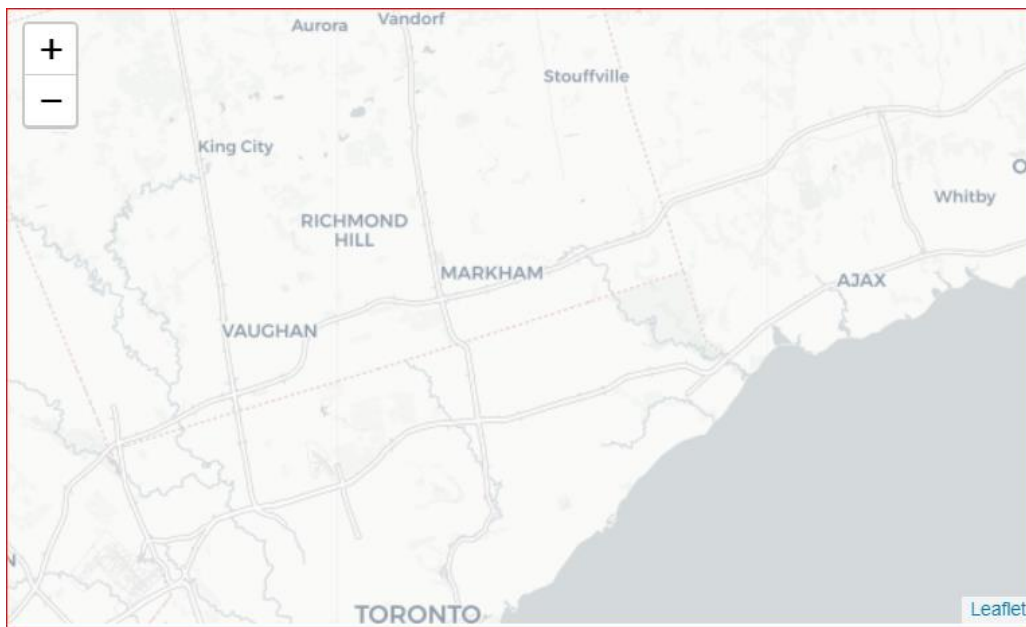
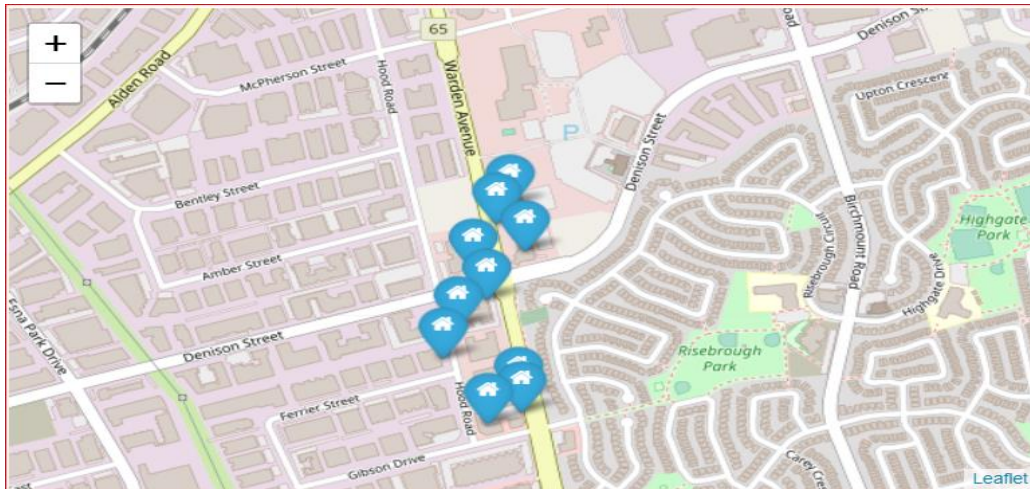
name	categories	address	lat	lng
Monte Carlo Inn & Suites Downtown Markham	Hotel	7255 Warden Ave	43.828155	-79.325955
Subway	Sandwich Place	NaN	43.827569	-79.326173
Sweet House Dessert 金玉满糖	Dessert Shop	7750 Birchmount Road	43.841855	-79.321574
Menaggio At Monte Carlo Inn	Food	NaN	43.828051	-79.326348
Makerwiz	Business Service	7271 Warden Ave	43.829227	-79.326339
Notabilia Education Centre 拔萃教育中心	Private School	7170 Warden Ave	43.827005	-79.326953
Brookfield Homes	Office	7303 Warden Ave	43.828800	-79.326694
Denison Vivastation	Bus Station	Warden Av	43.827957	-79.326177
Max Media	None	NaN	43.825929	-79.325787
Wu Yi Villa	None	4080 Steeles Ave East	43.830152	-79.327240
Utopia Dream Tea & More	Tea Room	7170 Warden Ave, Unit 26-27	43.826366	-79.327680
Century 21 King's Quay Real Estate	Office	7300 Warden Avenue	43.827716	-79.327297
Toronto Decorating Corporation	Office	236 Hood Rd.	43.825615	-79.328060
Switchworks	Office	NaN	43.829477	-79.328800
Chatime Bubble Tea 日出茶太	Bubble Tea Shop	20 Gibson Dr	43.824342	-79.326062
Axiom Driving School	Driving School	7170 Warden Avenue Unit 1	43.827106	-79.326846
The Alley	Bubble Tea Shop	30 Gibson Dr, Unit 118	43.824048	-79.326895
Jagger's Convenience	Miscellaneous Shop	NaN	43.827083	-79.325968

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Swagat	Event Space		NaN	43.831267	-79.327596
American Express Canada	Office	101 McNabb Street	43.832087	-79.325863	
Combined Insurance	Building		NaN	43.827523	-79.327162
Mac's	Miscellaneous Shop	1 Masseyfield Gate	43.827267	-79.326847	
VentureLab	Professional & Other Places		NaN	43.829156	-79.326342
Presidential gourmet	Event Space	7351 Victoria Patk	43.828400	-79.325600	
Massey Field Park	Park		NaN	43.826454	-79.324774
Printloft	Hobby Shop	7170 Warden Ave	43.827229	-79.327240	
DAGU RICE NOODLE Markham 大鼓米线	Noodle House	20 Gibson Dr Unit 111A	43.824693	-79.326130	
Lyreco	Office	7303 Warden Ave	43.829964	-79.326848	
Amplifi	Office	7271 warden ave	43.828885	-79.326446	
Christian Children's Fund of Canada CCFC	None		NaN	43.830906	-79.323266

Analysis

Let us create a map / density of Schools Shopping Hotels and try to extract some meaningful info from that. On our map and a few circles indicating distance of 1km, 2km and 3km in and around Downtown Markham





Results and Discussion

Our analysis shows that although there are lots of potential for any startup tech companies within 300 thousand radius of Downtown Markham and the City of Markham developing high range Luxury Condominium and Business Parks and DT Markham fairly close to city center travel time connecting with the Highways are closer to the city's Business Parks. Closeness to city center, strong socio-economic dynamics and density. After directing our attention to this, more narrow area of interest. Location, which has not only no nearby competition but also other factors taken into account and all other relevant conditions met.

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Conclusion

Purpose of this project was to identify City of Markham would be a prime location to start any startup high tech companies as it location consider its Development, Culture, and Multicultural Population. In order to retain the Talents within Canada particularly Markham as the area of Suggestion and best location. Unless as mention in the Intro the involvement of Government action in establishing the Firms. However, the Federal Government comes up with various program to retain the Talents within Canada.