Introduction:

A friend is looking to open an Indian restaurant in Toronto and has asked you to look into what area has the most potential for such a venture. He has described his desire to be in a younger neighborhood with people between 20 - 24 years old. He would also like to know what other Indian restaurants are in the area to know what his competition will be like.

Data

The data used for this project will be provided by Foursquare and https://open.toronto.ca/. Current restaurant data will be gathered and analyzed to see which neighborhood may be a good location for our friend to start looking. Population statistics will be gathered from OpenToronto.

Methodology

I plan on using the population data first to find out where the younger college age kids live. From this I will narrow down the area that he may want to open a restaurant. Once that area is defined I will search out other Indian restaurants in that area and group them into smaller groups with k-means square. Once this is done I will make my recommendation to my friend on what area I think fits all of his criteria. I will then find out what other Indian restaurants are in the area and let him know what they are and where they are located.

Results section where you discuss the results.

1. The best location for younger adults living in the city aged 20-24 was determined to be by the Waterfront Communities-The Island and second was the Bay Street Corridor. The close center to both of these neighborhoods was the Union Train station. This then became our center location to search for Indian restaurants within a 1 km distance.
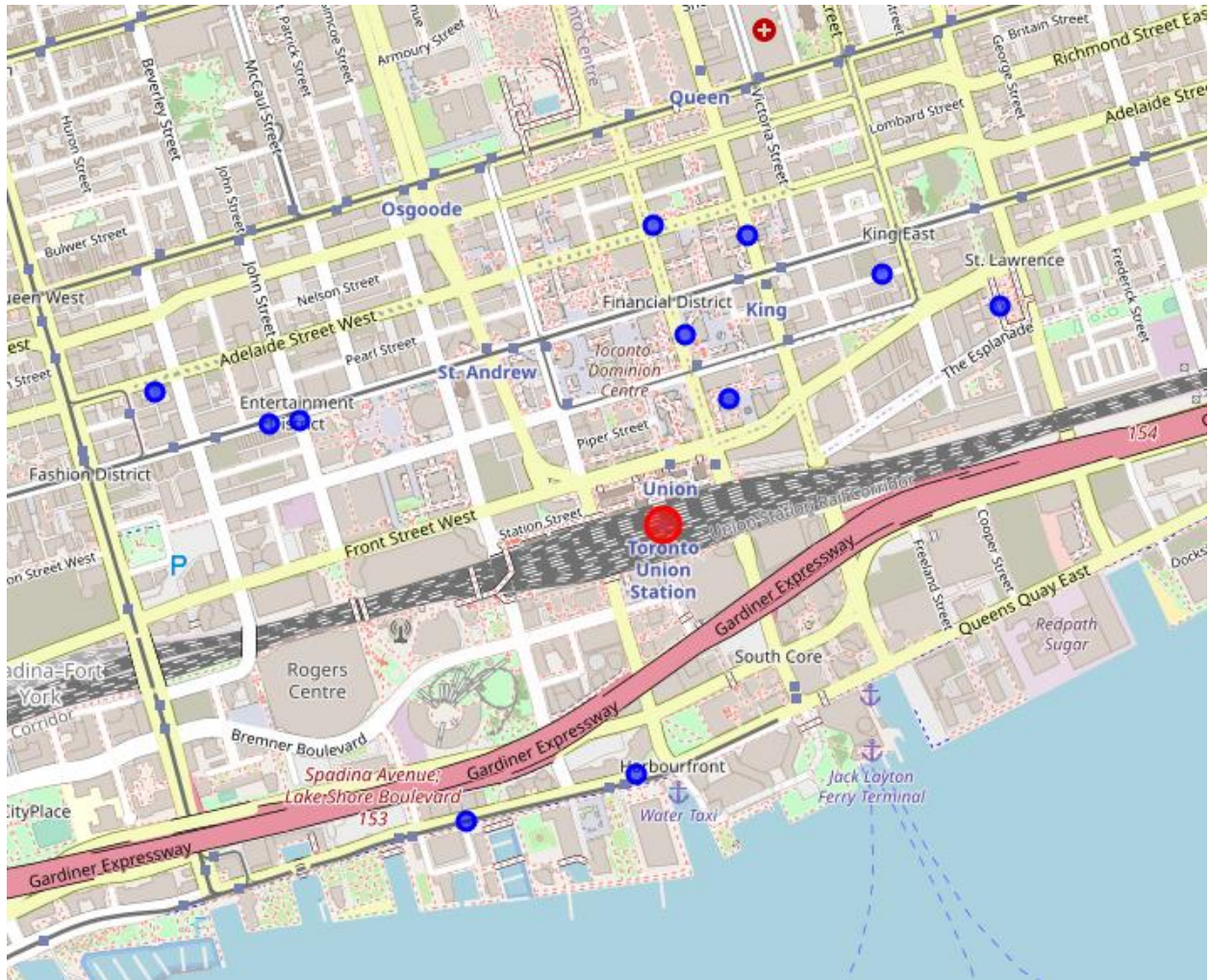
[8]:

Category	Male population 20-24	Female population 20-24	Sum
Waterfront Communities-The Island	3100	3590	6690
Bay Street Corridor	2485	3005	5490
Woburn	2310	1970	4280
Willowdale East	2000	2255	4255
Church-Yonge Corridor	1810	2205	4015

2. After searching within the 1km distance we found 11 Indian restaurants within the defined zone.
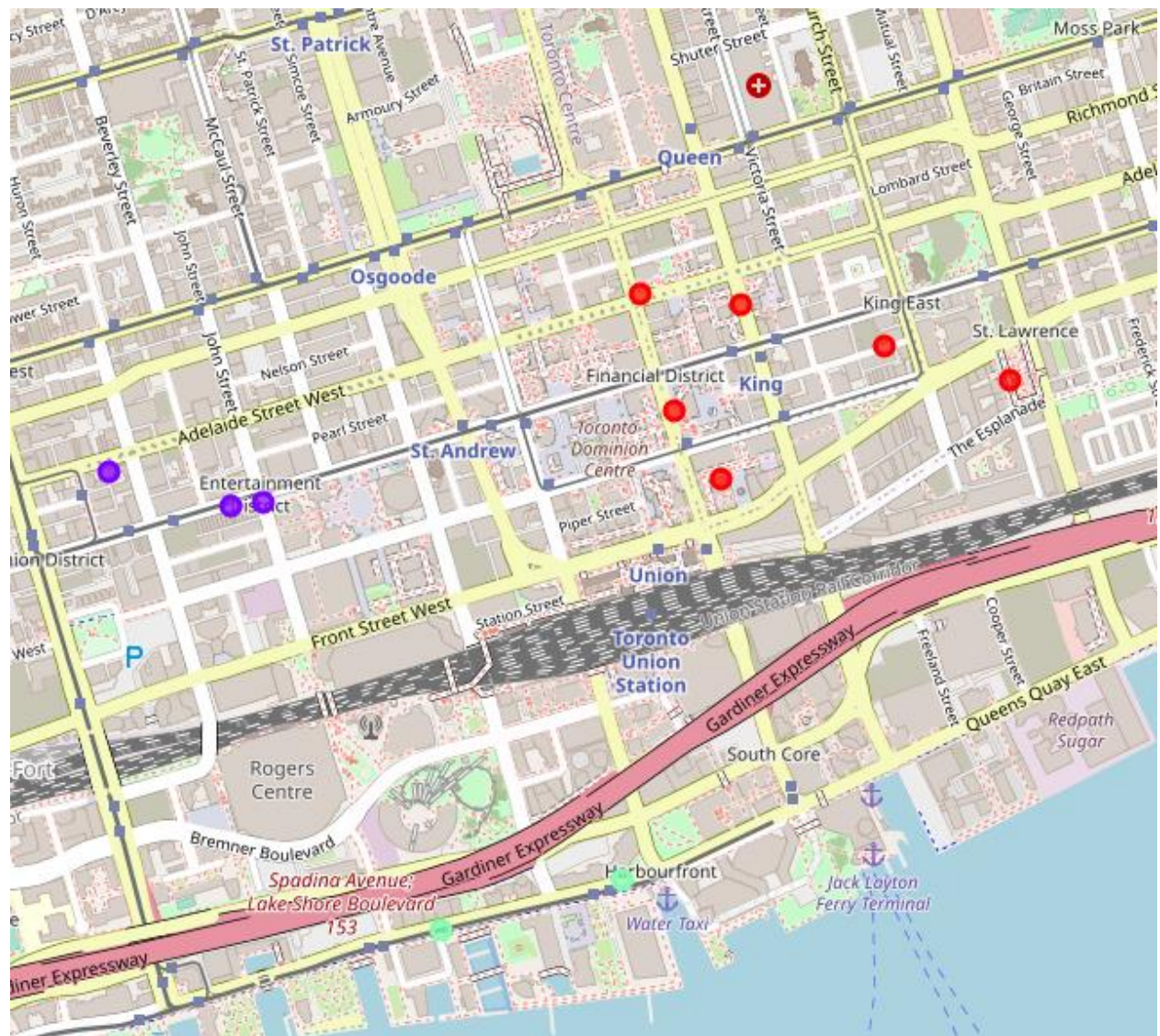
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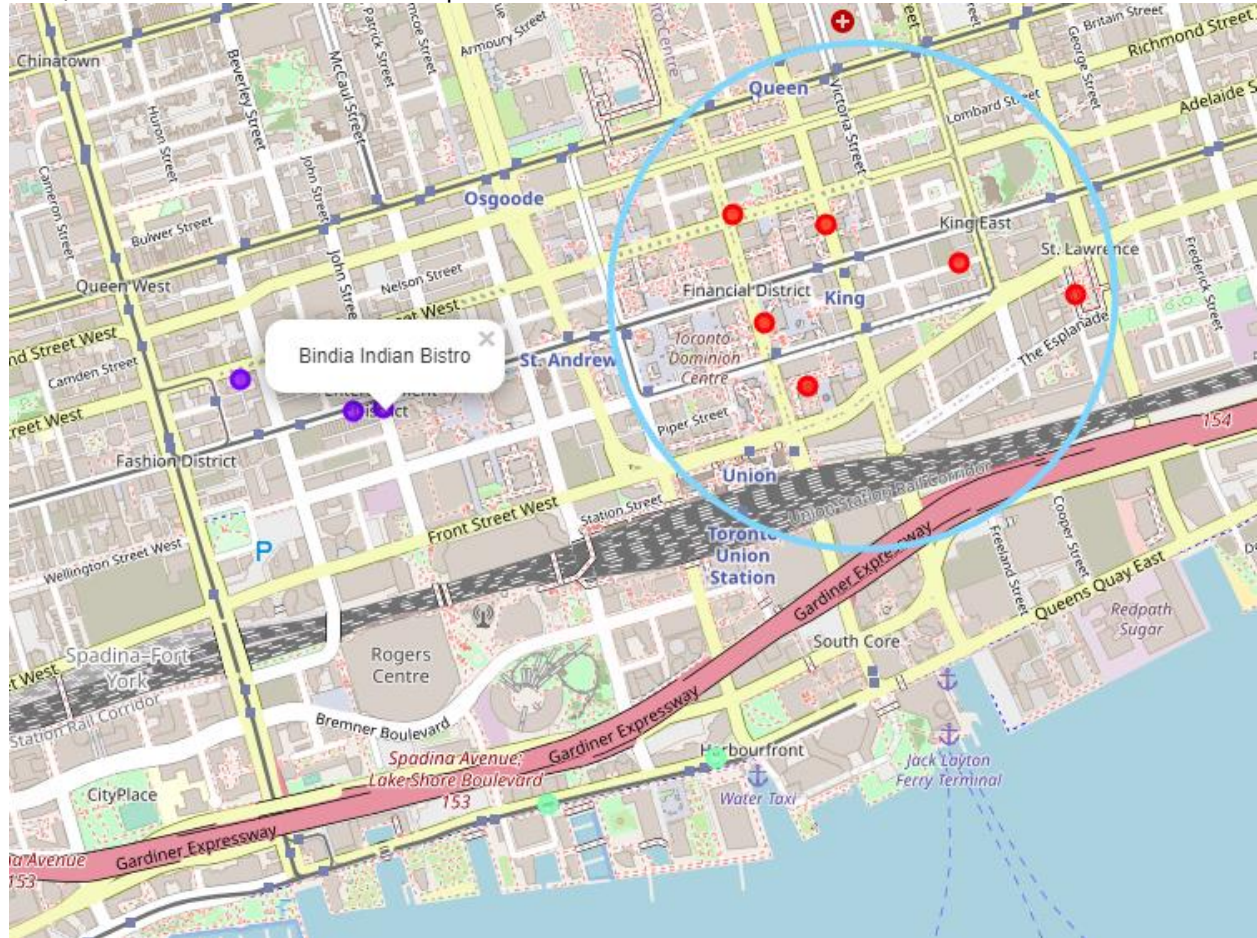|	name	categories	address	lat	lng
2	Indian Roti House	Indian Restaurant	256 Queens Quay W	43.639060	-79.385422
3	Indian Biriyani House	Indian Restaurant	120 Adelaide Street West	43.650050	-79.380662
4	Tamarind: The Indian Kitchen	Indian Restaurant	161 Bay St #230	43.646859	-79.378707
5	309 Dhaba Indian Excellence	Indian Restaurant	309 King Street West	43.646394	-79.390418
6	Aroma Fine Indian Restaurant	Indian Restaurant	287 King St. W	43.646463	-79.389644
7	Touch - Indian Cuisine	Indian Restaurant	1 Adelaide St. E	43.649869	-79.378218
8	Ram's Indian kitchen	Indian Restaurant	199 Bay St 6	43.648026	-79.379819
10	Swades Indian Cuisine	Indian Restaurant	208 Queens Quay W	43.639915	-79.381061
11	Chadani Indian Cuisine	Indian Restaurant	51 Colborne Street	43.649153	-79.374814
14	Amaya Fine Indian Cuisine	Indian Restaurant	NaN	43.646989	-79.393345
18	Bindia Indian Bistro	Indian Restaurant	16 Market Street	43.648559	-79.371816

We then mapped them out.

3. We then used k-square means to bunch the restaurants into smaller neighborhoods to choose a more specific area.

4. After grouping the restaurants, we came up with a tighter suggested location in cluster zero (red dots) that meets all our friends' requirements.

5. We then listed out six Indian restaurants in the desired area so he could see what his competition would look like.

	Cluster Labels	lat	lng	name	categories	address
1	0	43.650050	-79.380662	Indian Biriyani House	Indian Restaurant	120 Adelaide Street West
2	0	43.646859	-79.378707	Tamarind: The Indian Kitchen	Indian Restaurant	161 Bay St #230
5	0	43.649869	-79.378218	Touch - Indian Cuisine	Indian Restaurant	1 Adelaide St. E
6	0	43.648026	-79.379819	Ram's Indian kitchen	Indian Restaurant	199 Bay St 6
8	0	43.649153	-79.374814	Chadani Indian Cuisine	Indian Restaurant	51 Colborne Street
10	0	43.648559	-79.371816	Bindia Indian Bistro	Indian Restaurant	16 Market Street

6.

Discussion:

I realized while I was doing this another way of thinking about this problem might involve searching for a neighborhood with an Indian grocery store but few restaurants and a high amount of younger people. The grocery store would indicate that there is a higher amount of people in that neighborhood who enjoy Indian food.

Conclusion section where you conclude the report.

My conclusion is that he should look to open his restaurant by the cross streets of King Street and Yonge Street as this neighborhood seems to check all his boxes.