Finding the RIGHT Location

Capstone project for Coursera – IBM Specialization in Data Science

Mythili P Haran

Central Toronto

Downtown Toronto

East Toronto

0   1   2   3   4   5

Objective
Re-location to preferred Indian Community in Toronto

Stakeholders
Primary - Students, Families
Secondary – Commercial Establishments

Data Sources
Wikipedia
Four Square – Location Data & Intelligence

Coursera : Mythili Pranatharthi Haran

STAKEHOLDER EXPECTATIONS

Understand Neighborhood

- Evaluate criteria for selecting the community to re-locate to
- Compare localities based on priorities and preferences
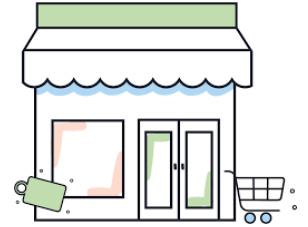- Review results to take "informed" decisions

ask

Which is the best locality to settle down ?

Plan Expansion

- Retail & Businesses - Understand potential growth opportunities
- Review trend of community expansion & settlement diversity
- Prioritize locations to set-up new commercial establishments

ask

Is this the right location to invest for a new restaurant or community center ?

Scope for Development

- Government & Municipal authorities – Town & Community planning
- Predict growth and improve services
- Proactively plan for newer zones development

ask

Which neighborhood's are popular by ethnicity, demand for new development initiatives ?

HIGH LEVEL APPROACH

MACHINE LEARNING

Segmenting & Clustering data using k-means clustering methods.

RAW DATA

Extract from Four Square & WikiPedia - location specific data points relevant for the analysis
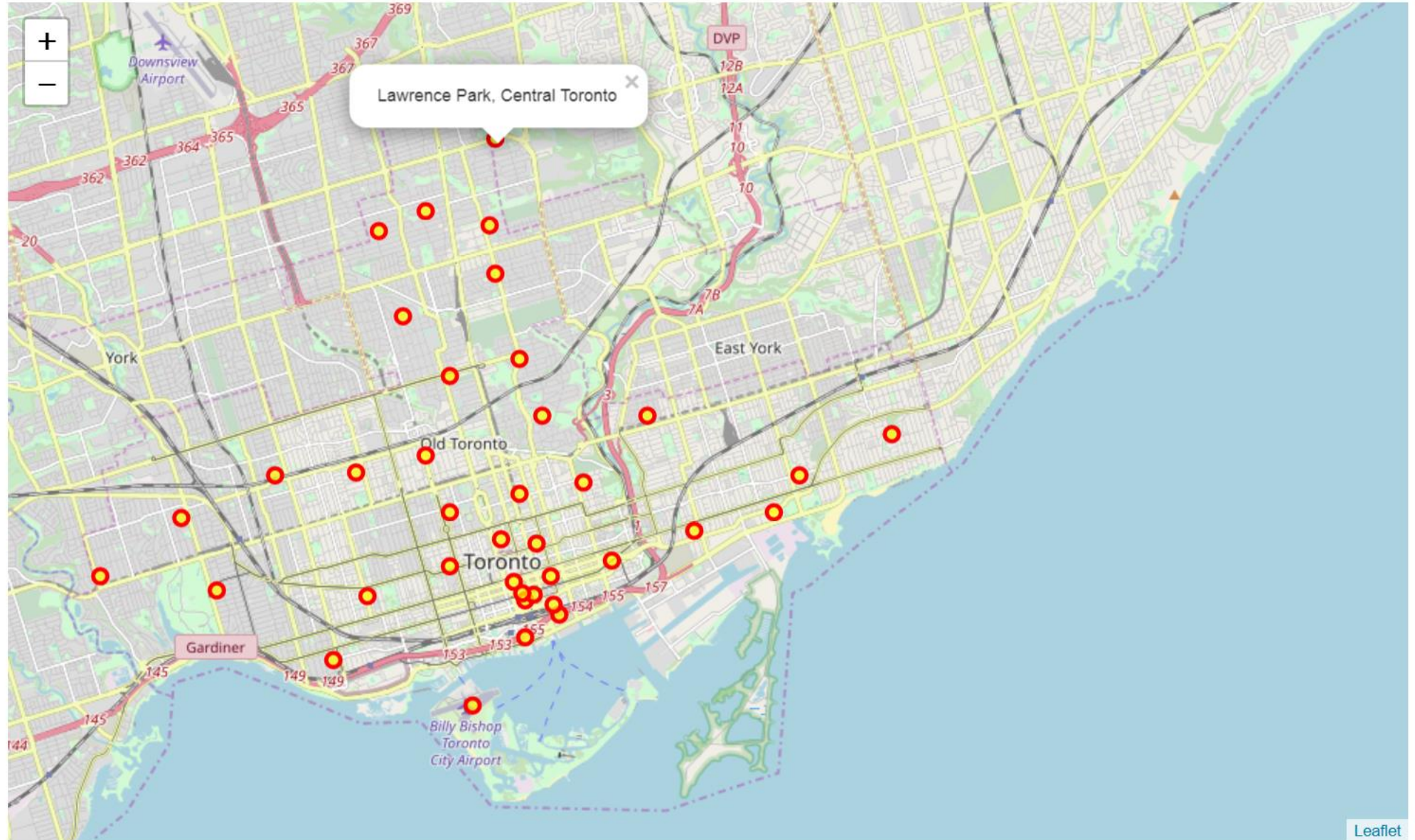
RESULTS

Identify & recommend the suitable community location in Torronto scoring high on the defined criteria.

ANALYZE

Review Data sources for completeness & establish data model and relationships

04 Recommendation
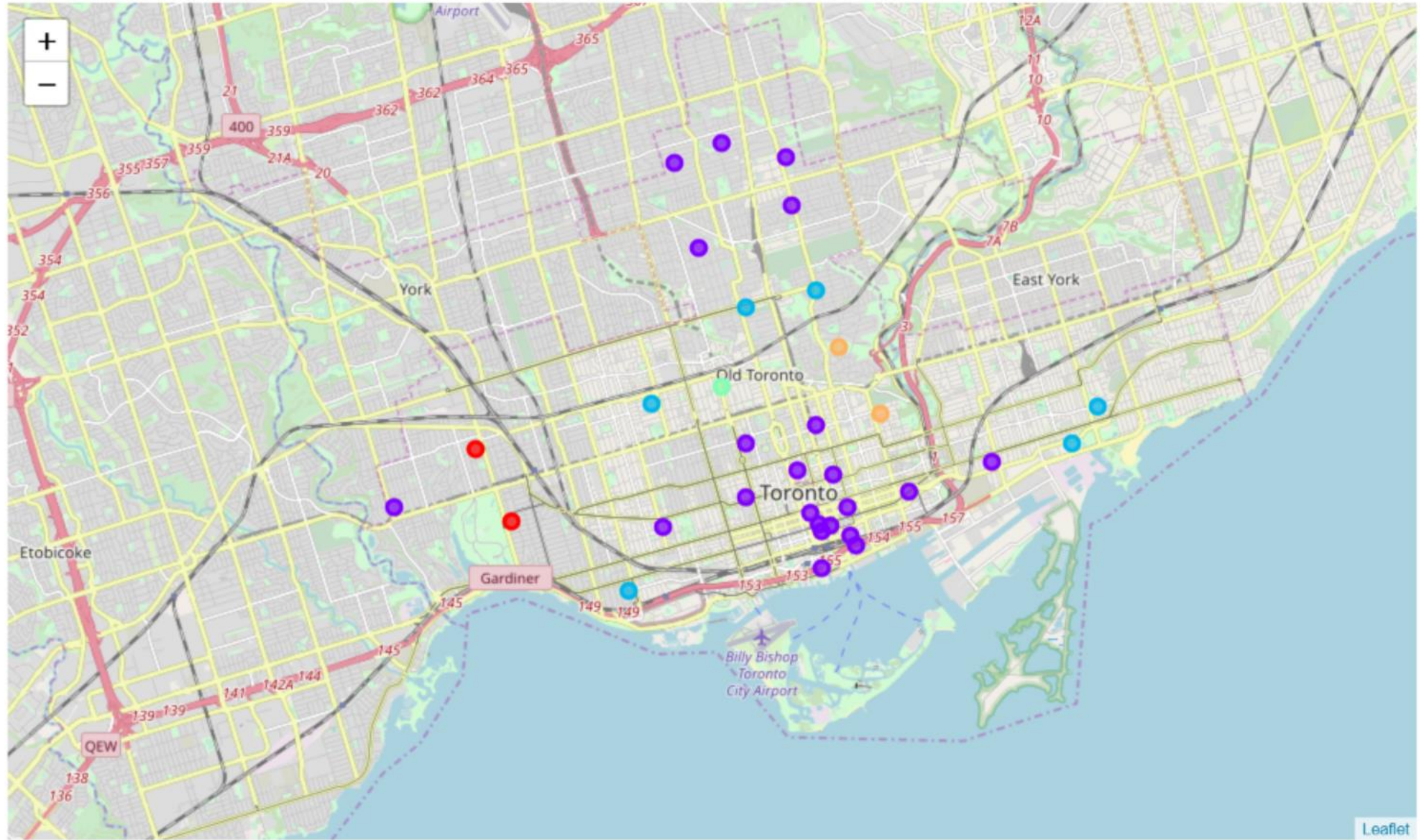
03 In-Depth Pattern

02 Data Analysis

01 Raw Data Source

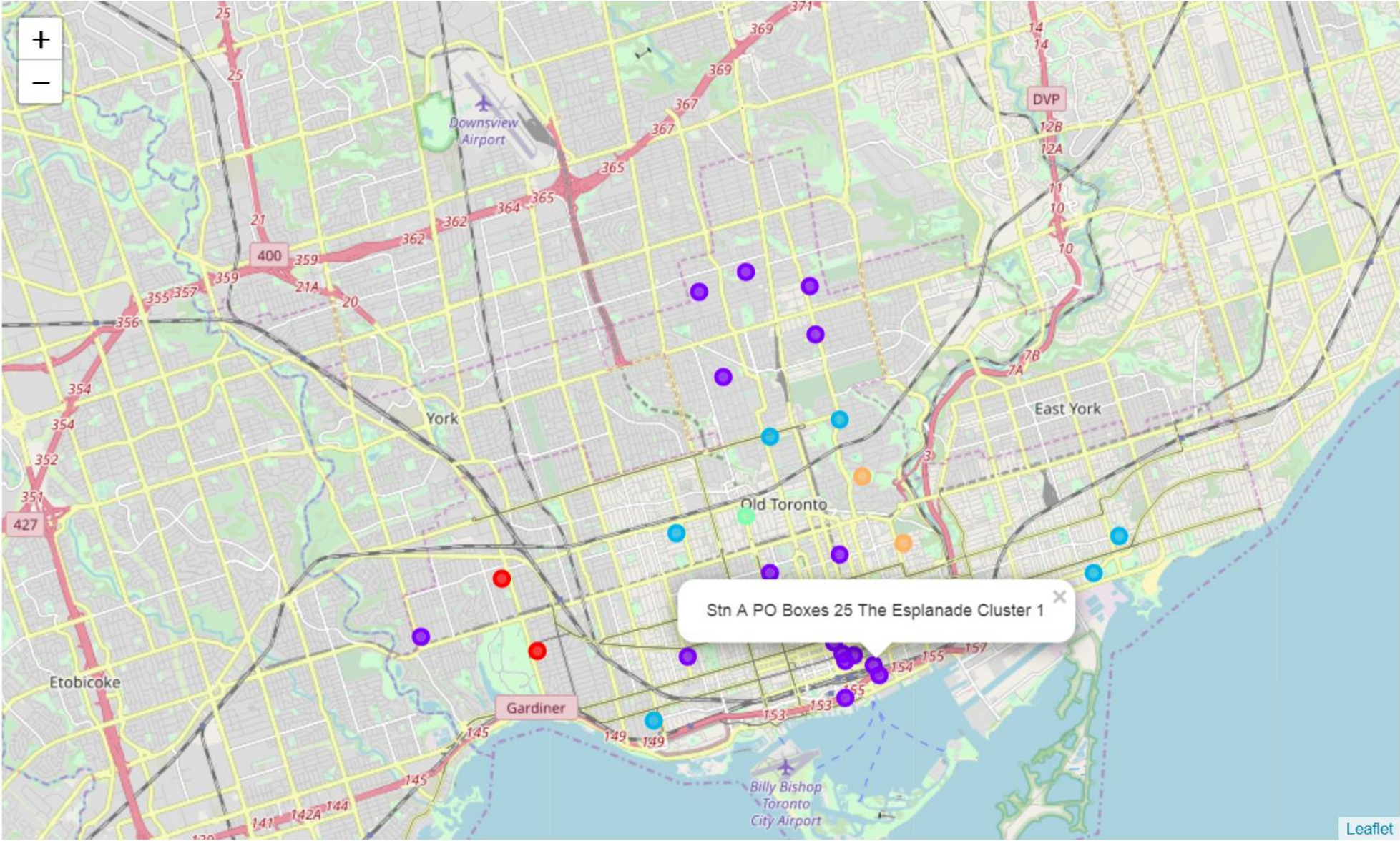# 1. INITIAL VIEW – PLOTTING THE DIFFERENT LOCALITY ZIP CODES

2. Clustering of Neighbourhood using K-means clustering Unsupervised Machine Learning Model

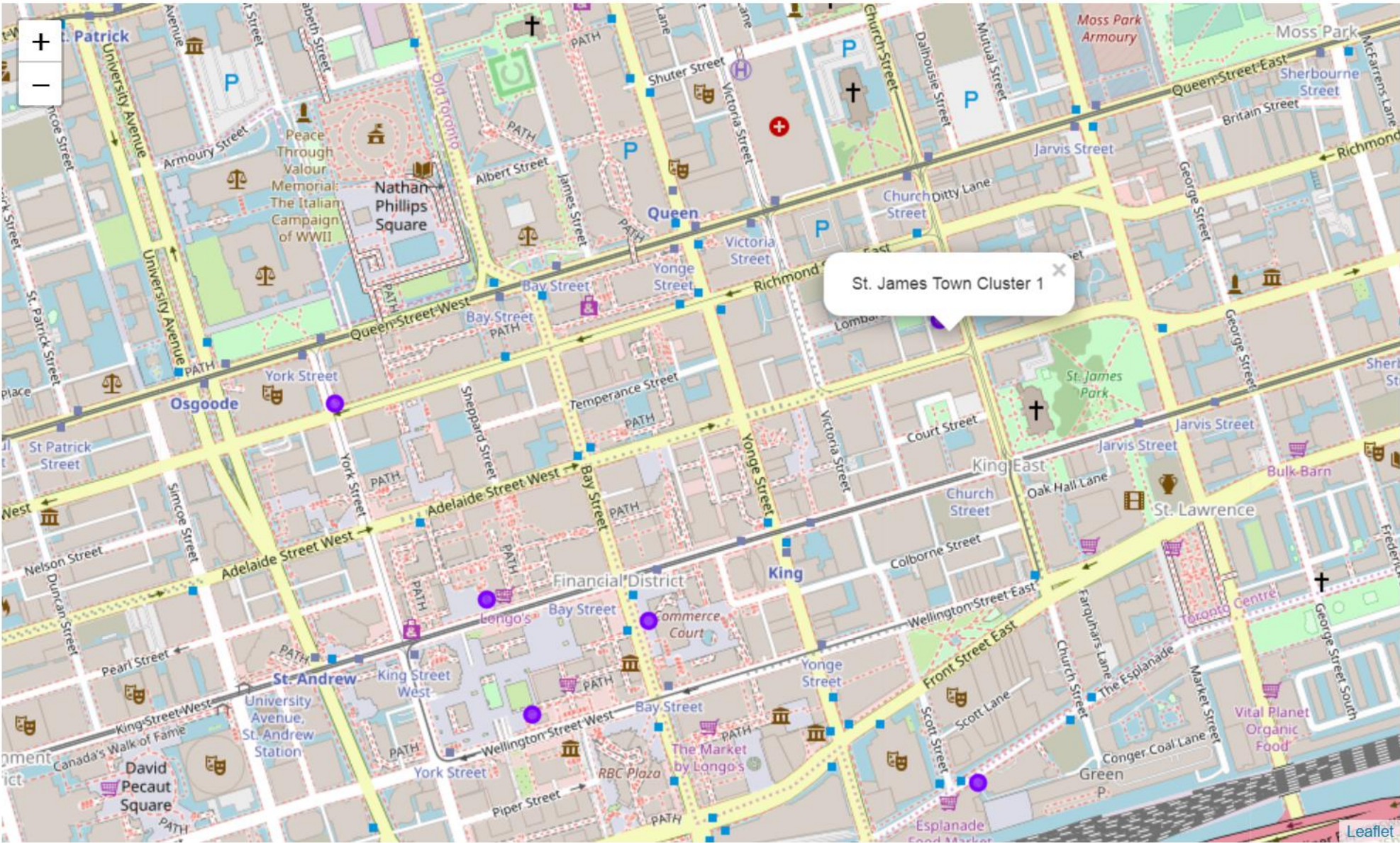# 3. THE ESPLANADE – ONE OF THE TOP RANKED INDIAN COMMUNITY

Out[95]:

St. James Town Cluster 1

THANK YOU

Mythili P Haran