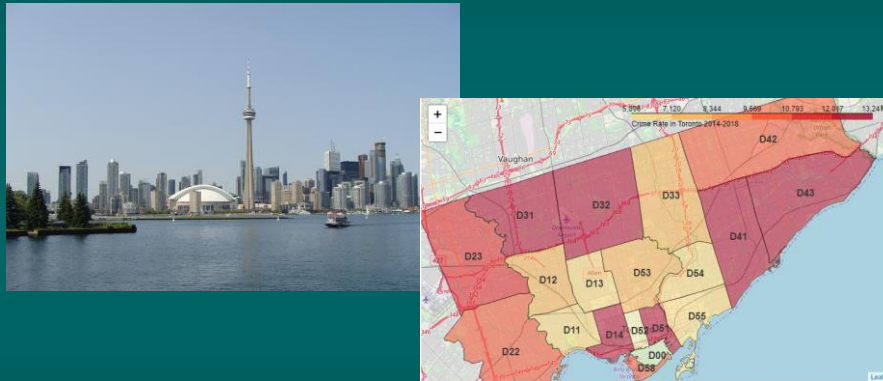# WK5 Capstone Project

## Where is a right place to move in Toronto?



2020.02.13

Jahyun Kim

# 1. Introduction

- Moving to other place is very stressful thing but also very important.
- Usually, we live at the place, over more than 5 years.
- I came to Canada 10 years ago and my children became grown-ups.
- They spent more than 3 hours each and totally my family spent 7 hours per a day. They work in Toronto.
- I have only three years left until my retirement.
- Hence, I should consider moving to Toronto.
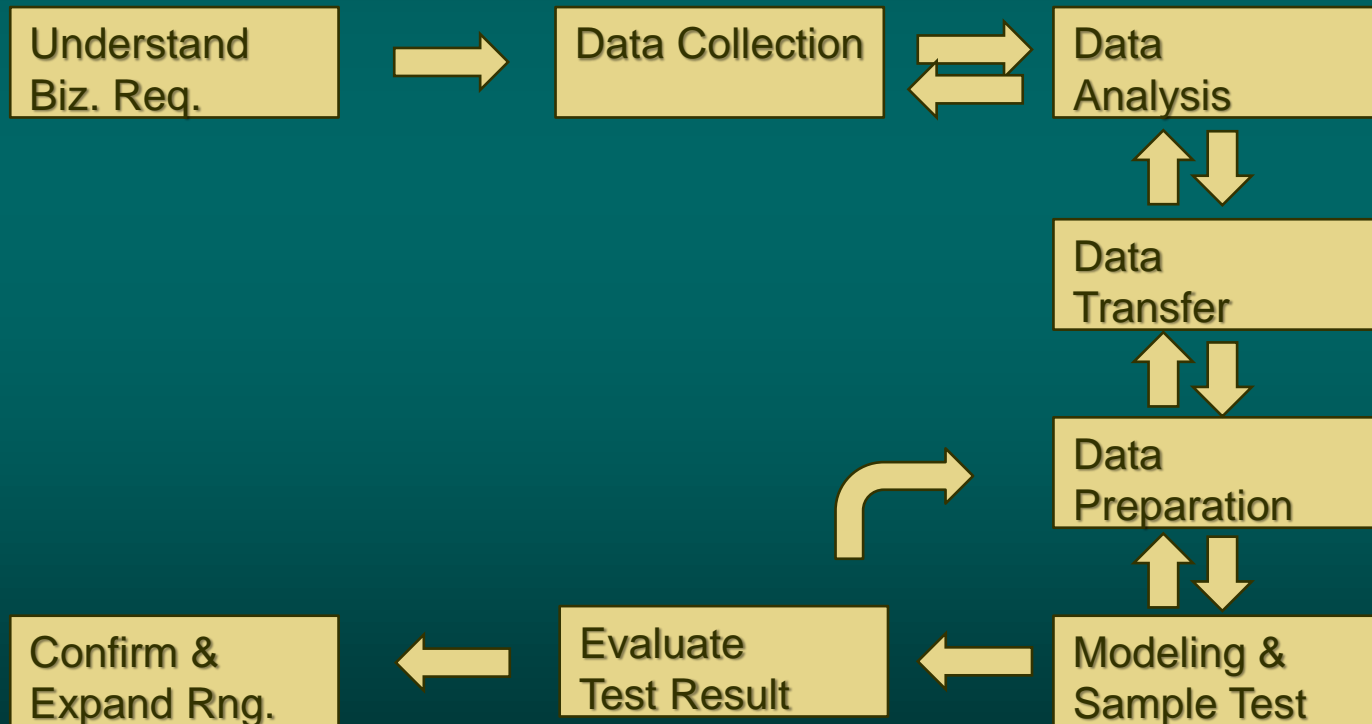
- Where is a right place to move in Toronto?

# 2. Data

- Read data and convert to Pandas DataFrmes
- Manipulate DataFrames for plotting
- Map Geometry data to DataFrame

| Division | 2017 | 2018 | Total |
|---|---|---|---|
| D52 | 831 | 931.0 | 1762.0 |
| D51 | 849 | 919.0 | 1768.0 |
| D11 | 1252 | 1261.0 | 2513.0 |
| D33 | 1383 | 1428.0 | 2811.0 |
| D55 | 1654 | 1757.0 | 3411 |
| ... | … | … | … |

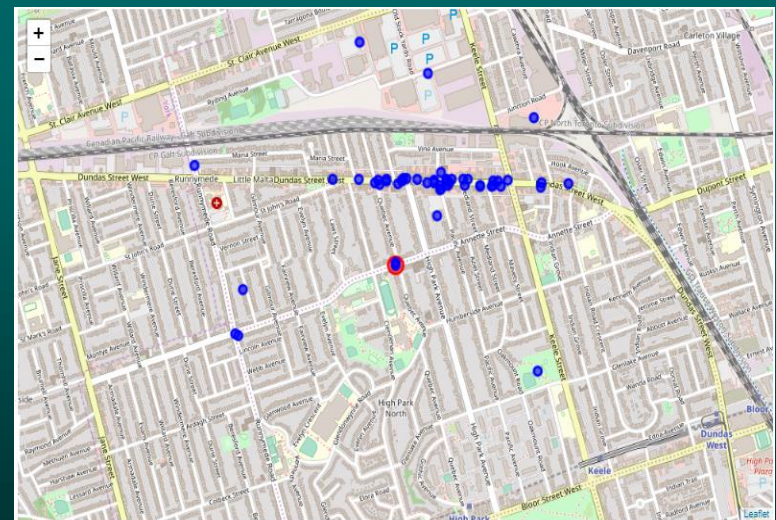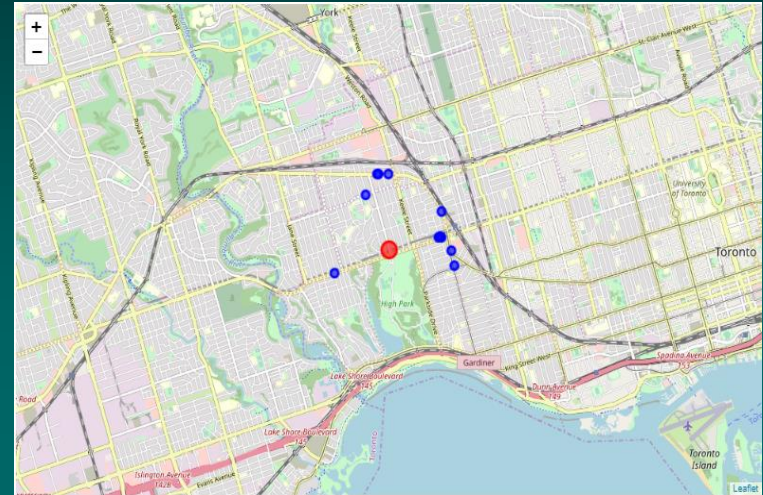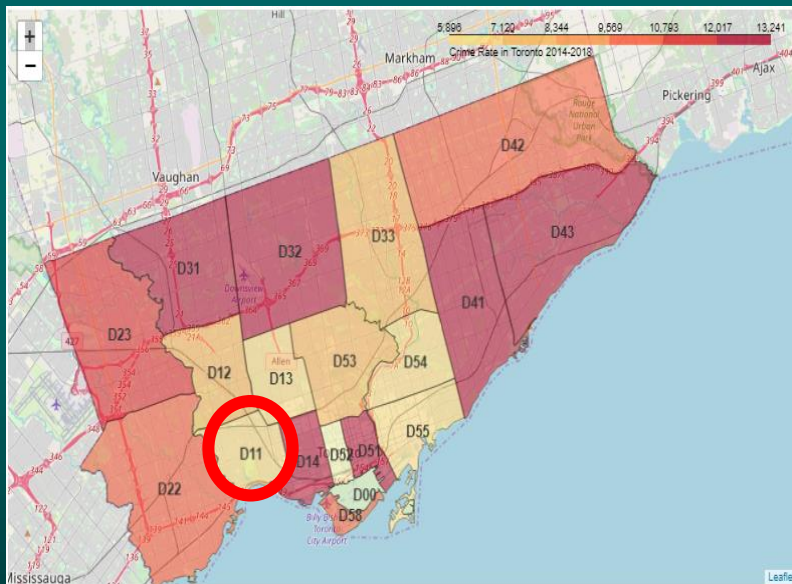| | ucr_code | ucr_ext | offence | reported year | ... | MCI | Divis | | | | ng |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7004 | 1430 | 100 | Assault | 2017 | ... | Assault | D22 | 17 | Mimico (includes Humber Bay Shores) (17) | 43.614082 | -79.492294 |
| 7008 | 1420 | 100 | Assault With Weapon | 2017 | ... | Assault | D22 | 17 | Mimico (includes Humber Bay Shores) (17) | 43.614082 | -79.492294 |
| 7012 | 1430 | 100 | Assault | 2017 | ... | Assault | D33 | 53 | Henry Farm (53) | 43.773651 | -79.348854 |
| 7013 | 1430 | 100 | Assault | 2017 | ... | Assault | D31 | 27 | York University Heights (27) | 43.763363 | -79.500862 |

# 3. Methodology

- Understand Business Requirement and Collect the Data
- Analyze – transfer – Prepare Data
- Modeling and Sample test
- Evaluate test Result and expand Range

# 4. Result

- Select D11 from the Choropleth Map
  - Low incidents during 2014–2018
  - Residence Area
  - Good Neighborhood
  - Close commutation distance
- Explore popular Spots and Venues around D11

# 5. Discussion

- My first priority is Safety. It also affects to the insurance fees
- The second is good neighborhood
- the last one is Commutation Distance

- What is your priority to move?
  - Safety
  - Neighborhood
  - Commutation Distance
  - Community
  - Public Transit
  - and so on

# 6. Conclusion

- Got a right place to move in Toronto

- Choropleth map is a great tool to identify the density of numbers comparing around area through eyes

- Had a great time to learn various skills and tools through this course

- This experience and approaching method will be used to various cases.