# **Assignment 5 Overview**

- You will examine crimes in Toronto using open data from Ontario and the City of Toronto.
- You will learn:
  - How to use the interactive query builder (Select By Attributes) to construct SQL queries in ArcGIS Pro.
  - How to create buffers in ArcGIS Pro.
  - How to clip a layer in ArcGIS Pro.
  - How to remove duplicate records in a feature layer in ArcGIS Pro.

## **Submission Details**

- This is a <u>Connect Assignment</u>.
- You will submit everything on Connect.
- The deadline is 2:00 PM on **November 19**.
- Direct all extension requests to the professor.
- If you seek an accommodation (extension), you **must** save copies of your answers (e.g., save all your answers in a Word document). Your assignments will be reset with a new deadline, and the existing answers will be cleared.

#### Select By Attributes Tool

Fie	Field: 📰 Add 🕎 Calculate 🛛 Selection 🖼 Select By Attributes 🤤 Zoom To 📲 Switch 📄 Clear 💭 Delete 📄 Copy									
	OBJECTID_1 *	Shape *	OGF_ID	CLASS_SUBT	CLASS_SU_1	OFFICIAL_M	MUNID	MAH_CODE	MUNICIPAL_	
1	1	Polygon	67906580	Single Tier Municipality	96	TOWNSHIP OF CARLING	49036	86602	Islands	
2	2	Polygon	67916365	Lower Tier Municipality	95	TOWNSHIP OF WAINF	26014	18601	Mainland	
3	3	Polygon	67916109	Lower Tier Municipality	95	CITY OF CLARENCE-RO	2036	67101	Mainland	
4	4	Polygon	67906756	Single Tier Municipality	96	TOWNSHIP OF JOHNS	57016	80605	Water	
5	5	Polygon	67916448	Lower Tier Municipality	95	TOWNSHIP OF MALAH	34007	44612	Water	
6	6	Polygon	67906686	Single Tier Municipality	96	TOWNSHIP OF BRETH	54032	90602	Mainland	
7	7	Polygon	67916768	Lower Tier Municipality	95	TOWN OF BRACEBRIDGE	44018	33401	Mainland	
8	8	Polygon	67916262	Lower Tier Municipality	95	MUNICIPALITY OF BRIG	14005	61407	Water	
9	9	Polygon	67916290	Lower Tier Municipality	95	TOWNSHIP OF HAVEL	15030	66620	Mainland	

You can find the Select By Attributes tool in the attribute table of a specific feature layer.

Note that you should click the tool button in the feature layer that you want to subset or select. Otherwise, you will need to manually adjust the Input Rows.

### **SQL** Expression

Select By Attributes ? ×	Select By Attributes ? ×
Input Rows Municipalities	Input Rows Municipalities
Selection Type New selection	Selection Type New selection
Expression       Expression       Image: Double of the second secon	Expression  Code 🔚 Save 🗙 Remove
sqL ♪	✓ SQL € 換
Where OBJECTID_1 v is equal to v 1 v	OBJECTID_1 = 1
+ Add Clause	
Invert Where Clause	· · · · · · · · · · · · · · · · · · ·
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After you interactively constructed the query, you can access the corresponding SQL expression by turning on the SQL mode.

Structured Query Language (SQL) is a language used to manage data in a relational database management system.

#### Buffer



The black geometries are buffered, resulting in the orange geometries.

The green lines represent equal distances.





The orange circle is clipped by the black circle. The orange geometry is then modified.

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