Objectives

The goals of this project are:

-Explore the data collected on GTA apartment price in 2018

-Explore the relationship between the price, the region as well as number of bedroom(s)

-Gain insights into these prices. These insights may be used to predict future price or to drive further investigation by collecting more data

Tools

Microsoft Power BI was used to explore and visualize the dataset.

Data

This dataset is Toronto Apartment Rental Price 2018 dataset from Kaggle. It has 7 features and 7,884 records. It covers the year of 2018.

https://www.kaggle.com/datasets/rajacsp/toronto-apartment-price

Data Cleaning and Preprocessing

Preprocessing focused on the variable 'Region' which indicates the city the rental took place. The expected values are any cities in GTA. Rows with other variables other than these were removed. A total of 5,348 rows remained.
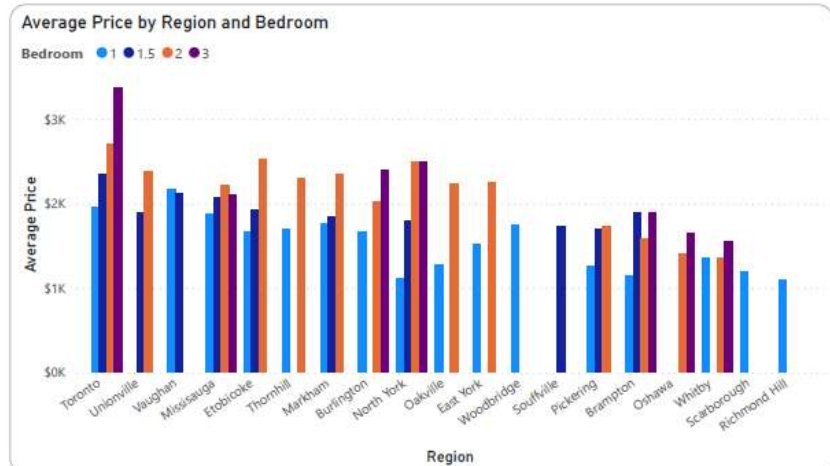
Dashboard & Key Insights

There were a total of 763 apartment rental transactions in GTA in 2018. Den is counted as 0.5 bedroom in this project.
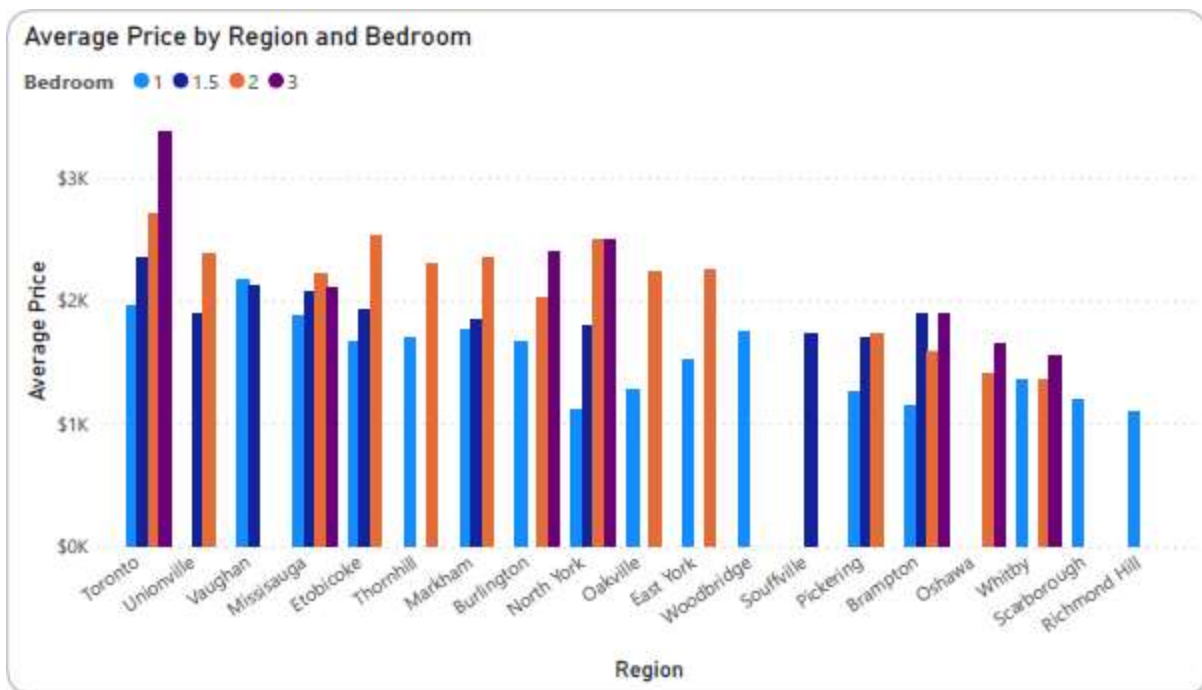
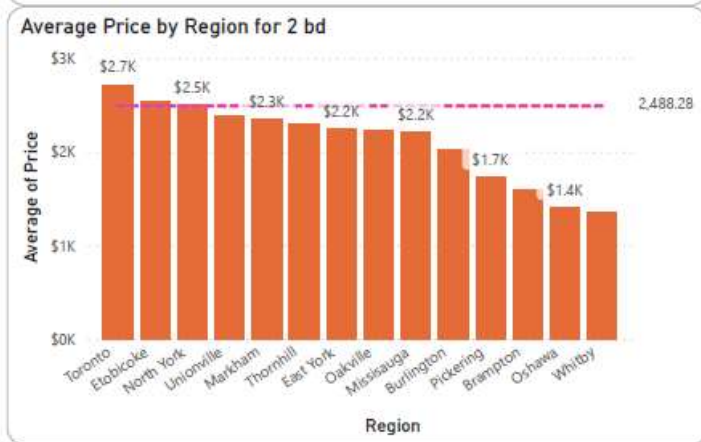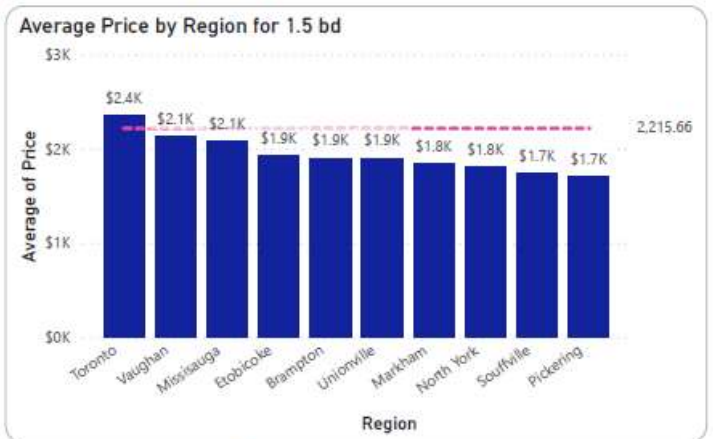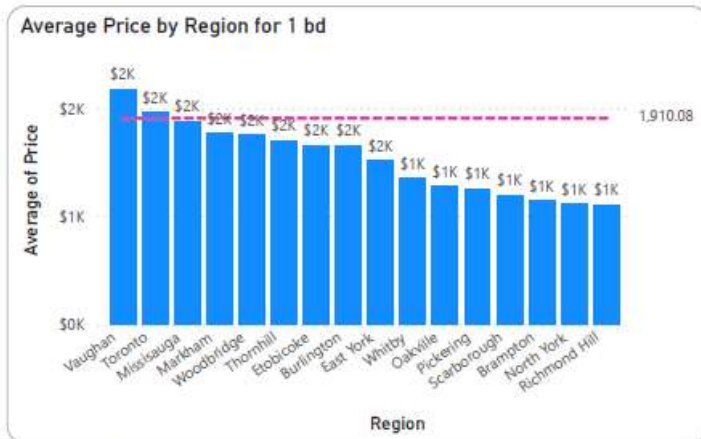|			
1.00 Bedroom	1910.08 Average Price	$65 Minimum Price	$4,700 Maximum Price
1.50 Bedroom	2215.66 Average Price	$99 Minimum Price	$3,600 Maximum Price
2.00 Bedroom	2488.28 Average Price	$600 Minimum Price	$4,500 Maximum Price
3.00 Bedroom	2904.33 Average Price	$1,300 Minimum Price	$4,900 Maximum Price

There was a vast range in the price for all bedrooms but the average price increases with the increasing number of bedrooms.


An overview of the average price by the region and bedroom.

Average Price by Region for 1 bd

Regions (highest to lowest): Vaughan ($2K), Toronto ($2K), Mississauga ($2K), Markham ($2K), Woodbridge ($2K), Thornhill ($2K), Etobicoke ($2K), Burlington ($2K), East York ($2K), Whitby ($1K), Oakville ($1K), Pickering ($1K), Scarborough ($1K), Brampton ($1K), North York ($1K), Richmond Hill ($1K). Reference line: 1,910.08

Average Price by Region for 1.5 bd

Regions (highest to lowest): Toronto ($2.4K), Vaughan ($2.1K), Mississauga ($2.1K), Etobicoke ($1.9K), Brampton ($1.9K), Unionville ($1.9K), Markham ($1.8K), North York ($1.8K), Soufville ($1.7K), Pickering ($1.7K). Reference line: 2,215.66

Average Price by Region for 2 bd

Regions (highest to lowest): Toronto ($2.7K), Etobicoke ($2.5K), North York ($2.5K), Unionville ($2.3K), Markham ($2.2K), Thornhill ($2.2K), East York ($2.2K), Oakville ($2.2K), Mississauga ($1.7K), Burlington ($1.7K), Pickering ($1.4K), Brampton ($1.4K), Oshawa ($1.4K), Whitby ($1.4K). Reference line: 2,488.28

Average Price by Region for 3 bd

Regions (highest to lowest): Toronto ($3.4K), North York ($2.5K), Burlington ($2.4K), Mississauga ($2.1K), Brampton ($1.9K), Oshawa ($1.7K), Whitby ($1.6K). Reference line: 2,904.37

The most expensive region for 1 bedroom was Vaughan while Toronto came first for the other number of bedrooms.

Distribution Volume by Bedroom

Legend: ● 1 ● 2 ● 1.5 ● 3

- 30 (3.88%)
- 114 (14.73%)
- 219 (28.29%)
- 411 (51.1%)
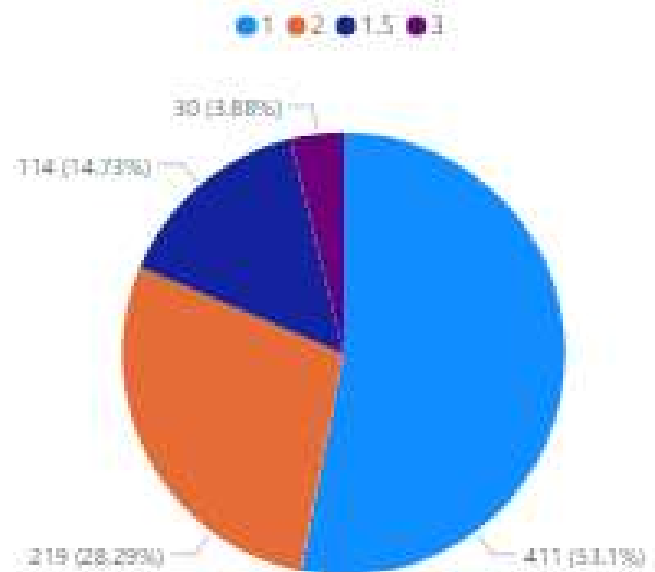
The two most popular apartment rental is 1 bedroom and 2 bedroom. Together they make up 81.39% of all the transactions.

Implications and Future Direction:

-Gather data on more recent apartment rental prices so that the data can be compared and be used to predict future prices.

-Investigate the plausible rationale behind the minimum and maximum prices for 1, 1.5 and 2 bedrooms. (Rent stabilized apartment? Prime location?)

-Look into why 1 bedroom apartments are the most expensive in Vaughan. (Newly built? Bigger square footage?)

-Consider getting more details on square foot on these rental apartments.