

# CSC343 Phase 4

## Presentation

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## Domain:

### Here is the domain:

In this project, we will discuss whether the unemployment rate, interest rate and household debt-to-income are critical factors that affect the Canada housing price index from 2001 to 2021.



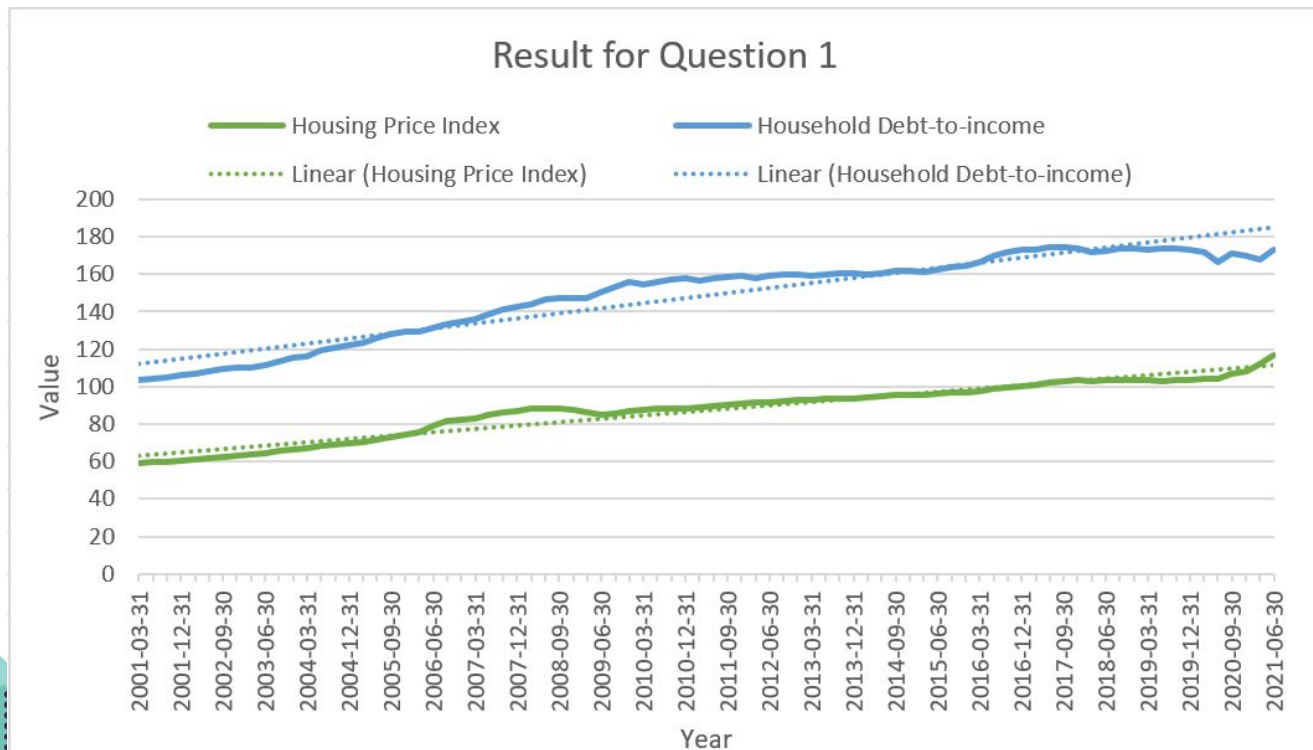
## Investigative Questions:

### Here are Investigative Questions:

1. Does the Canada housing price index have a positive correlation with household debt-to-income?
2. How does the housing price index fluctuate with the unemployment rate?
3. Among unemployment rate, interest rate, and household debt-to-income, which factor significantly impacts the housing market?



# Results:





## Challenges:

### Here is the Challenge:

We've noticed that the released date shown in tables Housing Price Index, Unemployment Rate and Household Debt-to-income is always at the end of the month. However, the table Interest Rate collects daily data, which contains every month's data, but the released date is not always at the end of the month.

The released date is the key of each table, so our challenge is to make those released date values consistent.

We decided to use only the "yyyy-mm" part to show the released date. We achieve this by loading all four original tables to staging tables first, then selecting only the year and month parts from the released date before loading them to the final schema.



# Lessons:

## Here are Lessons:

Clean data :

- Real life data is not perfect and adjust the data to what we expected
- Data type sometimes might be issue, create our own data type or use some method to convert the data type to what we expected is also important

SQL and other programing language:

- SQL is a useful tool to analyze data shown in tables.
- SQL can assist with other programming language dealing with database, e.g python



**Any Questions?**



**Thank you for  
your time :)**

