

Project # 2B

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Graphic Techniques for Software Design: GRDN2000

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**Introduction:**

The project is about creating a data visualization for any kind of data, and after searching and creating three different frame works, we decided to choose data that has three factors to compare. We created prototype of the data visualization with the Adobe Illustrator to demonstrate our data for both household income and home price growth between 2005 and 2015.

GRDN2000

## Graphic Techniques for Software Design

### Project #2

### Data Visualization

#### Module A

#### Part I - Preliminary Exercises



## Part II – A Larger Data Visualization Exercise

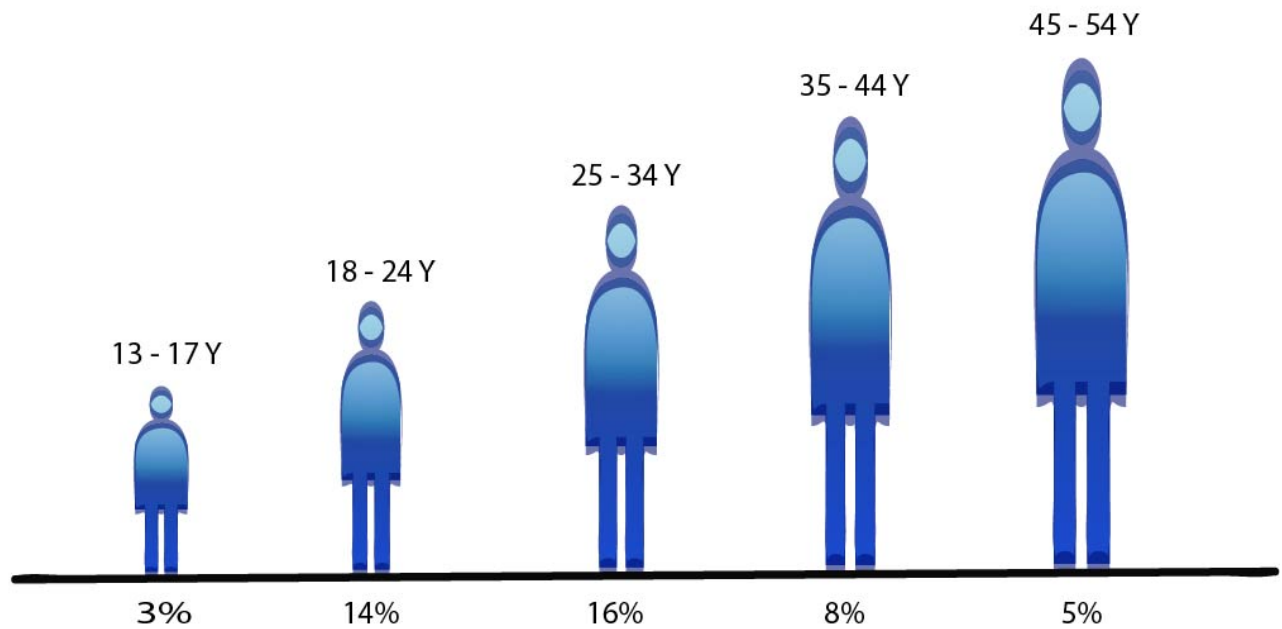
**P II – a)** Brainstorm 3 ideas for a data set that you would like to represent. List brief descriptions for each. Provide hand-drawn, or wireframed sketches. Choose one idea and indicate the reasons for your selection.

1- The first idea is about changes in population in Canada during last 50 years ago.

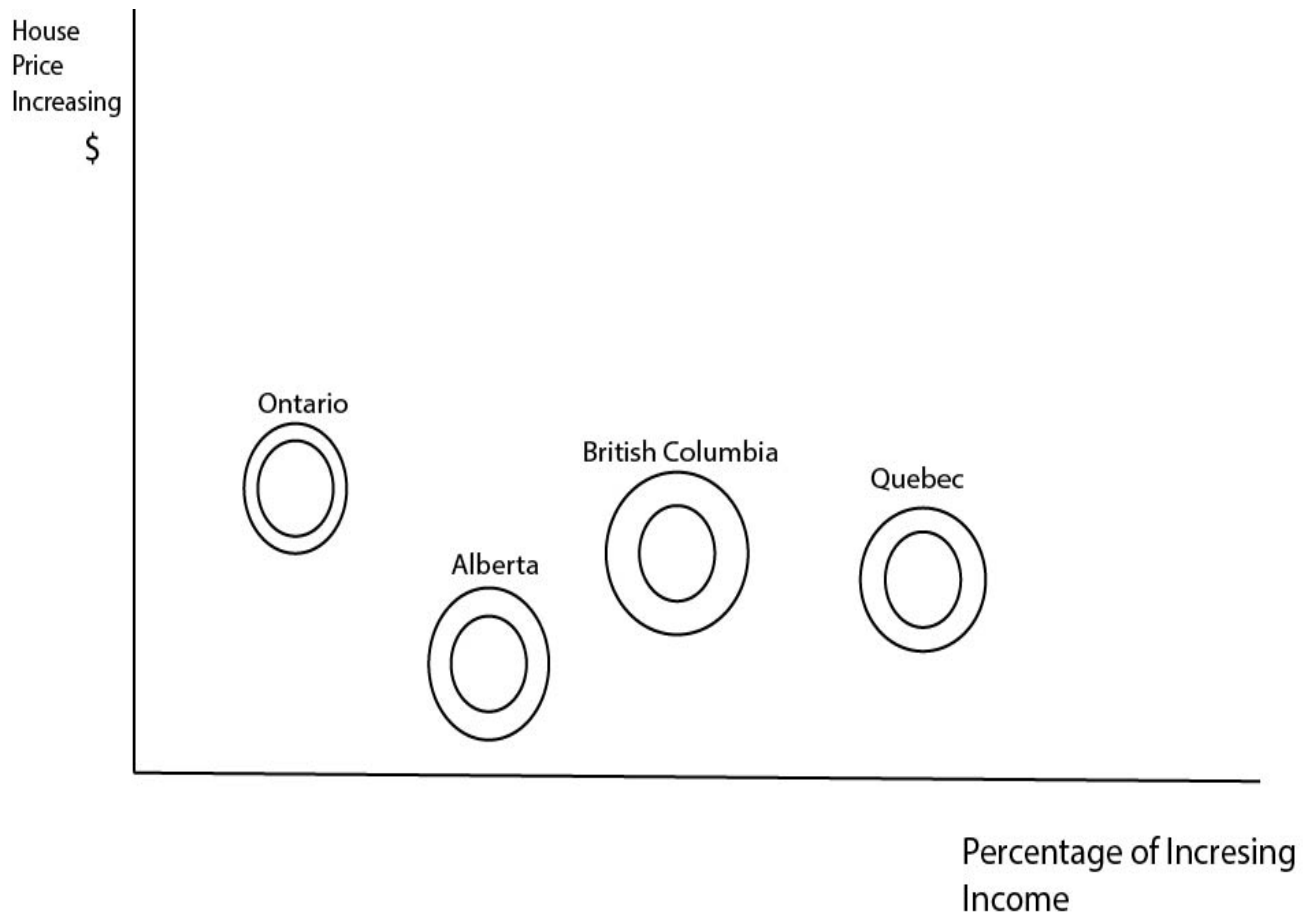
For this idea, one of the best ways is showing data on the map by indicating the year and the number of the population in different shapes.



2- The second is about relationship between usage of the social media(Facebook) and the age of users in Canada. We can focus on the Facebook, Instagram, and Snapchat.



- 3- The last one is about increasing income in the last five or ten years ago in the four provinces in Canada. Also, comparing it with the increasing house price during that period.



We have chosen this idea for data visualization because there are three items for comparison. Also, we can develop and make it more attractive in the next module.

**P II – b)** Provide a discussion of your plan to collect or generate the data.

Our plan to set data is collecting data from different resources such as Statistic Canada.

There is a capability to generate data by using such mathematical tools and programming languages by giving a growth rate and using linear equation that is not realistic, so we prefer to use real data from Canadian resources, which is gathered from surveys or statistics.



## **Module B**

### **P II – c)**

According to using data format, we created tabular form of numerical data that collected from Statistic Canada and Canadian Real Estate Association websites. Our data are about increasing household income from 2005 to 2015 in four cities in Canada that are Toronto, Calgary, Vancouver, and Montreal. We compared those data with increasing home price in those years and same cities.

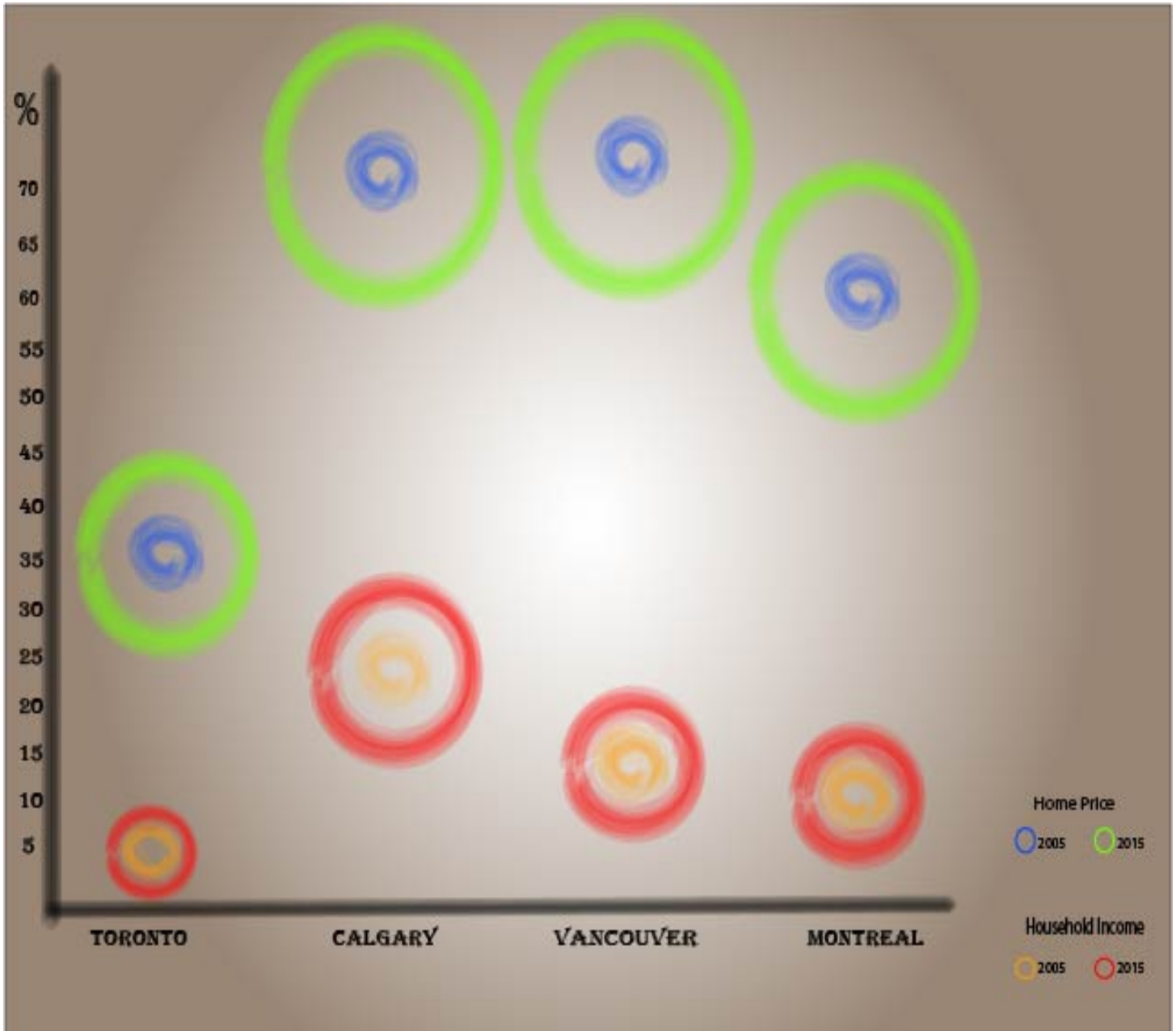
#### Household Income

	2005	2015	Increasing percentage
<b>Toronto</b>	\$71,534	\$74,287	3.8%
<b>Calgary</b>	\$75,684	\$93,835	24%
<b>Vancouver</b>	\$62,372	\$69,995	12.2%
<b>Montreal</b>	\$54,921	\$59,822	8.9%

## Home Price

	2005	2015	Increasing percentage
Toronto	\$300,000	\$480,000	%33
Calgary	\$250,000	\$425,000	70%
Vancouver	\$380,000	\$650,000	71%
Montreal	\$180,000	\$300,000	66%

P II- d



**Conclusion:**

Many types of data visualization help people to understand better the different levels of data and make comparisons. We chose this kind of visualization because it was more match on data, which are about income level and house price. It helps to understand how much the house price was growing in compare of household income during those years.