



**DALHOUSIE
UNIVERSITY**

**Assignment 4
Report-2**

CSCI5408 – Data Warehousing & Analytics

Submitted by:

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B00810723

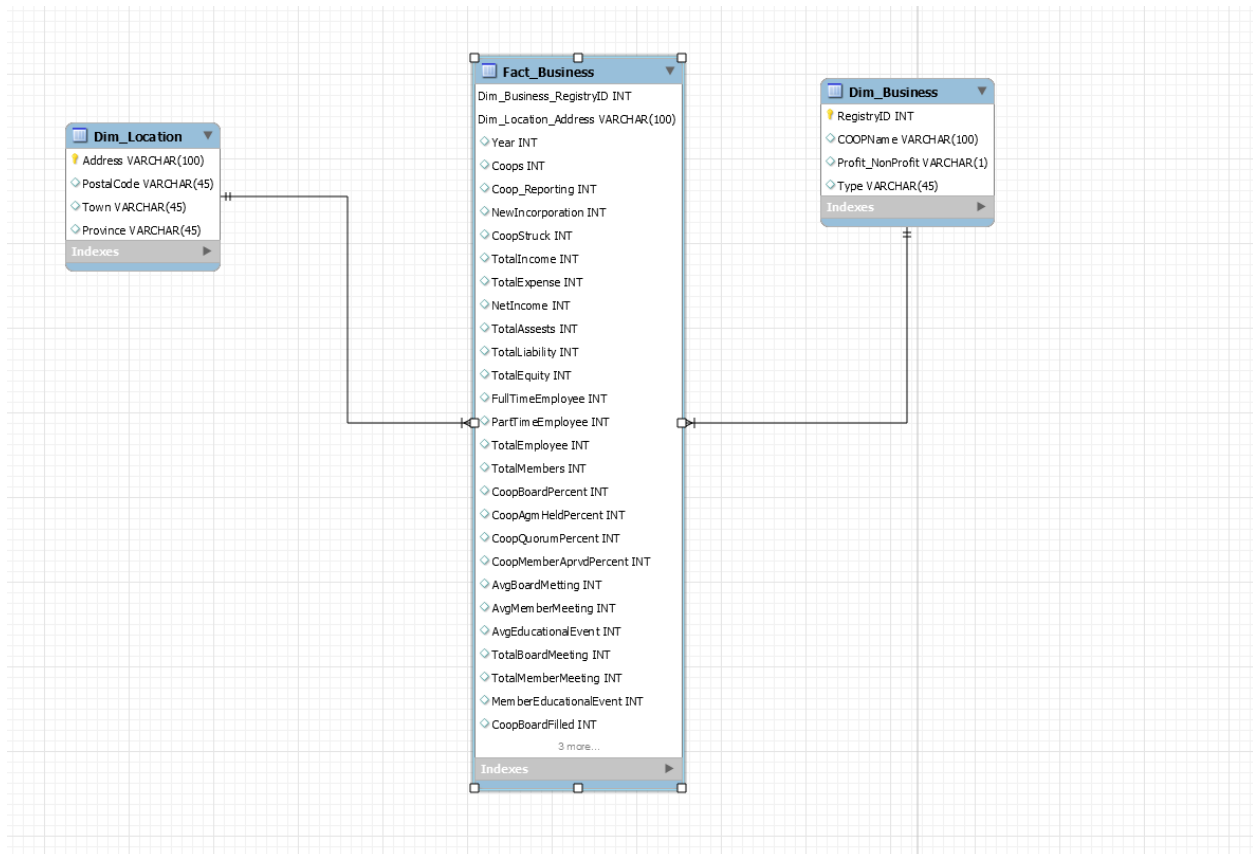
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Data Gathering and Upload:

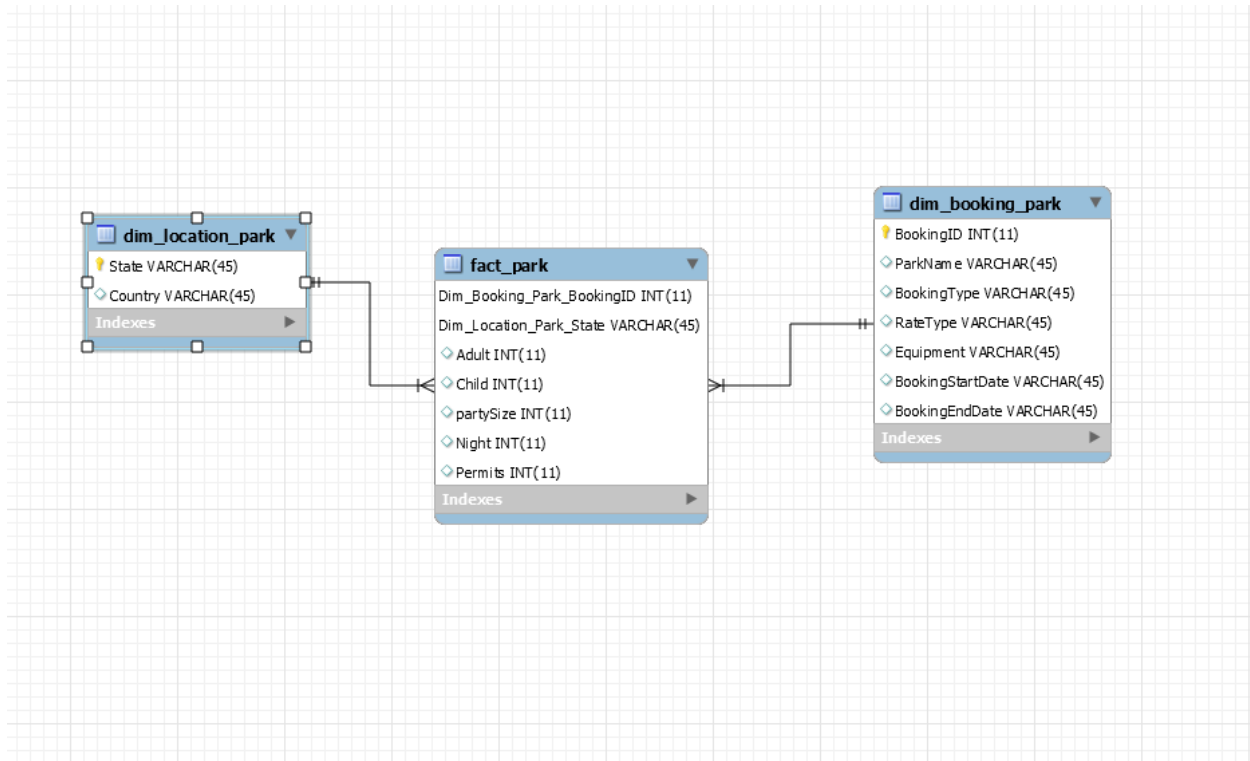
- I have used my local instance to perform this task. I have used MySQL Workbench to perform the data gathering and upload task.
- Only Relevant data is gathered from the website.
- Please find all the files in the attached submission.
- Uploaded to MySQL Workbench.

MySQL Workbench Part:

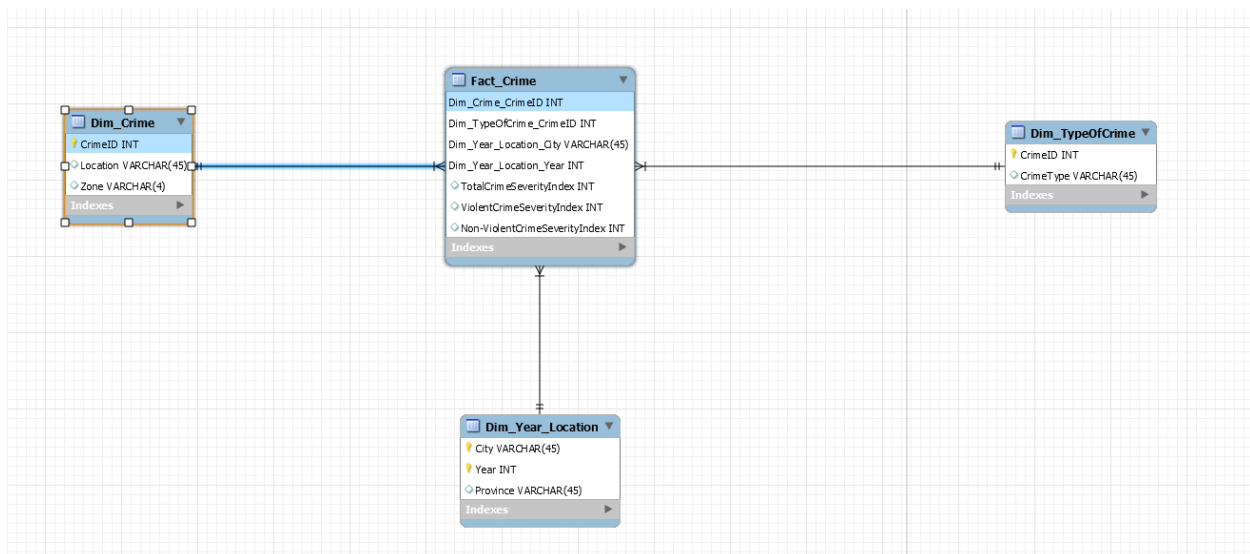
BI Framework (Business): Star Schema: Attaching Fact and Dim Tables in Submission.



BI Framework (Park): Star Schema: Attaching Fact and Dim Tables in Submission.



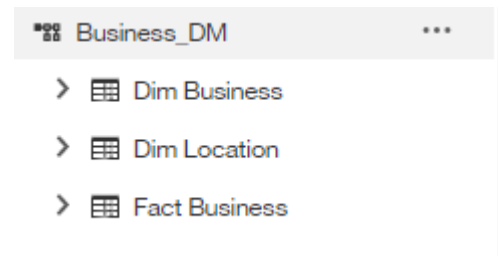
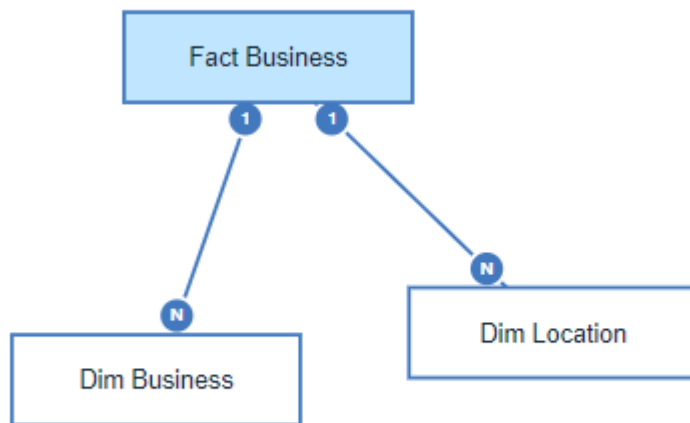
BI Framework (Crime): Star Schema: Attaching Fact and Dim Tables in Submission.



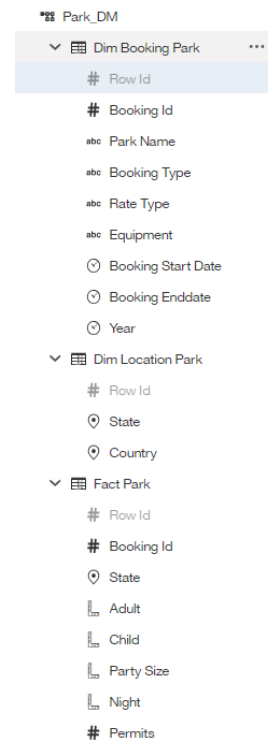
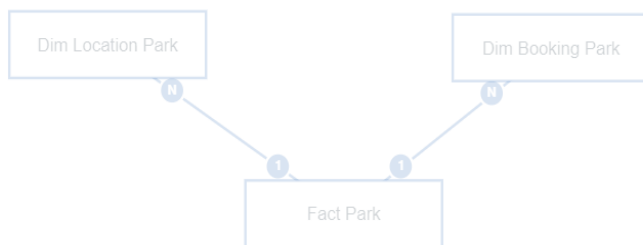
In all the Schema, I recommend that we should have attribute hierarchies for city, state or province to have a better design. However, I am creating it as Star Schema for the visualization.

Cognos Visualisation Part:

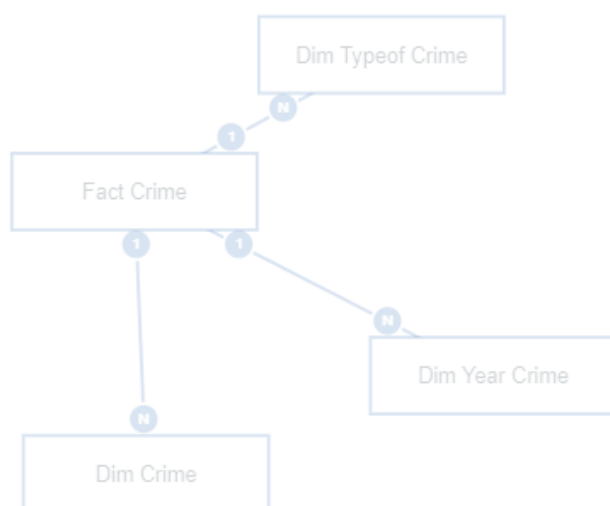
Business Data Module: I have created a business Data Module which is in the same Star Schema as MySql Workbench, as Cognos trial version don't let us connect to Data source.



Parks Data Module:



Crime Data Module:

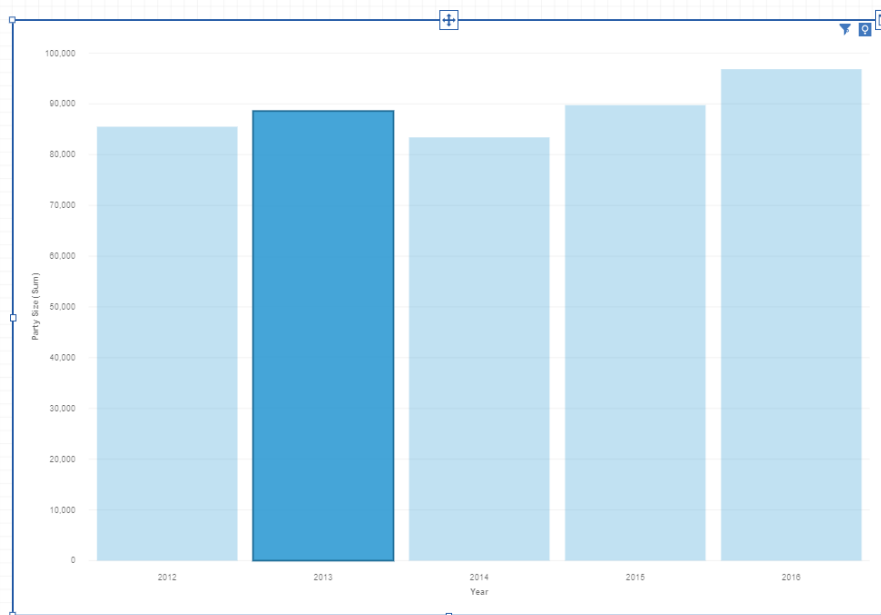


Crime_DM
Dim Crime
Row Id
Evt Rin
Location
Zone
Dim Type of Crime
Row Id
Crime Id
Crime Type
Dim Year Crime
Row Id
City
Year
Province
Fact Crime
Row Id
Event Id
Crime Id
City
Year
Total Cr...ity Index
Violent C...ity Index
Non Viole...ity Index

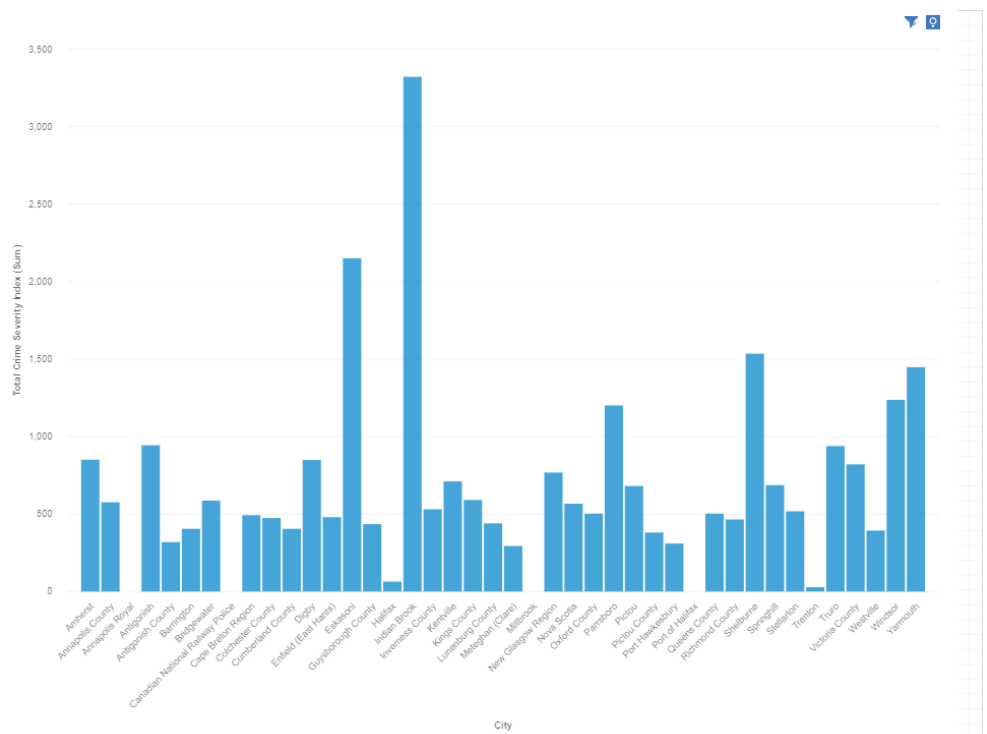
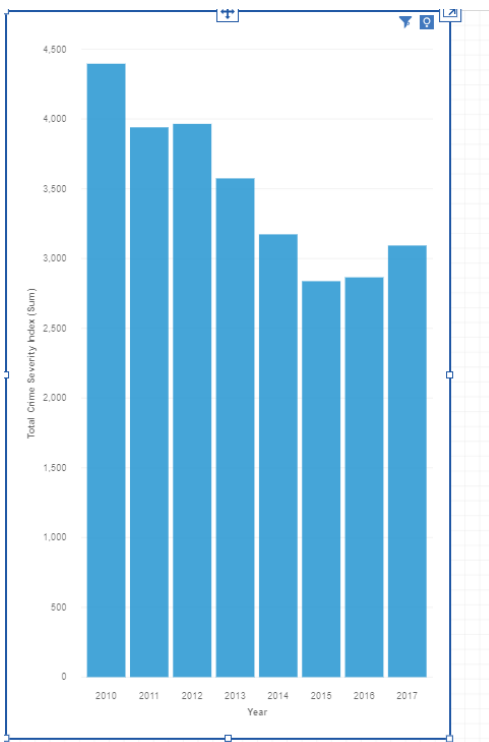
Answer the following questions using your multidimensional model:

- Which parks in Nova Scotia allow Senior rate?
 - As you can see, these are the parks which allows, senior rate.
- Is there a growth in park visitors? Past 5 years' data should be analyzed
 - Yes, there is a growth in park visitors. Party size is park visitors in a particular year. As we can see, it is increasing, however in 2014, there were less visitors.

Rate Type	Park Name
Senior	Amherst Shore
	Battery
	Blomidon
	Boylston
	Cape Chignecto
	Caribou Munroes
	Dollar Lake
	Ellenwood Lake
	Five Islands
	Graves Island
	Laurie
	Mira River
	Porters Lake
	Rissers Beach
	Salsman
	Smileys
	The Islands
	Thomas Raddall
	Valleyview
	Whycocomagh

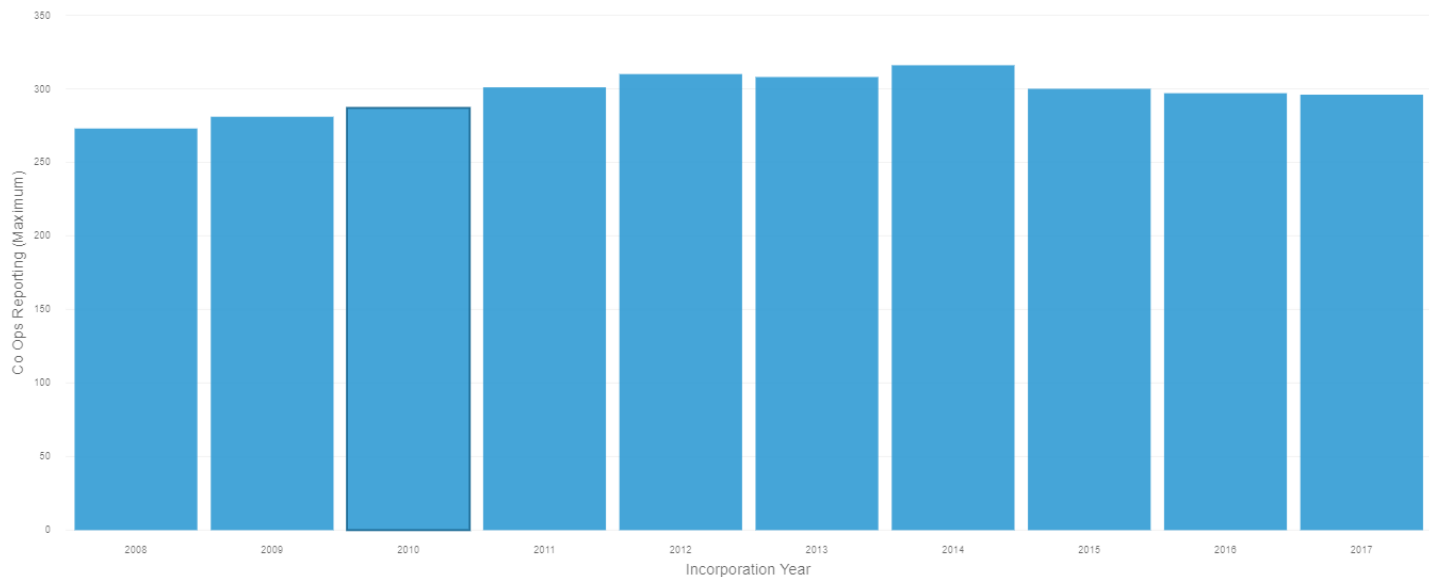


- How safe is Halifax or Nova Scotia? Is there any increase in crime rate in past 5 years (depending on data availability, you can change this more or lesser years/ months)?
 - This data is for Nova Scotia, and the crime rate is decreasing in last 5 years, as we can see, in 2015, it was lowest. Nova Scotia is getting better in terms of safety.
- Which region/area/street has less crimes?
 - As we can see, the data is about the cities in Nova Scotia. Annapolis, Millbrook, Canadian national railway police and port of Halifax have no date and crime rate is showing as 0. But the city which has the least crime rate is, Trenton.
- Is time related to crime?
 - As, I don't get any data related to the time at which the crime happened, thus, I am not able to display the data for this. If I would be having the data, I would have been displayed it properly.



- In past 5 years, how many cooperatives have submitted their report? Is there any specific year, which has more submissions?
 - The data is shown below, however, in the year 2014, there were maximum report submission by the co-operatives.

How many companies have submitted their Report?



References:

- [1] IBM COGNOS Documentation, <https://www.ibm.com>, 2019, Online Retrieved from: https://www.ibm.com/support/knowledgecenter/en/SSEP7J_11.1.0/com.ibm.swg.ba.cognos.cbi.doc/welcome.html
- [2] MySQL Workbench Documentation, <https://dev.mysql.com>, 2019, Online Retrieved from: <https://dev.mysql.com/doc/>
- [3] Data Nova Scotia, <https://data.novascotia.ca/>, 2019, Online