

Assignment 2 – MS PowerBI and SSRS (100pts)

-SSRS-

1. Create a SSRS Report using the Report Builder. A sample pdf Report is provided (CovidStatus.pdf). You will need to import the MS Excel files provided in Brightspace into MS SQL Server.
 - a. b. Please import and create a Table for the following data sheet in the CovisData.xls file. Please provide a screen capture of your tables below(5pts).

- b. Please provide the SQL code used to create each View listed below (20pts) in a separate sql file (name the file “views.sql”)

vwCases_per10000

Results

Messages

| | rel_prop_cases_per10000 | province |
|----|-------------------------|---------------|
| 1 | 729.589979830646 | Alberta |
| 2 | 395.573755873901 | BC |
| 3 | 460.251560055356 | Manitoba |
| 4 | 82.0551807152586 | New Brunswick |
| 5 | 38.3054175079195 | NL |
| 6 | 74.7236796346977 | Nova Scotia |
| 7 | 171.05296551024 | Nunavut |
| 8 | 411.172644163151 | NWT |
| 9 | 409.712459150228 | Ontario |
| 10 | 19.1701456931073 | PEI |
| 11 | 495.621184043921 | Quebec |
| 12 | 659.349880153647 | Saskatchewan |
| 13 | 219.606383473689 | Yukon |

vwDeaths_per10000

Results

Messages

| | rel_prop_deaths_per10000 | province |
|----|--------------------------|---------------|
| 1 | 7.00221635565587 | Alberta |
| 2 | 4.18232321246911 | BC |
| 3 | 9.01887242414716 | Manitoba |
| 4 | 1.48246697709779 | New Brunswick |
| 5 | 0 | PEI |
| 6 | 13.3604586904868 | Quebec |
| 7 | 7.21281796576497 | Saskatchewan |
| 8 | 2.326338807984 | Yukon |
| 9 | 0.307365436372473 | NL |
| 10 | 1.0180887148394 | Nova Scotia |
| 11 | 1.01515113062457 | Nunavut |
| 12 | 2.41736990154712 | NWT |
| 13 | 6.6166311756236 | Ontario |

vwVaccines_per10000

Results

Messages

| | cvaccines_per10000 | province |
|----|--------------------|---------------|
| 1 | 7702.04252547341 | Yukon |
| 2 | 6761.03789992575 | Saskatchewan |
| 3 | 7587.59346132458 | Quebec |
| 4 | 7775.10680509743 | PEI |
| 5 | 7434.67813495446 | Ontario |
| 6 | 7707.01476793249 | NWT |
| 7 | 5838.13415222191 | Nunavut |
| 8 | 7694.24074270076 | Nova Scotia |
| 9 | 8027.63599479784 | NL |
| 10 | 7503.8297063575 | New Brunswick |
| 11 | 7257.31609052115 | Manitoba |
| 12 | 7587.00277383335 | BC |
| 13 | 6796.12926663094 | Alberta |

1. vwSummary

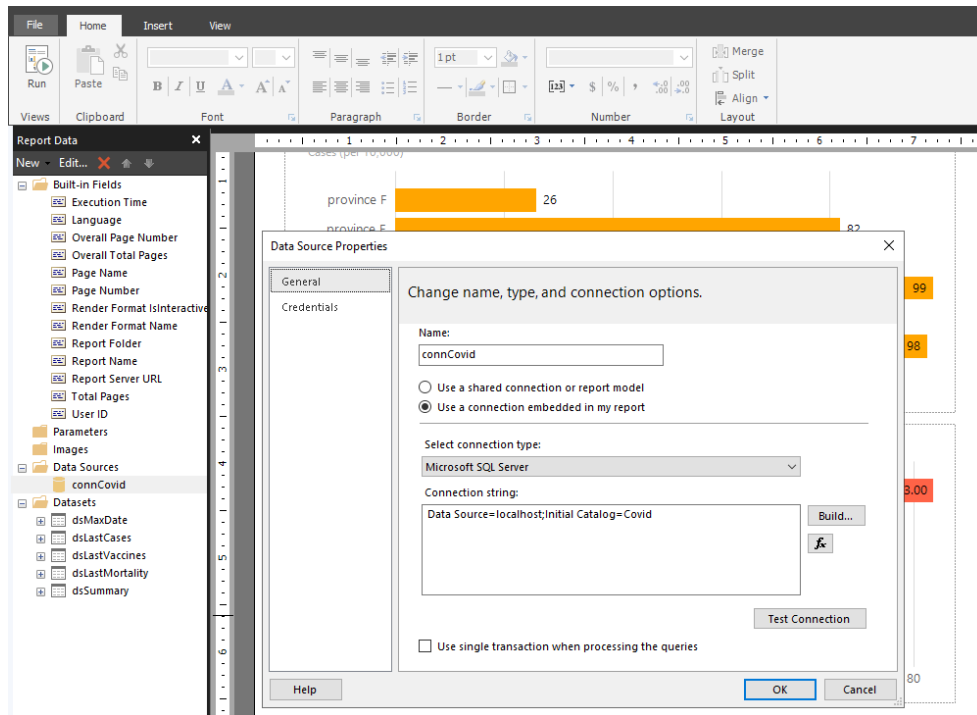
177 %

Results

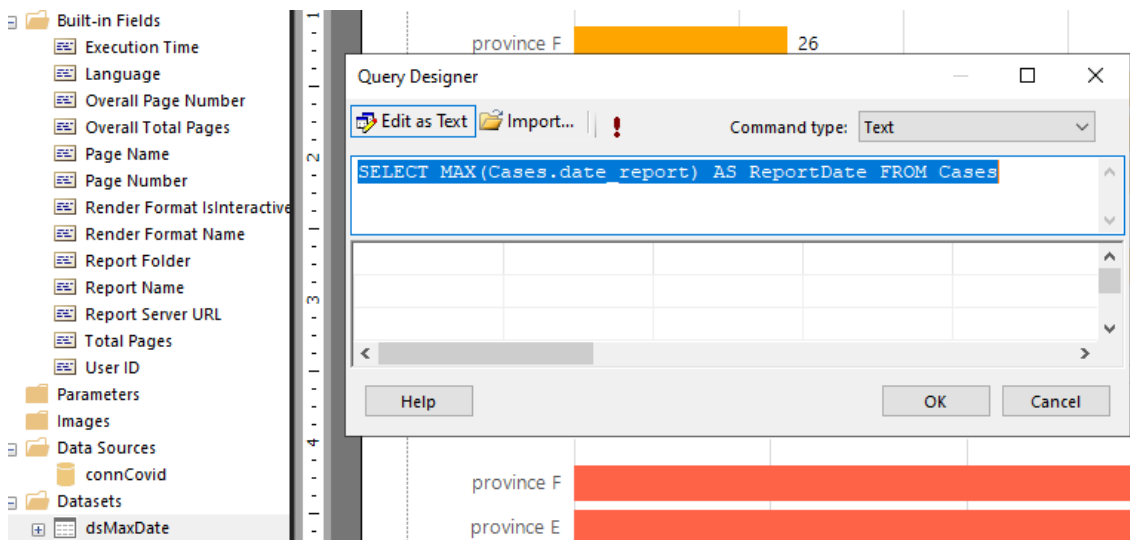
Messages

| | m | y | labelDt | Cases | Deaths | Recovered |
|----|----|------|----------|---------|--------|-----------|
| 1 | 1 | 2020 | Jan-2020 | 4 | 0 | 0 |
| 2 | 1 | 2021 | Jan-2021 | 783160 | 20043 | 705663 |
| 3 | 2 | 2020 | Feb-2020 | 20 | 0 | 7 |
| 4 | 2 | 2021 | Feb-2021 | 871087 | 21985 | 813783 |
| 5 | 3 | 2020 | Mar-2020 | 8589 | 126 | 1306 |
| 6 | 3 | 2021 | Mar-2021 | 988375 | 22952 | 911298 |
| 7 | 4 | 2020 | Apr-2020 | 54210 | 3278 | 21437 |
| 8 | 4 | 2021 | Apr-2021 | 1228244 | 24218 | 1111893 |
| 9 | 5 | 2020 | May-2020 | 92397 | 7356 | 48892 |
| 10 | 5 | 2021 | May-2021 | 1388308 | 25518 | 1322282 |
| 11 | 6 | 2020 | Jun-2020 | 105963 | 8639 | 67592 |
| 12 | 6 | 2021 | Jun-2021 | 1421813 | 26268 | 1381913 |
| 13 | 7 | 2020 | Jul-2020 | 118140 | 8971 | 101227 |
| 14 | 7 | 2021 | Jul-2021 | 1437361 | 26552 | 1397756 |
| 15 | 8 | 2020 | Aug-2020 | 130780 | 9162 | 114158 |
| 16 | 8 | 2021 | Aug-2021 | 1506050 | 26883 | 1440940 |
| 17 | 9 | 2020 | Sep-2020 | 160958 | 9337 | 134971 |
| 18 | 9 | 2021 | Sep-2021 | 1630686 | 27800 | 1558733 |
| 19 | 10 | 2020 | Oct-2020 | 237048 | 10180 | 195876 |
| 20 | 10 | 2021 | Oct-2021 | 1721021 | 28897 | 1666879 |
| 21 | 11 | 2020 | Nov-2020 | 381440 | 12158 | 299972 |
| 22 | 11 | 2021 | Nov-2021 | 1725521 | 28956 | 1672336 |
| 23 | 12 | 2020 | Dec-2020 | 584461 | 15665 | 489813 |

- c. In the SSRS Report Builder create the following Data Source connection to your [Covid] Database (3pts):

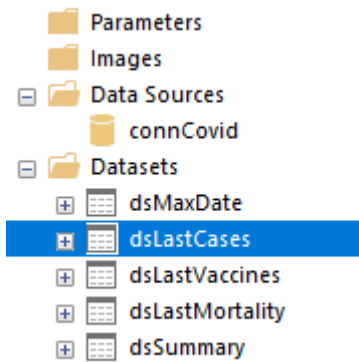


- d. Please create a dataset which gets the last report date from your Cases Table in the Covid Database (2pts):



e. Please create datasets in SSRS Report Builder to the following views (5pts):

1. Cases
2. Vaccines
3. Mortality
4. Summary



f. Using the datasets previously created, please recreate the attached CovidStatus.pdf (35pts).

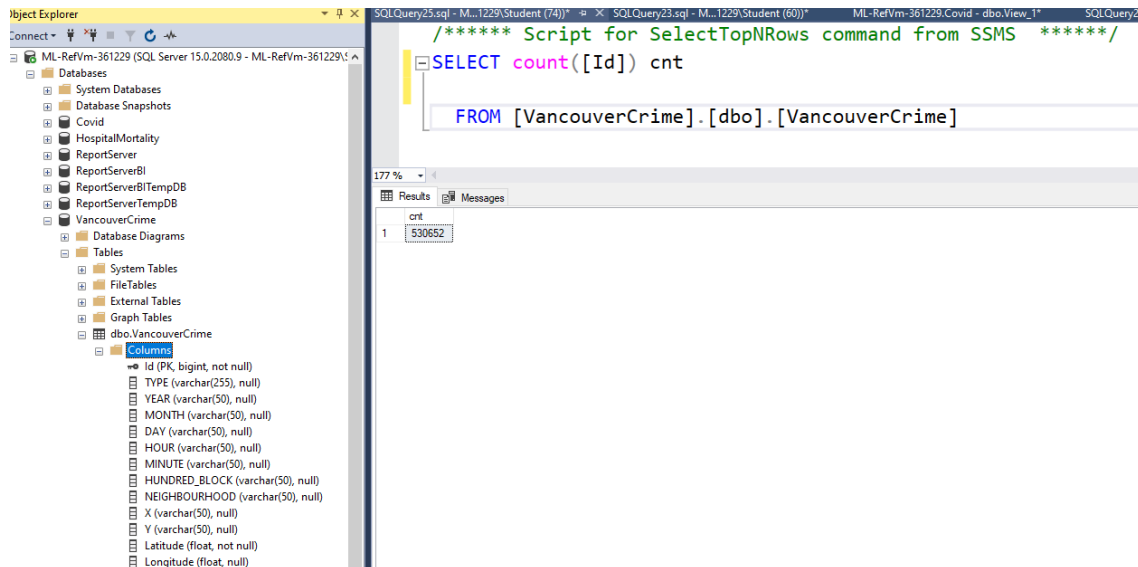
Please submit to BrightSpace both a pdf export of your report as well as your "CovidStatus.rdl" file.

-Power BI-

2. Using the provided dataset on Crimes occurring in Vancouver

(<https://www.kaggle.com/wosaku/crime-in-vancouver?select=crime.csv>), please import the data into MS SQL Server Please provide a screenshot image of your imported table.

a. Please also include a select query that counts all rows as provided in the image below. The Image provided through BrightSpace should include the expanded columns of the VancouverCrime] table as shown below. (3pts)



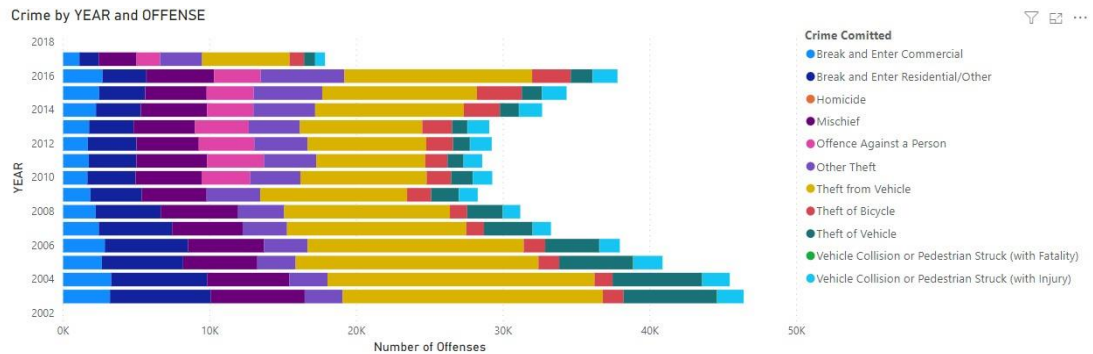
- b. Create an MS Power BI Report called “**Crime in Vancouver**” and save it to your MS Power BI Reporting Server. (2pts) Please Provide a Screen Capture below of the file.

- c. Create 2 pages for your Power Bi Report

Please ensure that the Bar chart is a cumulative percentage for each Year and that all Years are shown. For the Tablix, please only show Years 2010-2017 and exclude all Neighbourhoods with NULL/BLANK Names. The Neighbourhood column should be sorted alphabetically. **Please submit a pdf copy of your report in Brightspace.**

Page 1

- a. Crime by Year Bar Chart (10 pts) – showing a bar chart of Year and Offenses. Please include the Legend and data as follows:



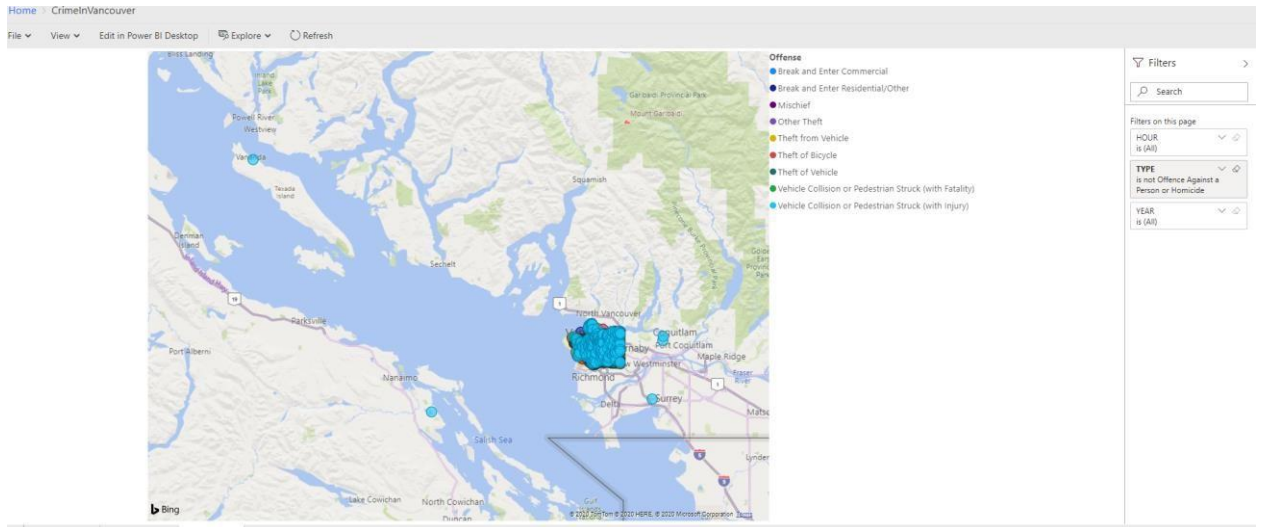
You are required to ensure that your chart, x and y axes are titled exactly as above, and your legend should be on the right and titled **Crime Committed**

- b. Please Create a Matrix that includes Offense by Year (5pts)

| Offense | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Break and Enter Commercial | 3197 | 3283 | 2639 | 2844 | 2436 | 2224 | 1858 | 1656 | 1749 | 1687 | 1774 | 2244 | 2457 | 2686 | 1111 | 33845 |
| Break and Enter Residential/Other | 6883 | 6538 | 5542 | 5674 | 4996 | 4432 | 3497 | 3270 | 3231 | 3311 | 3025 | 3044 | 3121 | 2994 | 1304 | 60862 |
| Homicide | 18 | 22 | 22 | 17 | 19 | 18 | 18 | 10 | 15 | 8 | 7 | 9 | 15 | 11 | 11 | 220 |
| Mischief | 6391 | 5601 | 5062 | 5184 | 4810 | 5276 | 4430 | 4506 | 4828 | 4243 | 4191 | 4518 | 4193 | 4599 | 2581 | 70413 |
| Offence Against a Person | 3507 | 3804 | 3771 | 4350 | 4412 | 4226 | 3885 | 3731 | 3870 | 3786 | 3663 | 3158 | 3202 | 3172 | 1605 | 54142 |
| Other Theft | 2582 | 2605 | 2611 | 2966 | 3024 | 3142 | 3662 | 3432 | 3562 | 3630 | 3488 | 4210 | 4679 | 5708 | 2866 | 52167 |
| Theft from Vehicle | 17744 | 18204 | 16554 | 14734 | 12226 | 11298 | 10007 | 8612 | 7435 | 8097 | 8340 | 10137 | 10544 | 12806 | 5962 | 172700 |
| Theft of Bicycle | 1418 | 1230 | 1416 | 1467 | 1203 | 1176 | 1641 | 1667 | 1517 | 1817 | 2034 | 2461 | 3063 | 2634 | 986 | 25730 |
| Theft of Vehicle | 6361 | 6102 | 5031 | 3682 | 3305 | 2420 | 1882 | 1467 | 1093 | 1151 | 1034 | 1290 | 1371 | 1474 | 755 | 38418 |
| Vehicle Collision or Pedestrian Struck (with Fatality) | 24 | 22 | 32 | 20 | 24 | 17 | 14 | 10 | 11 | 18 | 15 | 13 | 14 | 15 | 5 | 254 |
| Vehicle Collision or Pedestrian Struck (with Injury) | 1803 | 1868 | 1984 | 1384 | 1237 | 1185 | 1278 | 1327 | 1262 | 1474 | 1485 | 1575 | 1669 | 1699 | 671 | 21901 |
| Total | 49928 | 49279 | 44664 | 42322 | 37692 | 35414 | 32172 | 29688 | 28573 | 29222 | 29056 | 32659 | 34328 | 37798 | 17857 | 530652 |

Page 2

Include a Map showing all locations of Crimes occurring in Vancouver (10 pts).



Please ensure that the map can be filtered by: HOUR, CRIME TYPE, and YEAR. The map needs to include a Legend with the Title "Offense".

Your Brightspace Submission should include the following:

- A screenshot image (png) of VancouverCrime table, and query in your MS SQL Server Database
- The sql code to create the 4 views required to produce the CovidStatus.rdl datasets
- A screenshot image (png) of your newly created Report on your Power BI Reporting Server
- A pdf copy of both the SSRS and PowerBI Reports (CovidStatus.pdf, VancouverCrime.pdf)
- Your CrimeInVancouver.pbix and CovidStatus.rdl files

The Assignment 2 will be due on Sun, 14th November @ midnight. If you are not clear on the requirements of this assignment please contact me as soon as possible so that I can help clarify things.