**Assignment 2 -** François d’Entremont  
**GISY5003/3082/Spatial Database Management  
Word document containing the answers to the queries.  
November 21, 2022**

1. Count the number of airports across Canada by province / territory. Order the result set by count in descending order.

|  |  |
| --- | --- |
| province\_name | airport\_count |
| "British Columbia" | 23 |
| "Ontario" | 18 |
| "Quebec" | 14 |
| "Alberta" | 14 |
| "Manitoba" | 5 |
| "Newfoundland and Labrador" | 4 |
| "Saskatchewan" | 4 |
| "Northwest Territories" | 3 |
| "New Brunswick" | 3 |
| "Nunavut" | 2 |
| "Yukon" | 1 |
| "Nova Scotia" | 1 |
| "Prince Edward Island" | 1 |

2. Count the number of airports in BC where the service provided is only "Control Tower".

|  |  |
| --- | --- |
| province\_name | airport\_count |
| "British Columbia" | 9 |

3. Count the number of airports in Quebec where the service provided includes "Control Tower".

|  |  |
| --- | --- |
| province\_name | airport\_count |
| "Quebec" | 6 |

4. Calculate the distance between St John's Intl and Vancouver International in kilometres.

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| --- |
| distance\_km |
| 5022.692607896431 |

5. Calculate the distance between St John's Intl and Vancouver International in kilometres.

|  |
| --- |
| distance\_km |
| 4966.111349793799 |

6. The De Havilland Dash 8-400 has a range of 1878 km. Assuming it needs the Control Tower service at an airport, which airports can it fly to from Halifax Robert L. Stanfield International? Give the airport names, distance from Halifax in km and the service name.

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| airport\_name | distance\_from\_halifax\_km | service\_name |
| "Moncton/Greater Moncton International" | 164.62856247189 | "Control Tower" |
| "Fredericton International" | 260.3232703927 | "Control Tower / Flight Service Station" |
| "QuÃ©bec City Jean Lesage International Airport" | 648.0560105595899 | "Control Tower" |
| "Chicoutimi/St-Honore" | 703.09829103781 | "Control Tower" |
| "St-Jean" | 768.45699070046 | "Control Tower" |
| "MontrÃ©al/St-Hubert" | 780.5394528433901 | "Control Tower" |
| "MontrÃ©al-Pierre Elliott Trudeau International" | 805.16006886689 | "Control Tower" |
| "Gander International" | 816.26416255225 | "Control Tower" |
| "Montreal (Mirabel)" | 829.27595940223 | "Control Tower / Flight Service Station" |
| "St John's Intl" | 883.18676098504 | "Control Tower" |
| "Ottawa/Macdonald-Cartier International" | 956.62413288777 | "Control Tower" |
| "Oshawa" | 1228.36040547784 | "Control Tower" |
| "Toronto/Buttonville Municipal" | 1266.24221722593 | "Control Tower" |
| "Toronto City Centre" | 1273.7292471427502 | "Control Tower" |
| "Toronto Pearson International" | 1291.22654464843 | "Control Tower" |
| "Hamilton" | 1327.56928728507 | "Control Tower" |
| "Kitchener/Waterloo" | 1355.8955659185 | "Control Tower" |
| "London" | 1427.23541971169 | "Control Tower" |
| "Windsor" | 1593.7306032658598 | "Control Tower" |
| "Sault Ste Marie" | 1640.7142286252702 | "Control Tower" |