This lab is about using SQL queries to extract information from a database. Please submit your answer as a single `.sql` file containing your SQL commands. Put a comment above your answer to each question. These queries are a bit more complicated than the ones from last week, so remember to build them up one step at a time (constantly executing them) if you run into trouble. Make sure you compare your output to the ideal output given, and pay particular attention to column aliases in the output.

The file `ski-resorts.db` on Canvas is an SQLite3 database containing information about some ski resorts. Open this file in the program 'DB Browser for SQLite'. Inspect the tables and make sure you understand what's going on. The `resort_table` contains information about the different ski resorts, such as the vertical drop in metres (the altitude difference between the highest and lowest points of the resort) and the price of a one-day lift ticket in the local currency.

The value of each currency in New Zealand dollars is given in the `country_table`. For example, \$1.39 NZD = \$1 USD.

Question 1

Write an SQL query to get a table with the country, region, and resort next to each other (and with those words as the column aliases). Sort the output by country name. The result should look like this:

	country	region	resort
1	Australia	New South Wales	Perisher
2	Australia	New South Wales	Thredbo
3	Australia	Victoria	Falls Creek
4	Australia	Victoria	Mt. Buller
5	Australia	Victoria	Mt. Hotham
6	Canada	Alberta	Fernie
7	Canada	British Columbia	Big White
8	Canada	British Columbia	Whistler Blackcomb
9	Japan	Hokkaido	Niseko
10	New Zealand	Otago	Coronet Peak
11	New Zealand	Otago	The Remarkables
12	New Zealand	Otago	Treble Cone
13	USA	Colorado	Vail
14	USA	Wyoming	Jackson Hole
15	USA	California	Mammoth Mountain

Question 2

Write an SQL command to get the average vertical drop for the resorts in each country. Sort from the highest value to the lowest (lamest?) value. The output should look like this:

	country	average_vertical_drop
1	Canada	1149.0
2	USA	1050.0
3	Japan	900.0
4	New Zealand	496.0
5	Australia	441.0

Question 3

Suppose the *value* of a ski resort is described by the amount of vertical drop per NZ dollar spent. Use SQL to calculate the value of each resort, and print the result sorted from best value to worst[1]

The output should look like this:

	resort	value
1	Whistler Blackcomb	14.7345009730331
2	Fernie	9.44093080584464
3	Niseko	9.42803268384664
4	Big White	7.5036214389184
5	Jackson Hole	7.08844688954719
6	Vail	5.14665190924184
7	Thredbo	5.05660377358491
8	Treble Cone	4.44444444444444
9	Mammoth Mountain	4.24894983342185
10	The Remarkables	3.9327731092437
11	Coronet Peak	3.52941176470588
12	Mt. Buller	3.14465408805031
13	Mt. Hotham	2.95747229709494
14	Falls Creek	2.77899663595144
15	Perisher	*NULL*

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[1] **Hint**: Arithmetic in the select command works as you might expect, along these lines: `SELECT (table1.column_a + table1.column_b/table2.column_d) FROM ...`