
LAB FIVE

COMPLEX QUERIES

CS1103, Winter 2021

LEARNING OUTCOMES

At the conclusion of the lab, students should be able to

- Interpret word problems describing information and relationships

CLEANUP EXERCISE

We have some clean up from last week with joins using the Ch07_SaleCo database.

1. Customer Anne Farriss has called, asking for a listing of her invoice numbers and dates.
2. Corporate Management would like a list of all products sold by companies located in Florida.
3. Customer Anne Farriss called back and would like a complete account. This listing will need her name, phone number and balance, and invoice information

SETUP

This week, we'll use the MySQL Workbench software as a console for the CH07_LargeCo database. See the next page for the ERD of the database.

1. DEFINE A CONNECTION

In the main window, click on the plus-sign-circle beside “MySQL Connections”

- Name the connection
- Fill in the hostname (cs1103.cs.unb.ca)
- Fill in the Username (your FCS id), but not the password
- Test the Connection (button)

You may get a connection warning. Proceed anyways.

Congratulations, you now have connection to use to the database server. Access from the (potential) list of connections

2. THE QUERY CONSOLE

The query console lists the databases available on the DB server on the left and gives you an edit window to compose and execute SQL statements. We're using the CH07_LargeCo database. Hover over the icons along the top of the editor to see what they do.

Remember to structure your queries by clause so that your marker can assign the marks easily e.g.:

```
SELECT *  
    FROM myTable  
    WHERE format = "Excellent";
```

EXERCISE

Use the console, write SQL queries to answer the following questions:

1. List all columns for the LGBrand table, ordered by BRAND_TYPE
2. For this same table, report the number of brands manufactured for each BRAND_TYPE. The columns should be renamed to more reasonable names.
3. List for each state the number of customers who have non-zero balances.
4. For 3, show only states with more than 100 customers.
5. For 4, order the output by State in reverse alphabetic order
6. For 3, show only states with more than 100 customers, ordered by number of customers (fewest first).
7. List the number of products purchased for each Brand Type, in the State of Maine ('ME')
8. Modify query 7 to show state/brand type product sales less than 10.
9. Who is the newest employee and how long have they been with the company? List only the one employee.

SUBMISSION

Before 4:30pm on the day after this lab, students should submit online to the lms

- A compressed (zip or tar) file containing a text file of the SQL queries as well as a word-processor report as a pdf file containing the requested information (SQL Queries and results). It's probably easiest to record the results through a screen capture. Note: If your output is really long, you're probably doing it wrong.

