Lab 03 – Sub-Queries

This week's lab continues using the SELECT command and learning the interfaces for both SQL Developer and introduces the use of sub-queries.

Submission

Your submission will consist of two files:

(a) A single text-based SQL file with appropriate header and commenting – and
(b) An output file demonstrating that your queries work

Please ensure your SQL file runs when the entire file is executed.

Your file names should be **L03-*lastname-firstname***

For example: L03-King-Les.sql and L03-King-Les.output or L03-King-Les.pdf, etc.

Your submission needs to be commented. At a minimum, your comments before each SQL statement should include the complete question below you are answering.

Style Guide

Your SQL should be written using the standard coding style:

- all keywords are to be upper case,
- all user-defined names are to be lower case, (example: table and field names)
- there should be a carriage return before each major part of the SQL statements (i.e. before SELECT, FROM, WHERE and ORDER BY)

See the following sample:

```
SELECT columns
FROM tables
WHERE conditions
ORDER BY column1, column2;
```

Tasks

For each question, the title of columns and the output result must match the provided output result in that question.

1. Write a SQL query to display the last name and hire date of all employees who were hired before the employee with ID 107 got hired but after **March** 2016. Sort the result by the hire date and then employee ID.

	LAST_NAME	HIRE_DATE
1	Hayes	06-APR-16
2	Henderson	10-APR-16
3	Simmons	10-APR-16
4	Stevens	21-APR-16
5	Henry	21-APR-16
6	Kennedy	23-APR-16
7	Ferguson	24-APR-16
8	Coleman	01-MAY-16
9	Boyd	11-MAY-16
10	Sanders	18-MAY-16
11	Cox	21-MAY-16
12	Rose	23-MAY-16
13	Warren	24-MAY-16

2. Write a SQL query to display *customer name* and *credit* limit for customers with lowest credit limit. Sort the result by customer ID.

	NAME	CREDIT_LIMIT
1	Raytheon	100
2	Plains GP Holdings	100
3	US Foods Holding	100
4	AbbVie	100
5	Centene	100
6	Community Health Systems	100
7	Alcoa	100
8	International Paper	100
9	Emerson Electric	100
10	MGM Resorts International	100
11	Farmers Insurance Exchange	100

3. Write a SQL query to display the product ID, product name, and list price of the highest paid product(s) in each category. Sort by category ID and the product ID.

	CATEGORY_ID	PRODUCT_ID	PRODUCT_NAME	LIST_PRICE
1	1	228	Intel Xeon E5-2699 V3 (OEM/Tray)	3410.46
2	2	133	PNY VCQP6000-PB	5499.99
3	4	190	Supermicro X10SDV-8C-TLN4F	948.99
4	5	50	Intel SSDPECME040T401	8867.99

4. Write a SQL query to display the category ID and the category name of the most expensive (highest list price) product(s).

	CATEGORY_ID	CATEGORY_NAME
1	5	Storage

5. Write a SQL query to display product name and list price for products in category 1 which have the list price less than the lowest list price in ANY category. Sort the output by top list prices first and then by the product ID.

	PRODUCT_NAME	LIST_PRICE
1	Intel Xeon E5-2687W	710.99
2	Intel Xeon E5-2680 V2	701.95
3	Intel Core i7-980	699.99
4	Intel Core i7-7820X	678.75
5	Intel Core i7-3930K	660
6	Intel Xeon E5-2630 V4	647.99
7	Intel Xeon E5-2630 V3	629.99
8	Intel Core i7-4930K	624.04
9	Intel Core i7-4790K	620.95
10	Intel Xeon E5-2640 V2	608.95
11	Intel Xeon E5-1650 V4	601.99
12	Intel Xeon E5-1650 V4 (OEM/Tray)	594.99
13	Intel Xeon E5-2630 V3 (OEM/Tray)	589.99
14	Intel Xeon E5-2630 V2	588.95
15	Intel Xeon E5-1650 V3	564.89
16	Intel Core i7-5930K	554.99

6. Display the maximum price (list price) of the category(s) that has the lowest price product.

	MAX(LIST_PRICE)
1	8867.99

Example Submission

```
-- ************************
-- Name: Your Name
-- ID: #########
-- Date: The current date
-- Purpose: Lab 3 DBS311
-- ************************

-- Question 1 - Copy the question from above here
-- Q1 SOLUTION --

SELECT * FROM TABLE;


-- Question 2 - Copy the question from above here
-- Q2 Solution -

SELECT * FROM TABLE;
```