LAB 3 Part 1
ADBC - Interactive SQL Queries-Advanced

***For each question Create the SQL query that solves the problem

Write all SQL statements in the same script file and save into a text file called Lab3part1.sql. Add a comment block to the top of your script as follows:

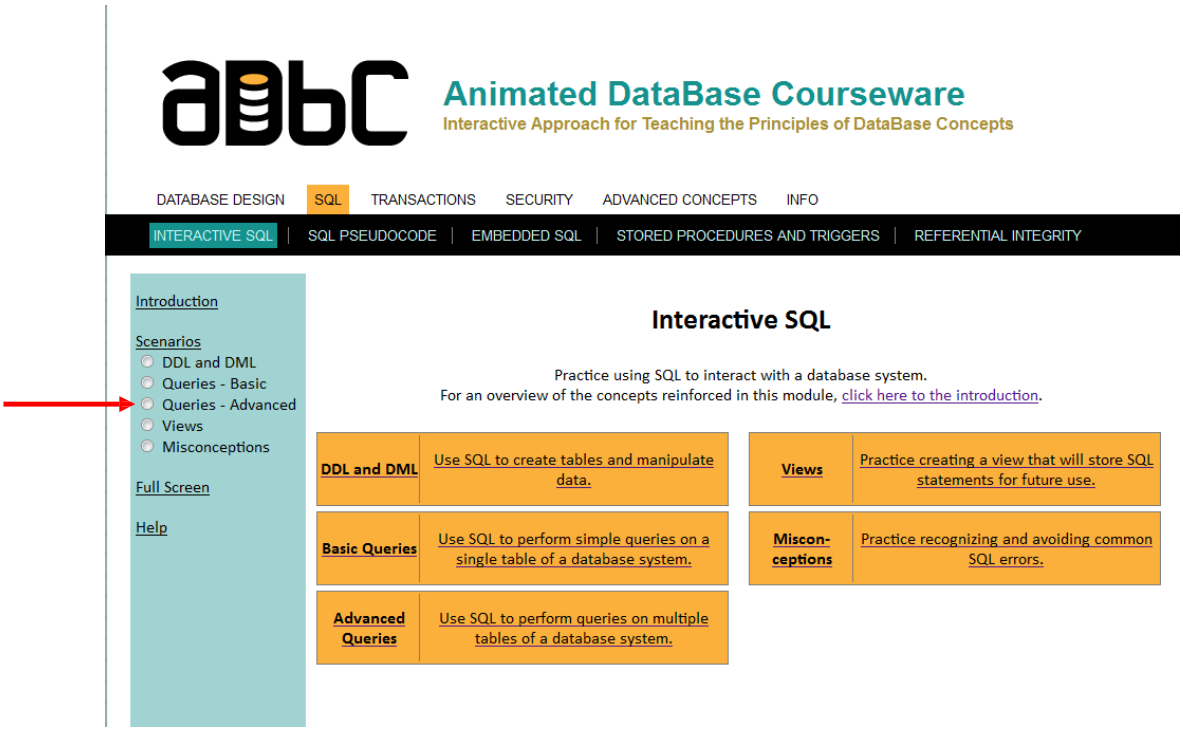
```
/**************************/
/* Name:                  */
/* Class:    CSE 3153     */
/* Term:     Summer 2017  */
/* Lab #:  3 part1        */
/**************************/
```

For each answer, add a comment line right before it with the question such as:

```
/* What pets are in the database?*/
Select Name
From PET;
```

LAB 3 Part 1
ADBC - Interactive SQL Queries-Advanced

To access the SQL Module, go to
http://adbc.kennesaw.edu/index.php?mainmenu=sql&submenu=interactive_sql



[If the above screen does not appear,

Click on the words, SQL

Then click on the words, Interactive SQL]

Queries – Advanced

To access this section, click on the words, Queries - Advanced

This section has 6 tabs.

Multiplication:

Identify the SQL that answer this question:

What are all the possible combinations of pets and owners?

Join:

Identify the SQL that answers each of the following questions:

Who are the pets and who are their owners?

What are the pet names, species, breeds, and owner names?

What are the pet ID's and owner ID's?

Outer Join:

Identify the SQL that answers each of the following questions:

Who are the pets and their owners, as well as people without pets?

What are the pet ID's and owner ID's of the pets and their owners, as well as people without pets?

What are the pet names, species, breeds, and owner names of the pets and their owners, as well as people without pets?

Who are the pets and their owners, as well animals without owners?

What are the pet ID's and owner ID's of the pets and their owners, as well animals without owners?

Notice these require all tables used in the SQL command to have the same ATTRIBUTES. In other words, the table structures must be identical – these are often used either to append data to a table or to make a check on data in a table.

Union:

Identify the SQL that answers each of the following questions:

Who are the shelter animals and registered pets?

What are ID numbers of the registered pets as well as the shelter animals?

Intersection:

Identify the SQL that answers each of the following questions:

What registered pets are from the shelter?

What are the ID numbers of the registered pets that are from the shelter?

Difference

Identify the SQL that answers each of the following questions:

What shelter animals are not registered pets?

What are the ID numbers of the registered pets not from the shelter?

Lab 3 Part 2

SQL with Multiple Tables

These queries use the CUSTOMERS-PRODUCTS-AGENTS-ORDERS tables.

CUSTOMERS(cid, cname, city, discnt)

AGENTS(aid, aname, city, percent)

PRODUCTS(pid, pname, city, quantity, price)

ORDERS(ordno, month, cid, aid, pid, qty, dollars)

***For each question Create the SQL query that solves the problem

Write all SQL statements in the same script file and save into a text file called Lab3part2.sql. Add a comment block to the top of your script as follows:

```
/**************************/
/* Name:                  */
/* Class:    CSE 3153     */
/* Term:     Summer 2017  */
/* Lab #:  3part2         */
/**************************/
```

For each answer, add a comment line right before it with the question such as:

```
/* What pets are in the database?*/
Select Name
From PET;
```

You are only required to submit the SQL statement. You do not need to turn in the results. However, to insure your SQL statements are correct, you need to use SQL Server 2012 to test your SQL statements.

Do the following *[ADBC animation that might help in solving these problems. ADBC hints are found in brackets after the question]:*

******In SQL Server 2012 create a new database: lab3*

******Run sql script file on lab3 database named: Lab3Part2createtables.sql*

******Run sql script file on lab3 database named: Lab3Part2insertdata.sql*

Answer the following questions using SQL:

1) List the name of all products for which an order was placed. (Interactive SQL-->Queries-Advanced-->Join)

2) List the name of customers that ordered product 'p07' (Interactive SQL -> Queries-Advanced-->Join and Queries-Basic -> Restriction)

3) List name of agents that placed an order for customer c003 or customer c006 (Interactive SQL -> Queries-Advanced-->Join and Queries-Basic -> Restriction)

4) List name of customers that ordered product ‘p01’ through agent 'a01' (Interactive SQL -> Queries-Advanced-->Join and Queries-Basic -> Restriction)

5) List the name of each customer that placed an order, the pid of what they ordered. (Interactive SQL -> Queries-Advanced-->Join)

6) List the name of each customer that placed an order and the product name for each product they ordered. (Interactive SQL -> Queries-Advanced-->Join)

7) List the name of each customer and the total amount ordered by the customers and also list the customers that did not place an order. (Interactive SQL -> Queries-Advanced-> Outer Join and Queries - Basic -> Functions, Group By)

8) List the name and the sum of dollars for each customer that ordered more than $1,000 (SQL-->Queries-Advanced-->Join and Queries-Basic -> Having)

9) List the agent name, product name and customer name for each product ordered. (Interactive SQL-->Queries-Advanced-->Join)

10) What would be the result of the following SQL Statement:

SELECT * from CUSTOMERS, PRODUCTS (Interactive SQL -> Queries-Advanced-->Multiplication)

Your final submission for lab3 will include two individual SQL script

files: Lab3part1.sql and Lab3part2.sql