**CITC 1303 – SQL Lab 4 (20 pts)**

**For this lab you will be answering review questions from Chapter 8 and running SQL commands to show the result of query requests. The focus of this lab is to practice running script files, review *join* syntax, use relational operators in the select statement and use simple SQL functions. Download this document. Insert all answers into this document and upload to the D2L dropbox. The purpose of this lab is to connect SQL concepts to previous theory from Chapters 1-4.**

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**Problem Review (lab or homework…some we’ll do in class together)**

**Download the script file named Build\_Ch08\_SimpleCo.zip from the online [Course Content] area to your class drive. Unzip the script file and open it to look at the data and table structures included. Ask questions if there’s anything you don’t understand. Then run the script in SQL Developer to create the tables and insert the data. Use these tables to complete the following exercises. Include copies of your queries and all results in this document for submission. Note: Problems 1-4 should use relational operators.**

1. **Write the query that will generate a combined list of customers (from tables CUSTOMER8A and CUSTOMER8B) that do not include the duplicate customer records. (Note that only the customer named Juan Ortega shows up in both customer tables.)**
2. **Write the query that will generate a combined list of customers to include the duplicate customer records. SELECT CUST\_NUM, CUST\_LNAME, CUST\_FNAME FROM CUSTOMER8A UNION SELECT CUST\_NUM, CUST\_LNAME, CUST\_FNAME FROM CUSTOMER8B;**
3. **Write the query that will show only the duplicate customer records. SELECT \* FROM CUSTOMER8A INNER JOIN CUSTOMER8B ON CUSTOMER8A.CUST\_NUM = CUSTOMER8B.CUST\_NUM;**
4. **Write the query that will generate only the records that are unique to the CUSTOMER8B table. SELECT \* FROM CUSTOMER8B MINUS SELECT CUST\_NUM, CUST\_LNAME, CUST\_FNAME FROM CUSTOMER8A**
5. **Write the query to show the invoice number, customer number, customer name, invoice date, and invoice amount for all 8A customers with a customer balance of $1,000 or more. SELECT I.INV\_NUM, c.CUST\_NUM, c.CUST\_LNAME, c.CUST\_FNAME, I.INV\_DATE, I.INV\_AMOUNT FROM CUSTOMER8A c, INVOICE8 i WHERE I.CUST\_NUM = c.CUST\_NUM AND c.CUST\_BALANCE >= 1000**
6. **Write the query that will show the average invoice amount for all invoices. SELECT AVG(INV\_AMOUNT) AS "Average Amount" FROM INVOICE8;**
7. **Write a SQL *select* statement that lists the table names and number of rows in each table for all of the tables that you have created in your SQL account (since the beginning of time, not just for this lab). Use techniques I showed you in class to display the output in the following format:**

**Table Employee contains 12 records.**

**Table Customer 8A contains 4 records.**

**etc…**

**Hints: You will not find the answer to question#7 in Chapter 8. We will do this together during a lecture. Use the command “set heading off” to turn off column headings to make your output prettier. Use the “describe user\_tables” commands to see a list of columns that you can use to get the name of the table and # of rows from the table.**

**\*\*\* Mandatory – Take the SQL Lab 4 quiz by the indicated due date. \*\*\***