# **BTD310- Lab 1**

Please work in **groups** to complete this lab. This lab is worth 2% of the total course grade and will be evaluated through your written submission, as well as the lab demo. During the lab demo, group members are randomly selected to present the answers to each of the lab questions. Group members not present during the lab demo will lose the demo mark.

Please submit the following files through Blackboard. Only one person must submit for the team.

* Lab 1.sql must include a script including all the SQL commands for the following. Please write them in the specified order.
* Lab1.txt must be the output of the above script. Use the save button on top of the script results.
* Team\_Contract.docx including your team contract

## **Part I: The Team Contract**

In this course, you will be doing lots of group work. Choose groups of three and work on preparing a team contract. This contract must contain “Team Procedures”, “Team Expectations” and “Consequences”. See the following links for samples:

* Guidelines for writing team contracts- University of Arizona: <http://math.arizona.edu/~kerimar/Team%20Contract.doc>
* Team Contract- Georgia Tech: <http://www.cc.gatech.edu/~simpkins/teaching/gatech/cs4911/project/team-contract.pdf>

Submit a signed copy of the contract as Team\_Contract.docx. Digital signatures are good enough, as long as there is actual agreement.

## **Part II: Review of SQL SELECT statement**

1. Create a new SQL worksheet in SQL Developer, save as **Lab1.sql**, and write SQL statements to do the following:
   1. Use the DESCRIBE command to list the properties of all fields in the EMPLOYEES table.
      1. DESCRIBE EMPLOYEES;
   2. What are the employee number and last name of employees who their manager’s ID is 124 and their salary is higher than 3000. Do you need to use parentheses when writing the WHERE conditions? Why? Specify the operator priorities.
      1. SELECT \* EMPLOYEE\_ID, LAST\_NAME, MANAGER\_ID, SALARY  
         FROM EMPLOYEES  
         WHERE MANAGER\_ID = ‘124’ (SELECT SALARY FROM EMPLOYEES WHERE SALARY > 3000);
   3. List the region IDs in countries table, without repeating the numbers.
      1. SELECT DISTINCT REGION\_ID RID   
         FROM COUNTRIES   
         ORDER BY REGION\_ID;
   4. Report all countries by displaying the country ID, country name and region ID (separated by a comma and space) as just one column (concatenated) named COUNTRIES, in descending order of country ID. In case country IDs are the same, sort by region ID in ascending order.
   5. Report the street address and city of all locations that their city name starts with ‘M’. Provide the alias “Street Address” for the street address column.
   6. Show the last name and first name of all employees whose department ID matches the ID specified by the user (entered as input). Enter 20 when prompted to show the output.
   7. List employees by their first name and a second column specified by the user. Show a third column that adds 10 to the second column. Sort by the second column. Enter *hire\_date* when prompted to show the output. The prompt must show up only once.
      1. SELECT FIRST\_NAME, HIRE\_DATE   
         FROM EMPLOYEES   
         ORDER BY FIRST\_NAME
   8. Define a substitution variable named LAST and set its value to *Taylor*. Write a statement that shows the phone number of an employee whose last name is equal to the value of LAST. Remove the variable when done.
      1. SELECT PHONE\_NUMBER   
         FROM EMPLOYEES   
         WHERE PHONE\_NUMBER = ‘&LAST’ AND PHONE\_NUMBER = ‘&Taylor’;
2. Add a comment before each answer to specify the question number. For example,

-- Question 3

1. Use SQL Developer to format your script.
2. Clear the script output. Then run your script (F5). Save the output as **Lab1.txt**.
3. Add this declaration on the top of your Lab1.txt file.

We, ------------(mention your names), declare that the attached assignment is our own work in accordance with the Seneca Academic Policy. No part of this assignment has been copied manually or electronically from any other source (including web sites) **or distributed to other students.**

1. Also, on top of Lab1.txt, specify what each member has done towards the completion of this work:

Name Task(s)

1-

2-

3-