COMP 3311: Database Management Systems

Lab 3 Exercise: Basic SQL Statements

# What To Do

1. **Download** the zipped folder **Lab3Exercise.zip** from the ***Basic SQL Statements*** entry of the Lab Schedule course webpage to the desktop and unzip it. The folder contains two SQL script files **Lab3DB.sql** and **Lab3Queries.sql**. The **Lab3DB.sql** script file drops (deletes) the **Student** table previously created, if any, and creates two tables **Student** and **Department**.
2. **Place** your **InsertMyself.sql** script file constructed in the previous lab inside the **Lab3Exercise** folder.
3. **Execute** the **Lab3DB.sql** script file in **SQL Developer**. The last line with the **@** symbol in the **Lab3DB.sql** script file causes the referenced **InsertMyself.sql** script file to be executed.

**IMPORTANT:** A referenced script file must reside in the same folder as the script file that references it.

1. **Modify** the **Lab3Queries.sql** script file by constructing the following five SQL queries in the specified locations in the script file.

**Query 1**. Find the student id, first name, last name, email and cga of the students who are in the ELEC department. Order the result by cga from highest to lowest cga.

**Query 2.** Find the first name of the students whose first name contains the letter ‘b’ as the 3rd character.

**Query 3.** Find the last name of the students whose last name contains either the letter ‘c’ or the letter ‘z’.

**Query 4.** Find the first name and last name of all students whose first name or last name contains a double letter (e.g., “ee”, ll”, “mm”, etc.).

**Query 5.** Find the student id, first name, last name, cga and department name of the students who are in the COMP or the ELEC department and whose CGA is not in the range 2.5 to 3.5. Order the result by last name ascending.

**Note:** Your query results should show the same column headers as those shown in Figure 1.

1. **Execute** the **Lab3Queries.sql** script file in **SQL Developer** after you have constructed the queries.

**Note:** You can test each of your queries individually, before executing the completed script file, by placing the cursor anywhere within the query and clicking the **Run Statement** button.

**Note:** The following **SQL\*Plus** commands are used in the**Lab3DB.sql** and **Lab3Queries.sql** script files.

clear screen clears the Script Output pane.

set feedback off suppresses the display of the number of records processed by a **SELECT**, **DELETE**, **UPDATE** or **INSERT** statement.

set heading off hides the query result column headers of subsequent SQL statements.

set heading on shows the query result column headers of subsequent SQL statements.

A screenshot of a cell phone

Description automatically generated

**Your information should be shown in Query 5.**

**Query 5 result**

**Query 4 result**

**Query 3 result**

**Query 2 result**

**Query 1 result**

Figure 1: Example **SQL Developer** Script Output tab showing the result of executing the five queries.