COMP 3311: Database Management Systems

Lab 2 Exercise: Oracle Database, SQL*Plus and SQL Developer

HOW TO GET THE CREDIT FOR THIS LAB

1. **Download** the zipped folder Lab2Exercise.zip from the ***Oracle Database, SQL*Plus and SQL Developer*** entry of the Lab Schedule course webpage to the desktop and unzip it. The folder contains the script file Lab2DB.sql which contains SQL statements that:
   - drop (delete) a table named Student if it exists;
   - create a table named Student with 6 attributes;
   - insert 20 different records into the Student table.
   Don't worry if you do not understand the SQL statements. They will be covered in detail in future labs and the lectures.

2. **Execute** the Lab2DB.sql script file in SQL Developer.

3. **Create** a new SQL script file in SQL Developer named InsertMyself.sql.

4. **Construct**, in the InsertMyself.sql script file, an SQL insert statement that inserts into the Student table a record with the following values. (See the Lab2DB.sql script file for examples of such an insert statement.)
   - Your student id (8 digits max), first name (20 characters max), last name (25 characters max) and HKUST email login name excluding "@connect.ust.hk" (15 characters max).
   - Any phone number of your choosing; it does not have to be your phone number (8 digits max).
   - The value "3.64" for the cga attribute.
   - The value "COMP" for the departmentId attribute.
   - The value "2018" for the admissionYear attribute.

   Add the command commit as the second (and last) line of the script file. This command writes any changes you make to a table from main memory to disk (i.e., to the database).

5. **Save** your InsertMyself.sql script file inside the Lab2Exercise folder.

6. **Execute** your InsertMyself.sql script file in SQL Developer using the Run Script button.

7. **Open** a new SQL worksheet and in this worksheet **construct** and **execute** an SQL select statement to show all the records in the Student table as shown in Figure 1.
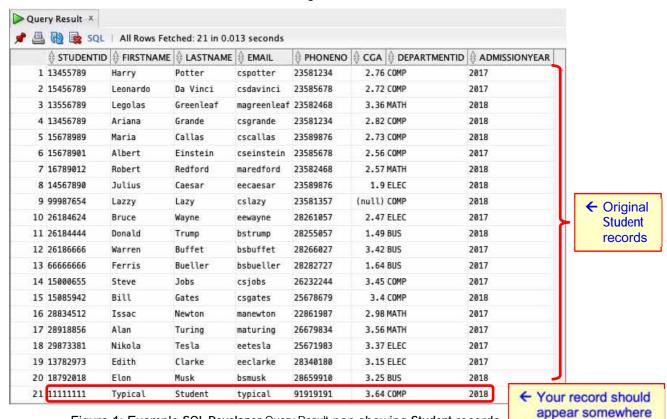
	STUDENTID	FIRSTNAME	LASTNAME	EMAIL	PHONENO	CGA	DEPARTMENTID	ADMISSIONYEAR
1	13455789	Harry	Potter	cspotter	23581234	2.76	COMP	2017
2	15456789	Leonardo	Da Vinci	csdavinci	23585678	2.72	COMP	2017
3	13556789	Legolas	Greenleaf	magreenleaf	23582468	3.36	MATH	2018
4	13456789	Ariana	Grande	csgrande	23581234	2.82	COMP	2018
5	15678989	Maria	Callas	cscallas	23589876	2.73	COMP	2018
6	15678901	Albert	Einstein	cseinstein	23585678	2.56	COMP	2017
7	16789012	Robert	Redford	maredford	23582468	2.57	MATH	2018
8	14567890	Julius	Caesar	eecaesar	23589876	1.9	ELEC	2018
9	99987654	Lazzy	Lazy	cslazy	23581357	(null)	COMP	2018
10	26184624	Bruce	Wayne	eewayne	28261057	2.47	ELEC	2017
11	26184444	Donald	Trump	bstrump	28255057	1.49	BUS	2018
12	26186666	Warren	Buffet	bsbuffet	28266027	3.42	BUS	2017
13	66666666	Ferris	Bueller	bsbueller	28282727	1.64	BUS	2017
14	15000655	Steve	Jobs	csjobs	26232244	3.45	COMP	2017
15	15085942	Bill	Gates	csgates	25678679	3.4	COMP	2018
16	28834512	Issac	Newton	manewton	22861987	2.98	MATH	2017
17	28918856	Alan	Turing	maturing	26679834	3.56	MATH	2017
18	29873381	Nikola	Tesla	eetesla	25671983	3.37	ELEC	2017
19	13782973	Edith	Clarke	eeclarke	28340180	3.15	ELEC	2017
20	18792018	Elon	Musk	bsmusk	28659910	3.25	BUS	2018
21	11111111	Typical	Student	typical	91919191	3.64	COMP	2018

← Original Student records

← Your record should appear somewhere in this listing.

Figure 1: Example SQL Developer Query Result pan showing Student records.

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WHAT TO SUBMIT

1. Your InsertMyself.sql script file containing <u>only</u> the following two statements:
    a. the SQL insert statement that adds your student record and
    b. the commit command.

2. A screenshot of the SQL Developer window showing the result of the SQL select statement in the Query Result pane as shown in Figure 1. To obtain a screenshot of the SQL Developer window and save it:
    *   Select the SQL Developer window.
    *   Press alt and Print Screen together. This copies the SQL Developer window.
    *   Open the Paint program, which can be found in the Windows Accessories folder in the All apps tab in the Windows menu (or search for "paint"), and paste the copied screenshot into the Paint window.
    *   Select Save in the Paint program and save the screenshot on the Desktop with File name: **Lab2** and Save as type: JPEG.

HOW TO SUBMIT

By 11:00 p.m. today, upload your InsertMyself.sql script file and SQL Developer screenshot file to Canvas by selecting *Lab 2* in the Assignments section of Canvas, and then selecting the Submit Assignment button. You need to upload each file separately. To check your submission, select the Submission Details button on the right side of Canvas. For help, select the Help button at the top-right of Canvas.

SAVE YOUR INSERTMYSELF.SQL SCRIPT FILE

Save your Lab2Exercise folder containing your InsertMyself.sql script file either to the M drive or to a USB drive as any personal files on the lab computers will be deleted periodically.