COMP 3311: Database Management Systems

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

WHAT TO DO

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:
   - drops (deletes) a table named Student if it exists;
   - creates a table named Student with 6 attributes;
   - inserts 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.
   - Any valid year for the admissionYear attribute (4 digits).

   Note: All values, except for cga, are strings and need to be enclosed in single quotes.

   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** an 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.

Query Result

SQL | All Rows Fetched: 21 in 0.015 seconds

	STUDENTID	FIRSTNAME	LASTNAME	EMAIL	PHONENO	CGA	DEPARTMENTID	ADMISSIONYEAR
1	13455789	Harry	Potter	cspotter	23581234	2.76	COMP	2018
2	15456789	Leonardo	Da Vinci	csdavinci	23585678	2.72	COMP	2018
3	13556789	Legolas	Greenleaf	magreenleaf	23582468	3.36	MATH	2019
4	13456789	Ariana	Grande	csgrande	23581234	2.82	COMP	2019
5	15678989	Maria	Callas	cscallas	23589876	2.73	COMP	2019
6	15678901	Albert	Einstein	cseinstein	23585678	2.56	COMP	2018
7	16789012	Robert	Redford	maredford	23582468	2.57	MATH	2019
8	14567890	Julius	Caesar	eecaesar	23589876	1.9	ELEC	2019
9	99987654	Lazzy	Lazy	cslazy	23581357	(null)	COMP	2019
10	26184624	Bruce	Wayne	eewayne	28261057	2.47	ELEC	2018
11	26184444	Donald	Trump	bstrump	28255057	1.49	BUS	2019
12	26186666	Warren	Buffet	bsbuffet	28266027	3.42	BUS	2018
13	66666666	Ferris	Bueller	bsbueller	28282727	1.64	BUS	2018
14	15000655	Steve	Jobs	csjobs	26232244	3.45	COMP	2018
15	15085942	Bill	Gates	csgates	25678679	3.4	COMP	2019
16	28834512	Isaac	Newton	manewton	22861987	2.98	MATH	2018
17	28918856	Alan	Turing	maturing	26679834	3.56	MATH	2018
18	29873381	Nikola	Tesla	eetesla	25671983	3.37	ELEC	2018
19	13782973	Edith	Clarke	eeclarke	28340180	3.15	ELEC	2018
20	18792018	Elon	Musk	bsmusk	28659910	3.25	BUS	2019
21	11111111	Typical	Student	typical	91919191	3.64	COMP	2019

← Original **Student** records

← Your record should appear somewhere in this listing.

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

Note: The following SQL*Plus command is used in theLab2DB.sql script file.

clear screen clears the Script Output pane.

WHAT TO SUBMIT

1. Your InsertMyself.sql script file containing only the following two statements:
   a. the SQL insert statement that adds your student record and
   b. the commit command.
2. A jpg/jpeg screenshot file or PDF file of the SQL Developer Query Result tab showing the result of the SQL select statement as shown in Figure 1.

HOW TO SUBMIT

By 11:00 p.m. today, upload your InsertMyself.sql script file and jpg/jpeg screenshot file or PDF 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.

WHAT TO SAVE

Save your InsertMyself.sql script file as it will be needed in subsequent labs.