

CSCI 2020 Database Fundamentals Lab9

Submit as a text document called *LastnameFirstnameLab9.sql* to the drop box.
Print out a hard copy, staple this sheet to the front, and submit to your instructor before leaving the lab.

Notes:

- **Be sure all style guidelines are complied with.** (SQL style guidelines are available in the Additional Material section of Content in D2L).
- Your file should include a **header block of comments** as shown in the SQL Style Guidelines.
- **Be sure to add a comment above the solution to each task.** The comment should include the task number and the task itself, and should also explain in common language how your solution accomplishes the task.

Ex. 1) List all contents of the Instructor table.

The code should look like:

```
/* 1 – list all contents of the Instructor table --
   The * operator in the select clause will
   select all columns from the specified table.
*/
select * from INSTRUCTOR;
```

- To make your code more readable, I would prefer that you **format your select statements as follows:** (note the from, where and order by are all on separate lines indented under the select)

```
select COLUMNS_HERE
  from TABLE_HERE
 where CONDITION1_HERE
        or CONDITION2_HERE
 order by COLUMN_HERE;
```

You are submitting a file that has the sql code in it, not the results. I must be able to run your .sql file in its entirety. Make sure that comments are added properly.

TASKS

- 1) Granting
 - a. Give select rights on *your STUDENT table* to all users
 - b. Give insert rights on your *STUDENT table* to the user *STUDENT*, and allow them to grant this privilege to others.
- 2) Revoking
 - a. Rescind **JUST** the *insert* rights granted above
- 3) Write a query to find how many tables that were created by the oracle internal user SYSTEM do you have access to? (Hint: The data dictionary has information about tables you have access to)

- 4) Write a query to list all the names of all SYSTEM level privileges you have. ***In your comments explain why no table names are listed with these privileges in the data dictionary.***
- 5) List all the OBJECT (TABLE) level grants that you have made to other users

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```
1  /* BuchananBrandonLab9.sql
2  ----- \
3  Programmer's Name: Brandon Buchanan
4  Course: CSCI2020                      Section Number: 002
5  Creation Date: 11/9/2011              Date of Last Modification: 11/9/2011
6  E-mail address: zbwb8@goldmail.etsu.edu
7  ----- \
8  Purpose -
9  Lab 9 - SQL Security and Data Dictionary
10 ----- \
11 Notes on specifications, special algorithms, and assumptions:
12 Designed to work on the database created by the schooldb.sql
13 script
14 */
15
16 /* 1a. - Grant select access on the STUDENT table to all users, includ \
17 ing
18         those who haven't been created yet. */
19 grant select on STUDENT to PUBLIC;
20
21 /* 1b. - Grant insert access on the STUDENT table to the STUDENT user. \
22 */
23 grant insert on STUDENT to STUDENT; with grant option;
24
25 /* 2. - Revoke insert access on the STUDENT table from the STUDENT use \
26 r. */
27 revoke insert on STUDENT from STUDENT;
28
29 /* 3. - Display the number of tables accessible by the current user
30 that were created by the system account. */ -20
31 this doesn't list tables created
32 select count(*) from USER_OBJECTS by the user SYSTEM
33 where USER_OBJECTS.OBJECT_TYPE = 'TABLE';
34
35
36 /* 4. - Display names of all privileges granted to the current user.
37 No tables names are displayed because tables exist within the
```

```
38         user context, not within system's context.  */
39
40     select USER_SYS_PRIVS.PRIVILEGE from USER_SYS_PRIVS;
41
42     /* 5. - List all object level grants made to other users.  */
43
44     select * from USER_TAB_PRIVS_MADE;
```