CST 363 online Database – Quiz 4

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Read and study the chapters on security, recovery, and stored procedures in the textbook. Also see PowerPoint slides and videos on iLearn for this week.

Answer the following questions briefly. Use complete sentences.

1. What SQL statements are considered part of SQL DCL?
2. For MySQL, explain how users, groups, permissions and objects are related.
3. What happens if a user is granted a privilege from two different administrators and then one of the administrators revokes the privilege? Does the user still maintain the privilege until both administrator revoke it?

Research this about mysql by searching and reading the mysql online reference about grant and revoke statements. Then do the following experiment.

Using mysql workbench, connect as root

Define 3 new userids: Admin1, Admin2 and User1.

Admin1 and Admin2 should be given DBA privilege.

User1 is not given any privilege by root.

Now connect as User1. Are you able to select from any tables?

Now connect as Admin1 and grant select on some table to User1.

Now connect as Admin2 and grant select on some table to User1.

Now connect as User1 and verify that User1 can indeed select from the table.

Now connect as Admin1 and revoke the select.

Now connect as User1. Is User1 still able to select?

Now connect as Admin2, revoke select from User1.

Now connect as User1. Is User1 still able to select?

Based on your reading and the experiment above, what happens when a User in MySQL is granted the same privilege by two different administrators and then one of the administrators revokes it?

1. Recovery
   1. Describe the roll forward process and under what conditions is it used?
   2. Describe the rollback process and under what conditions is it used?
2. Write a **user-defined sql function** named **LastNameFirst** that concatenates the employee’s LastName and FirstName into a single value named FullName, and displays, in order, the LastName, a comma, a space, and the FirstName (***hint***: *Smith* and *Steve* would be combined to read *Smith, Steve*). There are many ways to do this without writing a user defined function, but the purpose of this exercise is to write a solution that uses an sql user-defined function.

***Use your computer to write and test the function, then copy and paste the working code here. You will need to create a table with columns LastName, FirstName and insert some data for testing your sql function.***