Date : 24/9/25

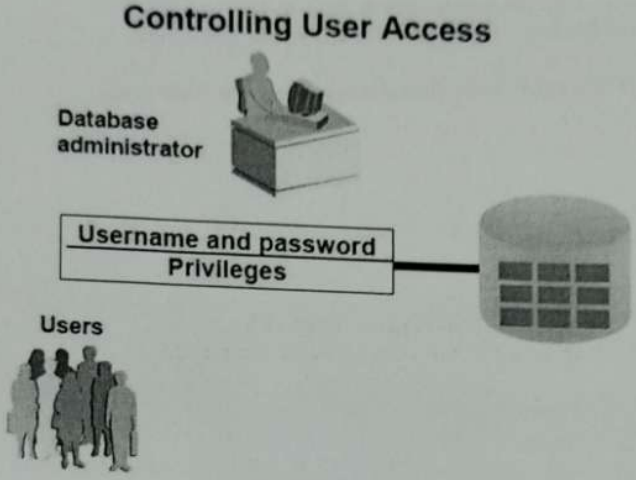
EXERCISE-15

Controlling User Access

Objectives AIM: To understand about controlling User Access in MySQL.

After the completion of this exercise, the students will be able to do the following:

- Create users
- Create roles to ease setup and maintenance of the security model
- Use the GRANT and REVOKE statements to grant and revoke object privileges
- Create and access database links



Controlling User Access

In a multiple-user environment, you want to maintain security of the database access and use. With Oracle server database security, you can do the following:

- Control database access
- Give access to specific objects in the database
- Confirm given and received *privileges* with the Oracle data dictionary
- Create synonyms for database objects

Privileges

- Database security:
  - System security
  - Data security
- System privileges: Gaining access to the database
- Object privileges: Manipulating the content of the database objects
- Schemas: Collections of objects, such as tables, views, and sequences

System Privileges

- More than 100 privileges are available.
- The database administrator has high-level system privileges for tasks such as:
  - Creating new users

Find the Solution for the following:

1. What privilege should a user be given to log on to the Oracle Server? Is this a system or an object privilege?

CREATE SESSION (A system privilege)

2. What privilege should a user be given to create tables?

Create TABLE (A system privilege).

~~The original grantor, if the privilege was given with GRANT OPTION~~

3. If you create a table, who can pass along privileges to other users on your table?

The original grantor if the privilege was given with GRANT option

~~Create a role, grant the system privileges to the role, and then grant the~~ role to the users

4. You are the DBA. You are creating many users who require the same system privileges. What should you use to make your job easier?

Create a ROLE, grant the system privileges to the role, and then grant the role to the users.

5. What command do you use to change your password?

ALTER USER username IDENTIFIED BY new_password;

6. Grant another user access to your DEPARTMENTS table. Have the user grant you query access to his or her DEPARTMENTS table.

GRANT Select ON Departments to another_user with GRANT OPTION;

7. Query all the rows in your DEPARTMENTS table.

Select * FROM Departments;

8. Add a new row to your DEPARTMENTS table. Team 1 should add Education as department number 500. Team 2 should add Human Resources department number 510. Query the other team's table. INSERT INTO Departments (department_number, department_name) VALUES (500, 'Education'); INSERT INTO (department_number, department_name) VALUES (510, 'Human Resources');

9. Query the USER_TABLES data dictionary to see information about the tables that you own.

Select table_name, num_rows, status FROM USER_TABLES;

10. Revoke the SELECT privilege on your table from the other team.

REVOKE SELECT ON your_table FROM other_team_user;

11. Remove the row you inserted into the DEPARTMENTS table in step 8 and save the changes.

Delete FROM Departments where department_number IN (500, 510);

COMMIT;

RESULT: Thus the concept of controlling user Access in Mysql is studied.

Evaluation Procedure	Marks awarded
Practice Evaluation (5)	5
Viva(5)	4
Total (10)	9
Faculty Signature	