8/10/2025

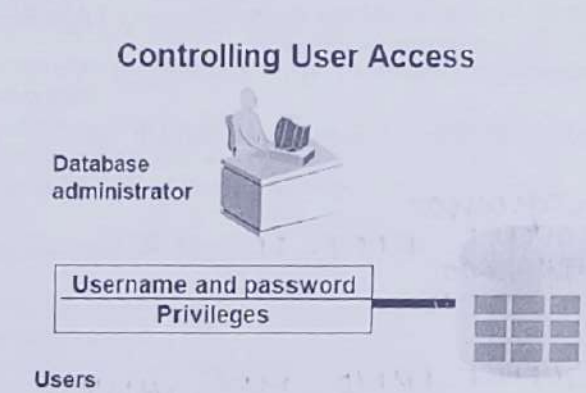
EXERCISE-15

Controlling User Access

Objectives

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?

GRANT CREATE SESSION TO Username;

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

GRANT CREATE TABLE TO username;

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

GRANT select ON table-name TO User Q,
WITH GRANT Option;

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 ROLE manager-role; GRANT CREATE SESSION, CREATE TABLE TO MANAGER-role; GRANT MANAGER-role to User;

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

ACTER 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 SELECTION ON departments TO your-username;

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 (departments-id, departments
VALUES (500, 'education') SELECT * FROM departments;

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

SELECT table-name, tablespace-name. FROM user. tables;

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

REVOKE SELECT ON departments FROM Other-user;

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

DELETE FROM departments
WHERE departments-id = 500;
COMMIT;

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