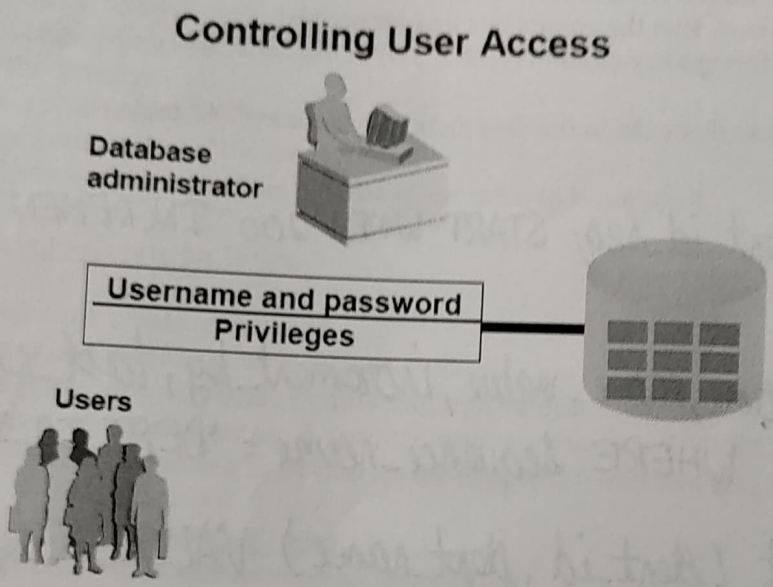
EXERCISE-15

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?

System privilage is required to login

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

System privilege is required to create tables

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

The table owner can grant privileges to other 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 privileges to role, then assign role to 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.

7. Query all the rows in your DEPARTMENTS table.

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.

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

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

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

6) GRANT SELECT ON departments TO other_user;
GRANT SELECT ON departments TO your_user;

7) SELECT * FROM departments;

8) INSERT INTO departments (dept_id, dept_name) VALUES (500, 'Education');
INSERT INTO departments (dept_id, dept_name) VALUES (510, 'Human Resources');
SELECT * FROM departments@other_team_link

9) SELECT table_name, tablespace_name, num_rows FROM user_tables;

10) REVOKE SELECT ON departments FROM other_user

11) DELETE FROM departments WHERE dept_id IN (500, 510)
COMMIT;

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