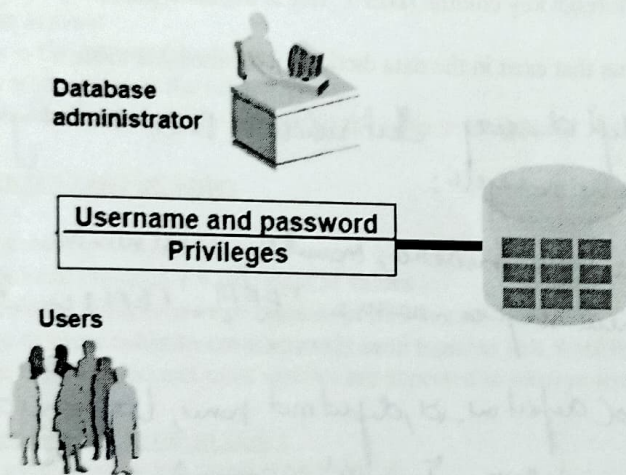## Controlling User Access

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

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? *[handwritten, illegible] Create session. This is a system privilege - system privilege*

_____

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

CREATE TABLES

_____

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

The owner of the table can grant privileges [illegible]

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?

[illegible handwriting]

_____

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

ALTER USER your [illegible] IDENTIFIED BY TEAM 2;

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 TEAM2;*

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.

9. Query the USER_TABLES data dictionary to see information about the tables that you own.
*SELECT * FROM USER TABLES*

10. Revoke the SELECT privilege on your table from the other team.
REVOKE SELECT ON Departments FROM TEAM 2

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

DELETE FROM DEPARTMENTS
WHERE department = 500)

COMMIT

⑧. *INSERT INTO DEPARTMENTS*
VALUES (500, 'Education');

COMMIT;
*SELECT * FROM TEAM2.DEPARTMENTS;*

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? Privilege crate session . This is a system privilege . system privilege

_____

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

CREATE TABLES

_____

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

The owner of the table can grant privileges on it 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?

You should use ROLE

_____

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

ALTER USER your_username Identified by FORM 2;

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 TEAM);

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.

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

SELECT * FROM USE TABLES

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

REVOKE SELECT ON departments from TEAM 2

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

DELETE FROM DEPARTMENTS
WHERE department_id 500)

commit

⑧. INSERT INTO DEPARTMENTS
VALUES (500, 'Education');

COMMIT;

SELECT * FROM TEAM 2.DEPARTMENTS;

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