

DATABASE MANAGEMENT SYSTEM

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EXP: 16

CONTROLLING USER ACCESS

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

Solution:

To allow a user to log on to an Oracle Server, they must be granted the CREATE SESSION privilege. This is a system privilege.

Command:

GRANT CREATE SESSION TO username;

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

Solution:

To allow a user to create tables, they must be granted the CREATE TABLE privilege. This is a system privilege.

Command:

GRANT CREATE TABLE TO username;

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

Solution:

- Only you, as the table owner, or users with ADMIN OPTION or GRANT OPTION, can pass privileges to others.
- To enable another user to grant privileges on your table, use the GRANT OPTION.

Command:

GRANT SELECT ON your_table TO username 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?**

Solution:

Create a **role** to group privileges and assign the role to users.

Steps:

1. Create a role: CREATE ROLE role_name;
2. Grant privileges to the role: GRANT privilege_name TO role_name;
3. Assign the role to users: GRANT role_name TO username;

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

Solution:

Use the ALTER USER command to change passwords.

Commands:

- To change your own password: ALTER USER username IDENTIFIED BY new_password;
- DBA changing another user's 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 their DEPARTMENTS table.

Solution:

- Grant another user access: GRANT SELECT ON departments TO userB;
- The other user grants you access: GRANT SELECT ON departments TO userA;

7. Query all the rows in your DEPARTMENTS table.

Solution:

SELECT * FROM departments;

8. Add a new row to your DEPARTMENTS table. Team 1 adds Education (500); Team 2 adds Human Resources (510). Query the other team's table.

Solution:

- Team 1: INSERT INTO departments (department_id, department_name) VALUES (500, 'Education');
- Team 2: INSERT INTO departments (department_id, department_name) VALUES (510, 'Human Resources');
- Grant SELECT access:
 - Team 1 grants: GRANT SELECT ON departments TO team2;
 - Team 2 grants: GRANT SELECT ON departments TO team1;

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

Solution:

SELECT table_name, tablespace_name, num_rows, blocks FROM user_tables;

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

Solution:

REVOKE SELECT ON departments FROM team2;

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

Solution:

- Team 1: DELETE FROM departments WHERE department_id = 500;
- Team 2: DELETE FROM departments WHERE department_id = 510;
- Save changes: COMMIT;