

EXPERIMENT-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?

Soln:- To allow a user to log on to an Oracle Server, they must be granted the **CREATE SESSION** privilege. This is a **system privilege**, not an object privilege, as it allows the user to establish a session and connect to the Oracle database server.

This can be done by giving an statement

“ GRANT CREATE SESSION TO username; ”

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

Soln:- To allow a user to create tables in an Oracle database, they must be granted the **CREATE TABLE** privilege. This is a **system privilege**.

This can be done by giving an statement

“ GRANT CREATE TABLE TO username; ”

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

Soln:-

- If you create a table in an Oracle database, only **you**, as the table owner, or a user with the **ADMIN OPTION** or **GRANT OPTION** on the relevant privileges, can pass along privileges to other users on your table.
- To allow another user to grant privileges on your table to others, you must explicitly grant them the privilege with the **GRANT OPTION**.

This can be done by giving an statement

“GRANT SELECT ON your_table TO username WITH GRANT OPTION;”

This allows the specified user to pass the SELECT privilege on your table 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?

Soln:-

- As, I am a DBA, to simplify the process of granting the same set of system privileges to many users, you should create a **role**. A role is a named group of privileges that can be granted to users collectively, rather than granting individual privileges to each user

Steps to create a role:

- Create a role
- Grant the privilege to roll.

- Then, grant the role to users.

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

Soln:-

To change the password in an Oracle database, you can use the **ALTER USER** command.

It can be done three ways:

- ALTER USER username IDENTIFIED BY new_password;
- Or by can change it by without using the username.
“PASSWORD new_password;”
- If I am a DBA and want to change the password for another user:
“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

Soln:-

Grant Another User Access to Your DEPARTMENTS Table

- Assume your username is userA and you want to grant userB access to your DEPARTMENTS table (e.g., SELECT privilege).

This can be done by giving an statement

“GRANT SELECT ON departments TO userB;”

7. Query all the rows in your DEPARTMENTS Table

Soln:-

To query all the rows from your DEPARTMENTS table, you would use a simple SELECT statement:

This can be done by giving an statement

“SELECT * FROM departments;”

Or ,you want just specified columns means, then instead of ‘*’ ,type the column names.

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.

Soln:-

As **Team 1**, you can add a new row to the DEPARTMENTS table for the **Education** department with department number 500 using the following INSERT statement:

This can be done by giving an statement

```
INSERT INTO departments (department_id, department_name)
VALUES (500, 'Education');
```

SAME FOR TEAM2

```
INSERT INTO departments (department_id, department_name)
VALUES (510, 'Human Resources');
```

To query the other team's DEPARTMENTS table, each team needs to first grant SELECT access to the other team.

Statement for granting:

- **Team 1** grants **Team 2** access:
 - GRANT SELECT ON departments TO team2;
- **Team 2** grants **Team 1** access:
 - GRANT SELECT ON departments TO team1;

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

Soln:-

To see information about the tables that you own, you can query the USER_TABLES view in Oracle. This data dictionary view contains details about all the tables owned by the current user.

This can be done by giving an statement

“SELECT table_name, tablespace_name, num_rows, blocks FROM user_tables;”

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

Soln:-

To revoke the SELECT privilege that you granted earlier from the other team, you would use the REVOKE command. For example, if you are **Team 1** and you previously granted **Team 2** access to your DEPARTMENTS table, you can revoke that access with the following command:

This can be done by giving an statement

“REVOKE SELECT ON departments FROM team2;”

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

Soln:-

To remove the row you inserted into the DEPARTMENTS table in step 8 and save the changes, you can use the DELETE statement followed by a COMMIT to make the changes permanent.

1. **Team 1:** Remove the **Education** Department (department number 500):

“DELETE FROM departments WHERE department_id = 500;”

2. **Team 2:** Remove the Human Resources Department (department number 510):

“DELETE FROM departments WHERE department_id = 510;”

3. Save the Changes:

After executing the DELETE statement, save the changes by running:

Type commit

“COMMIT;”

