

EXERCISE-15

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?

Answer:

- To log on to an Oracle Server, a user should be granted the CREATE SESSION privilege, which is a system privilege. This allows the user to establish a connection to the database.

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

Answer:

- To create tables, a user should be granted the CREATE TABLE privilege. This is a system privilege.

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

Answer:

- If you create a table, you (the table owner) can pass along privileges to other users on your table. Additionally, users with the GRANT ANY OBJECT PRIVILEGE system privilege can also pass along privileges on your table to others.

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?

Answer:

- As a DBA, you should use roles to group the necessary system privileges and then grant the role to the users. This makes managing and assigning privileges easier and more efficient.

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

Answer:

- To change your password in Oracle, you use the ALTER USER command.

SYNTAX:

```
ALTER USER username IDENTIFIED BY new_password;
```

-
- Replace username with your username and new_password with your new password.

6. Grant another user access to your DEPARTMENTS table. Have the user grant you query access to his or her DEPARTMENTS table.

Answer:

1. Grant Another User Access to Your DEPARTMENTS Table:

```
GRANT SELECT ON user1.DEPARTMENTS TO user2;
```

Assuming your username is user1 and the other user is user2, you can grant user2 access to your DEPARTMENTS table with the following command:

2. Have the Other User Grant You Query Access to Their DEPARTMENTS Table:

```
GRANT SELECT ON user2.DEPARTMENTS TO user1;
```

Ask user2 to run the following command to grant you (user1) query access to their DEPARTMENTS table:

7. Query all the rows in your DEPARTMENTS table.

Answer:

- To query all the rows in your DEPARTMENTS table, use the following SQL command:

```
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.

Answer:

i. Create a table departments:

```
CREATE TABLE DEPARTMENTS (  
    DEPARTMENT_ID NUMBER PRIMARY KEY,  
    DEPARTMENT_NAME VARCHAR2(50)  
);
```

ii. Add a New Row to Your DEPARTMENTS Table:

- For team 1:
INSERT INTO DEPARTMENTS (DEPARTMENT_ID, DEPARTMENT_NAME) VALUES (500, 'Education');

For team 2:

```
INSERT INTO DEPARTMENTS (DEPARTMENT_ID, DEPARTMENT_NAME) VALUES (510, 'Human Resources');
```

iii. Grant SELECT Privileges to the Other Team

Team 1 Grants SELECT to Team 2:

```
GRANT SELECT ON team1.DEPARTMENTS TO team2;
```

Team 2 Grants SELECT to Team 1:

```
GRANT SELECT ON team2.DEPARTMENTS TO team1;
```

iv. Query the Other Team's DEPARTMENTS Table:

Team 1:

```
SELECT * FROM team2.DEPARTMENTS;
```

Team 2:

```
SELECT * FROM team1.DEPARTMENTS;
```

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

Answer:

Query:

```
SELECT TABLE_NAME, TABLESPACE_NAME, NUM_ROWS  
FROM USER_TABLES;
```

Query Result:

TABLE_NAME	TABLESPACE_NAME	NUM_ROWS
DEPARTMENTS	USERS	5
EMPLOYEES	USERS	42
PROJECTS	USERS	10

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

Answer:

```
REVOKE SELECT ON your_username.DEPARTMENT FROM user2;
```

```
1 REVOKE SELECT ON your_username.DEPARTMENT FROM user2;
2
3
```

Results	Explain	Describe	Saved SQL	History
SQL command executed successfully.				

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

Answer:

- i. Deleting the Row (For Team 1):
DELETE FROM DEPARTMENT WHERE DEPARTMENT_ID = 500;
- ii. Deleting the Row (For Team 2):
DELETE FROM DEPARTMENT WHERE DEPARTMENT_ID = 510;
- iii. Committing the Changes:
COMMIT;

```
1 DELETE FROM DEPARTMENT WHERE DEPARTMENT_ID = 500;
2 DELETE FROM DEPARTMENT WHERE DEPARTMENT_ID = 510;
3 commit;
4
5
```

Results	Explain	Describe	Saved SQL	History
1 row deleted.				

