# Practices for Lesson 18: Controlling User Access

Practices for Lesson 18: Overview

Practice Overview:

This practice covers the following topics:

Granting privileges to other users on your table

Modifying another user’s table through the privileges granted to you

Practice 18-1: Controlling User Access

Overview

You grant query privilege on your table to another user. You learn how to control access to database objects.

Tasks

What privilege should a user be given to log on to the Oracle server? Is this a system privilege or an object privilege?

What privilege should a user be given to create tables?

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

You are the DBA. You create many users who require the same system privileges. What should you use to make your job easier?

What command do you use to change your password?

User21 is the owner of the EMP table and grants the DELETE privilege to User22 by using the WITH GRANT OPTION clause. User22 then grants the DELETE privilege on EMP to User23. User21 now finds that User23 has the privilege and revokes it from User22. Which user can now delete from the EMP table?

You want to grant SCOTT the privilege to update data in the DEPARTMENTS table. You also want to enable SCOTT to grant this privilege to other users. What command do you use?

To complete question 8 and the subsequent ones, you need to connect to the database by using SQL Developer. If you are already not connected, do the following to connect:

Click the SQL Developer desktop icon.

In the Connections Navigator, use the *ora21* account and the corresponding password to log on to the database.

Open another SQL Developer session and connect as *ora22*.

Grant another user query privilege on your table. Then, verify whether that user can use the privilege.

**Note:** For this exercise, open another SQL Developer session and connect as a different user. For example, if you are currently using ora21, open another SQL Developer session and connect as ora22.

Grant another user (for example, ora22) privilege to view records in your REGIONS

table. Include an option for this user to further grant this privilege to other users.

Have the user query your REGIONS table.

Have the user pass on the query privilege to a third user, ora23.

Take back the privilege from the user who performs step b.

Grant another user query and data manipulation privileges on your COUNTRIES table. Make sure that the user cannot pass on these privileges to other users.

Take back the privileges on the COUNTRIES table granted to another user.

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

Query all the rows in your DEPARTMENTS table.

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Add a new row to your DEPARTMENTS table. ora21 should add Education as department number 500. ora22 should add Human Resources as department number

510. Query ora22’s table from ora21 and vice versa.

Create a synonym for the ora22’s DEPARTMENTS table from ora21 and vice versa.

Query all the rows in the ora22’s DEPARTMENTS table by using your synonym and vice versa.

ora21 SELECT statement results:

ora22 SELECT statement results:

Revoke the SELECT privilege from ora22 and vice versa.

Remove the row that you inserted into the DEPARTMENTS table in step 13 and save the changes.

Drop the synonyms you created in Step 14.

Solution 18-1: Controlling User Access

What privilege should a user be given to log on to the Oracle server? Is this a system or an object privilege?

The CREATE SESSION system privilege

What privilege should a user be given to create tables?

The CREATE TABLE privilege

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

You can, or anyone you have given those privileges to, by using WITH GRANT OPTION

You are the DBA. You create many users who require the same system privileges. What should you use to make your job easier?

Create a role containing the system privileges and grant the role to the users.

What command do you use to change your password?

The ALTER USER statement

User21 is the owner of the EMP table and grants DELETE privileges to User22 by using the WITH GRANT OPTION clause. User22 then grants DELETE privileges on EMP to User23. User21 now finds that User23 has the privilege and revokes it from User22. Which user can now delete data from the EMP table?

**Only** User21

You want to grant SCOTT the privilege to update data in the DEPARTMENTS table. You also want to enable SCOTT to grant this privilege to other users. What command do you use?

Grant another user query privilege on your table. Then, verify whether that user can use the privilege.

**Note:** For this exercise, open another SQL Developer session and connect as a different user. For example, if you are currently using ora21, open another SQL Developer session and connect as ora22.

Grant another user privilege to view records in your REGIONS table. Include an option for this user to further grant this privilege to other users.

ora21 executes this statement:

Have the user query your REGIONS table.

ora22 executes this statement:

Have the user pass on the query privilege to a third user, ora23. ora22 executes this statement.

Take back the privilege from the user who performs step b.

ora21 executes this statement.

Grant another user query and data manipulation privileges on your COUNTRIES table. Make sure the user cannot pass on these privileges to other users.

ora21 executes this statement.

Take back the privileges on the COUNTRIES table granted to another user.

ora21 executes this statement.

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

ora22 executes the GRANT statement.

ora21 executes the GRANT statement.

Query all the rows in your DEPARTMENTS table.

Add a new row to your DEPARTMENTS table. ora21 should add Education as department number 500. ora22 should add Human Resources as department number

510. Query ora22’s table from ora21 and vice versa.

ora21 executes this INSERT statement.

ora22 executes this INSERT statement.

ora21 executes this SELECT statement.

ora22 executes this SELECT statement.

Create a synonym for the ora22’s DEPARTMENTS table from ora21 and vice versa.

ora21 creates a synonym named user2.

ora22 creates a synonym named user1.

Query all the rows in the ora22’s DEPARTMENTS table by using your synonym and vice versa.

ora21 executes this SELECT statement.

ora22 executes this SELECT statement.

Revoke the SELECT privilege from ora22 and vice versa.

ora21 revokes the privilege.

ora22 revokes the privilege.

Remove the row that you inserted into the DEPARTMENTS table in step 13 and save the changes.

ora21 executes this DELETE statement.

ora22 executes this DELETE statement.

Drop the synonyms you created in Step 14.