

EXERCISE-15

Controlling User Access

Name: Vedhasree S Register Number: 240701580 Department: CSE
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1. What privilege should a user be given to log on to the Oracle Server? Is this a system or an object privilege?

Answer:

Privilege: CREATE SESSION

Type: System privilege

SQL command: GRANT CREATE SESSION TO username;

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

Answer:

Privilege: CREATE TABLE

Type: System privilege

SQL command: GRANT CREATE TABLE TO username;

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

Answer:

The owner of the table can pass privileges on their table to other users. Using the WITH GRANT OPTION, the recipient can also grant those privileges to others.

Example: GRANT SELECT, INSERT ON my_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?

Answer:

You should create a role that contains all the required system privileges. Then, you can grant the role to multiple users, which makes assigning and managing privileges easier.

Example: CREATE ROLE developer_role;

GRANT CREATE SESSION, CREATE TABLE, CREATE SEQUENCE TO developer_role;

GRANT developer_role TO user1, user2, user3;

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

Answer:

To change your Oracle database user password, you use the ALTER USER command. This command allows the user or a DBA to modify the password of a specific database account.

Syntax:

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

Example:

```
ALTER USER scott IDENTIFIED BY lion;
```

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

Answer:

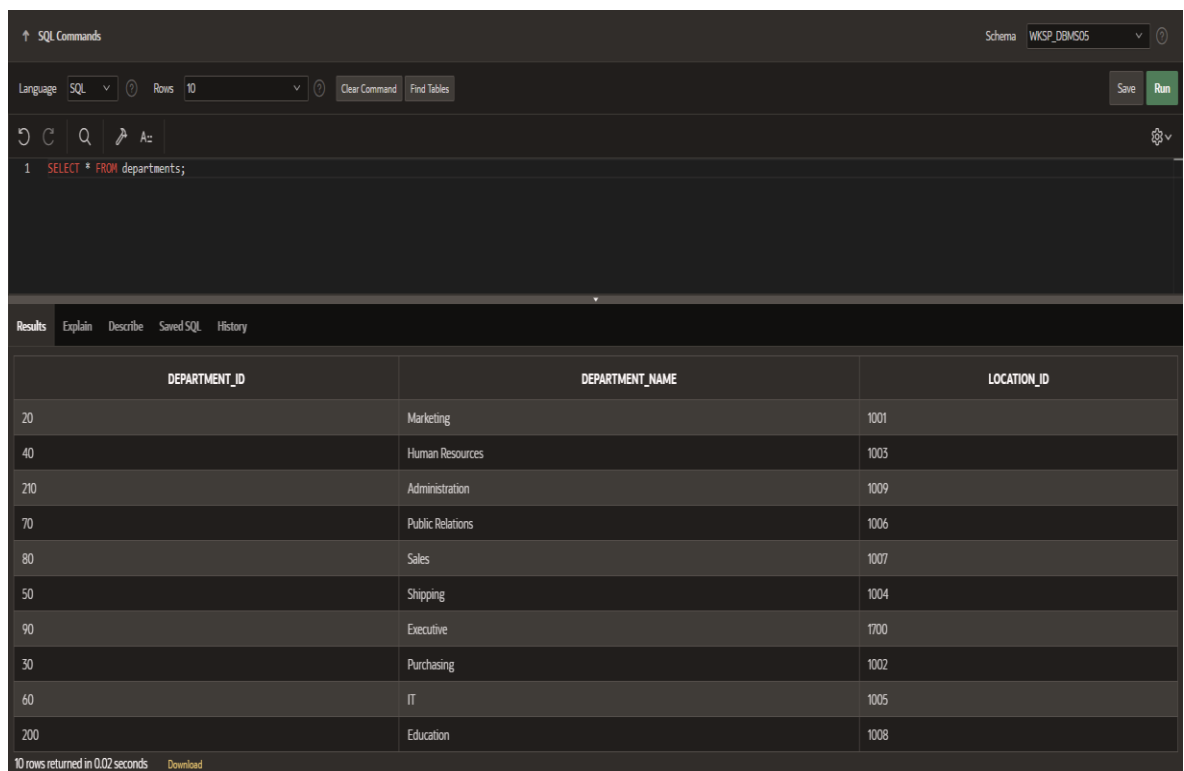
To give another user permission to access my DEPARTMENTS table and to receive query access to their DEPARTMENTS table, the following SQL commands are used:

```
GRANT SELECT ON departments TO user2;
```

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

These commands allow both users to access each other's DEPARTMENTS table for querying purposes.

7. Query all the rows in your DEPARTMENTS table.



The screenshot shows an SQL IDE interface. At the top, there's a 'SQL Commands' tab. Below it, the 'Language' is set to 'SQL' and 'Rows' is set to '10'. The command entered is 'SELECT * FROM departments;'. The 'Run' button is highlighted in green. Below the command editor, there's a 'Results' tab. The results are displayed in a table with three columns: 'DEPARTMENT_ID', 'DEPARTMENT_NAME', and 'LOCATION_ID'. The table contains 10 rows of data. At the bottom, it says '10 rows returned in 0.02 seconds' and there's a 'Download' button.

DEPARTMENT_ID	DEPARTMENT_NAME	LOCATION_ID
20	Marketing	1001
40	Human Resources	1003
210	Administration	1009
70	Public Relations	1006
80	Sales	1007
50	Shipping	1004
90	Executive	1700
30	Purchasing	1002
60	IT	1005
200	Education	1008

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.

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes the APEX logo, App Builder, SQL Workshop, Team Development, and Gallery. Below the navigation bar, the 'SQL Commands' section is active. The 'Language' dropdown is set to 'SQL', and the 'Rows' dropdown is set to '10'. The 'Clear Command' and 'Find Tables' buttons are visible. The SQL command editor contains the following code:

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

The 'Results' tab is selected, showing the output: '1 row(s) inserted.' and '0.00 seconds'.

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes the APEX logo, App Builder, SQL Workshop, Team Development, and Gallery. Below the navigation bar, the 'SQL Commands' section is active. The 'Language' dropdown is set to 'SQL', and the 'Rows' dropdown is set to '10'. The 'Clear Command' and 'Find Tables' buttons are visible. The SQL command editor contains the following code:

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

The 'Results' tab is selected, showing the output: '1 row(s) inserted.' and '0.00 seconds'.

SQL Commands

Schema: WKSP_DBMS05

Language: SQL Rows: 10

Clear Command Find Tables

Save Run

1 `SELECT * FROM departments;`

Results Explain Describe Saved SQL History

DEPARTMENT_ID	DEPARTMENT_NAME	LOCATION_ID
20	Marketing	1001
210	Administration	1009
500	Education	-
70	Public Relations	1006
80	Sales	1007
50	Shipping	1004
90	Executive	1700
510	Human Resources	-
30	Purchasing	1002
60	IT	1005

10 rows returned in 0.01 seconds Download

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

SQL Commands

Schema: WKSP_DBMS05

Language: SQL Rows: 30

Clear Command Find Tables

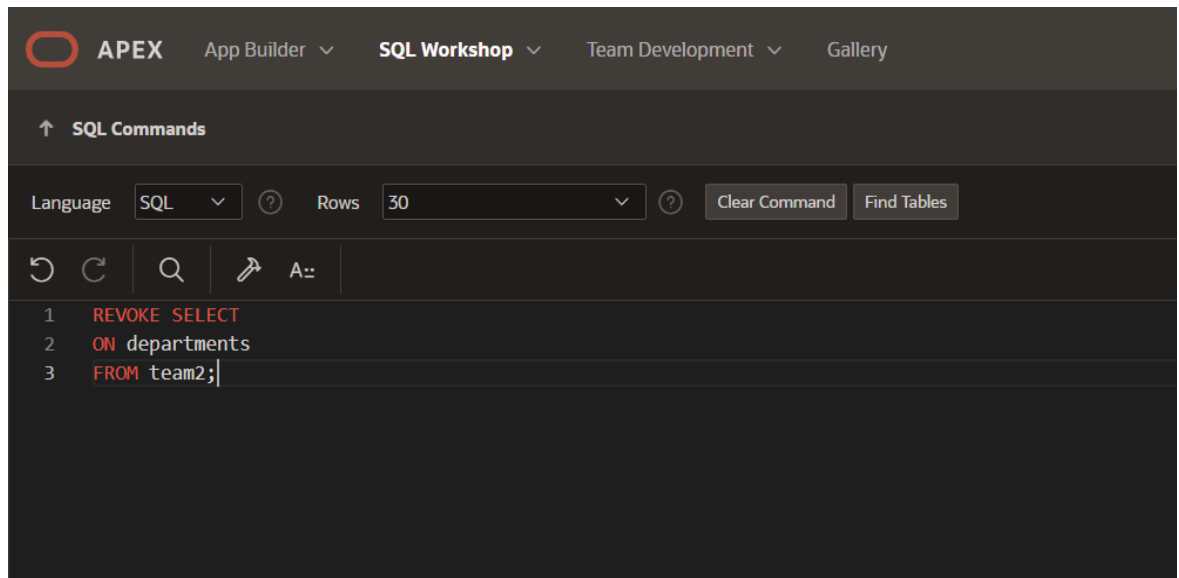
Save Run

1 `SELECT table_name, tablespace_name, num_rows, status`
2 `FROM user_tables;`

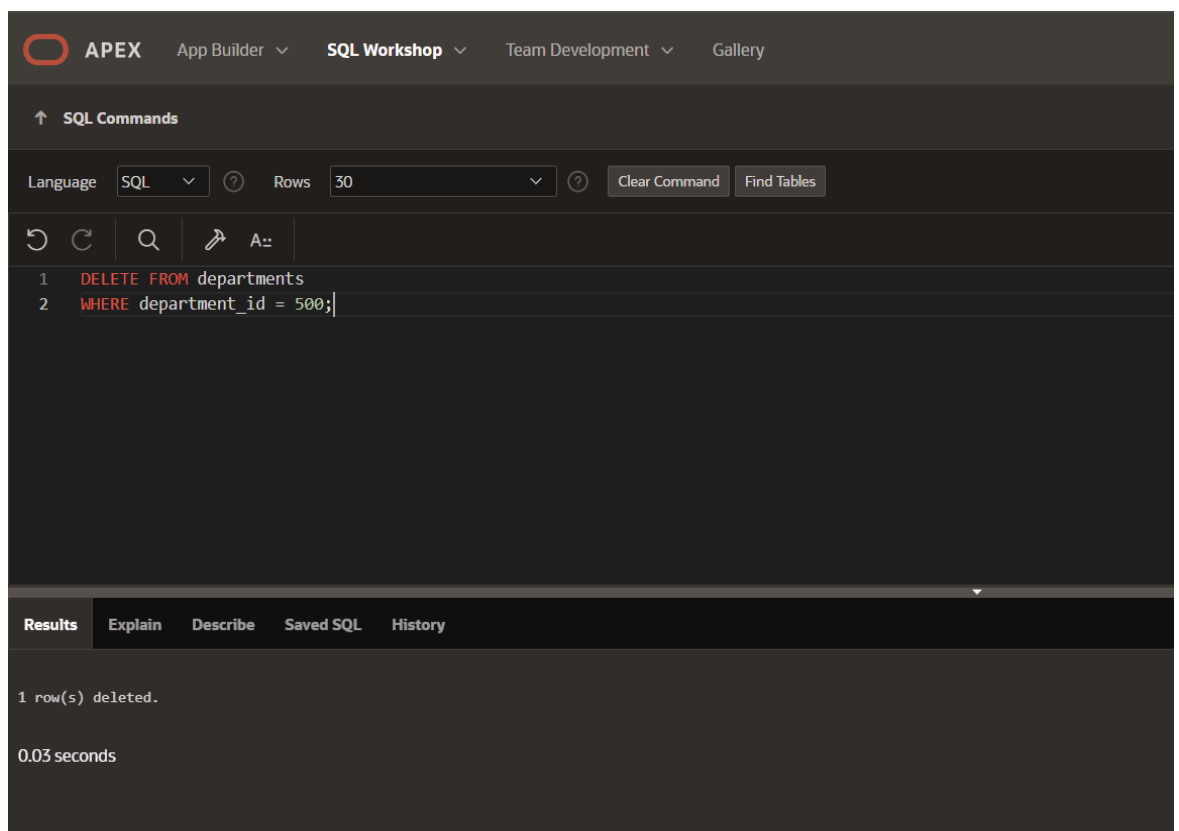
Results Explain Describe Saved SQL History

TABLE_NAME	TABLESPACE_NAME	NUM_ROWS	STATUS
ANIMALS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
COPY_D_CDS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
COPY_D_CLIENTS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
COPY_D_EVENTS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
COPY_D_SONGS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
COUNTRIES	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
DEPARTMENTS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
DJS_ON_DEMAND	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
D_EVENTS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
D_PARTNERS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
D_SONGS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
D_TRACK_LISTINGS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
EMP	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
EMPLOYEES	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
GLOBAL_FAST_FOODS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID
GLOBAL_LOCATIONS	APEX_BIGFILE_INSTANCE_TBS4	-	VALID

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



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



APEX

App Builder

SQL Workshop

Team Development

Gallery

↑ SQL Commands

LanguageSQLRows30Clear CommandFind Tables

↶↷🔍🔗A:

1 COMMIT;

Results

ExplainDescribeSaved SQLHistory

Commit statement not applicable. All statements are automatically committed.

↑ SQL Commands

SchemaWKSP_DBMS05

LanguageSQLRows30Clear CommandFind TablesSaveRun

↶↷🔍🔗A:

1 SELECT * FROM departments;

Results

ExplainDescribeSaved SQLHistory

DEPARTMENT_ID	DEPARTMENT_NAME	LOCATION_ID
20	Marketing	1001
210	Administration	1009
70	Public Relations	1006
80	Sales	1007
50	Shipping	1004
90	Executive	1700
510	Human Resources	-
30	Purchasing	1002
60	IT	1005

9 rows returned in 0.01 secondsDownload