

EXERCISE-15
Controlling User Access

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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;

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 a SQL command window with the following details:

- Language: SQL
- Rows: 10
- Run Command
- Find Table
- Save
- Run

The query entered is: `SELECT * FROM departments;`

The results table has the following data:

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

10 rows returned in 0.02 seconds. [Download](#)

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 Oracle SQL Workshop interface. The top navigation bar includes links for APEX, App Builder, SQL Workshop (which is currently selected), Team Development, and Gallery. Below the navigation is a toolbar with icons for Undo, Redo, Find, Replace, and Paste. A search bar and a rows dropdown set to 10 are also present. The main area contains the following SQL command:

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

Below the command, the results section displays the output:

1 row(s) inserted.

0.00 seconds

This screenshot shows the Oracle SQL Workshop interface again. The top navigation bar and toolbar are identical to the first screenshot. The main area contains the following SQL command:

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

Below the command, the results section displays the output:

1 row(s) inserted.

0.00 seconds

A screenshot of a SQL query results page. The query is:

```
1 SELECT * FROM department_sq
```

The results table has three columns: DEPARTMENT_ID, DEPARTMENT_NAME, and LOCATION_ID. The data is as follows:

DEPARTMENT_ID	DEPARTMENT_NAME	LOCATION_ID
10	Marketing	801
20	Administration	809
30	Education	-
40	Public Relations	806
50	Sales	801
60	Shipping	804
70	Executive	808
80	Human Resources	-
90	Purchasing	802
40	IT	805

10 rows returned in 0.01 seconds. Download.

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

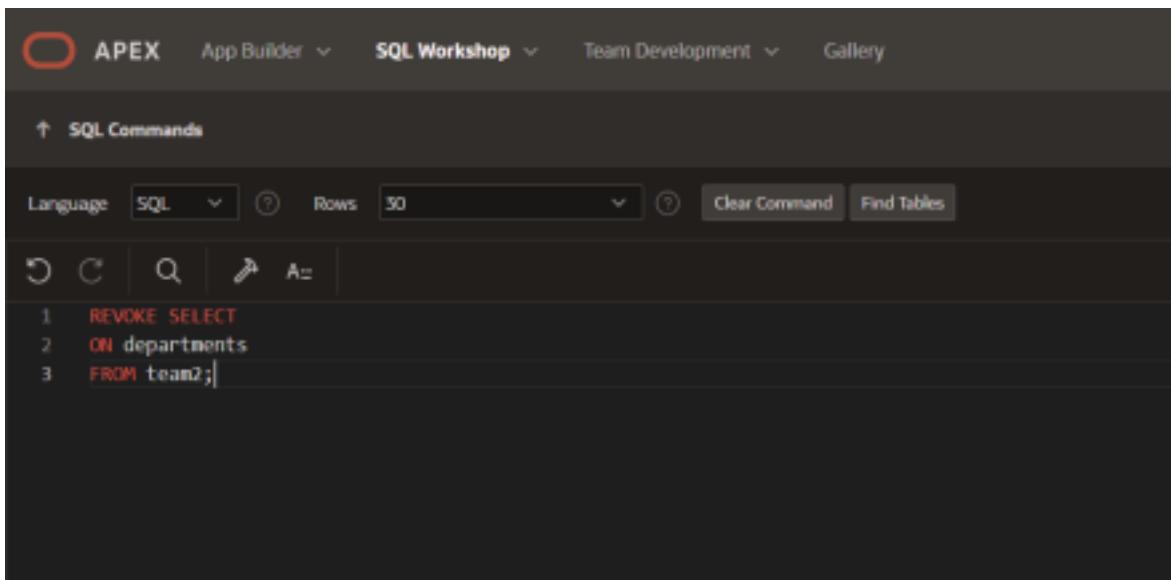
A screenshot of a SQL query results page. The query is:

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

The results table has four columns: TABLE_NAME, TABLESPACE_NAME, NUM_ROWS, and STATUS. The data is as follows:

TABLE_NAME	TABLESPACE_NAME	NUM_ROWS	STATUS
ANALYSTS	ARD_BORL_INSTANCE_784	-	VLD
COPY_S_CDS	ARD_BORL_INSTANCE_784	-	VLD
COPY_S_CLIENTS	ARD_BORL_INSTANCE_784	-	VLD
COPY_S_EVENTS	ARD_BORL_INSTANCE_784	-	VLD
COPY_S_SONGS	ARD_BORL_INSTANCE_784	-	VLD
COUNTRIES	ARD_BORL_INSTANCE_784	-	VLD
DEPARTMENTS	ARD_BORL_INSTANCE_784	-	VLD
DISC_ON_DEMAND	ARD_BORL_INSTANCE_784	-	VLD
EVENTS	ARD_BORL_INSTANCE_784	-	VLD
JOBTYPES	ARD_BORL_INSTANCE_784	-	VLD
SONGS	ARD_BORL_INSTANCE_784	-	VLD
TRACK_TYPES	ARD_BORL_INSTANCE_784	-	VLD
DIF	ARD_BORL_INSTANCE_784	-	VLD
EMPLOYEES	ARD_BORL_INSTANCE_784	-	VLD
GLOBAL_MASTER	ARD_BORL_INSTANCE_784	-	VLD
GLOBAL_LOCATIONS	ARD_BORL_INSTANCE_784	-	VLD

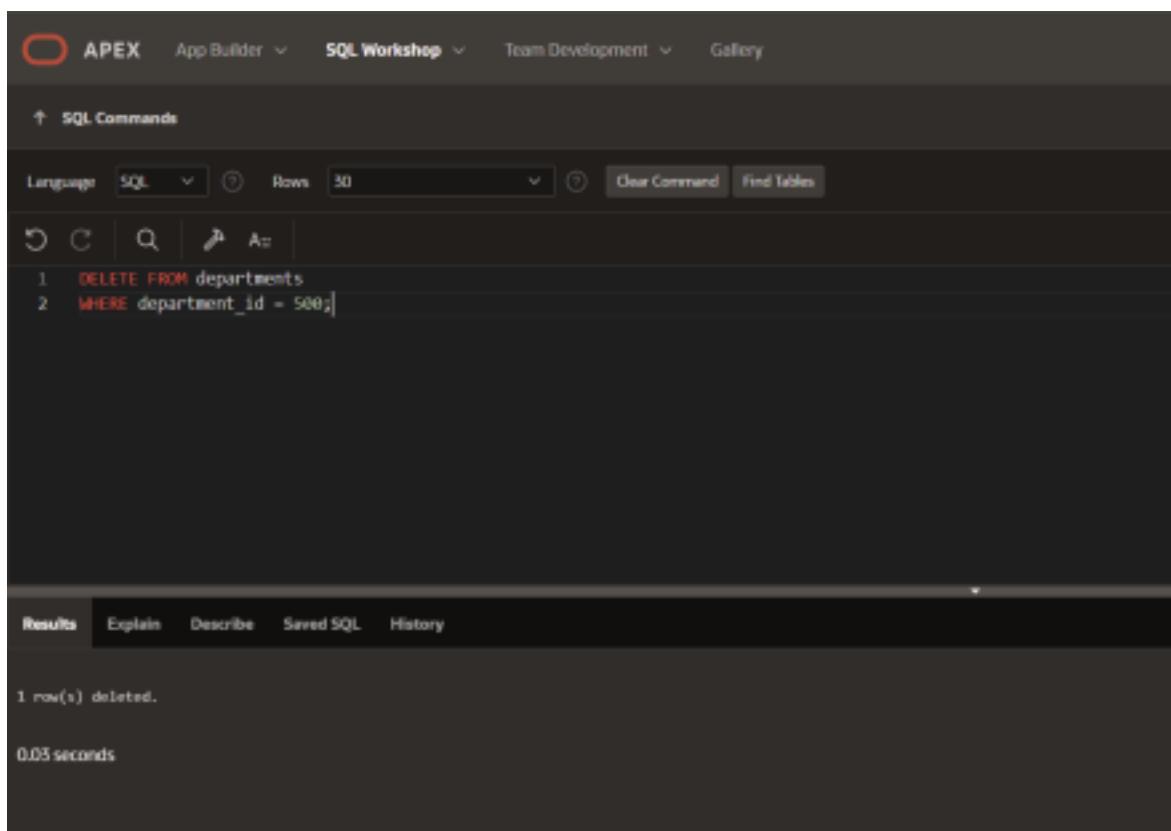
10. Revoke the SELECT privilege on your table from the other team.



A screenshot of the Oracle SQL Workshop interface. The top navigation bar includes links for APEX, App Builder, SQL Workshop (which is currently selected), Team Development, and Gallery. Below the navigation is a toolbar with icons for Undo, Redo, Find, and Sort. The main area is titled "SQL Commands" and shows the following SQL code:

```
1 REVOKE SELECT
2 ON departments
3 FROM team2;|
```

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



A screenshot of the Oracle SQL Workshop interface, similar to the previous one but with different content. The top navigation bar and toolbar are identical. The main area is titled "SQL Commands" and shows the following SQL code:

```
1 DELETE FROM departments
2 WHERE department_id = 500;|
```

At the bottom of the screen, there is a results panel with tabs for Results, Explain, Describe, Saved SQL, and History. The Results tab is selected, showing the output of the executed query:

1 row(s) deleted.
0.03 seconds

APEX App Builder SQL Workshop Team Development Gallery

↑ SQL Commands

Language SQL Rows 30 Clear Command Find Tables

5 C Q A: 1 COMMIT ;

Results Explain Describe Saved SQL History

Commit statement not applicable. All statements are automatically committed.

↑ SQL Commands Schema HR_DEMO

Language SQL Rows 10 Clear Command Find Tables See Run

5 C Q A: 1 SELECT * FROM departments;

Results Explain Describe Saved SQL History

DEPARTMENT_ID	DEPARTMENT_NAME	LOCATION_ID
10	Marketing	1001
20	Administration	1009
30	Public Relations	1006
40	Sales	1007
50	Shipping	1004
60	Executive	1000
70	Human Resources	-
80	Purchasing	1002
90	IT	1005

9 rows returned in 0.01 seconds Download