

LU09.A02 - SQL- DCL: CREATE USER

Task 2.1

Create the User: Create a user named *restrictedUser* with the password *SafePassword123* using the *mysql_native_password* plugin.

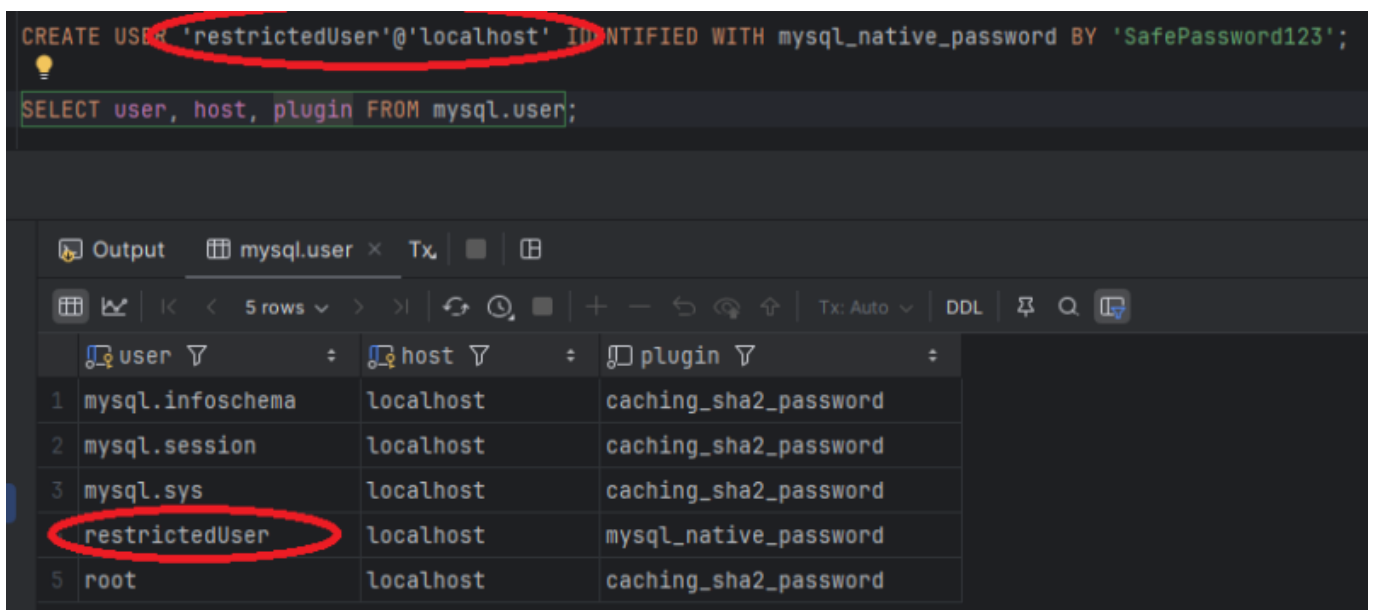
```
CREATE USER 'restrictedUser'@'localhost' IDENTIFIED WITH mysql_native_password BY 'SafePassword123';
```

Task 2.2

Overview of the current privileges: Display all users.

```
SELECT user, host, plugin FROM mysql.user;
```

The result set should look like:



The screenshot shows a MySQL command-line interface. The first command executed is `CREATE USER 'restrictedUser'@'localhost' IDENTIFIED WITH mysql_native_password BY 'SafePassword123';`, where the user and host are circled in red. The second command is `SELECT user, host, plugin FROM mysql.user;`. The output is a table with 5 rows. The third row, representing the newly created user, is circled in red.

	user	host	plugin
1	mysql.infoschema	localhost	caching_sha2_password
2	mysql.session	localhost	caching_sha2_password
3	mysql.sys	localhost	caching_sha2_password
4	restrictedUser	localhost	mysql_native_password
5	root	localhost	caching_sha2_password

Task 2.3

Grant Privileges Without Table Management: Grant the user *restrictedUser* the ability to read and write data but not to create, alter, or drop tables. Use the following commands to give only the required privileges.

```
GRANT SELECT, INSERT, UPDATE, DELETE ON myDatabase.* TO 'restrictedUser'@'localhost';
```

Task 2.4

Revoke Privileges: To be certain that nothing unintended can happen revoke the CREATE, ALTER, and DROP privileges explicitly.

```
REVOKE CREATE, ALTER, DROP ON myDatabase.* FROM 'restrictedUser'@'localhost';
```

Task 2.5

View the User's Privileges: Check the privileges to ensure that the user cannot manage tables.

```
SHOW GRANTS FOR 'restrictedUser'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON myDatabase.* TO 'restrictedUser'@'localhost';
REVOKE CREATE, ALTER, DROP ON myDatabase.* FROM 'restrictedUser'@'localhost';
SHOW GRANTS FOR 'restrictedUser'@'localhost';
```

Output

Result 16 x Tx

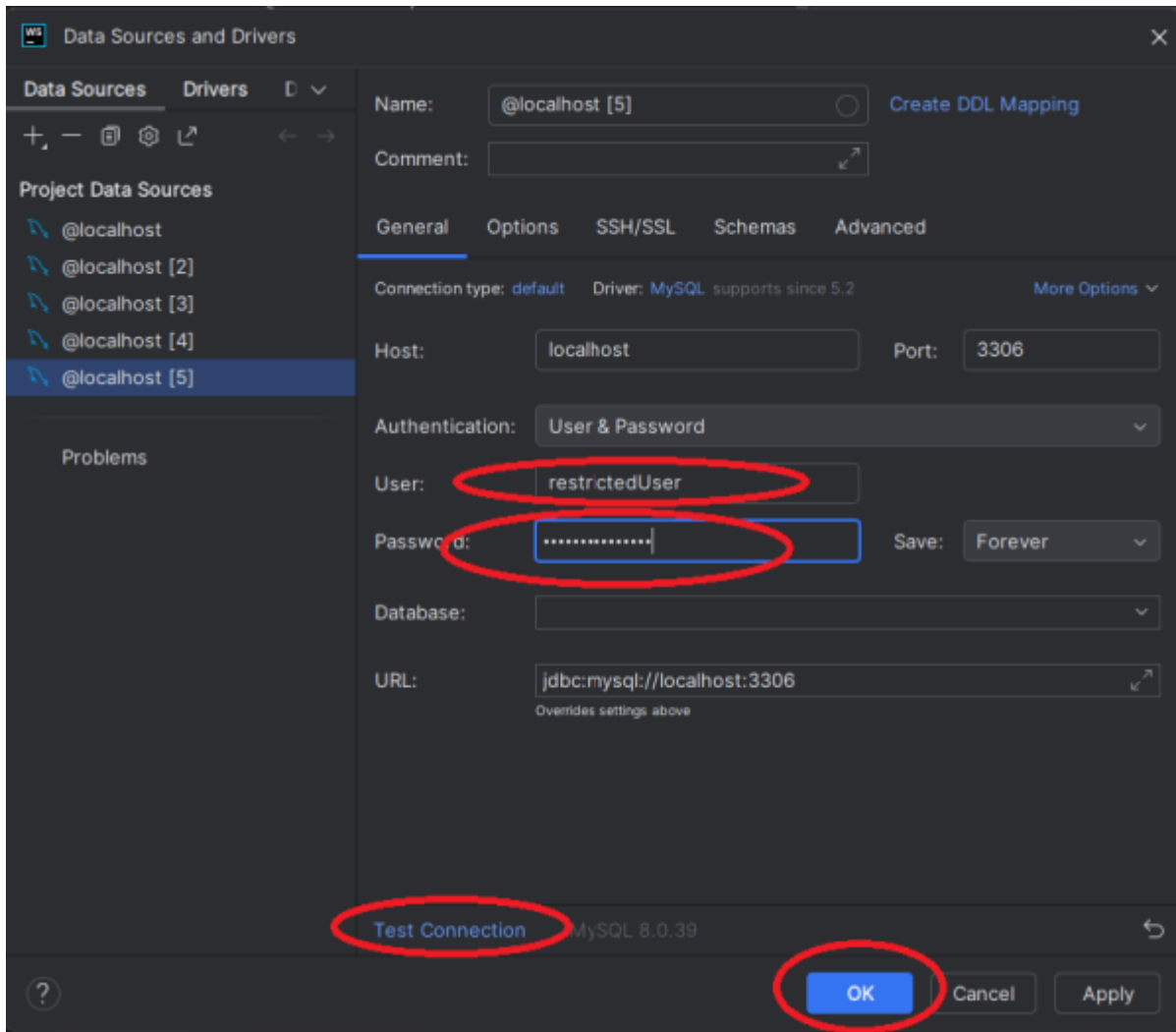
2 rows

Grants for restrictedUser@localhost

1	GRANT USAGE ON *.* TO 'restrictedUser'@'localhost'
2	GRANT SELECT, INSERT, UPDATE, DELETE ON `mydatabase`.* TO 'restrictedUser'@'localhost'

Task 2.6

Test the User's Access: Establish a new console connection to the database by using *restrictedUser* + *password*.



Task 2.7

Finally, try to perform a CREATE TABLE or DROP TABLE operation. The attempt should result in a permission error als displayed in the image below.

The screenshot shows a database console interface with two tabs: 'console_1 [@localhost [2]]' and 'console [@localhost [5]]'. The active tab contains the following SQL commands:

```
1 USE myDatabase;  
2  
3 SELECT * FROM users;  
4  
5 DROP TABLE users;
```

Red arrows point to the 'DROP TABLE users;' command and the error message below it: '[42000][1142] DROP command denied to user 'restrictedUser'@'localhost' for table 'users''. The 'Database' sidebar on the right shows a tree view with 'mydatabase' expanded to 'tables' > 'users'. Below the console, the 'Output' window displays a table with 20 rows of user data:

user_id	username	email
1	john_doe	john.doe@example.com
2	jane_smith	jane.smith@example.com
3	michael_brown	michael.brown@example.com
4	sarah_johnson	sarah.johnson@example.com
5	chris_williams	chris.williams@example.com
6	anna_lee	anna.lee@example.com
7	david_kim	david.kim@example.com
8	laura_clark	laura.clark@example.com
9	jake_lewis	jake.lewis@example.com
10	emily_martinez	emily.martinez@example.com
11	john_doe	john.doe@example.com
12	jane_smith	jane.smith@example.com
13	michael_brown	michael.brown@example.com
14	sarah_johnson	sarah.johnson@example.com
15	chris_williams	chris.williams@example.com
16	anna_lee	anna.lee@example.com
17	david_kim	david.kim@example.com
18	laura_clark	laura.clark@example.com
19	jake_lewis	jake.lewis@example.com
20	emily_martinez	emily.martinez@example.com

Task 2.8

Delete the User (optional): After testing, you can delete the user if they are no longer needed.

```
DROP USER 'restrictedUser'@'localhost';  
SELECT user, host, plugin FROM mysql.user;
```

	user	host	plugin
1	mysql.infoschema	localhost	caching_sha2_password
2	mysql.session	localhost	caching_sha2_password
3	mysql.sys	localhost	caching_sha2_password
4	root	localhost	caching_sha2_password

Vocabulary

English	German
..	..



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