**Assignment 6:** Create a new database user with specific privileges using the CREATE

USER and GRANT commands. Then, write a script to REVOKE certain privileges and

DROP the user.

To create a new database user with specific privileges, grant those privileges, and then later revoke them and drop the user, you typically need administrative privileges or sufficient permissions to manage users and privileges in the database. Here’s how you can do it using MySQL syntax:

**Step 1: Create a New Database User and Grant Privileges**

Let's assume we are creating a user named '**newuser'** with a password '**password123'** and granting SELECT, INSERT, UPDATE, and DELETE privileges on a database called '**mydatabase'**.

-- Create a new user

CREATE USER 'newuser'@'localhost' IDENTIFIED BY 'password123';

-- Grant privileges to the new user

GRANT SELECT, INSERT, UPDATE, DELETE ON mydatabase.\* TO 'newuser'@'localhost';

**Step 2: Verify Privileges (Optional)**

You can verify the privileges granted to '**newuser'** using the following command:

SHOW GRANTS FOR 'newuser'@'localhost';

**Step 3: Revoke Certain Privileges**

Let's say we want to revoke the DELETE privilege from **'newuser'**:

REVOKE DELETE ON mydatabase.\* FROM 'newuser'@'localhost';

**Step 4: Drop the User**

Finally, if we want to completely remove the newuser from the database system:

-- Revoke all privileges first (optional, if not already revoked)

REVOKE ALL PRIVILEGES ON mydatabase.\* FROM 'newuser'@'localhost';

-- Drop the user

DROP USER 'newuser'@'localhost';

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DROP USER 'newuser'@'localhost';

**Explanation:**

- **\*\*CREATE USER\*\*:** Creates a new database user identified by a password.

- **\*\*GRANT\*\*:** Grants specific privileges (**`SELECT`, `INSERT`, `UPDATE`, `DELETE`** in this case) on a specific database (`mydatabase` in this case) to the specified user (**`newuser`**).

- **\*\*REVOKE\*\*:** Removes specific privileges (such as **`DELETE`** in this example) from the user.

- **\*\*DROP USER\*\*:** Completely removes the user from the database system, revoking all privileges associated with that user.

Make sure to replace **`newuser`, `password123`, `mydatabase`**, and **`'localhost'`** with your actual values as per your setup. Additionally, ensure you have the necessary privileges (typically **`GRANT OPTION` or `SUPER`**) to perform these operations, especially dropping users, which can be irreversible if not done carefully.