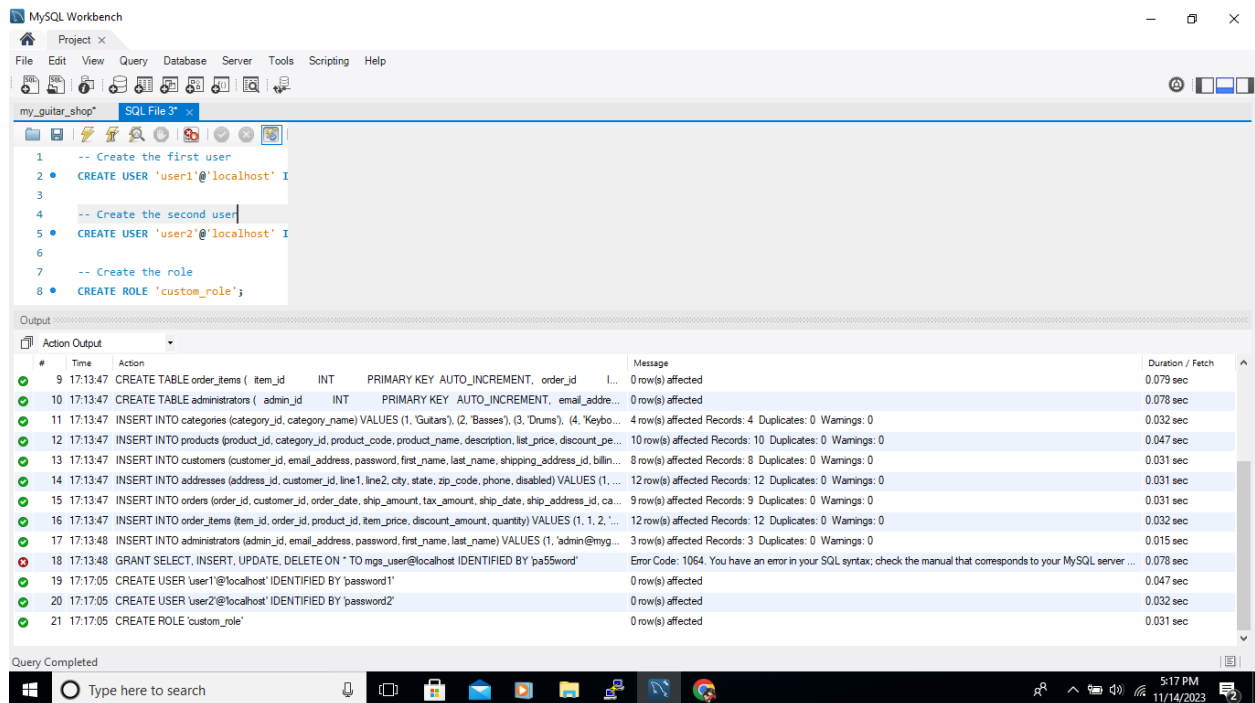1 & 2: In this exercise, you will create two users and a role. You will grant privileges directly to the first user, but you will grant privileges to the second user by granting privileges to the role and then assigning the user to that role. In addition, you will use MySQL Workbench to connect as the two users, check the privileges for the first user, and check the active roles for the second user. 1. Use MySQL Workbench to connect as the root user. Write and execute a script that creates a user with a username and password of your choosing. This user should be able to connect to MySQL from any computer. This user should have SELECT, INSERT, UPDATE, and DELETE privileges for the Customers, Addresses, Orders, and Order_Items tables of the My Guitar Shop database. However, this user should only have SELECT privileges for the Products and Categories tables. Also, this user should not have the right to grant privileges to other users.

Project ×

File Edit View Query Database Server Tools Scripting Help

my_guitar_shop*   SQL File 3* ×

SQL Additions

```
1 •  CREATE USER '<your_username>'@'%'
2 •  GRANT SELECT, INSERT, UPDATE, DEL
3 •  GRANT SELECT, INSERT, UPDATE, DEL
4 •  GRANT SELECT, INSERT, UPDATE, DEL
5 •  GRANT SELECT, INSERT, UPDATE, DEL
6 •  GRANT SELECT ON my_guitar_shop.pr
7 •  GRANT SELECT ON my_guitar_shop.ca
8 •  REVOKE GRANT OPTION ON *.* FROM '
9
```

Automatic context help is
disabled. Use the toolbar t
manually get help for the
current caret position or t
toggle automatic help.

Context Help   Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
16	17:20:08	INSERT INTO order_items (item_id, order_id, product_id, item_price, discount_amount, quantity) VALUES (1, 1, 2, '...	12 row(s) affected Records: 12 Duplicates: 0 Warnings: 0	0.031 sec
17	17:20:08	INSERT INTO administrators (admin_id, email_address, password, first_name, last_name) VALUES (1, 'admin@myg...	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0	0.031 sec
18	17:20:08	GRANT SELECT, INSERT, UPDATE, DELETE ON * TO mgs_user@localhost IDENTIFIED BY 'pa55word'	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server ...	0.015 sec
19	17:20:12	CREATE USER 'user1'@'%' IDENTIFIED BY 'password'	0 row(s) affected	0.031 sec
20	17:20:12	GRANT SELECT, INSERT, UPDATE, DELETE ON my_guitar_shop.Customers TO 'user1'@'%'	Error Code: 1146. Table 'my_guitar_shop.Customers' doesn't exist	0.031 sec
21	17:22:15	CREATE USER '<your_username>'@'%' IDENTIFIED BY '<your_password>'	0 row(s) affected	0.016 sec
22	17:22:15	GRANT SELECT, INSERT, UPDATE, DELETE ON my_guitar_shop.customers TO '<your_username>'@'%'	0 row(s) affected	0.031 sec
23	17:22:15	GRANT SELECT, INSERT, UPDATE, DELETE ON my_guitar_shop.addresses TO '<your_username>'@'%'	0 row(s) affected	0.016 sec
24	17:22:15	GRANT SELECT, INSERT, UPDATE, DELETE ON my_guitar_shop.orders TO '<your_username>'@'%'	0 row(s) affected	0.031 sec
25	17:22:15	GRANT SELECT, INSERT, UPDATE, DELETE ON my_guitar_shop.order_items TO '<your_username>'@'%'	0 row(s) affected	0.032 sec
26	17:22:15	GRANT SELECT ON my_guitar_shop.products TO '<your_username>'@'%'	0 row(s) affected	0.031 sec
27	17:22:15	GRANT SELECT ON my_guitar_shop.categories TO '<your_username>'@'%'	0 row(s) affected	0.031 sec
28	17:22:15	REVOKE GRANT OPTION ON *.* FROM '<your_username>'@'%'	0 row(s) affected	0.016 sec

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11/14/2023

Project ×

File Edit View Query Database Server Tools Scripting Help

my_guitar_shop*   SQL File 3* ×

Limit to 1000 rows

```
1 •  SHOW GRANTS FOR '<your_username>'@'%';
```

Result Grid   Filter Rows: Export: Wrap Cell Content: IA

Grants for <your_username>@%
GRANT USAGE ON *.* TO `<your_username>`...
GRANT SELECT, INSERT, UPDATE, DELETE ON ...
GRANT SELECT ON `my_guitar_shop`.`categor...
GRANT SELECT, INSERT, UPDATE, DELETE ON ...
GRANT SELECT, INSERT, UPDATE, DELETE ON ...

Result 1 ×

Result
Grid

Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
19	17:20:12	CREATE USER 'user1'@'%' IDENTIFIED BY 'password'	0 row(s) affected	0.031 sec
20	17:20:12	GRANT SELECT, INSERT, UPDATE, DELETE ON my_guitar_shop.Customers TO 'user1'@'%'	Error Code: 1146. Table 'my_guitar_shop.Customers' doesn't exist	0.031 sec
21	17:22:15	CREATE USER '<your_username>'@'%' IDENTIFIED BY '<your_password>'	0 row(s) affected	0.016 sec
22	17:22:15	GRANT SELECT, INSERT, UPDATE, DELETE ON my_guitar_shop.customers TO '<your_username>'@'%'	0 row(s) affected	0.031 sec
23	17:22:15	GRANT SELECT, INSERT, UPDATE, DELETE ON my_guitar_shop.addresses TO '<your_username>'@'%'	0 row(s) affected	0.016 sec
24	17:22:15	GRANT SELECT, INSERT, UPDATE, DELETE ON my_guitar_shop.orders TO '<your_username>'@'%'	0 row(s) affected	0.031 sec
25	17:22:15	GRANT SELECT, INSERT, UPDATE, DELETE ON my_guitar_shop.order_items TO '<your_username>'@'%'	0 row(s) affected	0.032 sec
26	17:22:15	GRANT SELECT ON my_guitar_shop.products TO '<your_username>'@'%'	0 row(s) affected	0.031 sec
27	17:22:15	GRANT SELECT ON my_guitar_shop.categories TO '<your_username>'@'%'	0 row(s) affected	0.031 sec
28	17:22:15	REVOKE GRANT OPTION ON *.* FROM '<your_username>'@'%'	0 row(s) affected	0.016 sec
29	17:24:18	SHOW GRANTS FOR '<your_username>'@'%'	7 row(s) returned	0.032 sec / 0.000 sec

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5:24 PM
11/14/2023

3. Check the privileges for the user by using the SHOW GRANTS statement.

4 & 5: Write and execute a script that revokes the DELETE privilege on the Orders and Order_Items tables from this user. Check the privileges for the user by using the SHOW GRANTS statement.

6. Write and execute a script that changes the password expiration policy for the user you created in exercise 2 so the password expires immediately.

7. Use MySQL Workbench to create a connection for the user and then connect as that user. When you do, you will be asked to enter a new password for the user. Use the Navigator window to see which databases and tables this user can view.
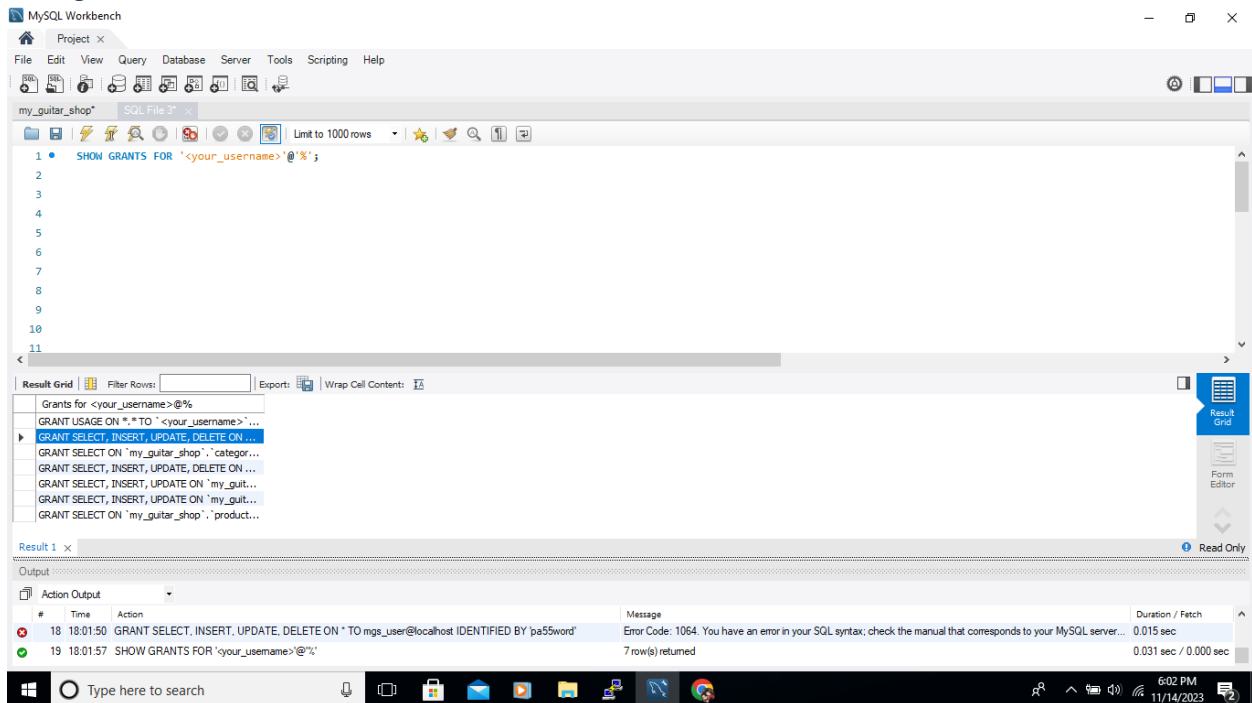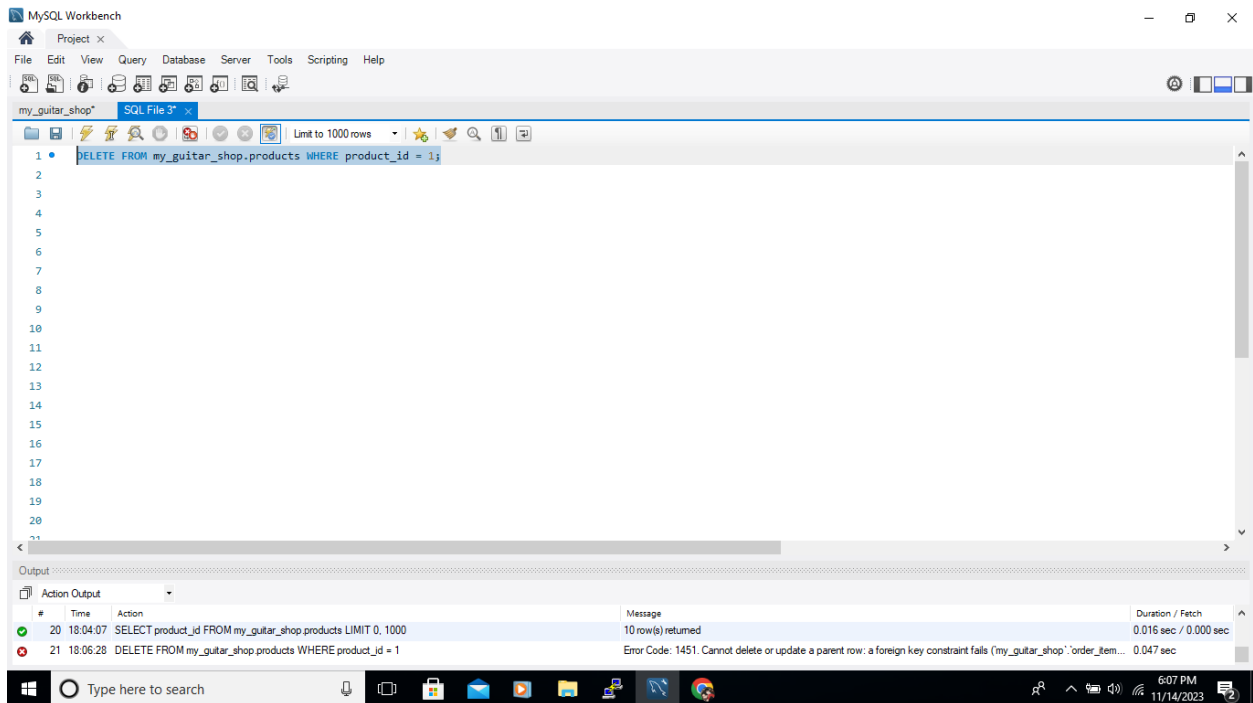

8. Write and execute a SELECT statement that selects the product_id column for all rows in the Products table. This statement should succeed.
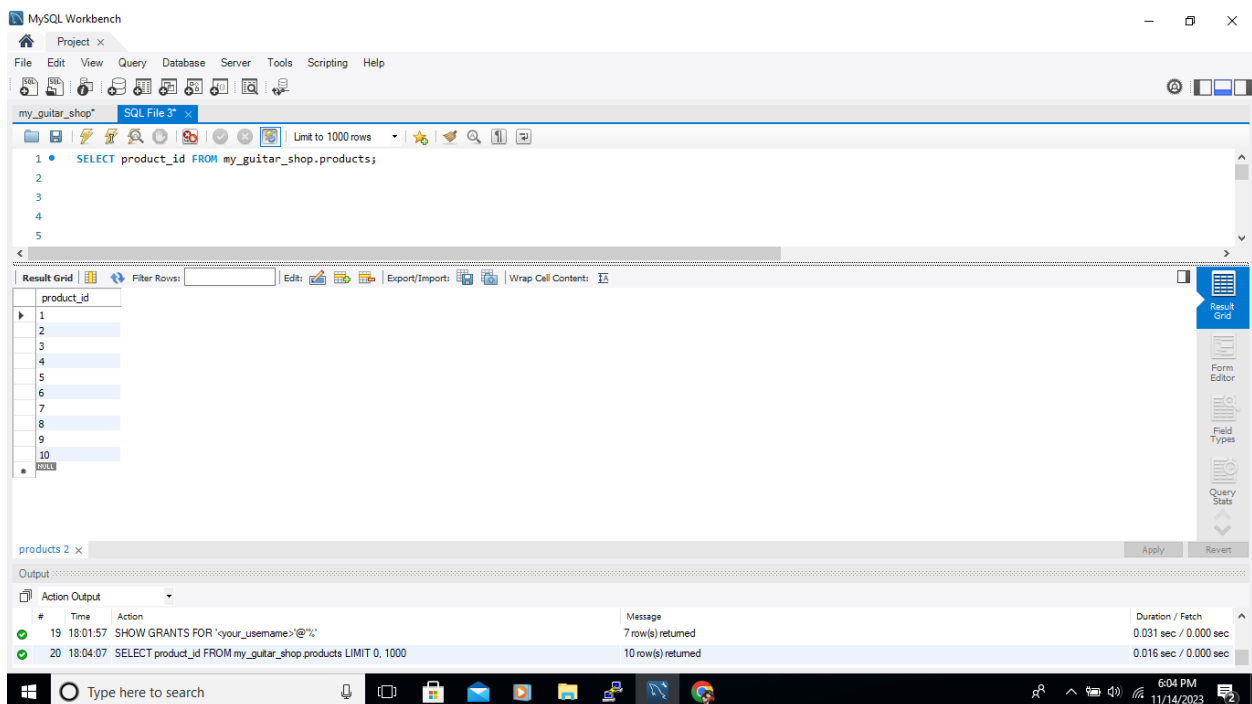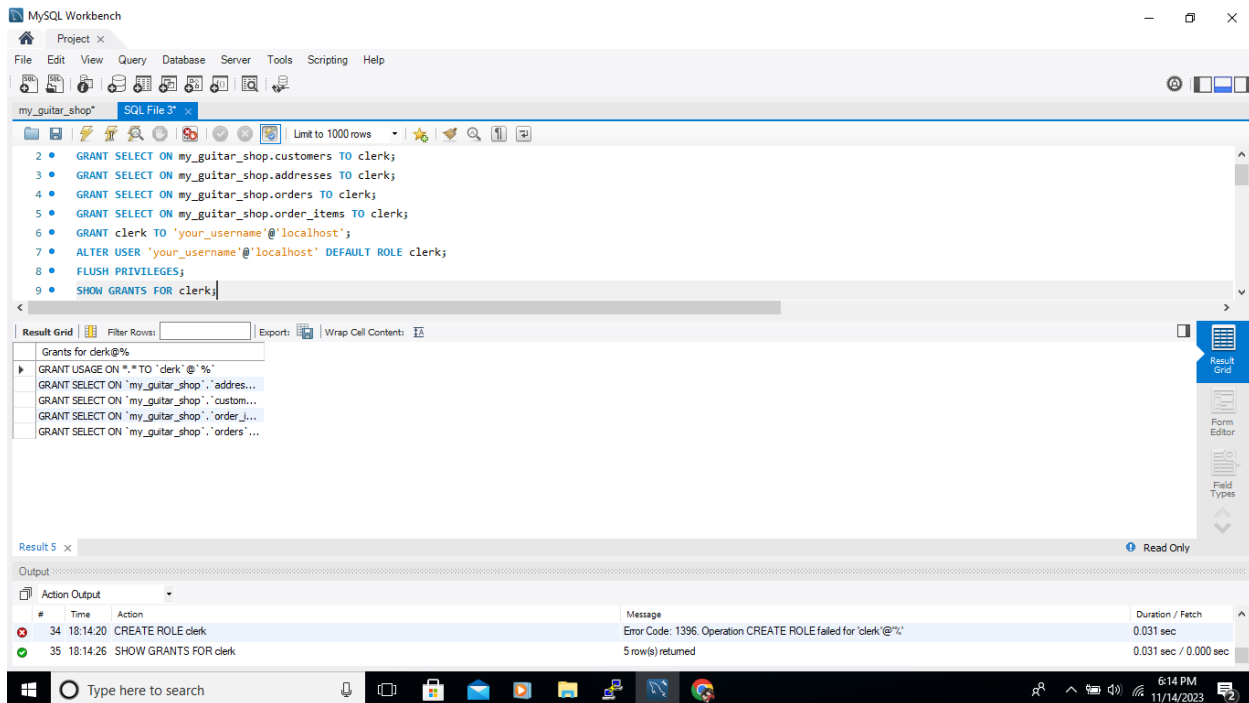
9. Write and execute a DELETE statement that attempts to delete one of the rows in the Products table. This statement should fail due to insufficient privileges.

10 & 11: Use MySQL Workbench to connect as the root user. Write and execute a script that creates another user with a username and password of your choice. This user should only be able to connect from the same computer as the computer that's running the MySQL server.
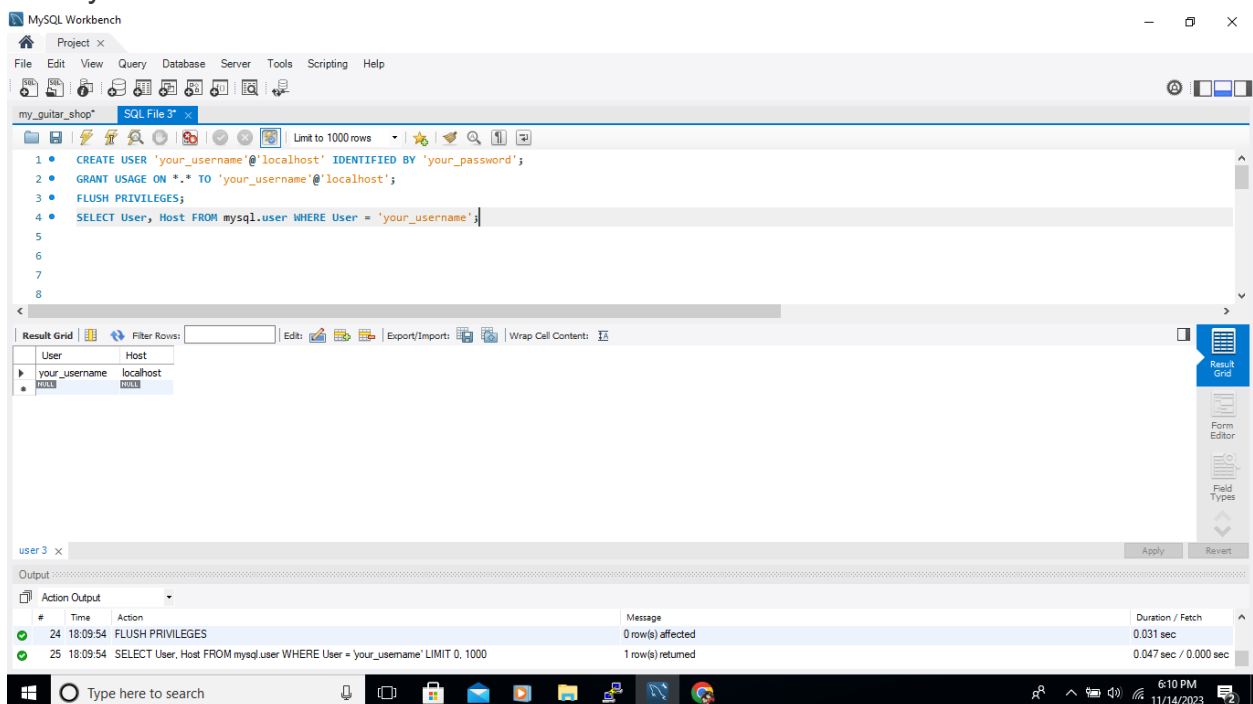
12. Write and execute a script that creates a role named clerk. The role should have the SELECT privilege for the Customers, Addresses, Orders, and Line_Items tables of the My Guitar Shop database. Assign the user created in exercise 11 to the new role. Set the default role for the user to clerk. Check the privileges for the role by using the SHOW GRANTS statement.

13. Use MySQL Workbench to create a connection for the user and then connect as that user. Write a SELECT statement to display the roles that are currently active.

Chapter 19: How to Back up and Restore a Database

1 & 2: In this exercise, you will back up a database to create a backup script file. Then, you will make some changes to the database. Finally, you will restore the database from the backup script and the binary log file. Back up a database If it isn't already enabled, enable binary logging as described in chapter 17. Start a command prompt and use the mysqldump program to create a full backup of the My Guitar Shop database.
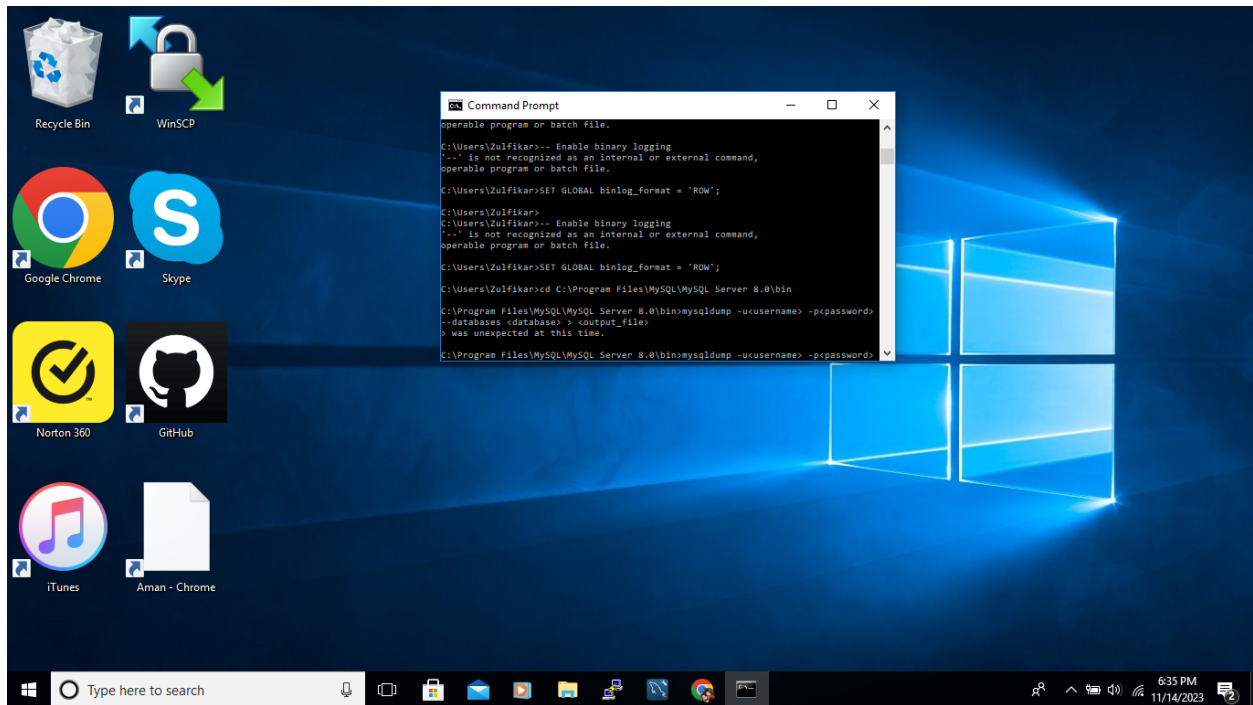
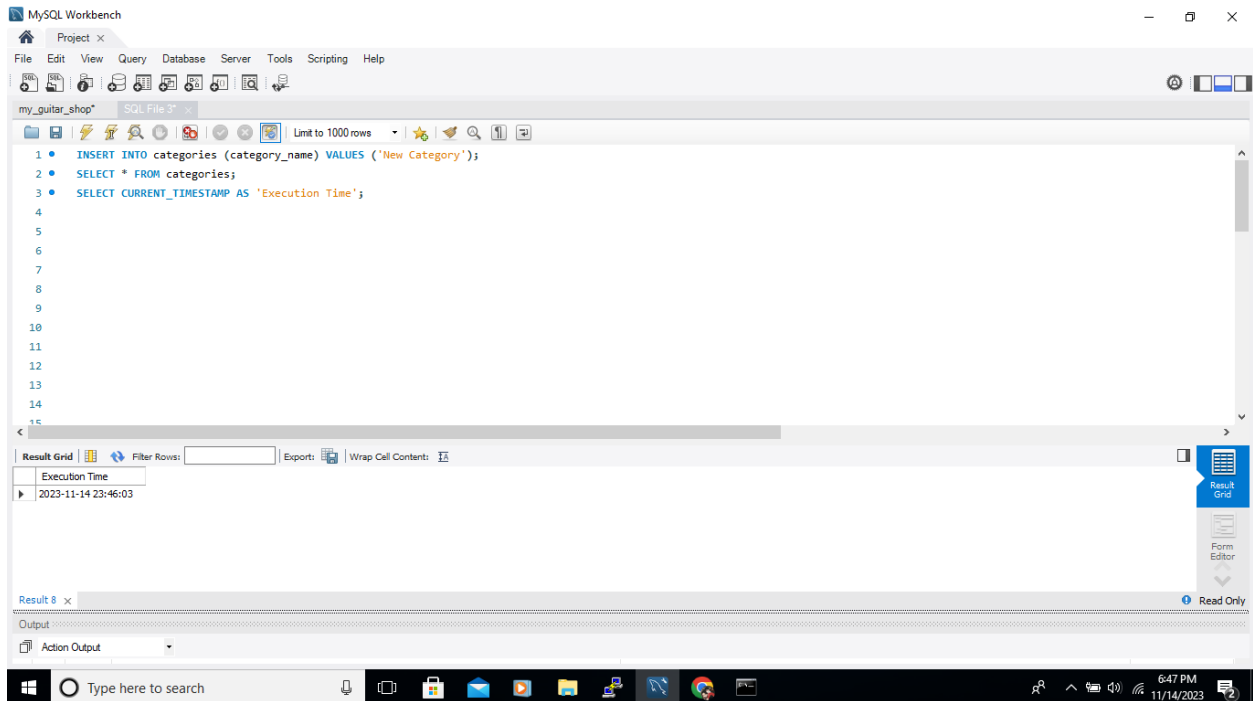3. Start MySQL Workbench and open the backup script that was created by the mysqldump program. Make sure that this script contains all the SQL statements needed to restore the structure and data of the database. If necessary, add the CREATE DATABASE statement that creates the database and the USE statement that selects it.
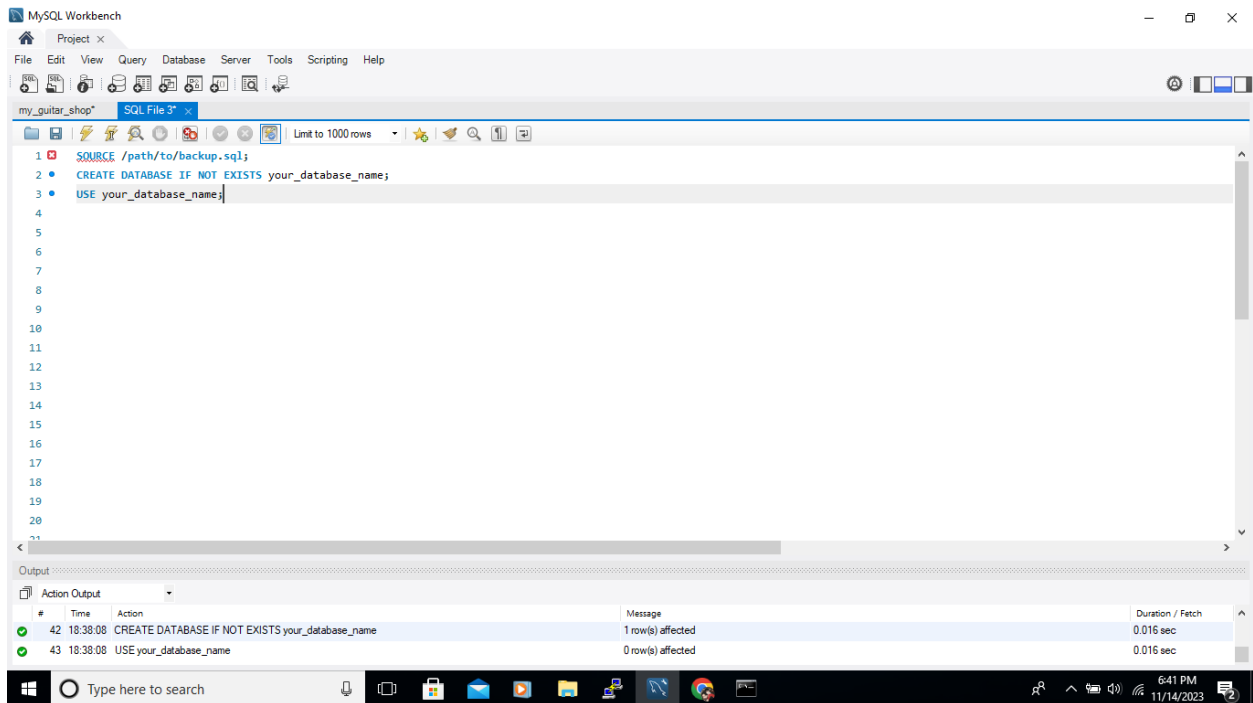

4. Use MySQL Workbench to write and execute an INSERT statement that inserts one row into the Categories table of the My Guitar Shop database, and note the time on your computer that this statement is executed.

5. Wait until the time on your computer changes to at least the next minute. Then, use MySQL Workbench to execute a DROP TABLE statement that drops the Administrators table.
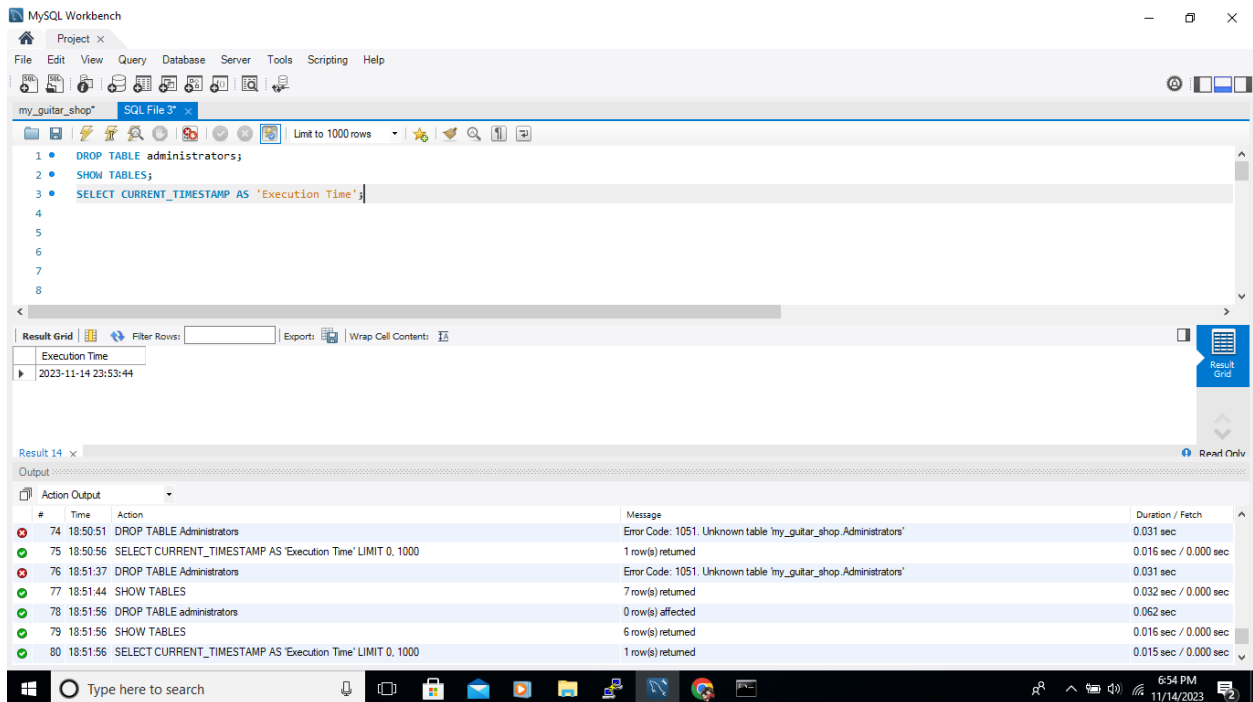
6.Use MySQL Workbench to run the backup script. This should restore the entire My Guitar Shop database.
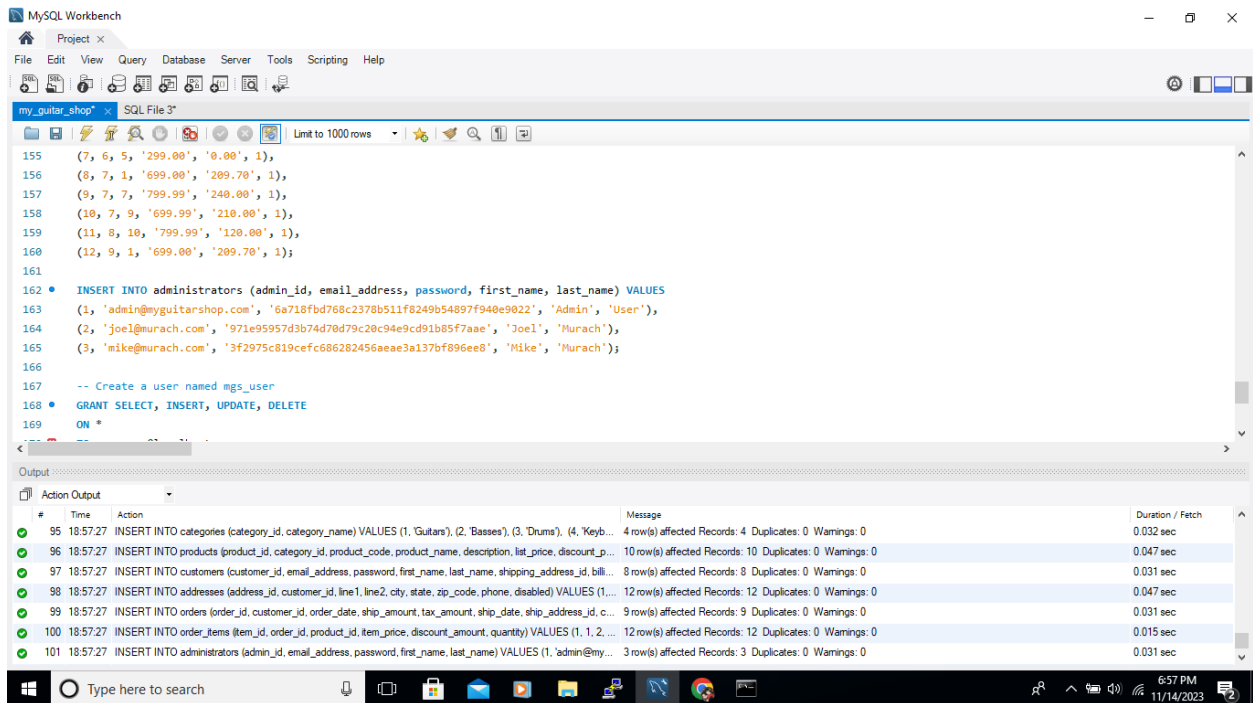
7. Identify the highest numbered file for the binary log. Then, switch back to the command prompt and use the mysqlbinlog program to add the row to the Categories that you inserted in step 4. To do that, you'll need to include start and end times that include the INSERT statement but not the DROP TABLE statement you executed in step 5.