

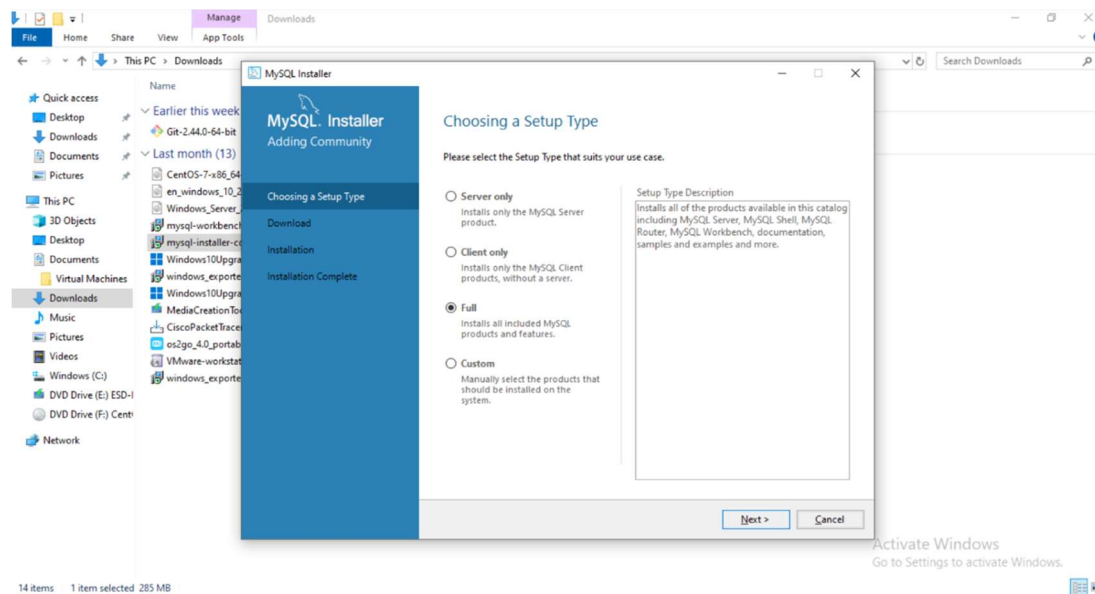
# MySQL

Objective: To install MySQL database server and Workbench, followed by a demonstration of various SQL operations, including creating a database and table, inserting rows, selecting and filtering data, updating values, and deleting rows from the table.

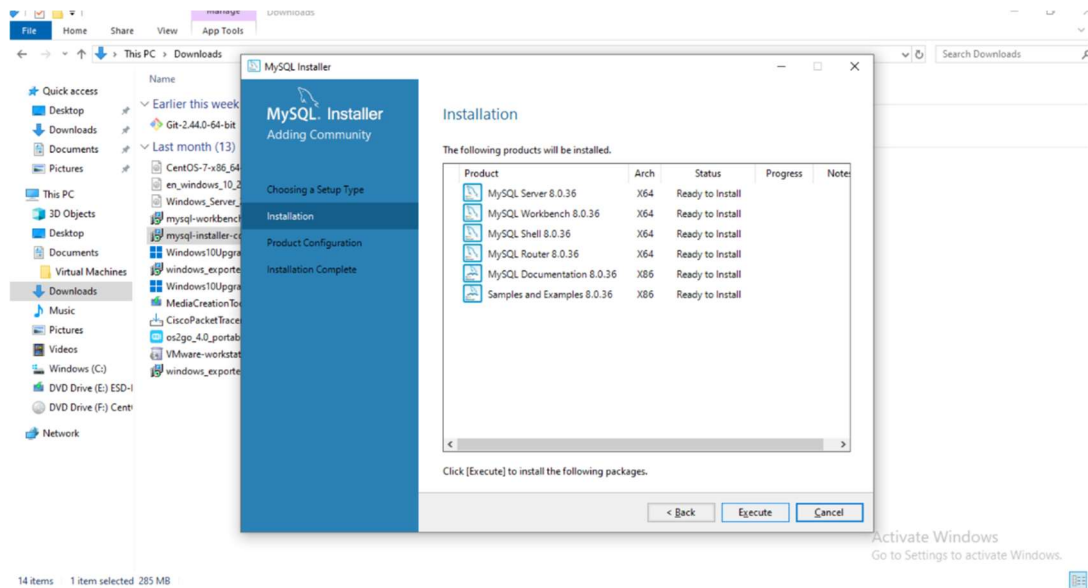
Installation Steps:

1. Download the MySQL database server installer from the official MySQL website.
2. Run the installer and follow the installation wizard instructions.
3. Choose the appropriate options based on your operating system and preferences.
4. Once the installation is complete, download and install MySQL Workbench from the same source.
5. Configure MySQL server settings as per your requirements during the installation process.
6. Launch MySQL Workbench and connect to the MySQL server instance.

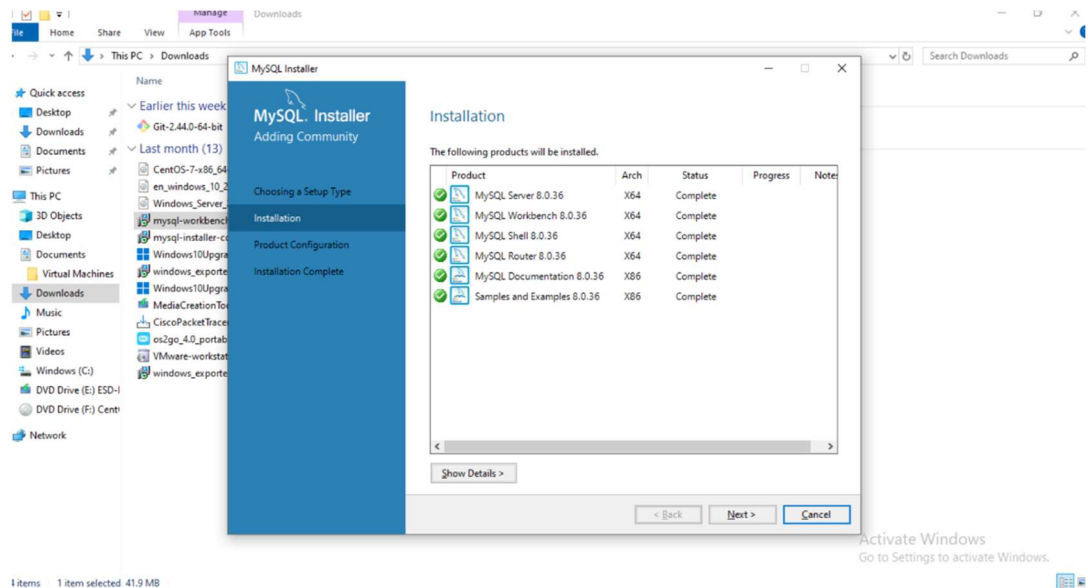
A window will appear asking you 'Do you want to allow the following program to install software on your computer' Click Yes. The installation will start.



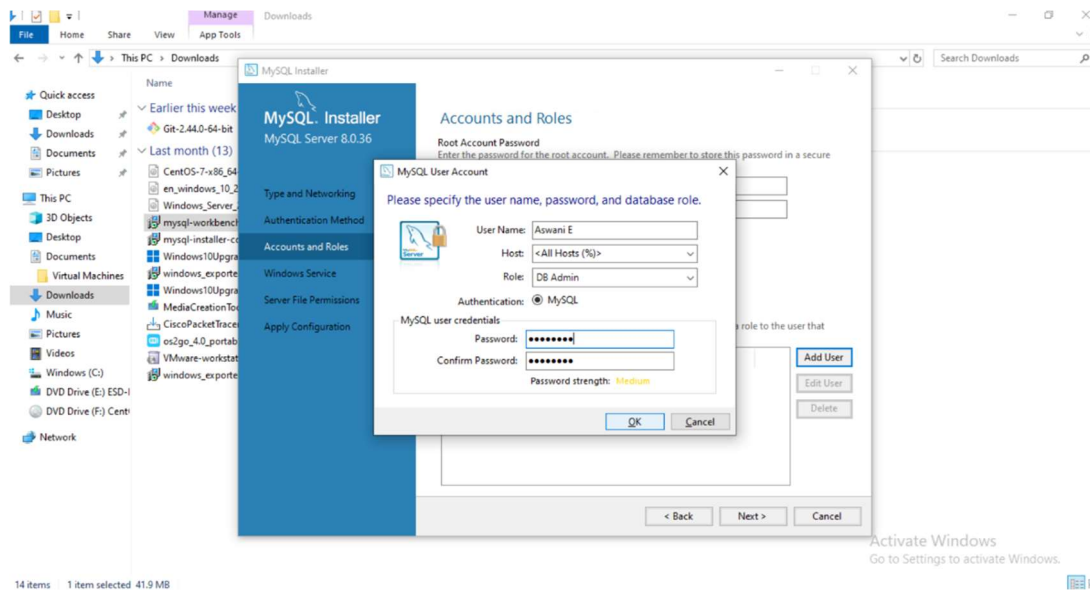
Now choose a setup type; select **Full** because it includes all the products available in this catalog. Then **Next**.



On the **Installation** window. Click *Execute*.



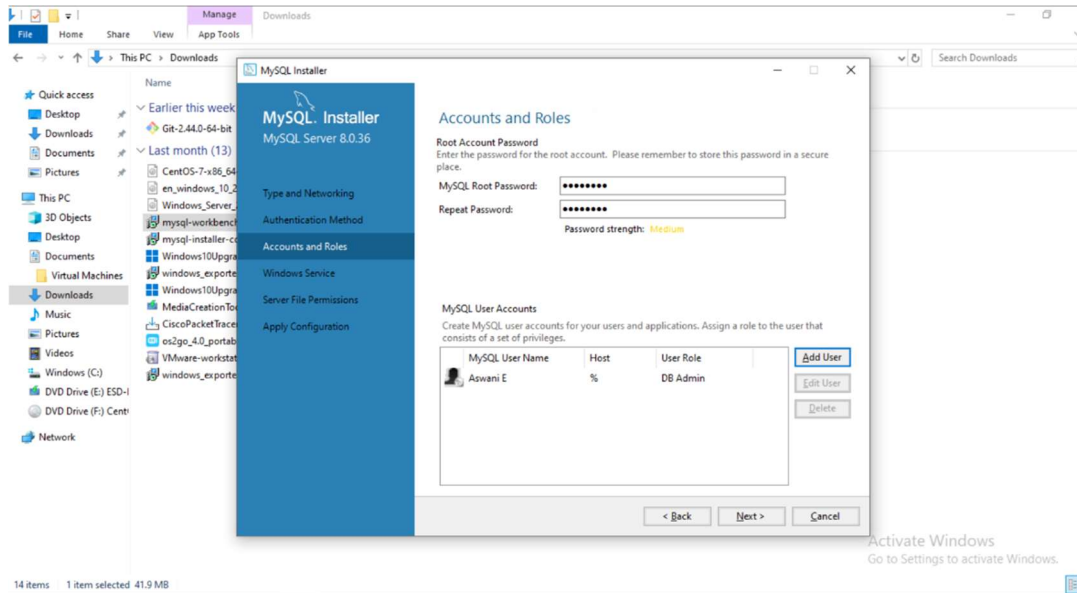
You will see your programs installed one by one. It will show which program was installed and which program failed. Then *Next*.



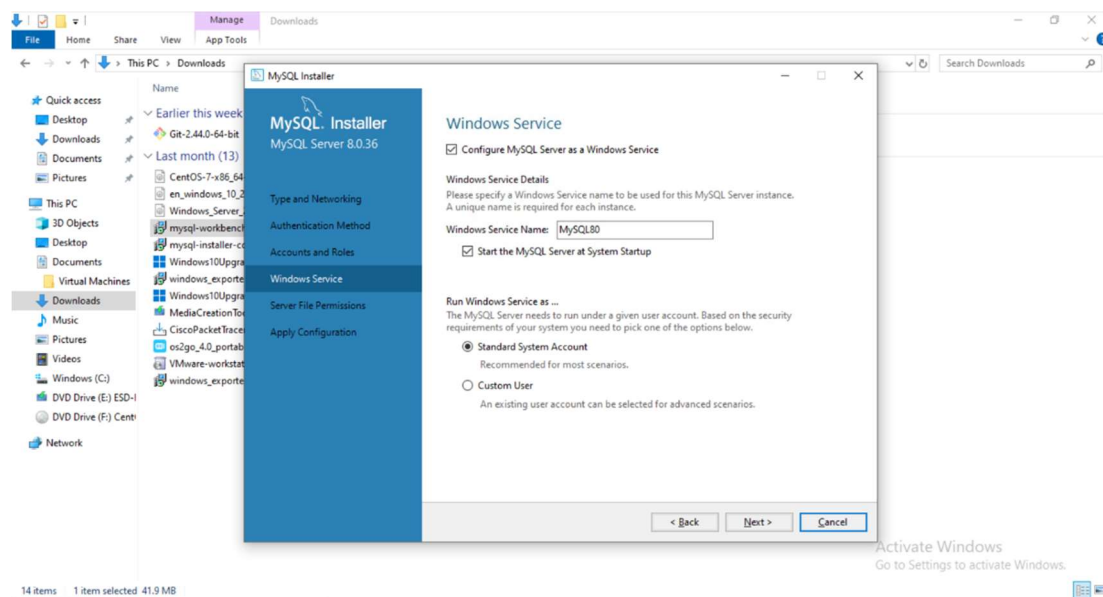
**Create a MySQL password.** Type your preferred password into the "MySQL Root Password" text box, then re-enter the password in the "Repeat Password" text box.

**Add an administrator account.** This will be the non-root account that you can use to do things like add users, change passwords, and so on:

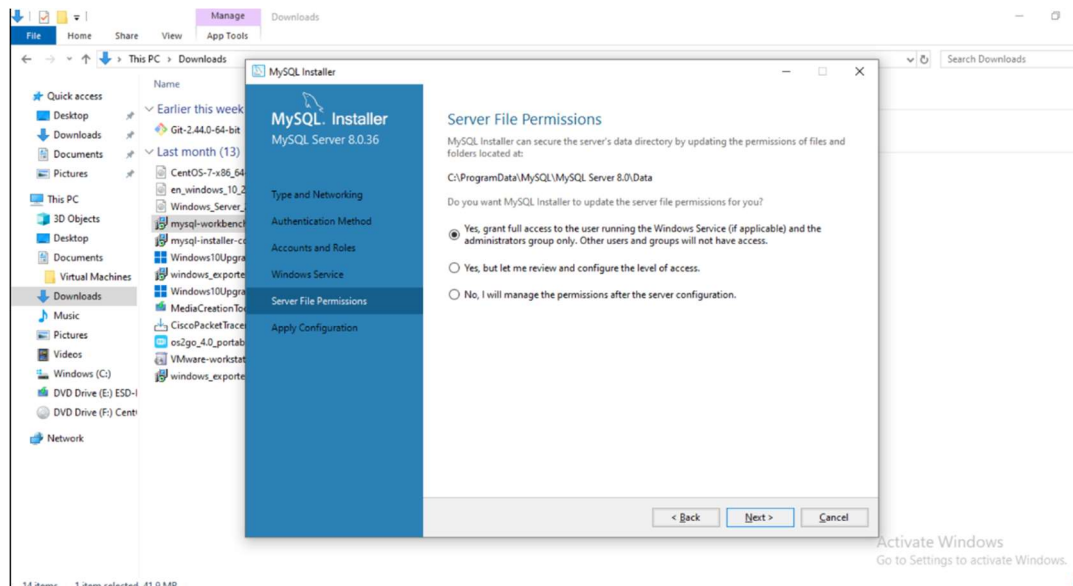
- Click **Add User** in the lower-right side of the page.
- Type in your preferred username in the "Username" field.
- Make sure that the "Role" field has **DB Admin** selected; if it doesn't, click the "Role" drop-down box and then click **DB Admin**
- Enter a unique password for the user in the "Password" and "Confirm Password" boxes.
- Click **OK**



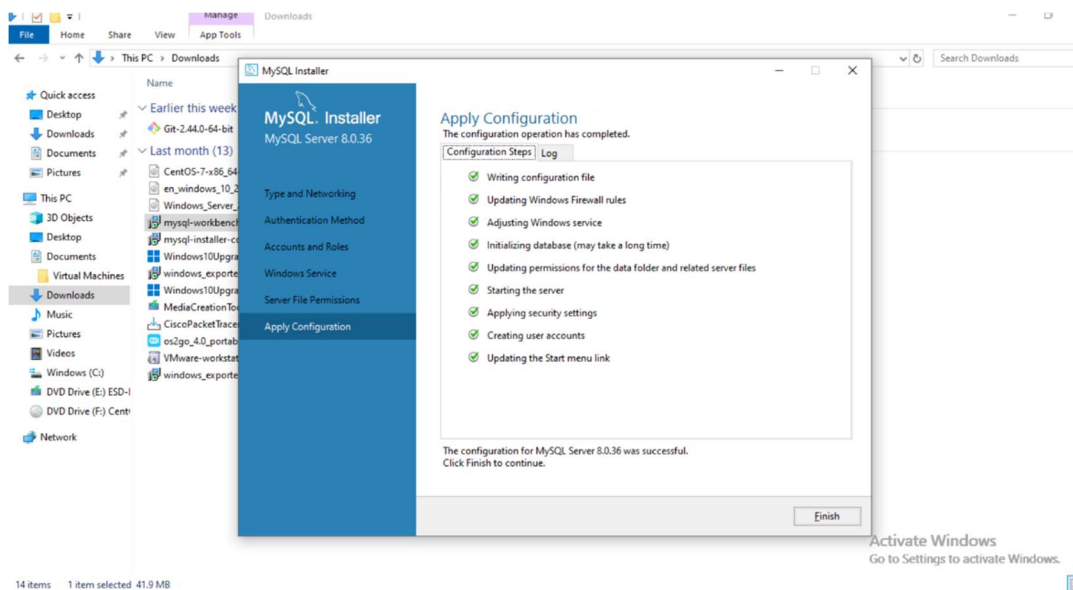
**Click Next.** This is at the bottom of the page. Doing so confirms your password and user account.



**Click Next.** It's at the bottom of the "Windows Service" page.

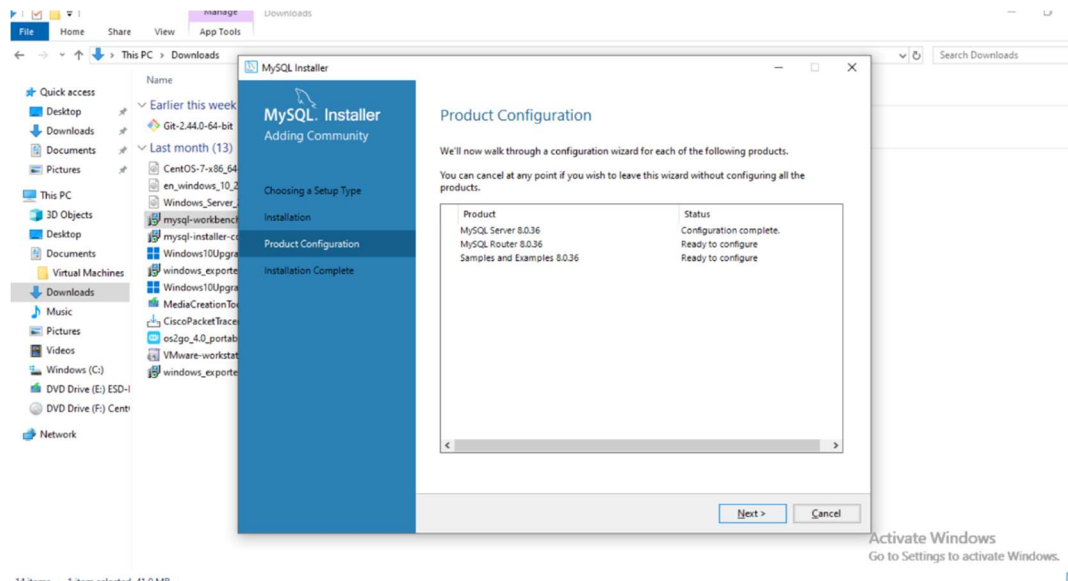


In server files permissions, permit to grant full access

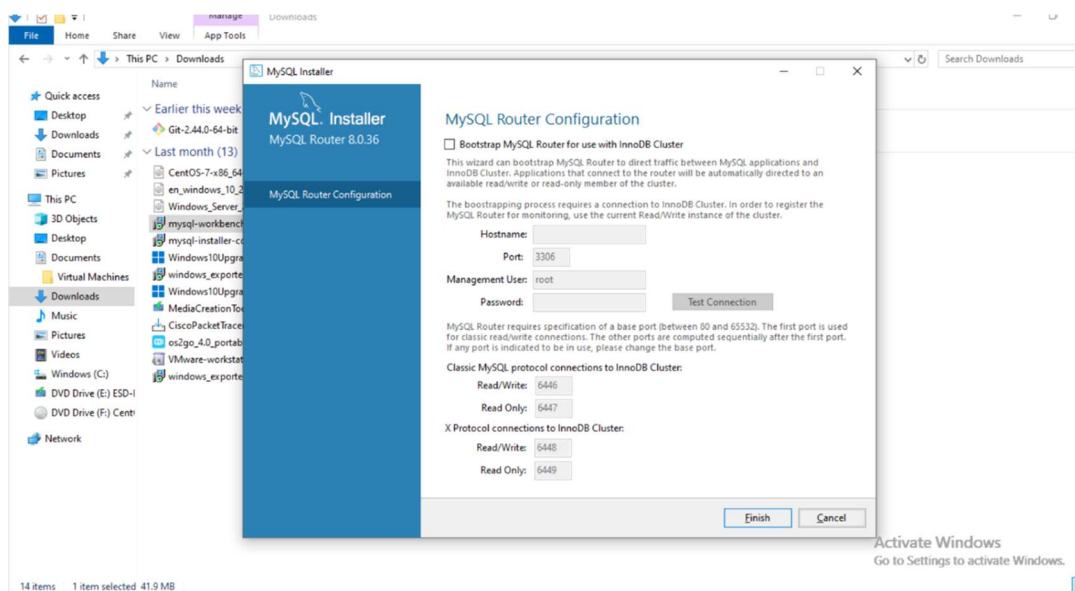


Click Execute. It's at the bottom of the window. Your MySQL installation will begin configuring itself.

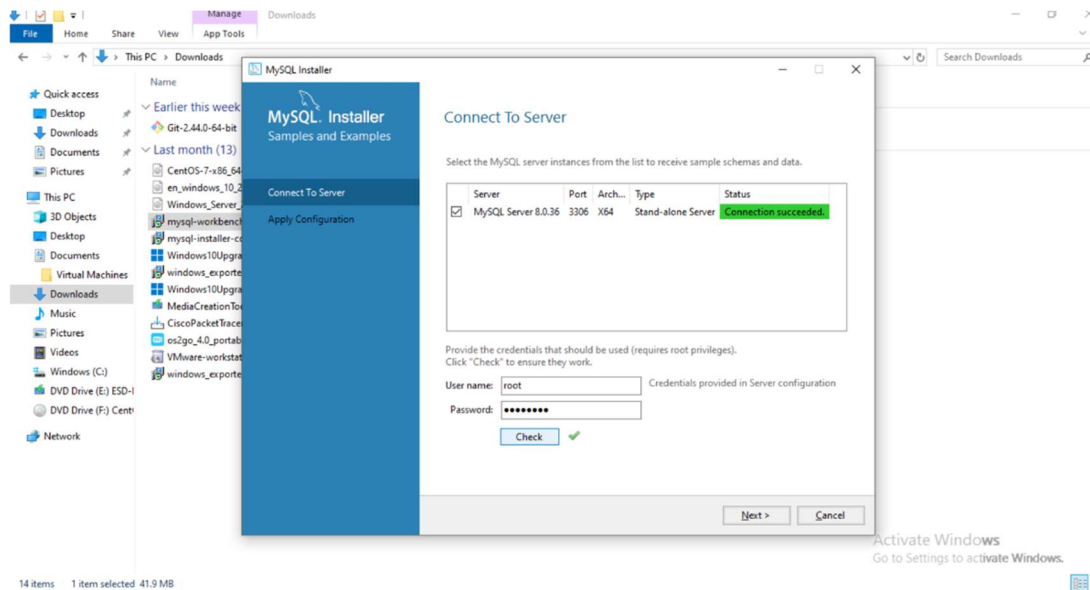
**Click Finish.** This option will become available when the configuration is complete.



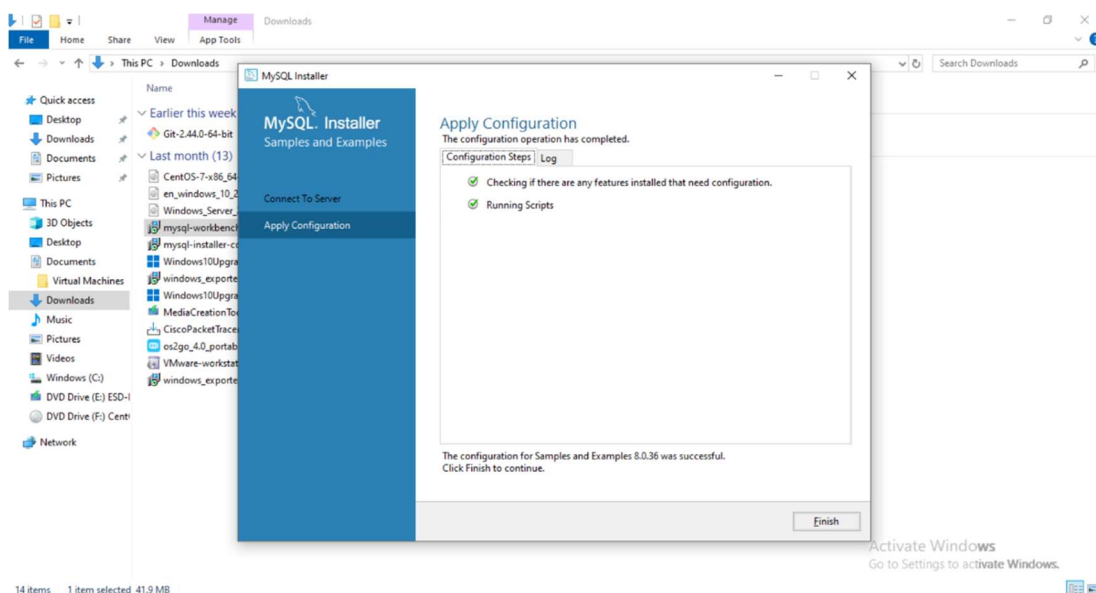
Click to NEXT button



**Configure the next attribute.** Click **Next** at the bottom of the window, then click **Finish**. This will bring you to the final part of MySQL's setup, which is connecting to the server itself.



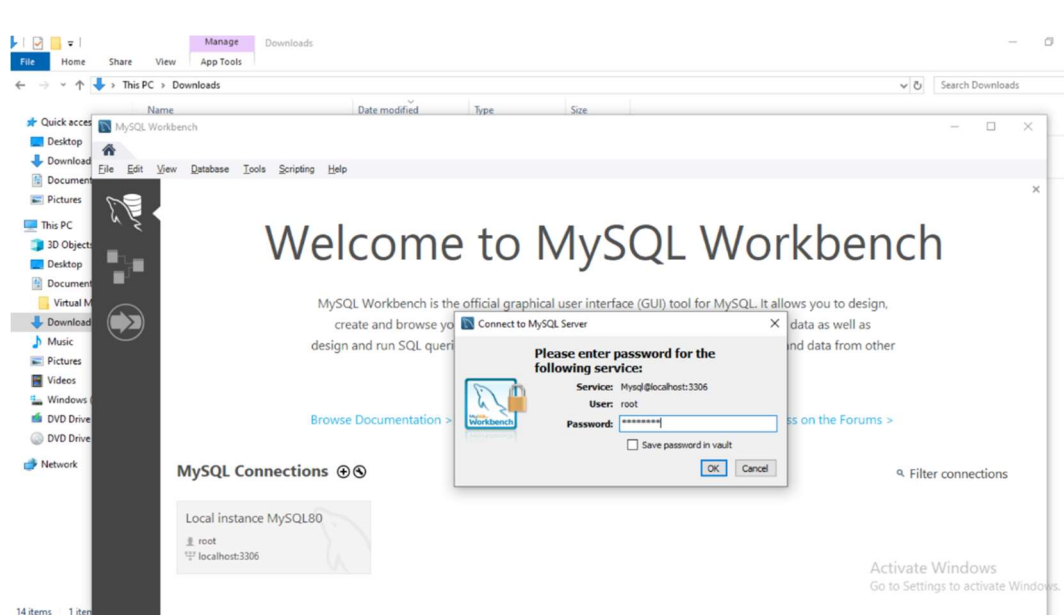
**Enter your root password.** In the "Password" box near the bottom of the window, type in the password that you created at the beginning of this part.



**Click Execute.** Doing so will configure this part of your installation.

**Finish the product configuration.** Click **Finish**, click **Next** at the bottom of the "Product Configuration" page, and click **Finish** in the bottom-right corner of the window. This will complete your MySQL setup and open the MySQL Shell and dashboard. You're now ready to begin using MySQL.

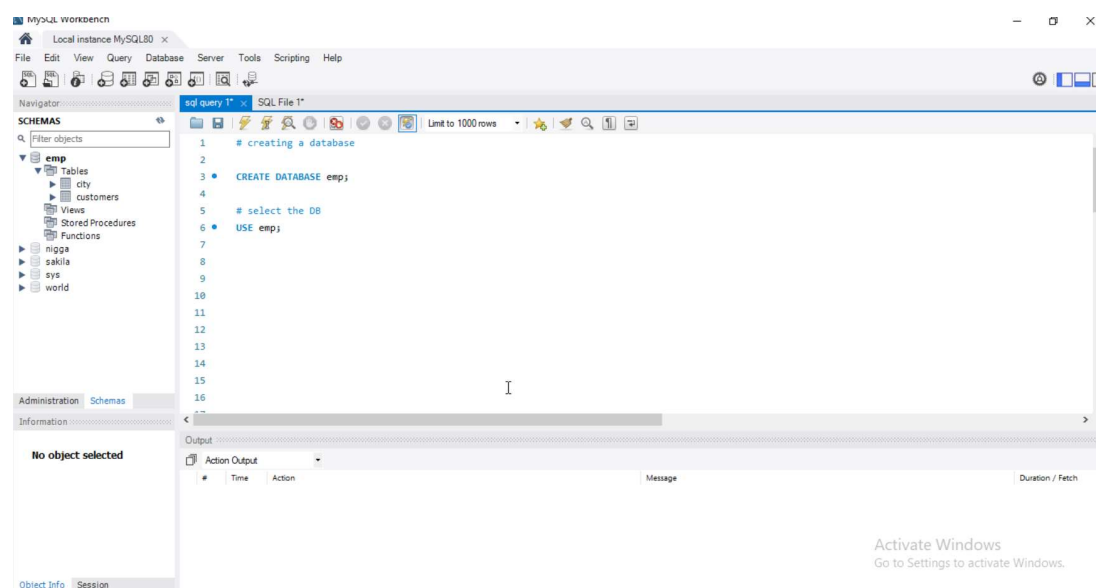




Enter the password and login into the MySQL Workbench

## 1. Creating a Database:

- Use the SQL command **“CREATE DATABASE”**
- Example: **CREATE DATABASE emp;**

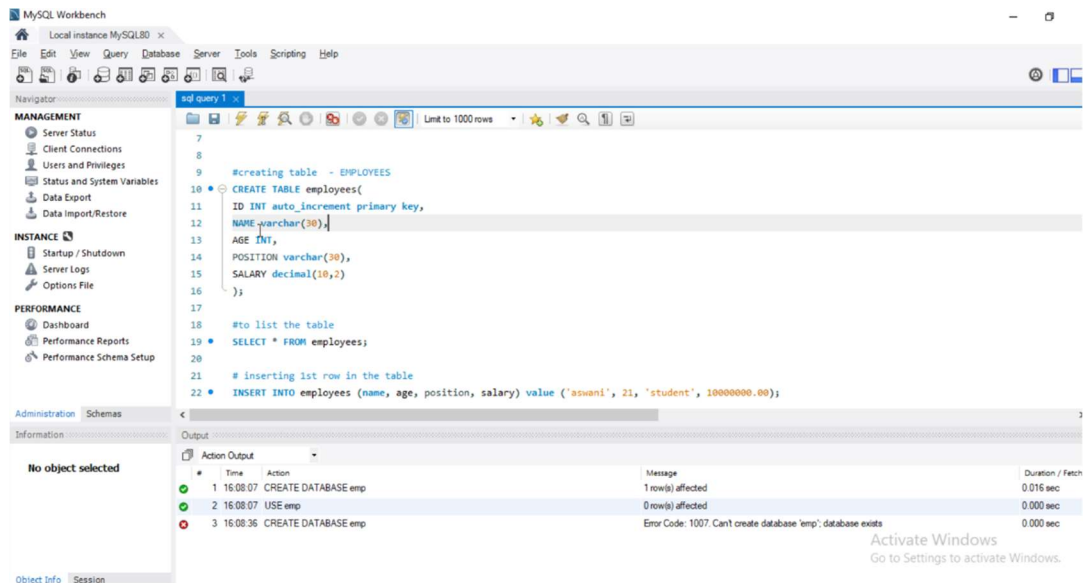


## 2. Creating a Table:

- Use the SQL command **“CREATE TABLE”**
- creates a new table named **“employees”** :

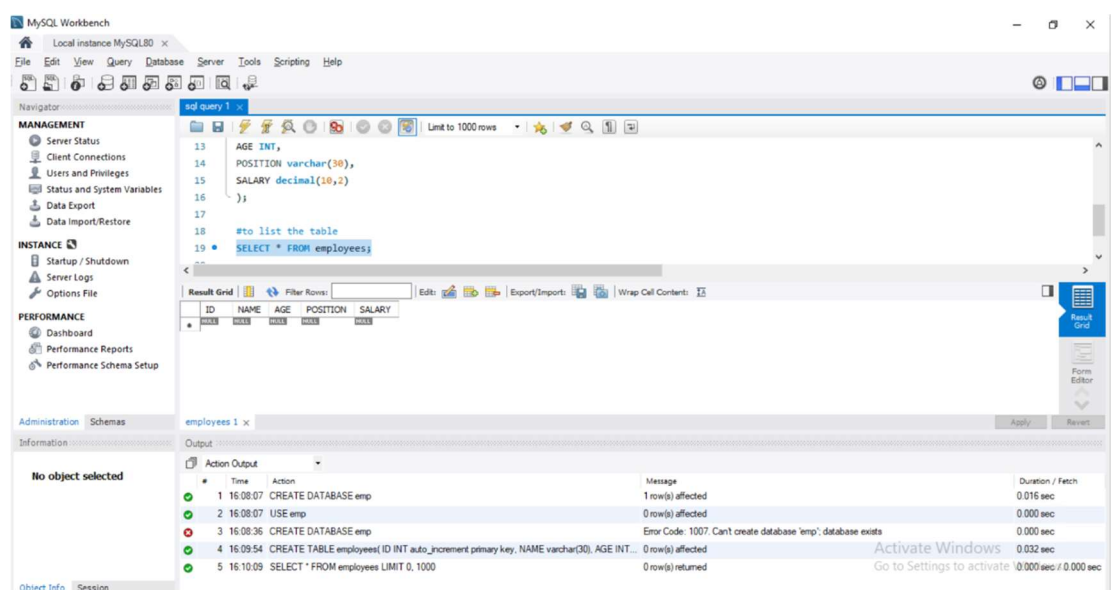


- ID: An integer column that auto-increments and serves as the primary key for the table.
- NAME: A varchar (string) column with a maximum length of 30 characters to store employee names.
- AGE: An integer column to store employee ages.
- POSITION: A varchar column with a maximum length of 30 characters to store employee positions.
- SALARY: A decimal column with a total of 10 digits, including 2 decimal places, to store employee salaries.

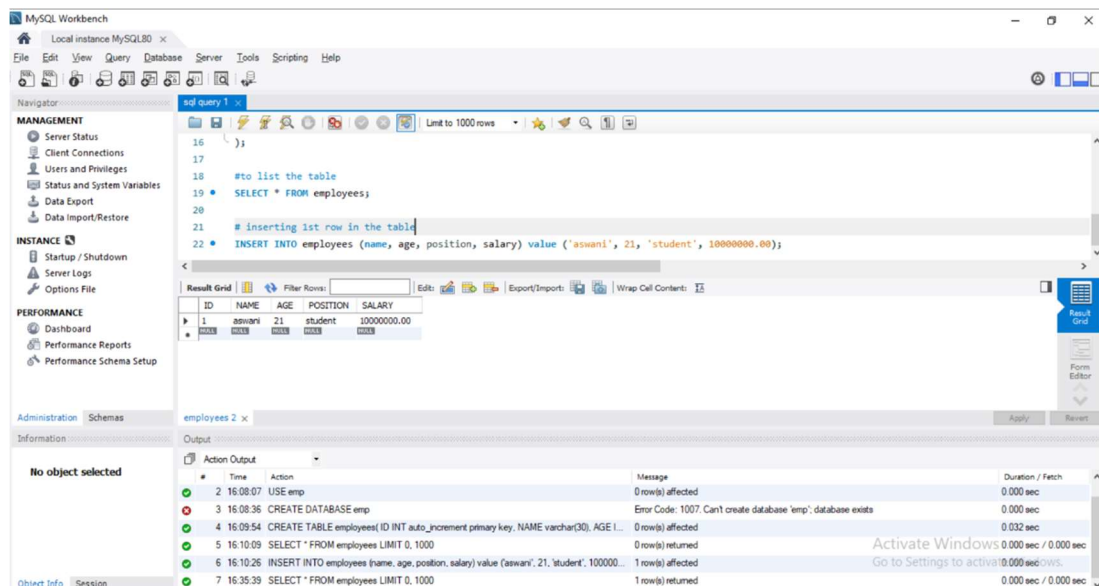


### 3. Inserting Rows:

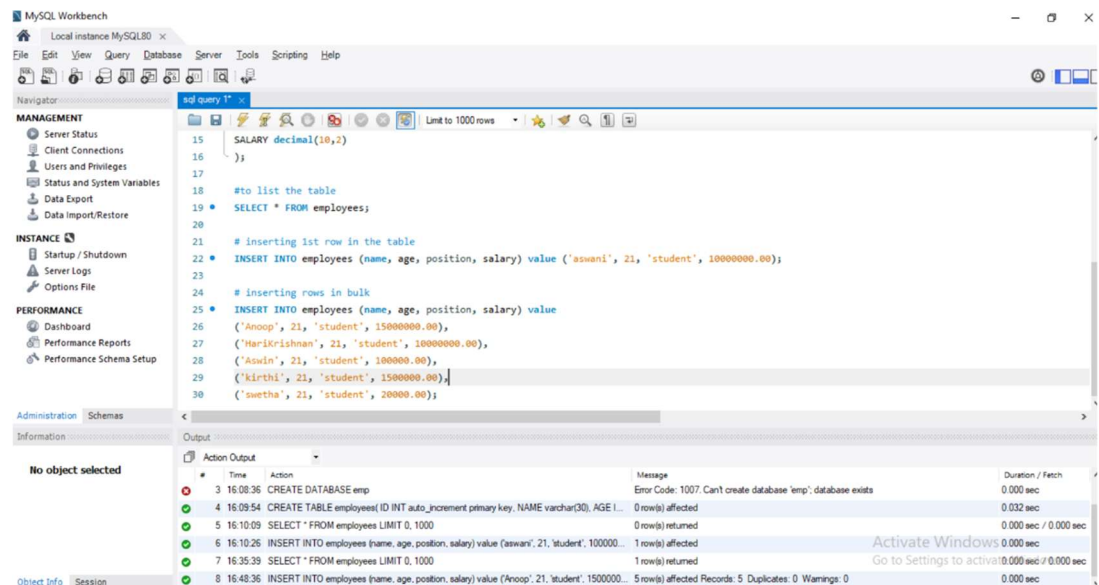
- Use the SQL command “ INSERT INTO”



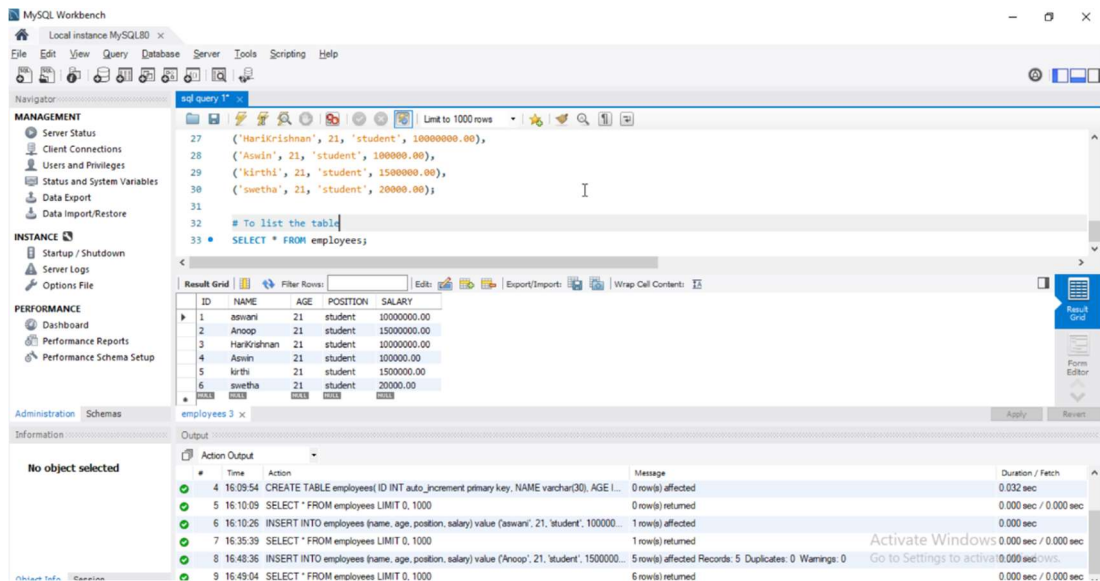
- selects and displays all rows and columns from the `employees` table. Since the table is currently empty, it won't display any data.



Inserts a new row into the `employees` table with the provided values for the `NAME`, `AGE`, `POSITION`, and `SALARY` columns. The `ID` column is auto-incremented and assigned a value automatically.



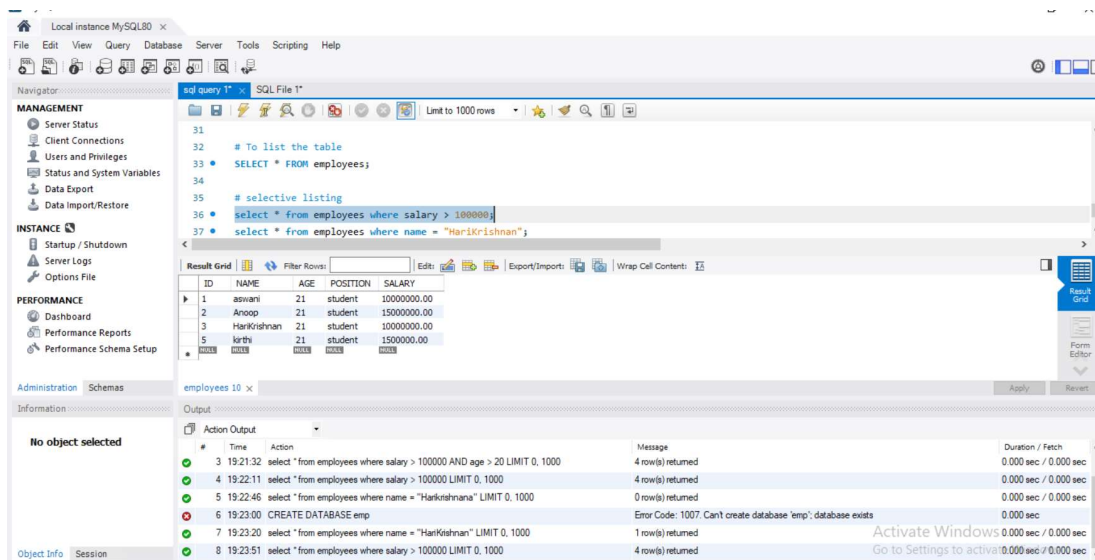
Inserts multiple rows into the `employees` table simultaneously, providing values for `NAME`, `AGE`, `POSITION`, and `SALARY` columns for each row.



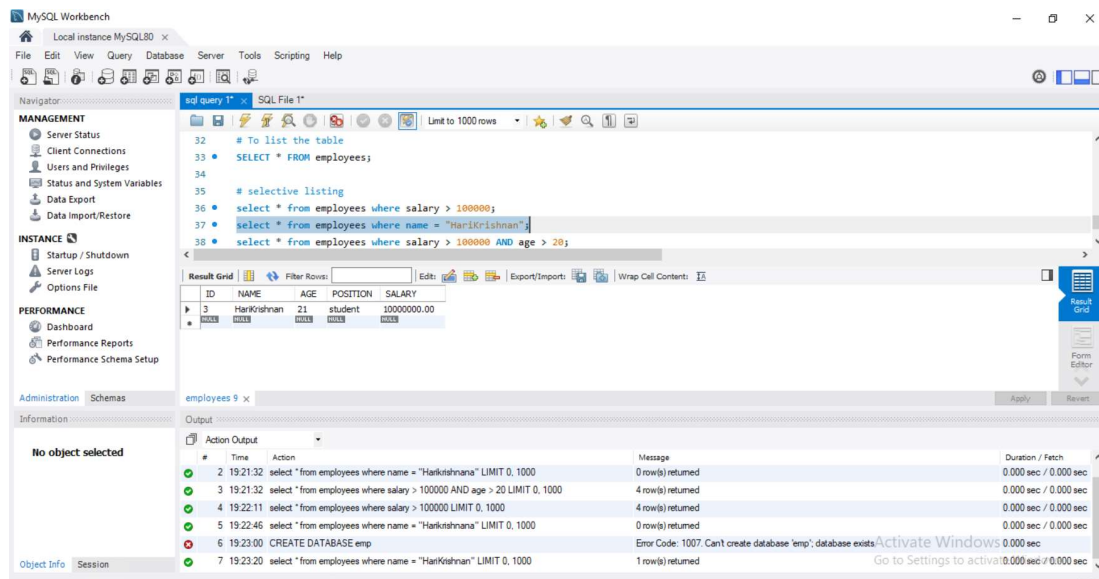
selects and displays all rows and columns from the employees table, including the newly inserted rows.

#### 4. Selecting and Filtering Data:

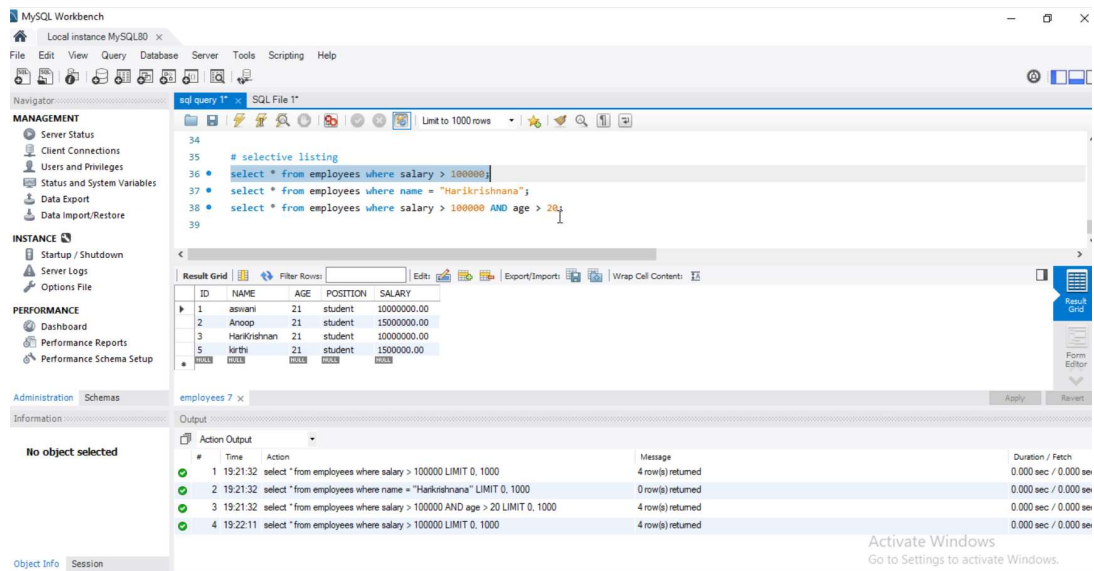
- Use the SQL command **"SELECT"**.



selects and displays all rows where the SALARY is greater than 100000.



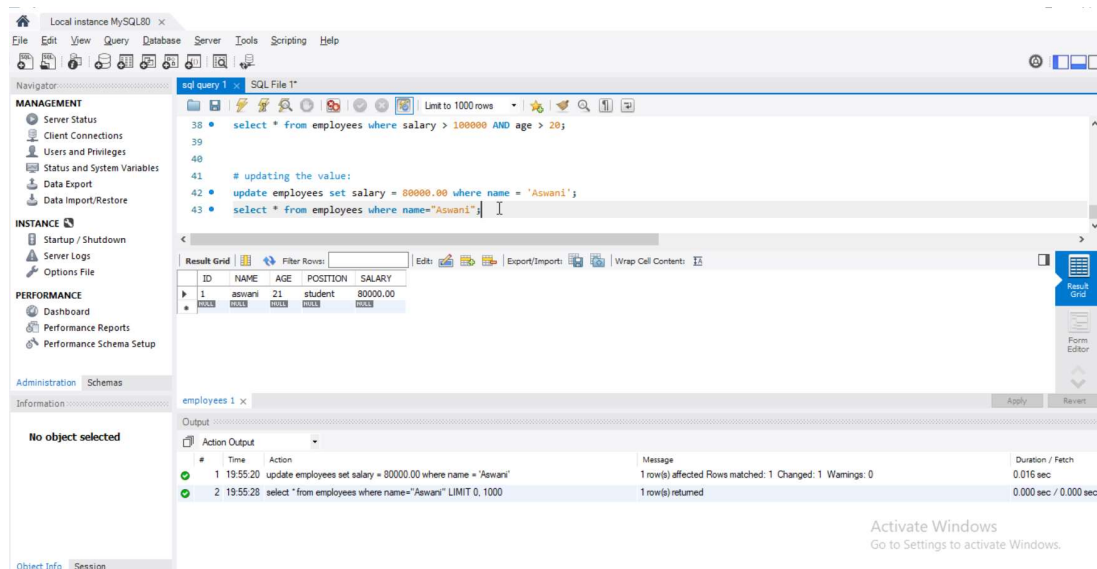
selects and displays all rows where the NAME is 'Harikrishnan'.



selects and displays all rows where the SALARY is greater than 100000 and the AGE is greater than 20.

## 5. Updating Values:

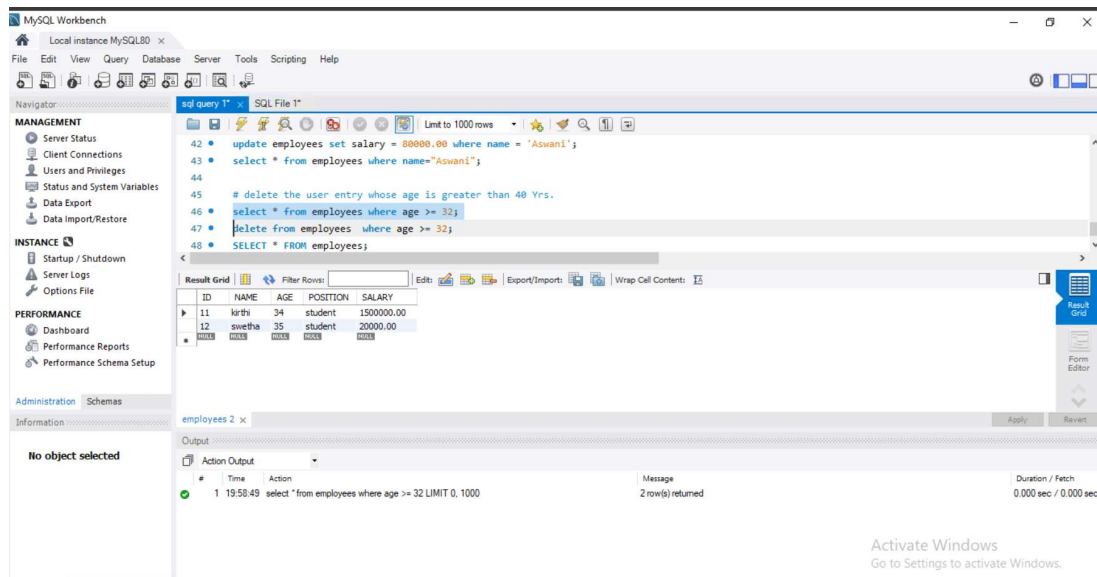
- Use the SQL command **“UPDATE”**.



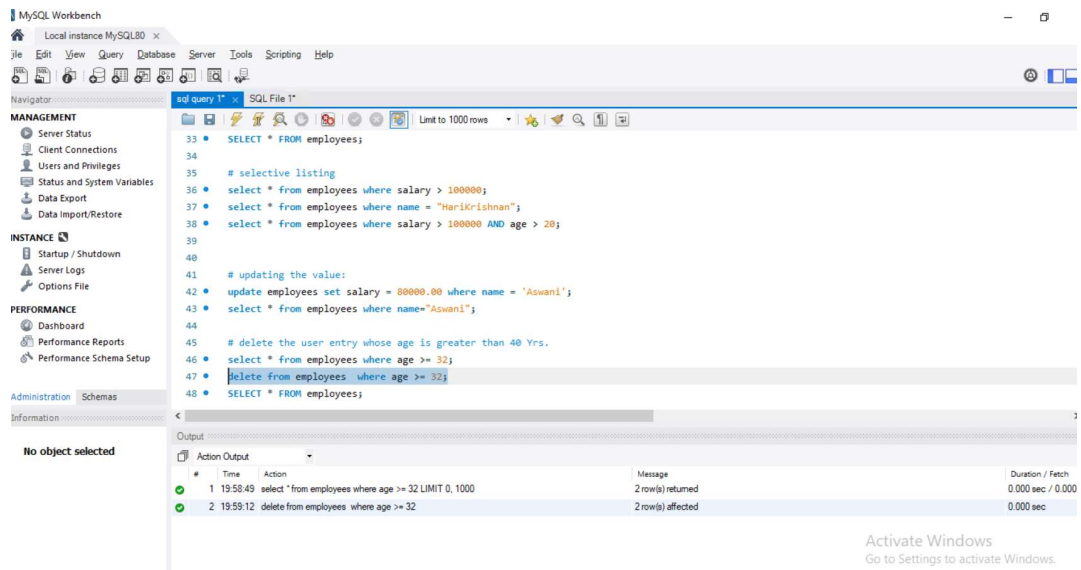
updates the SALARY column to 80000.00 for the row where the NAME is 'Aswani'. The second line selects and displays the row with the updated salary for 'Aswani'.

## 6. Deleting Rows:

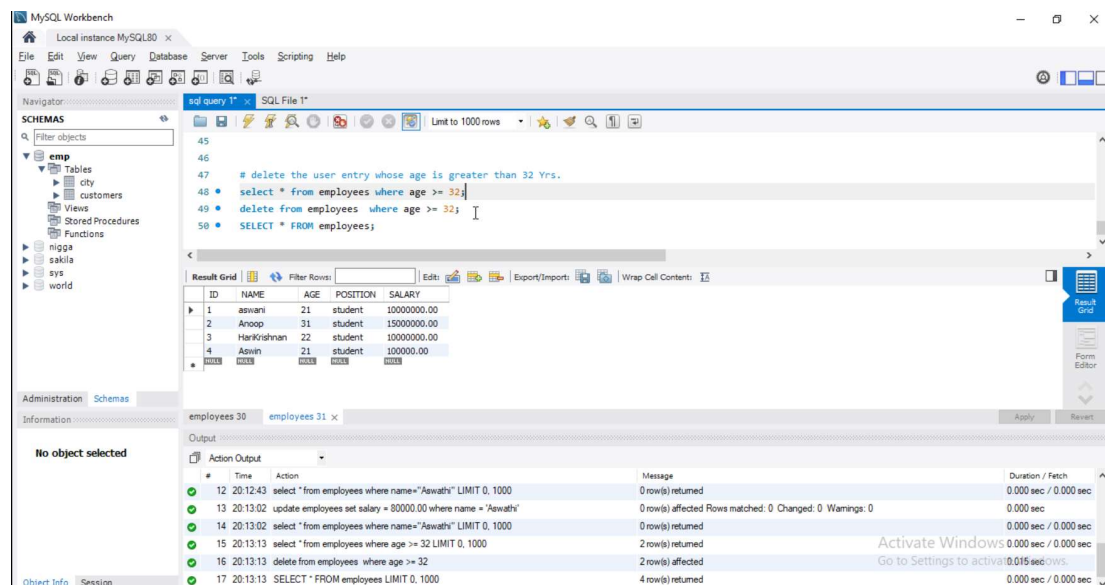
- Use the SQL command **“DELETE FROM”**.



selects and displays all rows where the AGE is greater than or equal to 32.



deletes all rows from the employees table where the AGE is greater than or equal to 32.



selects and displays all remaining rows in the employees table after the deletion.