

Name of Student: _____**Expt No:** _____ **Roll No:** _____ **Batch:** _____**Title of Experiment:** _____**Date of Performance:** _____ **Date of Submission:** _____**Marks:**

Performance in Experiments (5)

Journal Submission (5)

Viva-voce (5)

Overall Marks

Sign:**AIM:** MySQL Installation on Windows.

In this laboratory session we will learn how to install MySQL on the Windows platform using the MySQL Installer. To Install MySQL you to follow step by step process.

Step 1: Download MySQL. To download MySQL Installer for Windows go to (ctrl + click) following link

<https://dev.mysql.com/downloads/installer/>

General Availability (GA) Releases **Archives** ⓘ

MySQL Installer 8.0.34

Note: MySQL 8.0 is the final series with MySQL Installer. As of MySQL 8.1, use a MySQL product's MSI or Zip archive for installation. MySQL Server 8.1 and higher also bundle MySQL Configurator, a tool that helps configure MySQL Server.

Select Version:
8.0.34

Select Operating System:
Microsoft Windows

Platform	Version	Size	Action
Windows (x86, 32-bit), MSI Installer	8.0.34	2.4M	Download
(mysql-installer-web-community-8.0.34.0.msi)		MD5: 01baf7b42e551d53efb557eed401ff91 Signature	
Windows (x86, 32-bit), MSI Installer	8.0.34	331.3M	Download
(mysql-installer-community-8.0.34.0.msi)		MD5: 59eaa511c39011a2f0264311a80b0228 Signature	

Note: We suggest that you use the [MD5 checksums](#) and [GnuPG signatures](#) to verify the integrity of the packages you download.

Select **mysql-installer-web-community-8.0.34.msi** if you have good internet connection, otherwise choose **mysql-installer-community-8.0.34.msi**.

Step 2: Select mysql-installer-community-8.0.34.msi

General Availability (GA) Releases Archives

MySQL Installer 8.0.34

Note: MySQL 8.0 is the final series with MySQL Installer. As of MySQL 8.1, use a MySQL product's MSI or Zip archive for installation. MySQL Server 8.1 and higher also bundle MySQL Configurator, a tool that helps configure MySQL Server.

Select Version:
8.0.34

Select Operating System:
Microsoft Windows

Platform	Version	Size	Action
Windows (x86, 32-bit), MSI Installer (mysql-installer-web-community-8.0.34.0.msi)	8.0.34	2.4M	Download
Windows (x86, 32-bit), MSI Installer (mysql-installer-community-8.0.34.0.msi)	8.0.34	331.3M	Download

MD5: 01baf7b42e551d53efb557eed401ff91 | [Signature](#)

MD5: 59eaa511c39011a2f0264311a03b0228 | [Signature](#)

We suggest that you use the MD5 checksums and GnuPG signatures to verify the integrity of the packages you download.

Step 3: Just click on No thanks, just start my download

MySQL Community Downloads

Login Now or Sign Up for a free account.

An Oracle Web Account provides you with the following advantages:

- Fast access to MySQL software downloads
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- Post messages in the MySQL Discussion Forums
- Report and track bugs in the MySQL bug system

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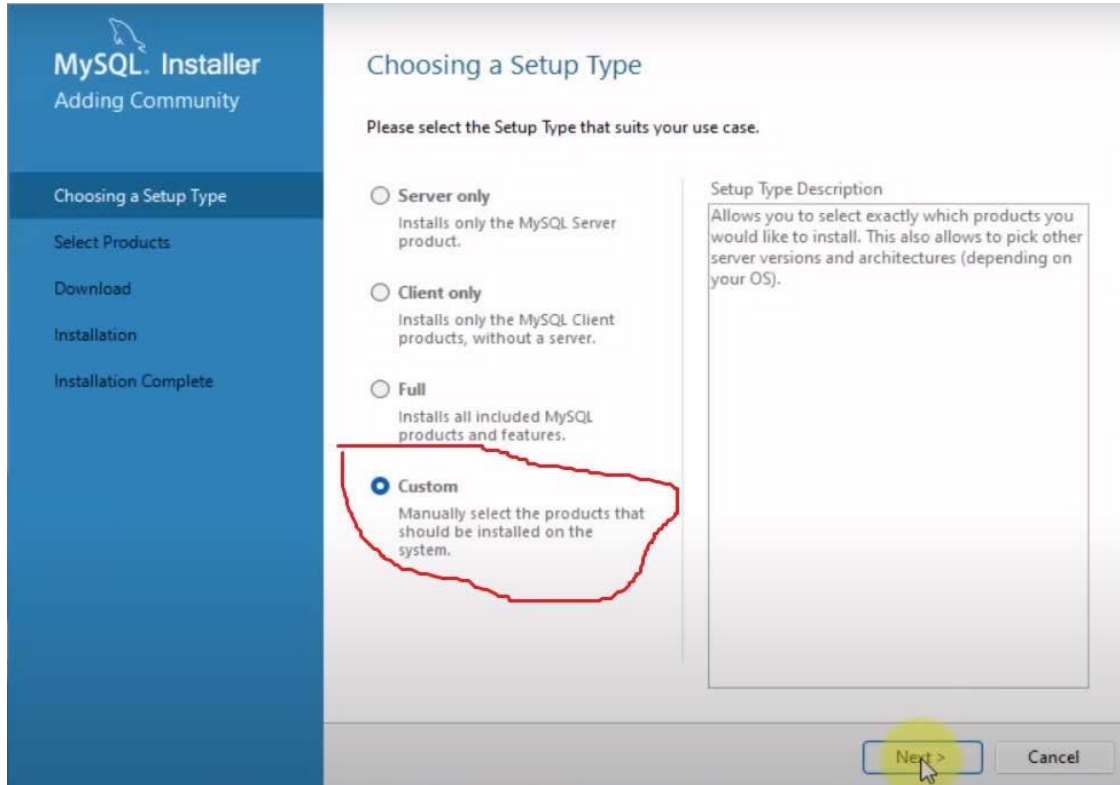
MySQL.com is using Oracle SSO for authentication. If you already have an Oracle Web account, click the Login link. Otherwise, you can signup for a free account by clicking the Sign Up link and following the instructions.

[No thanks, just start my download.](#)

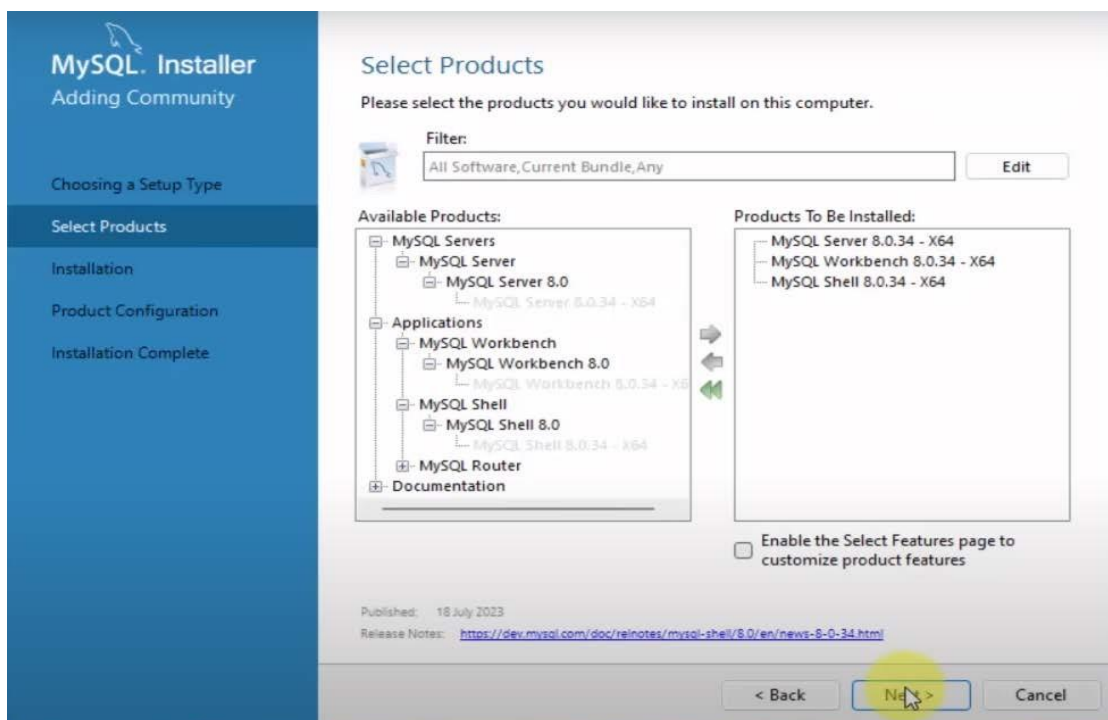
Step 4: After downloading double click the MSI installer .exe file

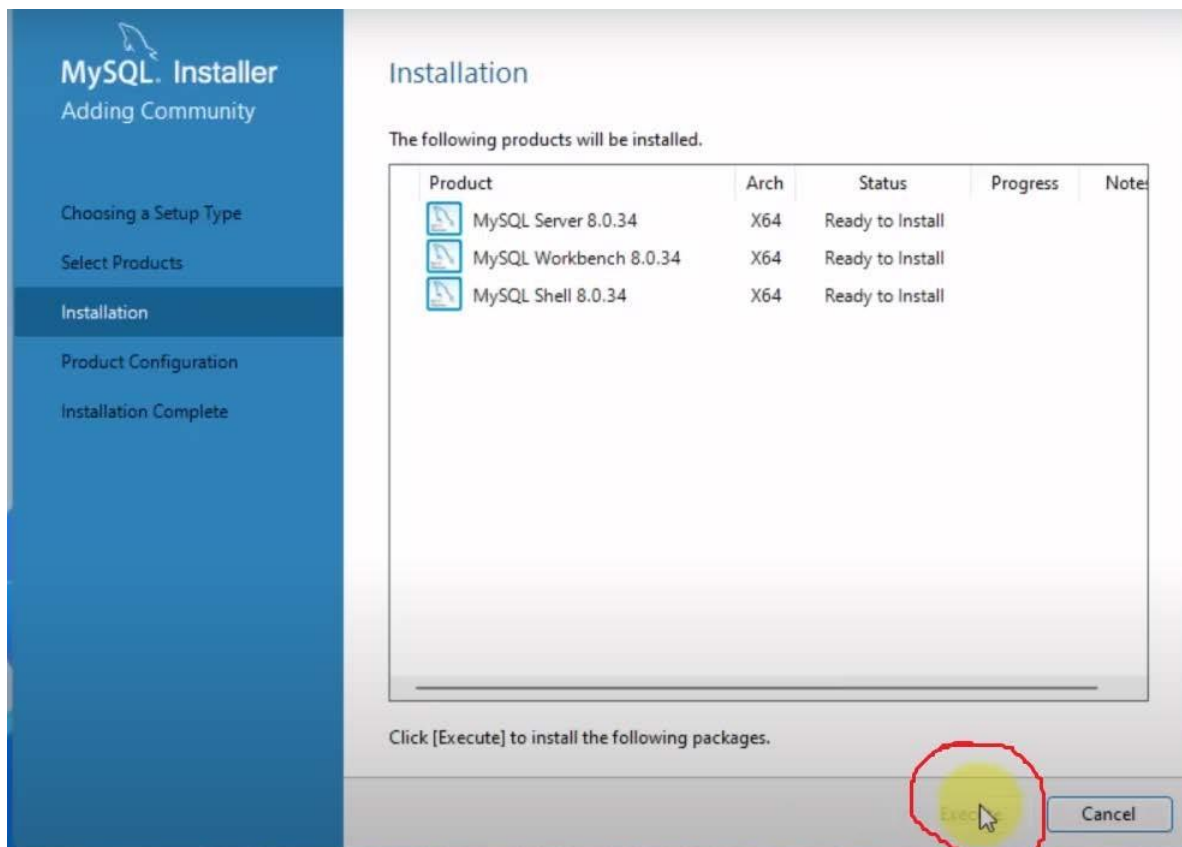
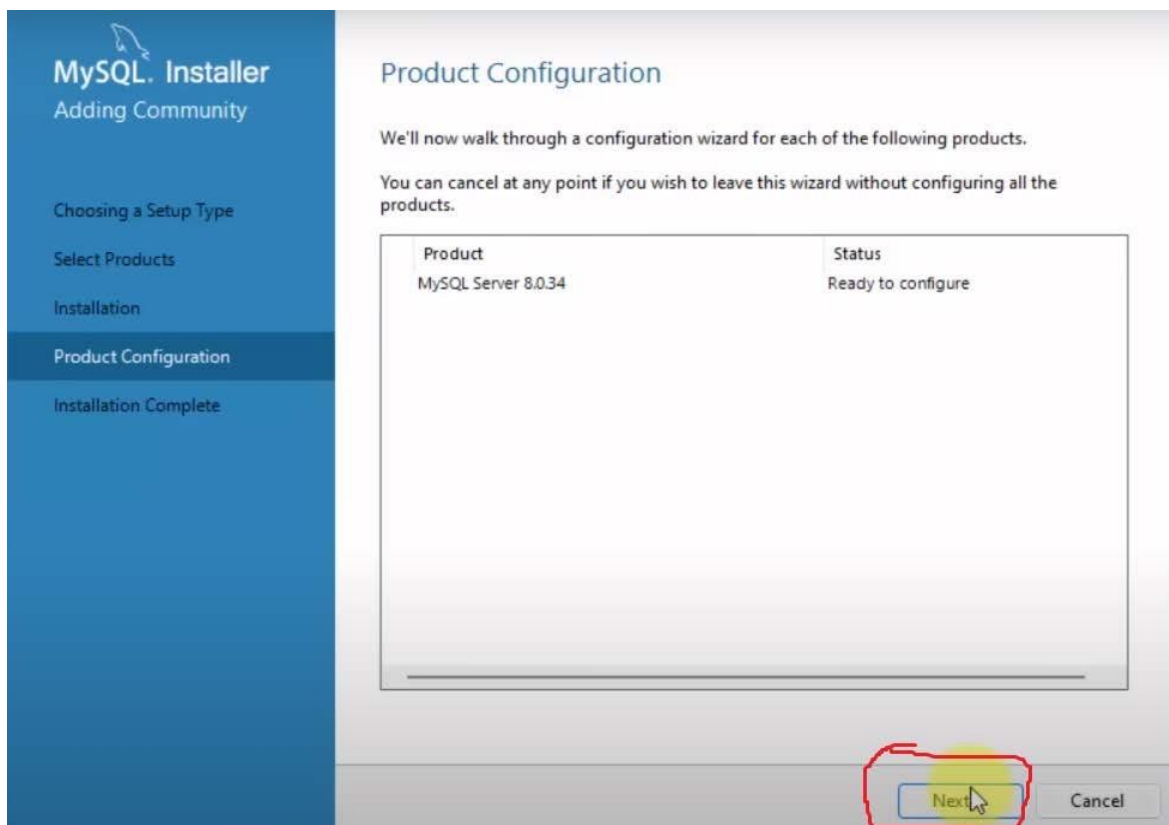


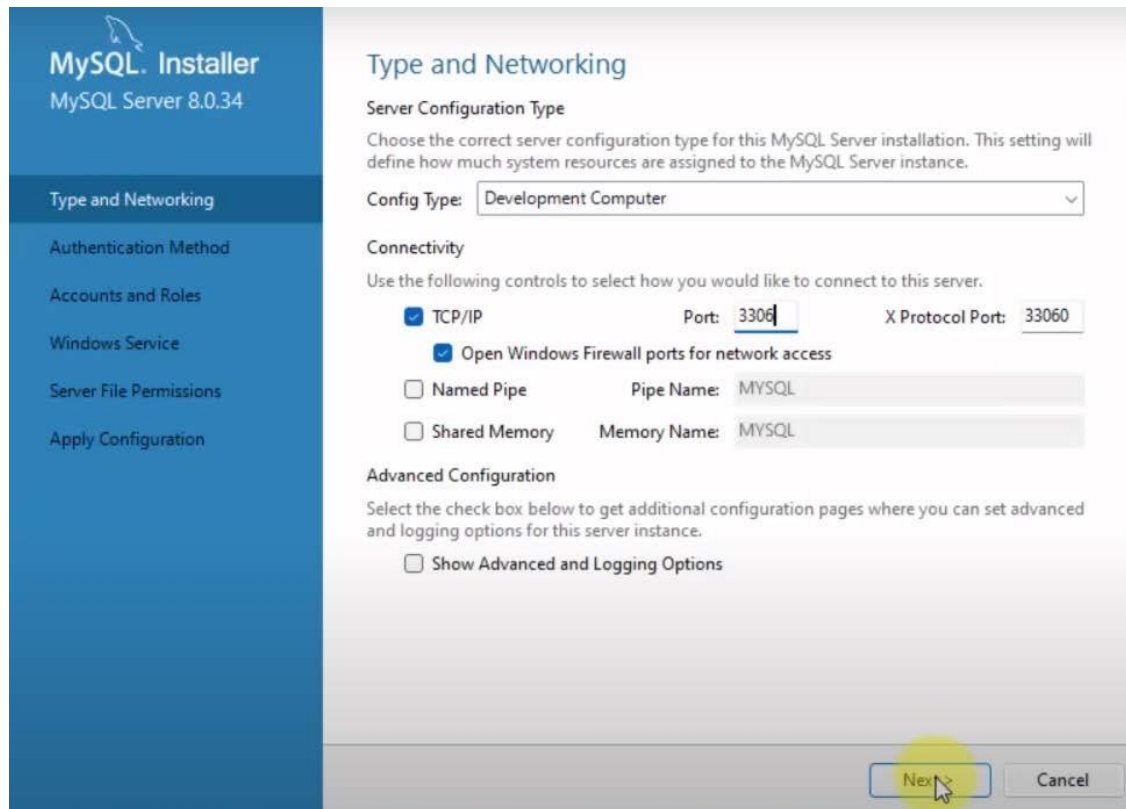
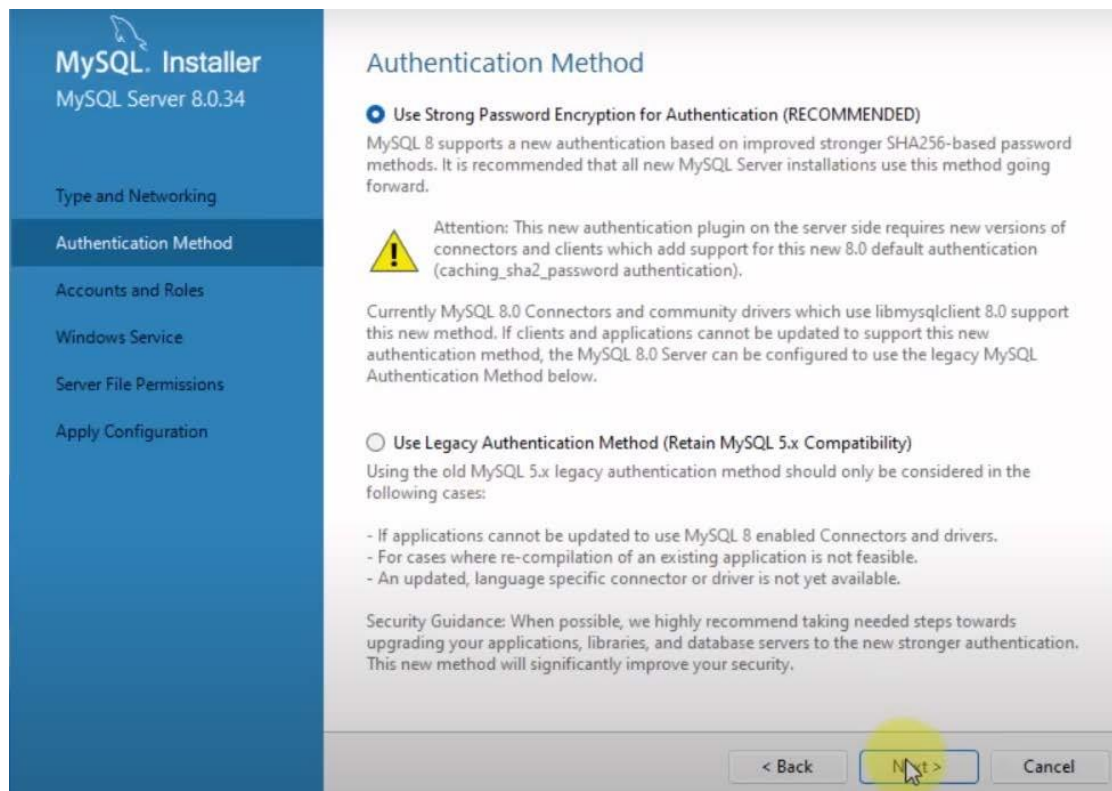
Step 5: Choose setup type- custom and click Next



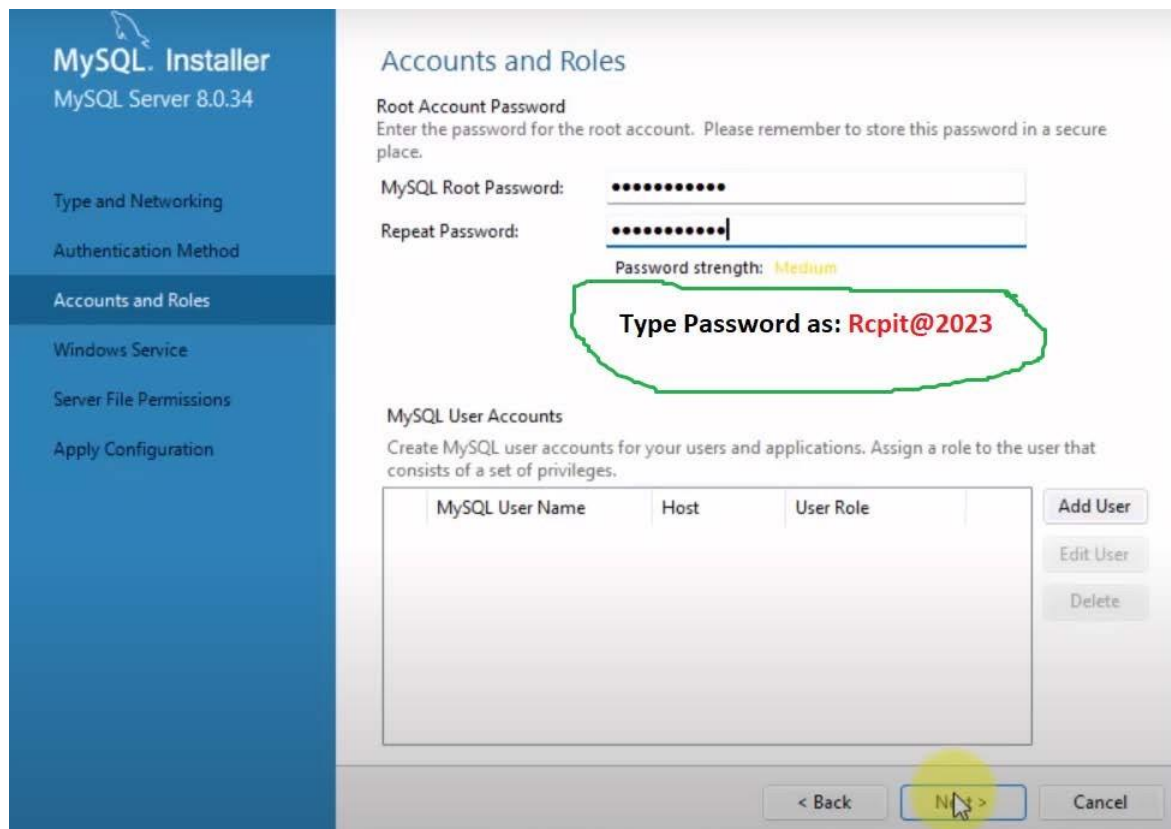
Step 6: Select product and click on Next



Step 7: Click on Execute**Step 8:** Product configuration- click on Next

Step 9: Select type and Networking and click Next**Step 10:** Authentication Method- Use strong Password Encryption for Authentication and click Next

Step 11: Accounts and Roles- Select MySQL Root Password as Rcpit@2023 and click next



The screenshot shows the 'Accounts and Roles' step of the MySQL Installer. The left sidebar lists the installation steps: Type and Networking, Authentication Method, Accounts and Roles (selected), Windows Service, Server File Permissions, and Apply Configuration. The main area is titled 'Accounts and Roles' and contains the 'Root Account Password' section. It prompts the user to enter a password for the root account, with a note to store it securely. The password field is filled with dots, and the 'Repeat Password' field is also filled with dots. A 'Password strength' indicator shows 'Medium'. A green oval highlights the text 'Type Password as: Rcpit@2023'. Below this is the 'MySQL User Accounts' section, which includes a table with columns 'MySQL User Name', 'Host', and 'User Role'. To the right of the table are buttons for 'Add User', 'Edit User', and 'Delete'. At the bottom, there are buttons for '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a yellow circle.

MySQL Installer
MySQL Server 8.0.34

Type and Networking
Authentication Method
Accounts and Roles
Windows Service
Server File Permissions
Apply Configuration

Accounts and Roles

Root Account Password
Enter the password for the root account. Please remember to store this password in a secure place.

MySQL Root Password:
Repeat Password:
Password strength: Medium

Type Password as: Rcpit@2023

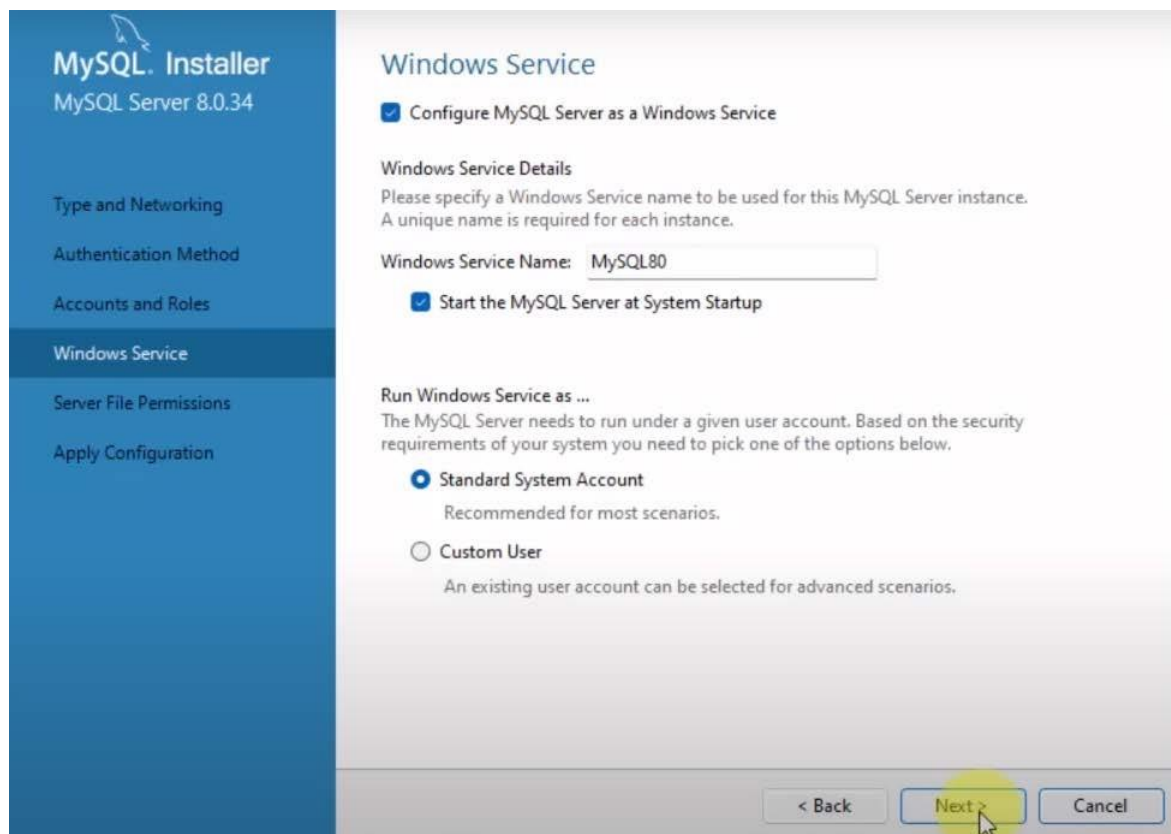
MySQL User Accounts
Create MySQL user accounts for your users and applications. Assign a role to the user that consists of a set of privileges.

MySQL User Name	Host	User Role
-----------------	------	-----------

Add User
Edit User
Delete

< Back Next > Cancel

Step 12: Select Windows Service and click Next



The screenshot shows the 'Windows Service' step of the MySQL Installer. The left sidebar lists the installation steps: Type and Networking, Authentication Method, Accounts and Roles, Windows Service (selected), Server File Permissions, and Apply Configuration. The main area is titled 'Windows Service' and contains the 'Configure MySQL Server as a Windows Service' section. It includes a checkbox for 'Configure MySQL Server as a Windows Service' which is checked. Below this is the 'Windows Service Details' section, which prompts the user to specify a Windows Service name to be used for this MySQL Server instance. A unique name is required for each instance. The 'Windows Service Name' field is filled with 'MySQL80'. There is also a checkbox for 'Start the MySQL Server at System Startup' which is checked. Below this is the 'Run Windows Service as ...' section, which prompts the user to select a user account to run the MySQL Server under. Based on the security requirements of your system you need to pick one of the options below. There are two options: 'Standard System Account' (selected) and 'Custom User'. The 'Standard System Account' option is recommended for most scenarios. The 'Custom User' option is for advanced scenarios. At the bottom, there are buttons for '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a yellow circle.

MySQL Installer
MySQL Server 8.0.34

Type and Networking
Authentication Method
Accounts and Roles
Windows Service
Server File Permissions
Apply Configuration

Windows Service

☒ Configure MySQL Server as a Windows Service

Windows Service Details
Please specify a Windows Service name to be used for this MySQL Server instance. A unique name is required for each instance.

Windows Service Name: MySQL80

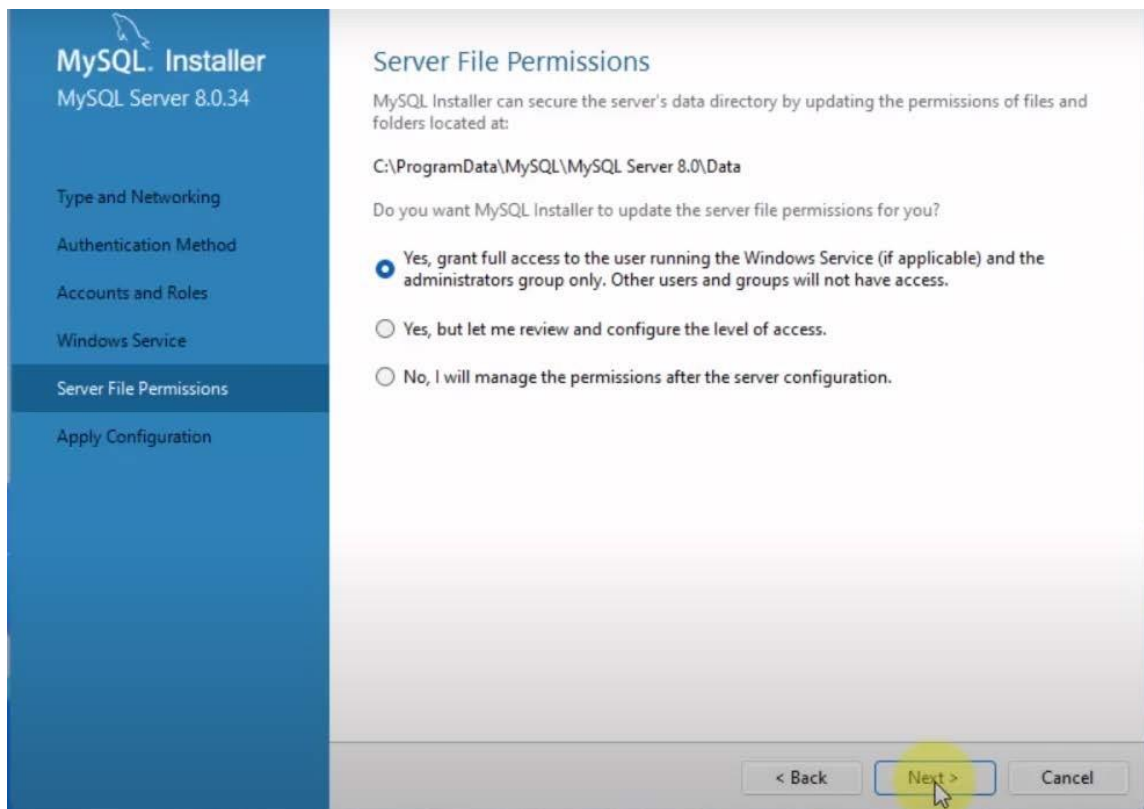
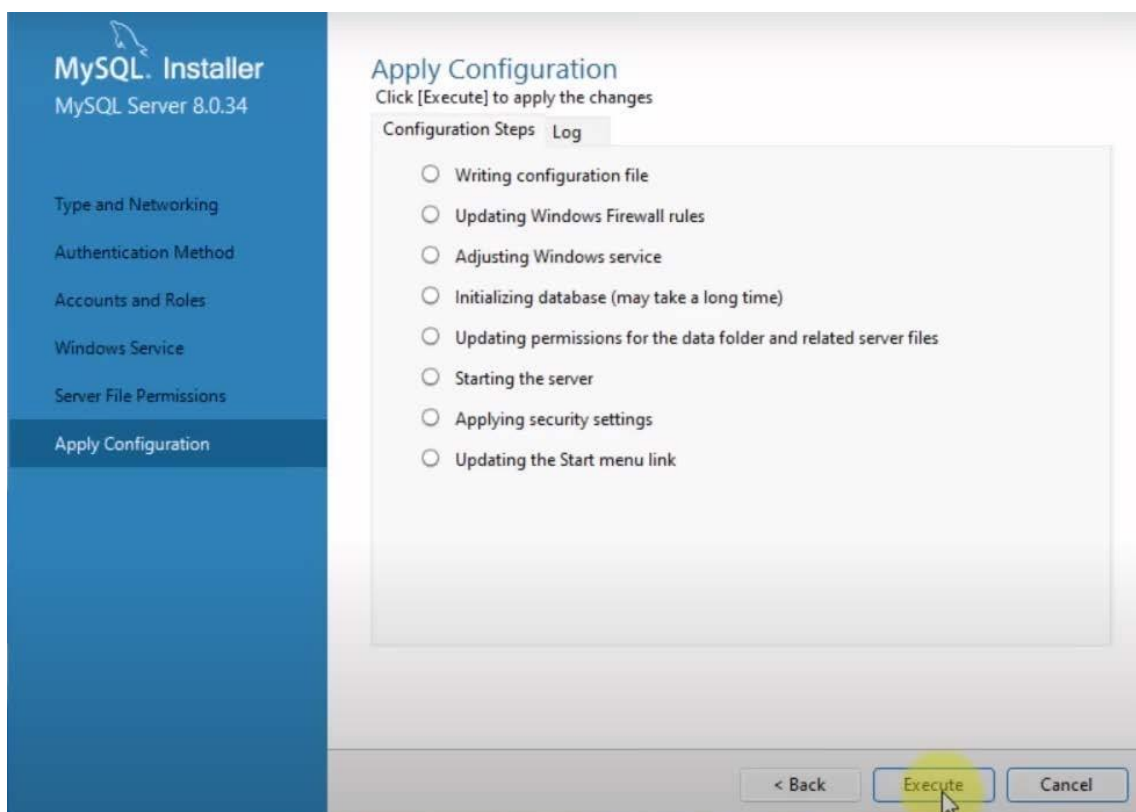
☒ Start the MySQL Server at System Startup

Run Windows Service as ...
The MySQL Server needs to run under a given user account. Based on the security requirements of your system you need to pick one of the options below.

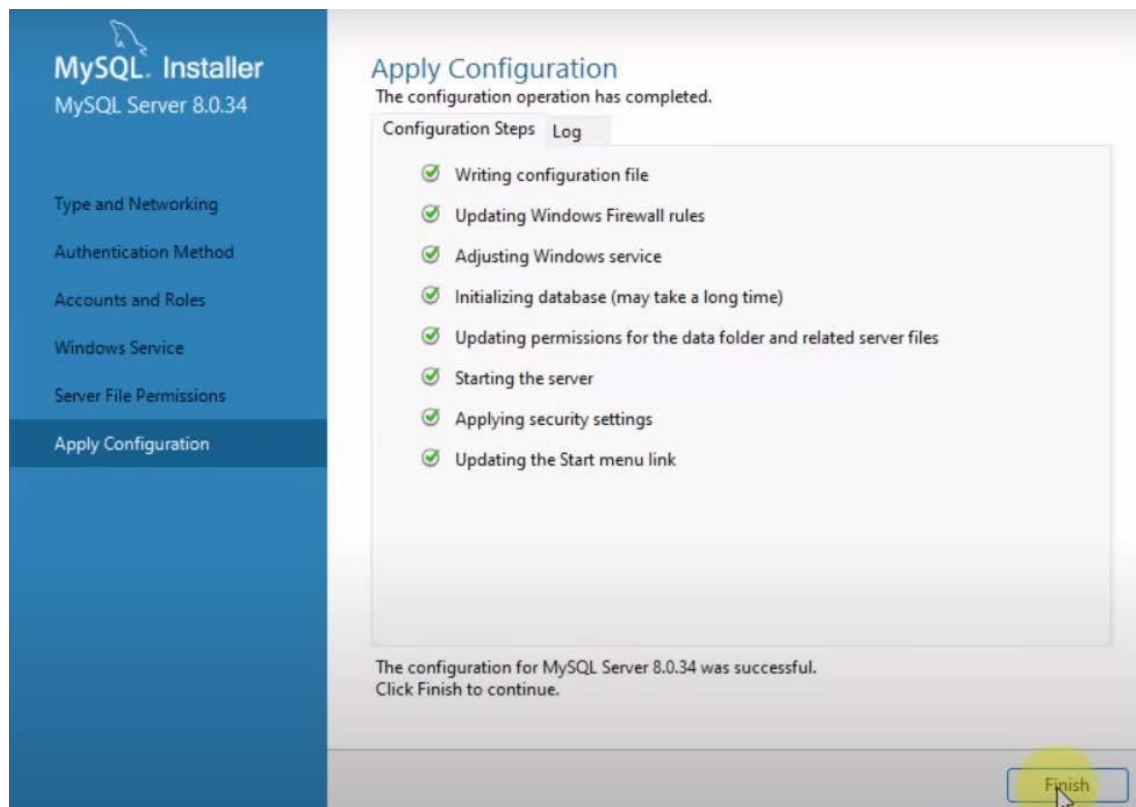
☒ Standard System Account
Recommended for most scenarios.

☐ Custom User
An existing user account can be selected for advanced scenarios.

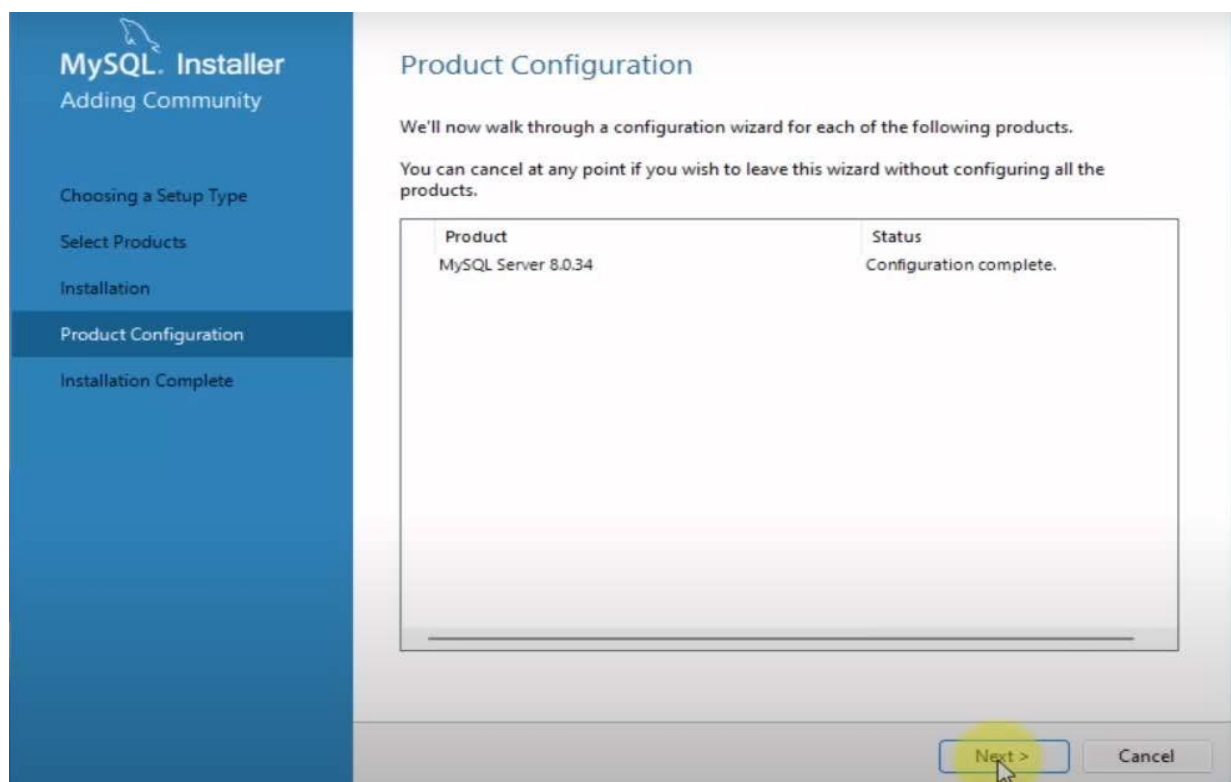
< Back Next > Cancel

Step 13: Select Server File Permission and click Next**Step 14:** Click Execute to apply the configuration

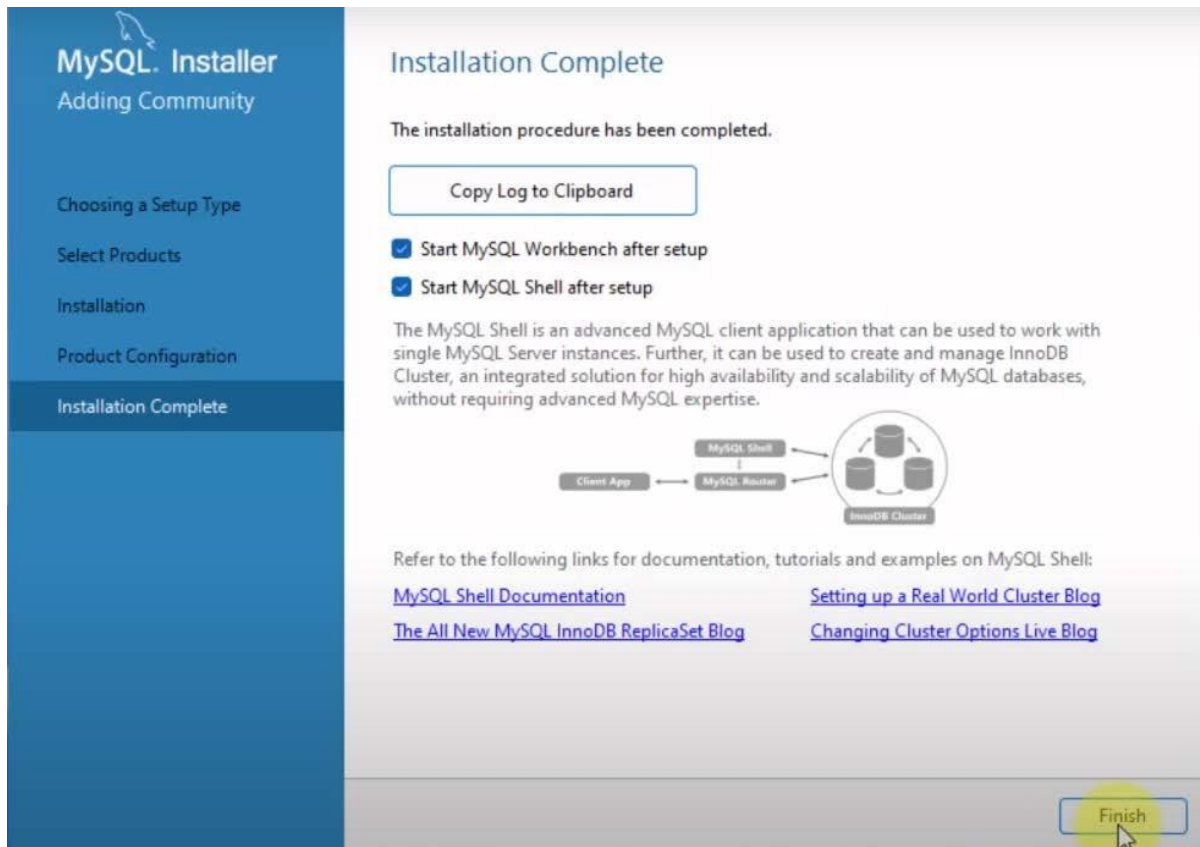
Step 15: After successful configuration click on Finish



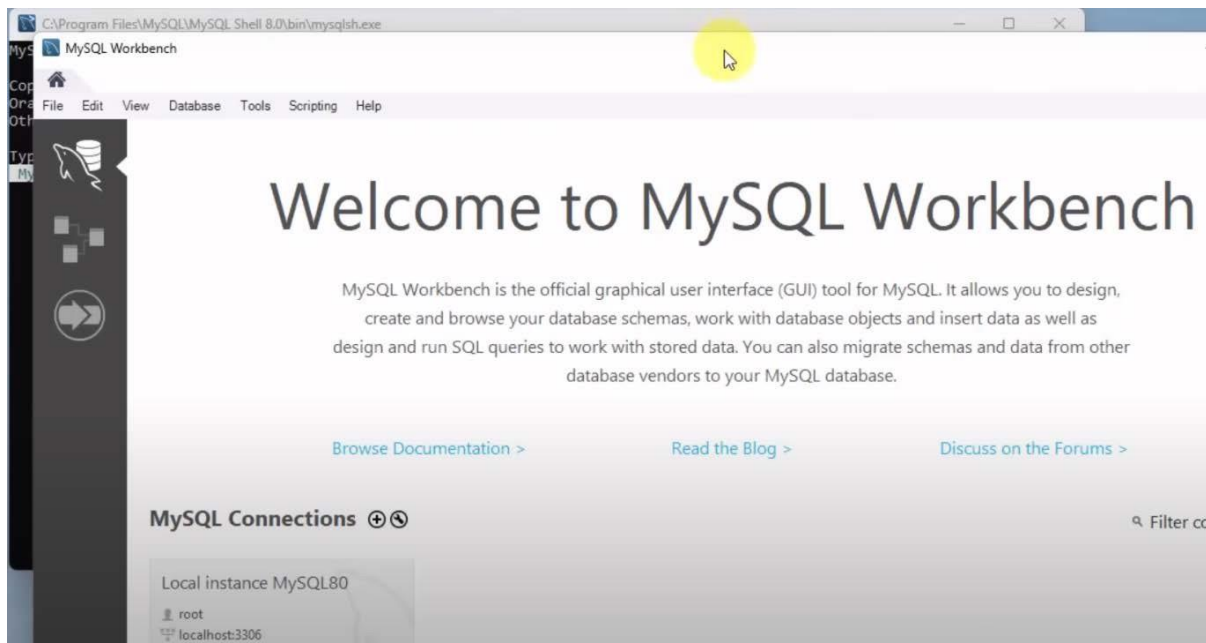
Step 16: Product configuration click on Next



Step 17: Once Installation completed click on Finish

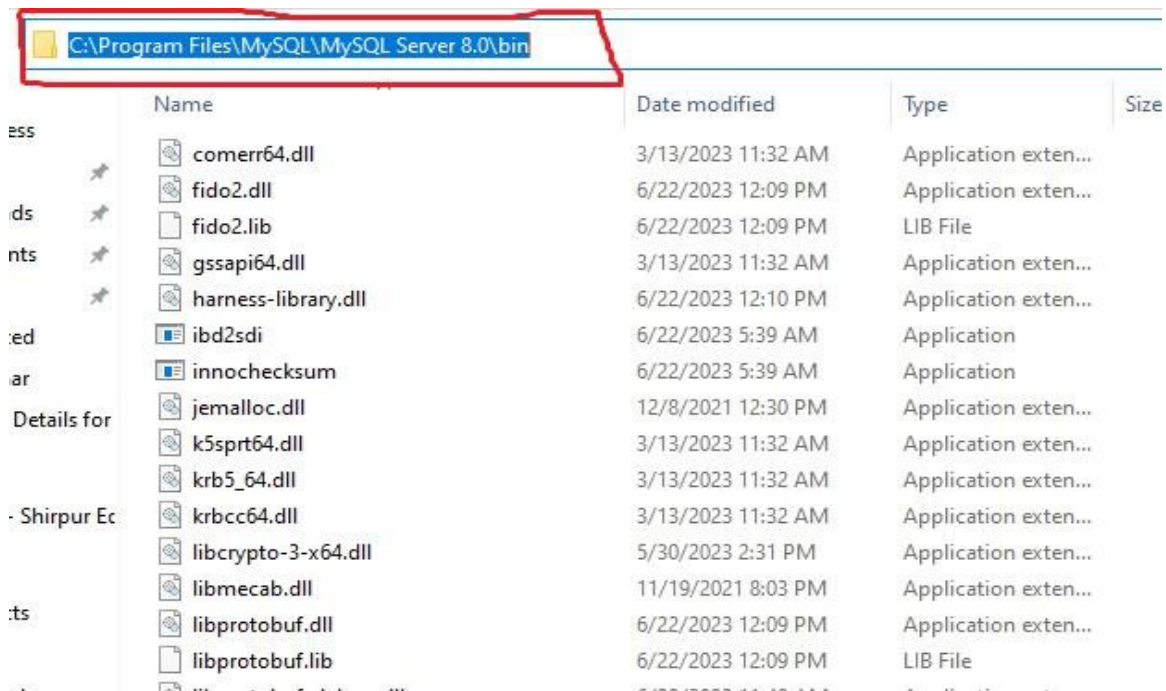


Step 18: Once the MySQL Shell and Workbench started set up the path and for that use step 19 and above

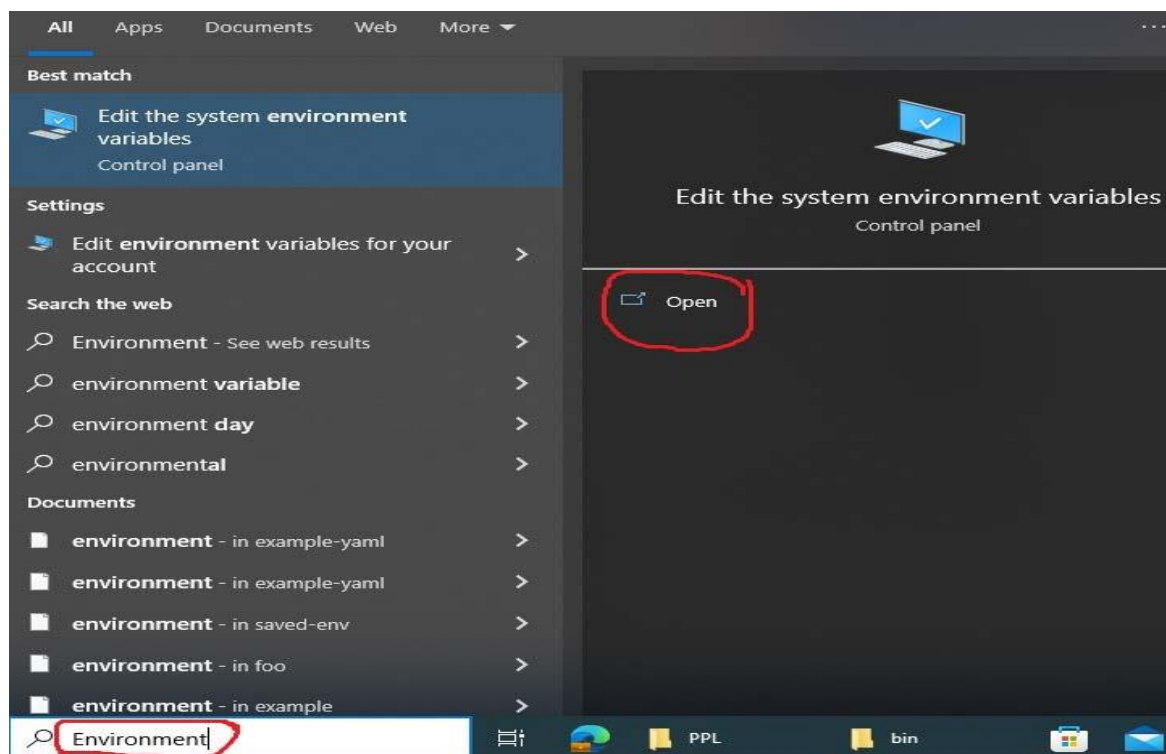


Step 19: Go to C drive -> Program Files -> MySQL -> MySQL Server 8.0 -> bin

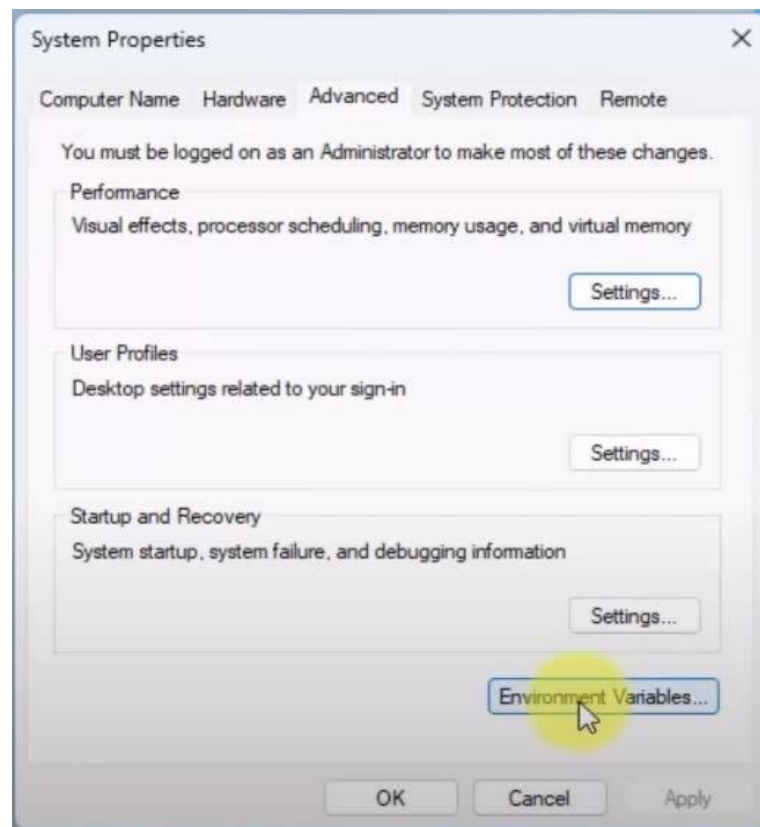
Copy this path



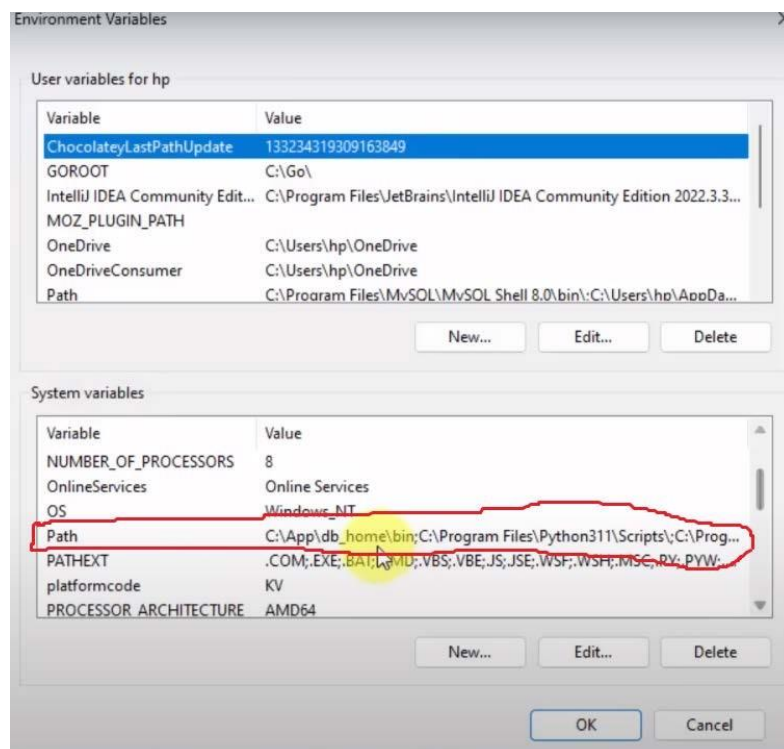
Step 20: Go to Start and Type Environment and click on Open



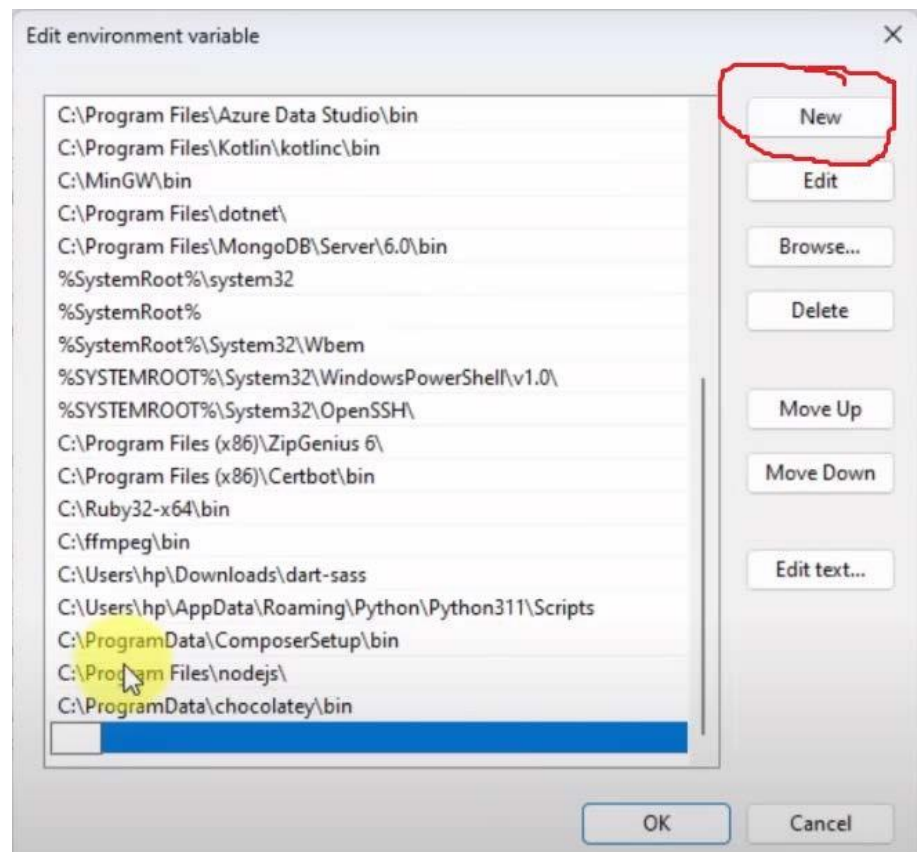
Step 21: Click on Environment Variables



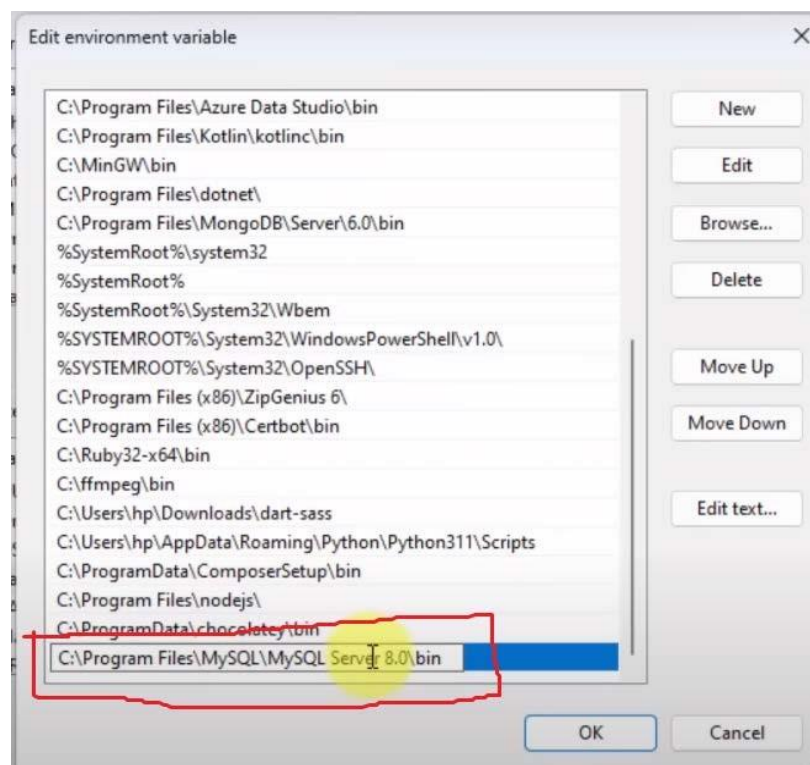
Step 22: Double click on Path in System variables



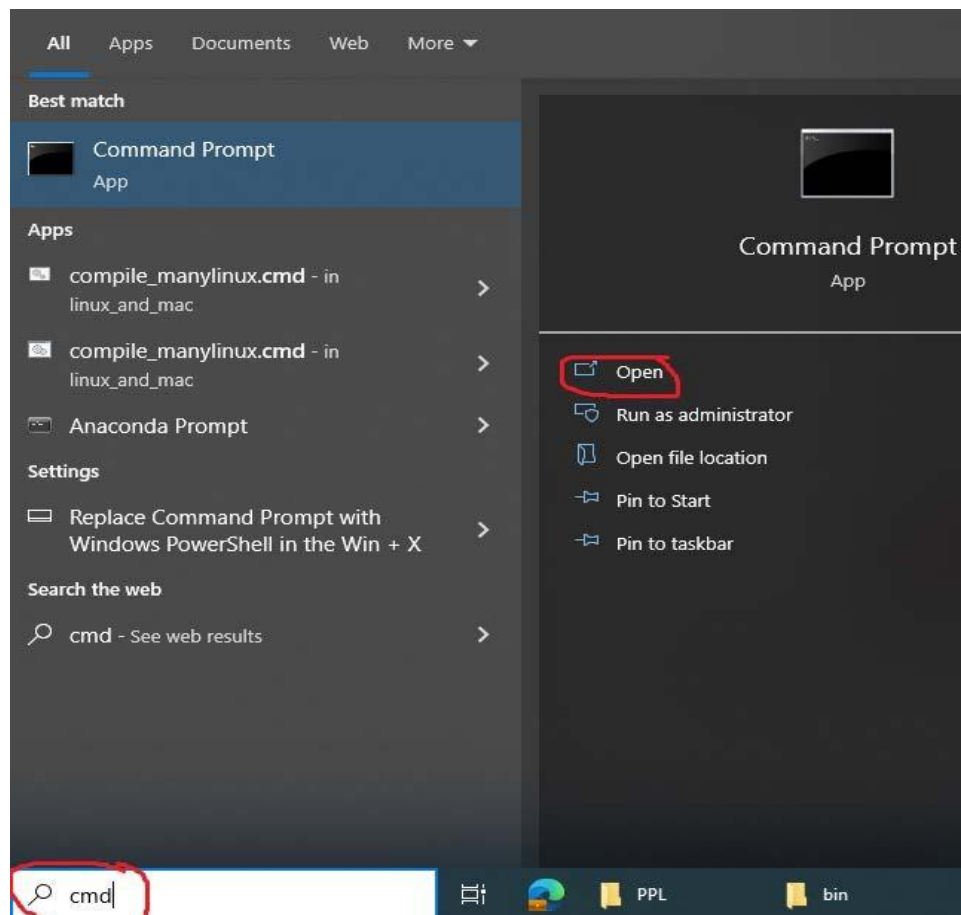
Step 23: Click on New



Step 24: Paste the same path copied in step 19 and click on OK -> OK -> OK



Step 25: Now Go to Start type cmd for command prompt and click on Open



Step 26: on a command prompt type -> mysql --version. This show current version of MySQL installed on the system

```
Command Prompt
Microsoft Windows [Version 10.0.19045.3570]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Naren>mysql --version
mysql Ver 8.0.34 for Win64 on x86_64 (MySQL Community Server - GPL)

C:\Users\Naren>
```


Step 27: Type `mysql -u root -p` and Enter the password which is `Rcpit@2023`

```
C:\> Command Prompt - mysql -u root -p
Microsoft Windows [Version 10.0.19045.3570]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Naren>mysql --version
mysql Ver 8.0.34 for Win64 on x86_64 (MySQL Community Server - GPL)

C:\Users\Naren>mysql -u root -p
Enter password: _
```

u for user
p for password : Rcpit@2023

Step 28: After writing password command prompt shows successful installation and connection of MySQL

```
C:\> Command Prompt - mysql -u root -p
Microsoft Windows [Version 10.0.19045.3570]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Naren>mysql --version
mysql Ver 8.0.34 for Win64 on x86_64 (MySQL Community Server - GPL)

C:\Users\Naren>mysql -u root -p
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.34 MySQL Community Server - GPL

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> _
```

Step 29: Type -> show databases; to show the default databases

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql      |
| performance_schema |
| sys       |
+-----+
4 rows in set (0.90 sec)

mysql>
```

Step 30: Type -> create database naren; which creates database naren to show the database use **step 29**

```
mysql> create database naren;
Query OK, 1 row affected (0.17 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql      |
| naren      |
| performance_schema |
| sys       |
+-----+
5 rows in set (0.00 sec)

mysql>
```

Conclusion: In this way we have successfully install MySQL database.

Name of Student: _____**Expt No:** _____ **Roll No:** _____ **Batch:** _____**Title of Experiment:** _____**Date of Performance:** _____ **Date of Submission:** _____**Marks:**

Performance in Experiments (5)

Journal Submission (5)

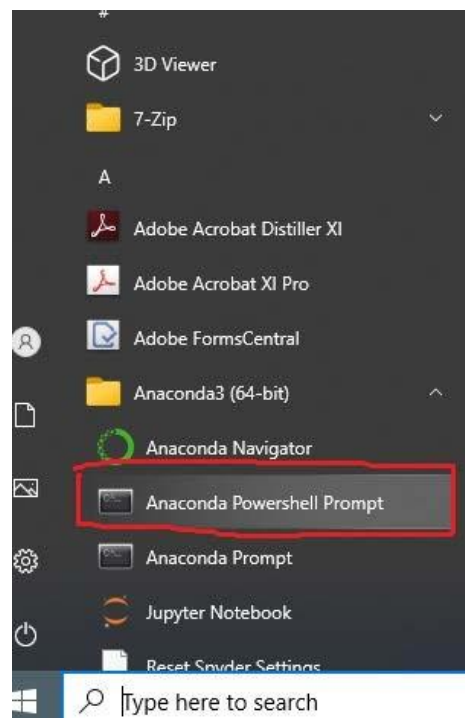
Viva-voce (5)

Overall Marks

Sign:**AIM: Program to establish database connection with MySQL.**

In order to establish connection it is necessary to install some dependencies and python packages. As in our previous laboratory we have successfully installed MySQL database. As we are using Jupyter notebook for our laboratory we have to follow the following steps.

Step 1: Go To -> start -> Anaconda3-> Anaconda Powershell Prompt and click on it



Step 2: check for python version type -> python --version

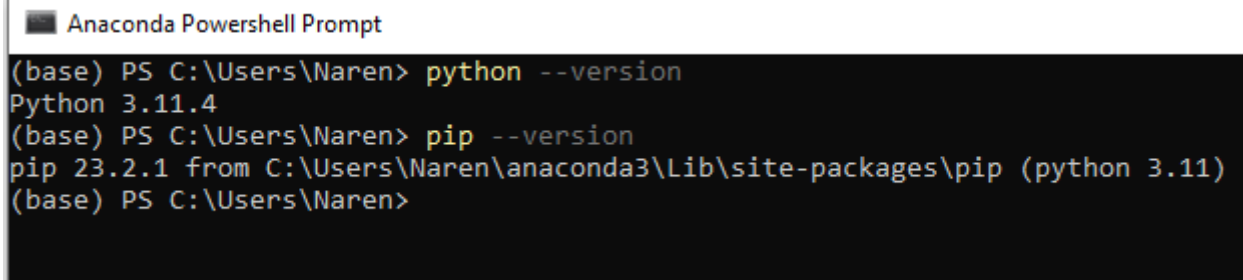
```

Anaconda Powershell Prompt
(base) PS C:\Users\Naren> python --version
Python 3.11.4
(base) PS C:\Users\Naren>

```

Python Programming

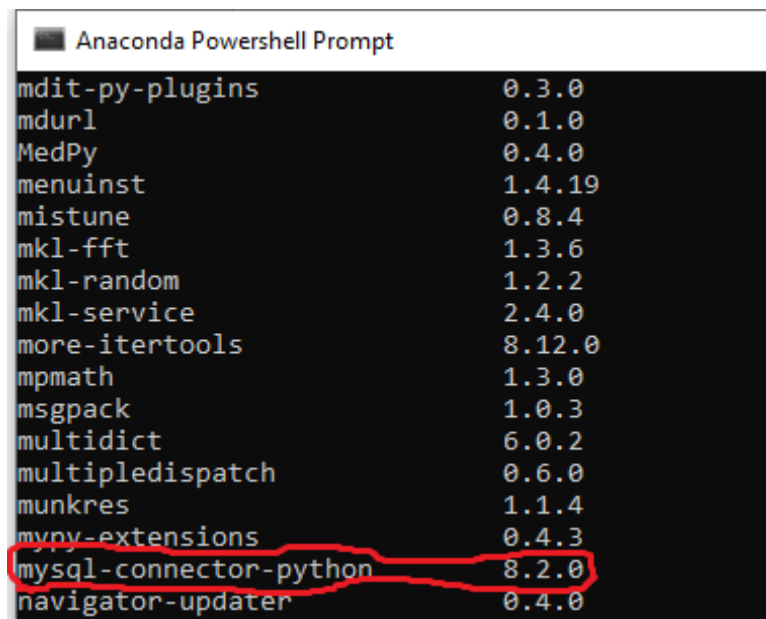
Step 3: check for pip version type -> pip --version



```
Anaconda Powershell Prompt
(base) PS C:\Users\Naren> python --version
Python 3.11.4
(base) PS C:\Users\Naren> pip --version
pip 23.2.1 from C:\Users\Naren\anaconda3\Lib\site-packages\pip (python 3.11)
(base) PS C:\Users\Naren>
```

Step 4: Type -> pip list which shows list of installed packages

if mysql-connector-python is installed then skip the step 5.



```
Anaconda Powershell Prompt
mdit-py-plugins          0.3.0
mdurl                    0.1.0
MedPy                     0.4.0
menuinst                 1.4.19
mistune                   0.8.4
mkl-fft                   1.3.6
mkl-random               1.2.2
mkl-service              2.4.0
more-itertools           8.12.0
mpmath                    1.3.0
msgpack                   1.0.3
multidict                 6.0.2
multipledispatch         0.6.0
munkres                  1.1.4
mypy-extensions          0.4.3
mysql-connector-python    8.2.0
navigator-updater        0.4.0
```

Step 5: On Anaconda Powershell Prompt type -> pip install mysql-connector-python. Once the installation is successful we can establish the connection.

Step 6: Now open jupyter notebook and type following code in the notebook.

CODE:

```
import mysql.connector

conn = mysql.connector.connect(host='localhost', password= 'Rcpit@2023',user='root')

if conn.is_connected():

    print("Connection Established")
```

OUTPUT:

```
Connection Established
```

Name of Student: _____**Expt No:** _____ **Roll No:** _____ **Batch:** _____**Title of Experiment:** _____**Date of Performance:** _____ **Date of Submission:** _____**Marks:**

Performance in Experiments (5)		
Journal Submission (5)		
Viva-voce (5)		
Overall Marks		

Sign:**AIM: Program to create database and table with MySQL.****CODE:**

```

import mysql.connector

db = mysql.connector.connect(host='localhost',
                             password= 'Rcpit@2023',
                             user='root')

mycursor = db.cursor()

mycursor.execute("CREATE DATABASE student1")
mycursor.execute("SHOW DATABASES")

for x in mycursor:
    print(x)

```

OUTPUT:

```

('information_schema',)
('mysql',)
('naren',)
('performance_schema',)
('student',)
('student1',)
('sys',)

```



CODE: Create Table student_info

```
import mysql.connector

db = mysql.connector.connect(host='localhost',
                             password= 'Satish@123',
                             user='root',
                             database='student')

mycursor = db.cursor()

mycursor.execute("CREATE TABLE student_info(name VARCHAR(50), age smallint
UNSIGNED, studentID int PRIMARY KEY AUTO_INCREMENT)")

mycursor.execute("SHOW TABLES")

for tb in mycursor:

    print(tb)
```

OUTPUT:

```
('student_info',)
```

CODE: Create Table student_info

```
import mysql.connector

db = mysql.connector.connect(host='localhost',
                             password= 'Satish@123',
                             user='root',
                             database='student')

mycursor = db.cursor()

mycursor.execute("CREATE TABLE student_info(name VARCHAR(50), age smallint
UNSIGNED, studentID int PRIMARY KEY AUTO_INCREMENT)")

mycursor.execute("SHOW TABLES")

for tb in mycursor:

    print(tb)
```

OUTPUT:

```
('student_info',)
```

CODE:

```
import mysql.connector

db = mysql.connector.connect(host='localhost',
                             password= 'Satish@123',
                             user='root',
                             database='student')

mycursor = db.cursor()

sqlFormula = "INSERT INTO student_info(name, age) VALUES(%s, %s) "

student1 = ("Narendra", 44)

mycursor.execute(sqlFormula, student1)

db.commit()
```

OUTPUT: