

Lesson 01 Demo 01

Creating Databases and Tables

Project Agenda: To create database and tables

Tools required: MySQL shell

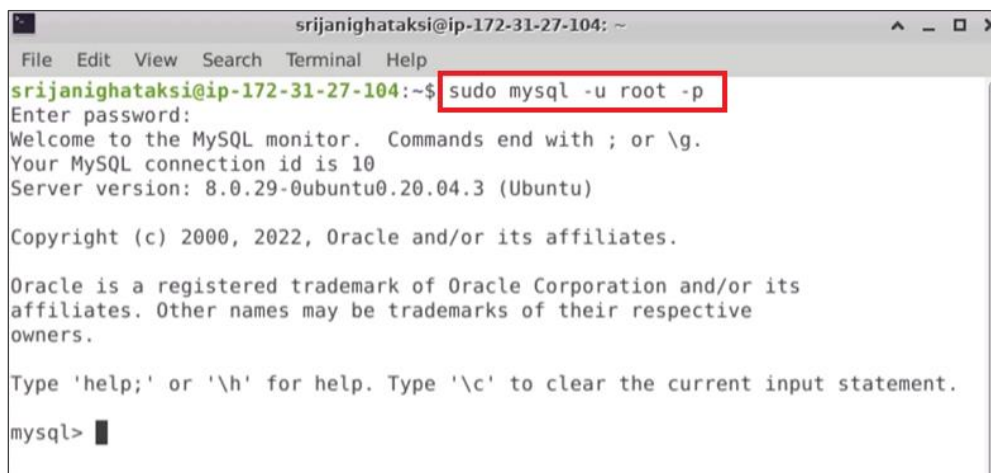
Prerequisites: SQL

Steps to be followed:

1. Open MySQL shell in terminal
2. Create a database mydb
3. Delete mydb
4. Create a new database named estore
5. Create a table named Product
6. Create two tables named User and Orders
7. Alter the table

Step 1: Open MySQL shell in terminal

- 1.1 Open the terminal in lab and type the following command to open MySQL shell:
sudo mysql -u root -p (password can be empty for this root user)

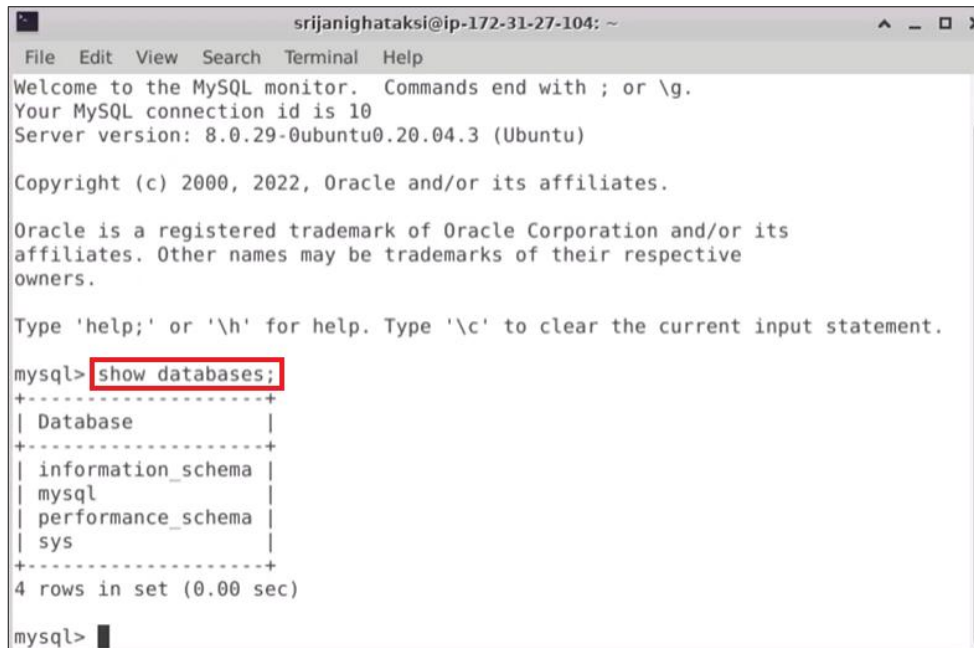


```
srijanighataksi@ip-172-31-27-104: ~  
File Edit View Search Terminal Help  
srijanighataksi@ip-172-31-27-104:~$ sudo mysql -u root -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 10  
Server version: 8.0.29-0ubuntu0.20.04.3 (Ubuntu)  
  
Copyright (c) 2000, 2022, 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 2: Create a database mydb

2.1 Run the following command to check the existing databases:

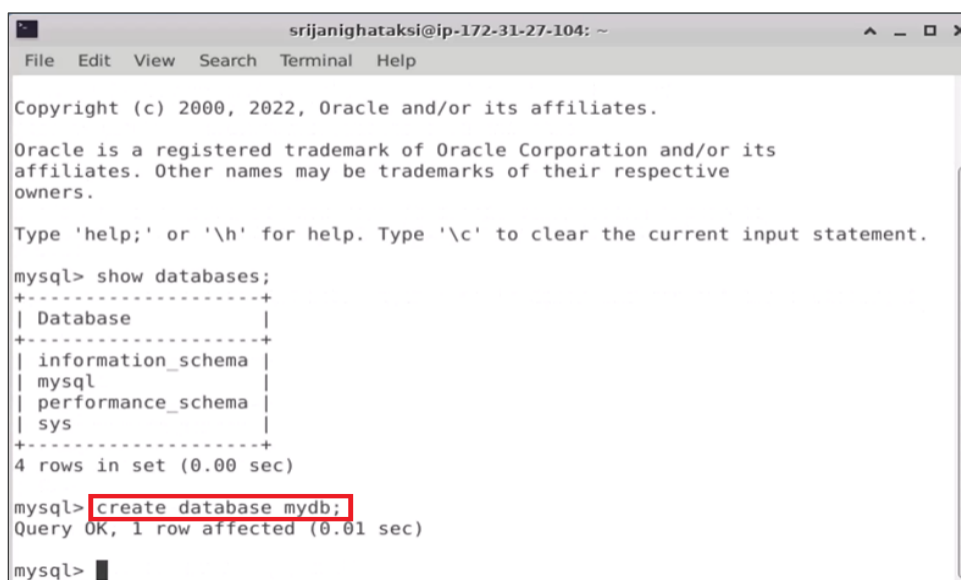
show databases;



```
srijanighataksi@ip-172-31-27-104: ~  
File Edit View Search Terminal Help  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 10  
Server version: 8.0.29-0ubuntu0.20.04.3 (Ubuntu)  
  
Copyright (c) 2000, 2022, 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> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mysql |  
| performance_schema |  
| sys |  
+-----+  
4 rows in set (0.00 sec)  
  
mysql>
```

2.2 Create a database using the following command:

create database mydb;



```
srijanighataksi@ip-172-31-27-104: ~  
File Edit View Search Terminal Help  
  
Copyright (c) 2000, 2022, 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> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mysql |  
| performance_schema |  
| sys |  
+-----+  
4 rows in set (0.00 sec)  
  
mysql> create database mydb;  
Query OK, 1 row affected (0.01 sec)  
  
mysql>
```

2.3 Check if **mydb** is created or not

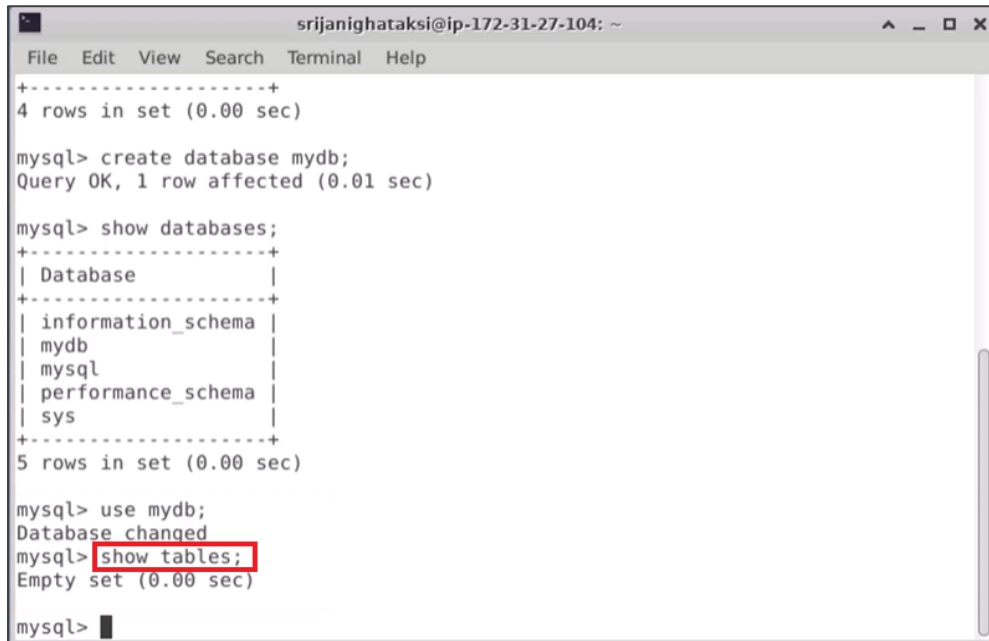
```
srijanighataksi@ip-172-31-27-104: ~  
File Edit View Search Terminal Help  
+-----+  
| information_schema |  
| mysql              |  
| performance_schema |  
| sys                |  
+-----+  
4 rows in set (0.00 sec)  
  
mysql> create database mydb;  
Query OK, 1 row affected (0.01 sec)  
  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mydb              |  
| mysql              |  
| performance_schema |  
| sys                |  
+-----+  
5 rows in set (0.00 sec)  
  
mysql> 
```

2.4 Change current database to **mydb**:

use mydb;

```
srijanighataksi@ip-172-31-27-104: ~  
File Edit View Search Terminal Help  
| mysql |  
| performance_schema |  
| sys   |  
+-----+  
4 rows in set (0.00 sec)  
  
mysql> create database mydb;  
Query OK, 1 row affected (0.01 sec)  
  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mydb              |  
| mysql              |  
| performance_schema |  
| sys                |  
+-----+  
5 rows in set (0.00 sec)  
  
mysql> use mydb;  
Database changed  
mysql> 
```

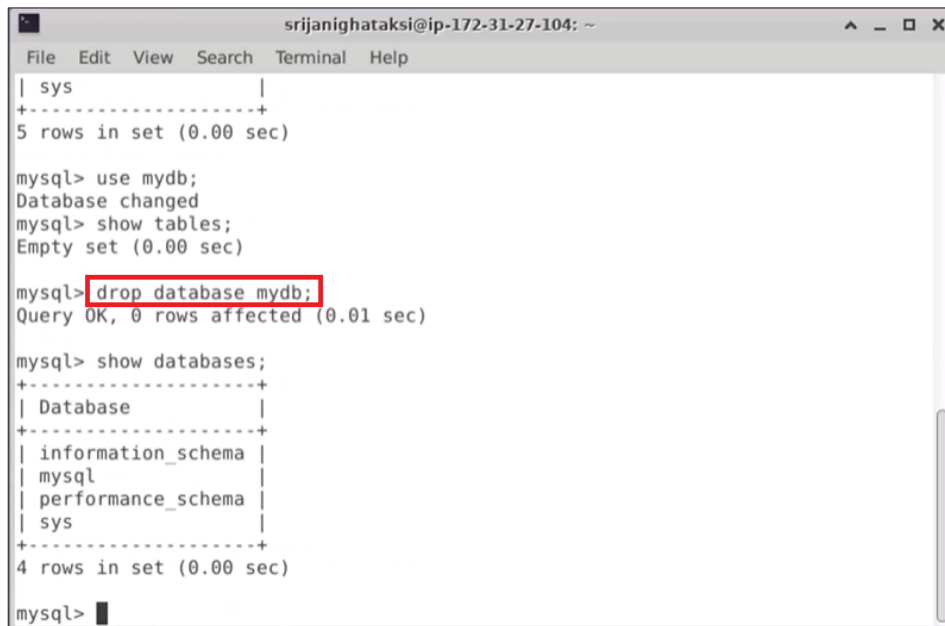
2.5 Check if there is any default table in **mydb** using the below command:
show tables;



```
srijanighataksi@ip-172-31-27-104: ~  
File Edit View Search Terminal Help  
+-----+  
4 rows in set (0.00 sec)  
  
mysql> create database mydb;  
Query OK, 1 row affected (0.01 sec)  
  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mydb |  
| mysql |  
| performance_schema |  
| sys |  
+-----+  
5 rows in set (0.00 sec)  
  
mysql> use mydb;  
Database changed  
mysql> show tables;  
Empty set (0.00 sec)  
  
mysql>
```

Step 3: Delete mydb

3.1 Delete **mydb** using the below command:
drop database mydb;



```
srijanighataksi@ip-172-31-27-104: ~  
File Edit View Search Terminal Help  
| sys |  
+-----+  
5 rows in set (0.00 sec)  
  
mysql> use mydb;  
Database changed  
mysql> show tables;  
Empty set (0.00 sec)  
  
mysql> drop database mydb;  
Query OK, 0 rows affected (0.01 sec)  
  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mysql |  
| performance_schema |  
| sys |  
+-----+  
4 rows in set (0.00 sec)  
  
mysql>
```

Step 4: Create a new database named estore

4.1 Run the following commands to create a new database and use it:

```
create database estore;  
use estore;
```

```
mysql> create database estore;  
Query OK, 1 row affected (0.01 sec)  
  
mysql> use estore;  
Database changed
```

Step 5: Create a new table named Product

5.1 Run the following commands to create a new table **Product** and to show it:

```
create table Product (pid int, name varchar (256), brand varchar (256), price int, color  
varchar (256), ratings float);
```

```
mysql> create table Product(pid int, name varchar(256), brand varchar(256), price int, color varchar(256), ratings float);  
Query OK, 0 rows affected (0.03 sec)  
  
mysql> show tables;  
+-----+  
| Tables_in_estore |  
+-----+  
| Product          |  
+-----+  
1 row in set (0.01 sec)  
  
mysql>
```

Step 6: Create two tables named User and Orders

6.1 Run the following commands to create new tables **User** and **Orders** and to show it:

```
create table User (uid int, email varchar (256), password varchar (256), name varchar  
(256), age int);  
create table Orders (oid int, useremail varchar (256), amount int);  
show tables;
```

```

srijanighataksi@ip-172-31-27-104: ~
File Edit View Search Terminal Help
+-----+
| Product |
+-----+
1 row in set (0.01 sec)

mysql> create table User(uid int, email varchar(256), password varchar(256), name varchar(256), age int);
Query OK, 0 rows affected (0.03 sec)

mysql> show tables;
+-----+
| Tables_in_estore |
+-----+
| Product |
| User |
+-----+
2 rows in set (0.00 sec)

mysql> create table Orders(oid int, useremail varchar(256), amount int);
Query OK, 0 rows affected (0.03 sec)

mysql> show tables;
+-----+
| Tables_in_estore |
+-----+
| Orders |
| Product |
| User |
+-----+
3 rows in set (0.00 sec)

mysql>

```

Step 7: Alter the table

7.1 Alter and confirm the table using the below mentioned commands:

describe User;
alter table User add prime int;
describe User;

```

srijanighataksi@ip-172-31-27-104: ~
File Edit View Search Terminal Help

mysql> describe User;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| uid | int | YES | | NULL | |
| email | varchar(256) | YES | | NULL | |
| password | varchar(256) | YES | | NULL | |
| name | varchar(256) | YES | | NULL | |
| age | int | YES | | NULL | |
+-----+
5 rows in set (0.00 sec)

mysql> alter table User add prime int;
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> describe User;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| uid | int | YES | | NULL | |
| email | varchar(256) | YES | | NULL | |
| password | varchar(256) | YES | | NULL | |
| name | varchar(256) | YES | | NULL | |
| age | int | YES | | NULL | |
| prime | int | YES | | NULL | |
+-----+
6 rows in set (0.00 sec)

mysql>

```