



# Mawlana Bhashani Science and Technology University

## Lab-Report

Lab Report No: 05

Lab Report Name: Connecting a database (MySQL) with Linux

Course code: ICT-3110

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**Reference : Zahid Hasan (IT-18017)**

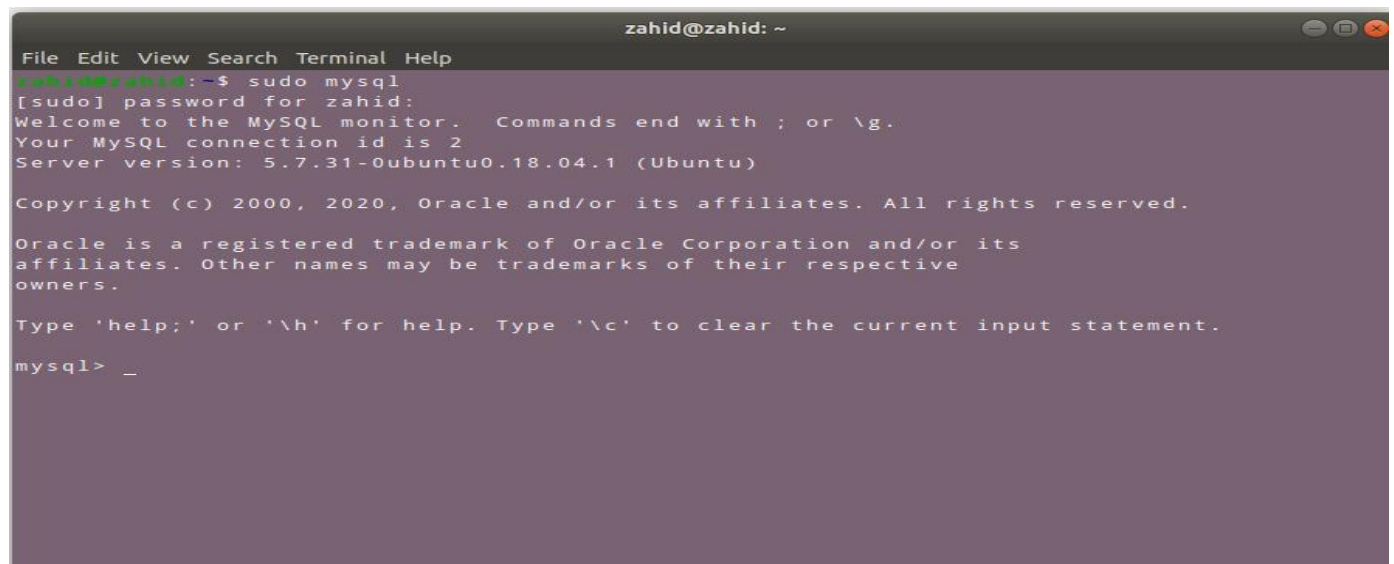
**Lab Report No: 05**

**Lab Report Name: Connecting a database (MySQL) with linux**

## 1. Install MySQL on Ubuntu

```
sudo apt-get install mysql-server
```

## 2. Log into mysql by linux ubuntu.

A terminal window titled 'zahid@zahid: ~' showing the process of logging into MySQL. The user runs 'sudo mysql', enters their password, and is greeted with a MySQL welcome message. The message includes the connection ID (2), server version (5.7.31-0ubuntu0.18.04.1), and copyright information. The prompt 'mysql>' is shown at the bottom.

```
File Edit View Search Terminal Help
zahid@zahid:~$ sudo mysql
[sudo] password for zahid:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2
Server version: 5.7.31-0ubuntu0.18.04.1 (Ubuntu)

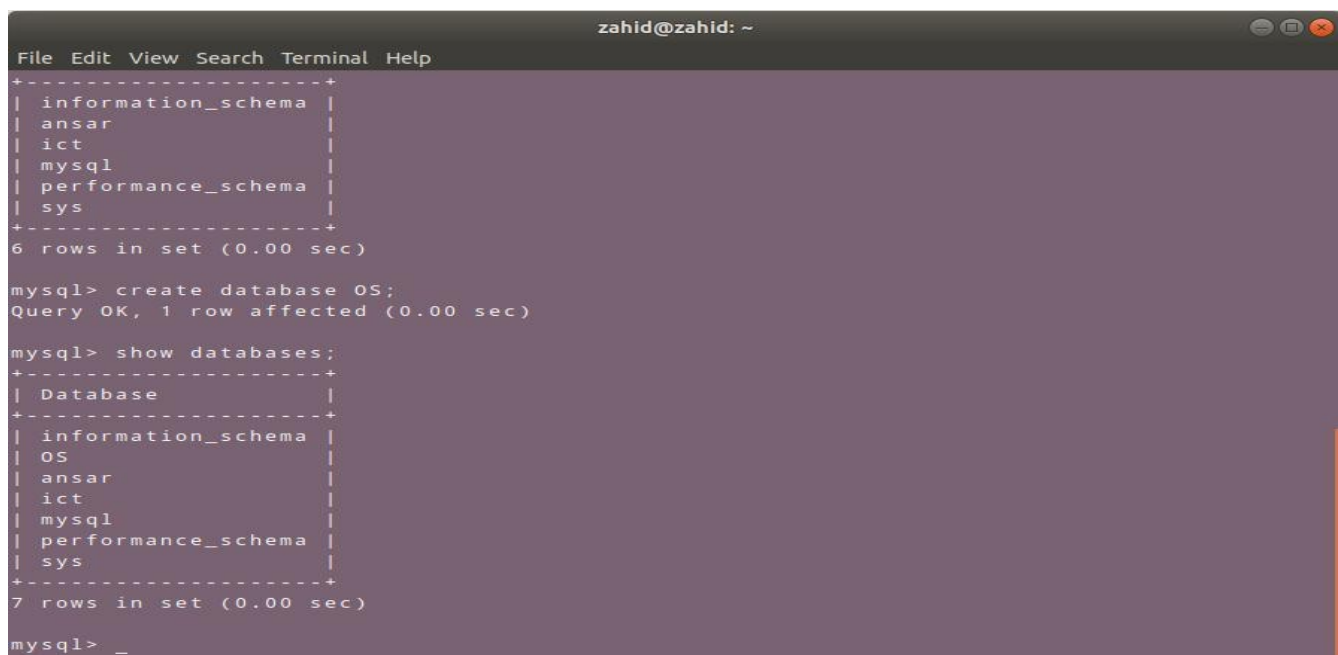
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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> _
```

## 3. show and create database :

A terminal window titled 'zahid@zahid: ~' showing database operations. The user runs 'create database OS;', which is successful. Then they run 'show databases;', which lists the existing databases, including the newly created 'OS' database. The prompt 'mysql>' is shown at the bottom.

```
File Edit View Search Terminal Help
+-----+
| information_schema |
| ansar              |
| ict                |
| mysql              |
| performance_schema |
| sys                |
+-----+
6 rows in set (0.00 sec)

mysql> create database OS;
Query OK, 1 row affected (0.00 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| OS          |
| ansar        |
| ict          |
| mysql        |
| performance_schema |
| sys          |
+-----+
7 rows in set (0.00 sec)

mysql> _
```

### 3. show and create table :

```
zahid@zahid: ~  
File Edit View Search Terminal Help  
mysql> show tables;  
ERROR 1046 (3D000): No database selected  
mysql> CREATE TABLE mytable(  
-> id INT NOT NULL,  
-> name VARCHAR(255) NOT NULL,  
-> cgpa VARCHAR(255),  
-> PRIMARY KEY(id)  
-> );  
ERROR 1046 (3D000): No database selected  
mysql> use OS  
Database changed  
mysql> show tables;  
Empty set (0.00 sec)  
  
mysql> CREATE TABLE mytable( id INT NOT NULL, name VARCHAR(255) NOT NULL, cgpa VARCHAR(255), PRIMARY KEY(id) );  
Query OK, 0 rows affected (0.34 sec)  
  
mysql> show tables;  
+-----+  
| Tables_in_OS |  
+-----+  
| mytable      |  
+-----+  
1 row in set (0.00 sec)  
  
mysql> _
```

#### 4. insert data into table :

```
mysql> INSERT INTO mytable values(18017,'Zahid Hasan','ICT');  
Query OK, 1 row affected (0.09 sec)
```

```
mysql> SELECT* FROM mytable;
```

```
+-----+-----+-----+  
| id    | name      | cgpa |  
+-----+-----+-----+  
| 18017 | Zahid Hasan | ICT  |  
+-----+-----+-----+  
1 row in set (0.00 sec)
```

```
mysql>
```

## 5. Describe table:

```
mysql> DESCRIBE STUDENTS;
ERROR 1146 (42S02): Table 'OS.STUDENTS' doesn't exist
mysql> DESCRIBE mytable;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int(11)       | NO   | PRI | NULL    |       |
| name  | varchar(255)  | NO   |     | NULL    |       |
| cgpa  | varchar(255)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

## 6. alter table :

```
mysql> ALTER TABLE student MODIFY id VARCHAR(20);
ERROR 1146 (42S02): Table 'OS.student' doesn't exist
mysql> ALTER TABLE mytable MODIFY id VARCHAR(20);
Query OK, 1 row affected (0.48 sec)
Records: 1  Duplicates: 0  Warnings: 0

mysql> DESCRIBE mytable;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | varchar(20)   | NO   | PRI | NULL    |       |
| name  | varchar(255)  | NO   |     | NULL    |       |
| cgpa  | varchar(255)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

## 7.modify table:

```
mysql> ALTER TABLE student MODIFY id VARCHAR(20);
ERROR 1146 (42S02): Table 'OS.student' doesn't exist
mysql> ALTER TABLE mytable MODIFY id VARCHAR(20);
Query OK, 1 row affected (0.48 sec)
Records: 1  Duplicates: 0  Warnings: 0

mysql> DESCRIBE mytable;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | varchar(20)   | NO   | PRI | NULL    |       |
| name  | varchar(255)  | NO   |     | NULL    |       |
| cgpa  | varchar(255)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

## 8. drop data from table:

```
zahid@zahid: ~  
File Edit View Search Terminal Help  
mysql> DESCRIBE mytable;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| id    | varchar(20)   | NO   | PRI | NULL    |       |  
| name  | varchar(255)  | NO   |     | NULL    |       |  
| cgpa  | varchar(255)  | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.00 sec)  
  
mysql> ALTER TABLE mytable DROP cgpa;  
Query OK, 0 rows affected (0.39 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> SELECT * FROM mytable  
-> SELECT * FROM mytable;  
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'SELECT * FROM mytable' at line 2  
mysql> SELECT * FROM mytable;  
+-----+-----+  
| id    | name          |  
+-----+-----+  
| 18017 | Zahid Hasan  |  
+-----+-----+  
1 row in set (0.00 sec)  
  
mysql> _
```

## 9.update data of table:

```
mysql> UPDATE mytable SET name='ZAhid' WHERE id=18017;  
Query OK, 1 row affected (0.07 sec)  
Rows matched: 1 Changed: 1 Warnings: 0  
  
mysql> SELECT* FROM mytable;  
+-----+-----+  
| id    | name          |  
+-----+-----+  
| 18017 | ZAhid        |  
+-----+-----+  
1 row in set (0.01 sec)  
  
mysql> _
```

**Conclusion:** In this Lab report, we learnt about how to connecting mysql in ubuntu and this is very useful for our site, such as programming, creating project and store huge elements of data in database. In all the above tasks we are doing with mysql.