MAWLANA BHASHANI SCIENCE AND TECHNOLOGY UNIVERSITY
Santosh,Tangail-1902

LAB REPORT

Department of   :   Information & Communication Technology

Lab Report No   :   05

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

Course Title   :   Operating Systems Lab

Course Code   :   ICT - 3110

Submitted by,

Name   :   Tanvir Ahmed

Student ID   :   IT-18043

Session   :   2017-18

Year: 3rd   Semester : 2nd

Dept. of   ICT
MBSTU

Submitted to,

Nazrul Islam

Assistant Professor

Dept. of ICT,
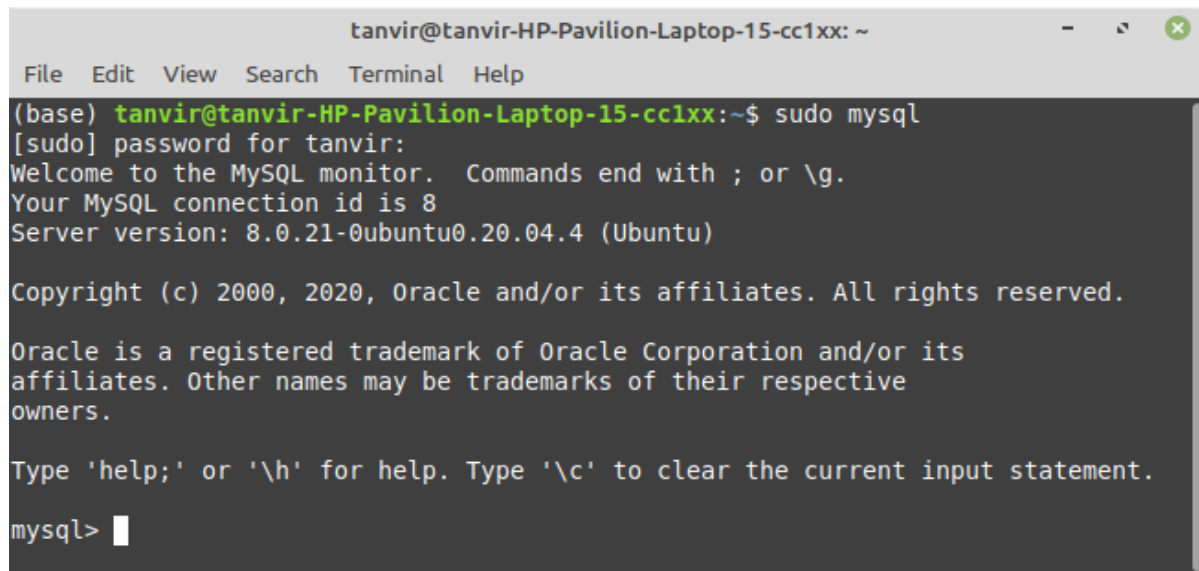MBSTU

Date of Performance :   Date of Submission :

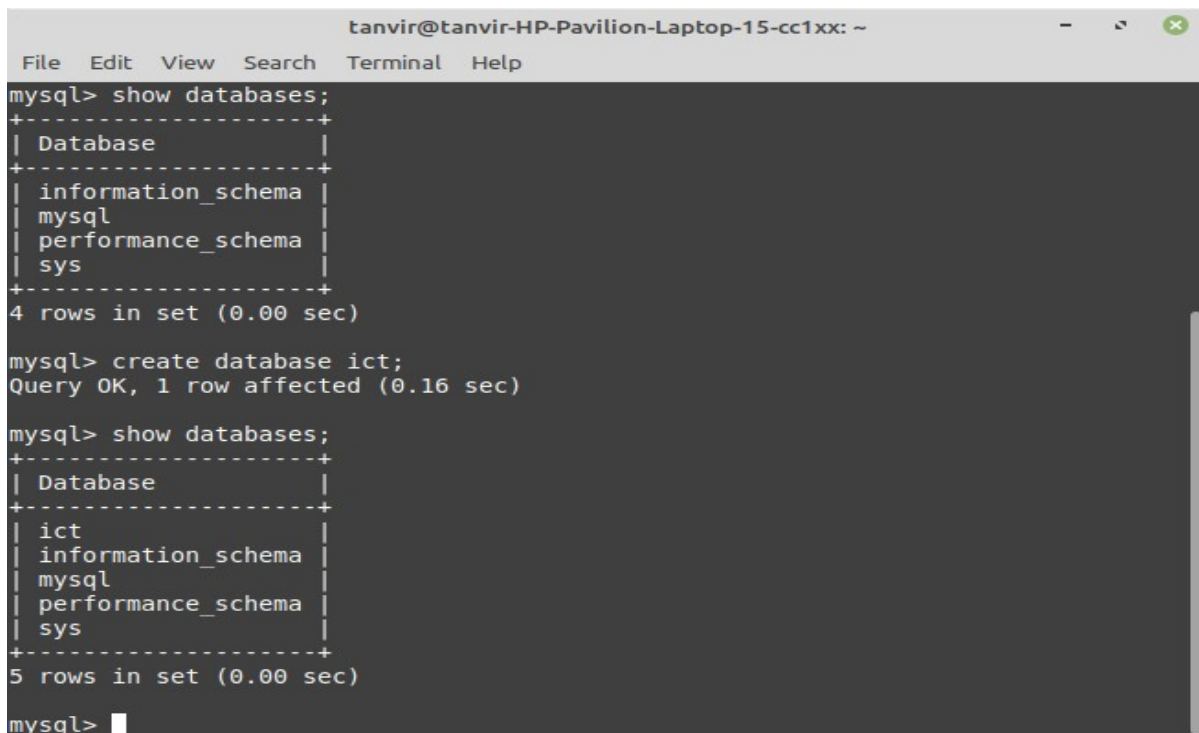# Lab 05 - Connecting a database (MySQL) with linux

1. Install MySQL on Ubuntu

sudo apt-get install **mysql-server**

2. Log into mysql by linux ubuntu.

```
                    tanvir@tanvir-HP-Pavilion-Laptop-15-cc1xx: ~          -  ↙  ⊗
 File   Edit   View   Search   Terminal   Help
(base) tanvir@tanvir-HP-Pavilion-Laptop-15-cc1xx:~$ sudo mysql
[sudo] password for tanvir:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.21-0ubuntu0.20.04.4 (Ubuntu)

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owners.

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

mysql> █
```

3.show and create database :

```
                    tanvir@tanvir-HP-Pavilion-Laptop-15-cc1xx: ~          -  ↙  ⊗
 File   Edit   View   Search   Terminal   Help
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
4 rows in set (0.00 sec)

mysql> create database ict;
Query OK, 1 row affected (0.16 sec)

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

mysql> █
```

3. show and create table :

```
tanvir@tanvir-HP-Pavilion-Laptop-15-cc1xx: ~

File  Edit  View  Search  Terminal  Help
mysql> show tables;
+--------------+
| Tables_in_ict |
+--------------+
| MyGuests     |
| student      |
+--------------+
2 rows in 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 (0.56 sec)

mysql> show tables;
+--------------+
| Tables_in_ict |
+--------------+
| MyGuests     |
| myTable      |
| student      |
+--------------+
3 rows in set (0.01 sec)

mysql>
```

4. insert data into table :

```
tanvir@tanvir-HP-Pavilion-Laptop-15-cc1xx: ~

File  Edit  View  Search  Terminal  Help
mysql> INSERT INTO myTable values(18043,'Tanvir Ahmed','ICT');
Query OK, 1 row affected (0.21 sec)

mysql> SELECT* FROM myTable;
+-------+--------------+------+
| id    | name         | cgpa |
+-------+--------------+------+
| 18043 | Tanvir Ahmed | ICT  |
+-------+--------------+------+
1 row in set (0.01 sec)

mysql>
```

5. Describe table:

```
Empty set (0.02 sec)

mysql> DESCRIBE STUDENTS;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| ID      | int         | NO   | PRI | NULL    |       |
| NAME    | varchar(20) | NO   |     | NULL    |       |
| AGE     | int         | NO   |     | NULL    |       |
| ADDRESS | char(25)    | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
4 rows in set (0.01 sec)

mysql>
```

6. alter table :

```
                  tanvir@tanvir-HP-Pavilion-Laptop-15-cc1xx: ~          -  ⌥  ⊗

File  Edit  View  Search  Terminal  Help

mysql> ALTER TABLE student ADD mobile VARCHAR(15);
Query OK, 0 rows affected (0.42 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> DESCRIBE student;
+--------+--------------+------+-----+---------+-------+
| Field  | Type         | Null | Key | Default | Extra |
+--------+--------------+------+-----+---------+-------+
| id     | int          | NO   | PRI | NULL    |       |
| name   | varchar(255) | NO   |     | NULL    |       |
| dept   | varchar(255) | YES  |     | NULL    |       |
| mobile | varchar(15)  | YES  |     | NULL    |       |
+--------+--------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

mysql>
```

7.modify table:

```
                  tanvir@tanvir-HP-Pavilion-Laptop-15-cc1xx: ~          -  ⌥  ⊗

File   Edit   View   Search   Terminal   Help

mysql> ALTER TABLE student MODIFY id VARCHAR(20);
Query OK, 5 rows affected (1.67 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql> DESCRIBE student;
+--------+--------------+------+-----+---------+-------+
| Field  | Type         | Null | Key | Default | Extra |
+--------+--------------+------+-----+---------+-------+
| id     | varchar(20)  | NO   | PRI | NULL    |       |
| name   | varchar(255) | NO   |     | NULL    |       |
| dept   | varchar(255) | YES  |     | NULL    |       |
| mobile | varchar(15)  | YES  |     | NULL    |       |
+--------+--------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

mysql>
```

8. drop data from table:

```
                    tanvir@tanvir-HP-Pavilion-Laptop-15-cc1xx: ~          –  ⟋  ✕

 File   Edit   View   Search   Terminal   Help
mysql> ALTER TABLE student DROP mobile;
Query OK, 0 rows affected (1.78 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM student;
+-------+---------------------+------+
| id    | name                | dept |
+-------+---------------------+------+
| 18002 | Masud               | ICT  |
| 18034 | Milon               | ICT  |
| 18038 | Farhana Afrin Shikha | ICT |
| 18041 | Iqbal               | ICT  |
| 18043 | Tanvir Ahmed        | ICT  |
+-------+---------------------+------+
5 rows in set (0.00 sec)

mysql>
```

9.update data of table:

```
                    tanvir@tanvir-HP-Pavilion-Laptop-15-cc1xx: ~          –  ⟋  ✕

 File   Edit   View   Search   Terminal   Help
mysql> UPDATE myTable SET cgpa='3.75' WHERE id=18043;
Query OK, 1 row affected (0.11 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> SELECT* FROM myTable;
+-------+---------------------+------+
| id    | name                | cgpa |
+-------+---------------------+------+
| 18002 | Masud Rana          | 3.80 |
| 18034 | Milon Miah          | 3.70 |
| 18040 | Abdullah Ahmed Mamun | 3.70 |
| 18041 | Iqbal Ahmed         | 3.70 |
| 18043 | Tanvir Ahmed        | 3.75 |
+-------+---------------------+------+
5 rows in set (0.00 sec)

mysql>
```

10. Where and delete operation:

```
                          tanvir@tanvir-HP-Pavilion-Laptop-15-cc1xx: ~          _   ⌕   ⊗

 File   Edit   View   Search   Terminal   Help
mysql> SELECT * FROM student;
+-------+----------------------+------+
| id    | name                 | dept |
+-------+----------------------+------+
| 18002 | Masud                | ICT  |
| 18034 | Milon                | ICT  |
| 18038 | Farhana Afrin Shikha | ICT  |
| 18041 | Iqbal                | ICT  |
| 18043 | Tanvir Ahmed         | ICT  |
+-------+----------------------+------+
5 rows in set (0.00 sec)

mysql> DELETE FROM student WHERE name='Iqbal';
Query OK, 1 row affected (0.13 sec)

mysql> SELECT * FROM student;
+-------+----------------------+------+
| id    | name                 | dept |
+-------+----------------------+------+
| 18002 | Masud                | ICT  |
| 18034 | Milon                | ICT  |
| 18038 | Farhana Afrin Shikha | ICT  |
| 18043 | Tanvir Ahmed         | ICT  |
+-------+----------------------+------+
4 rows in set (0.00 sec)

mysql>
```