MAWLANA BHASHANI SCIENCE AND TECHNOLOGY UNIVERSITY
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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

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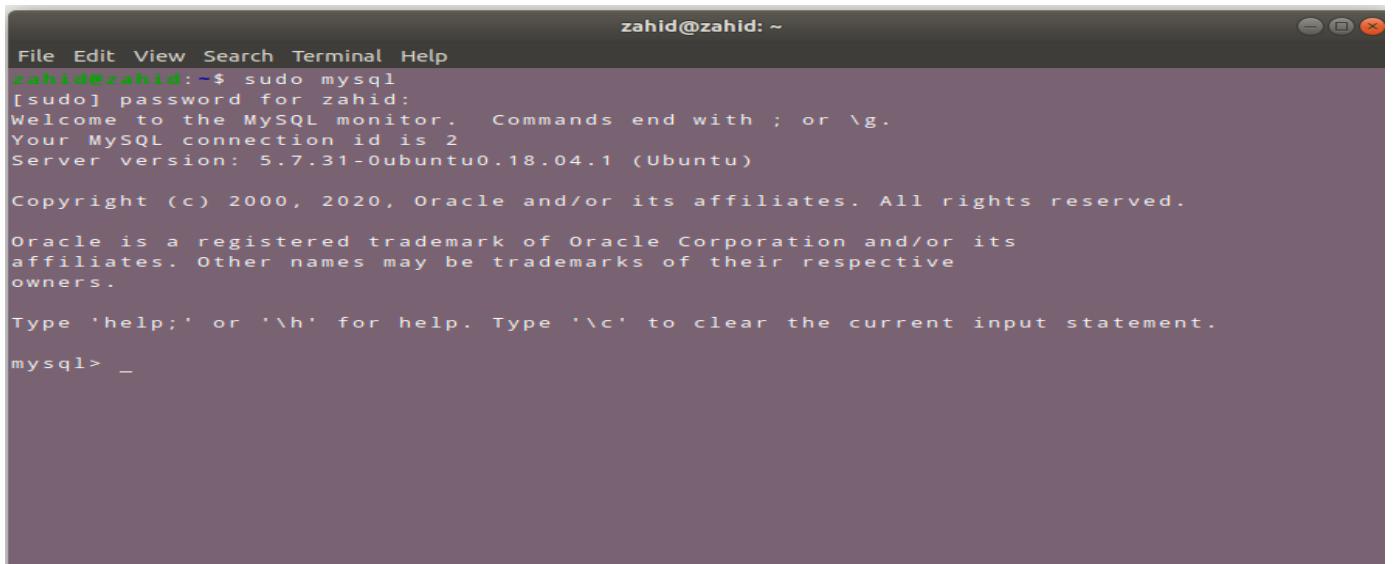
Date of Performance :　　　　Date of Submission :

1. Install MySQL on Ubuntu

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

2. Log into mysql by linux ubuntu.

```
                          zahid@zahid: ~
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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owners.

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

mysql> _
```
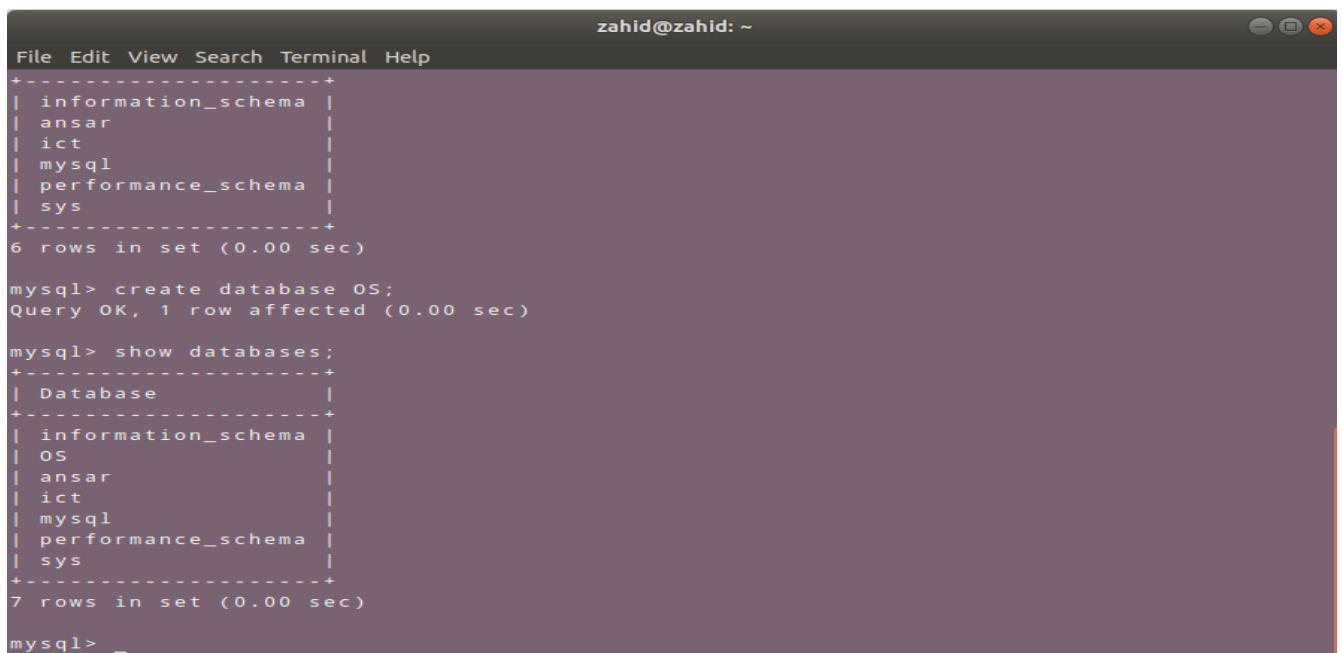
3.show and create database :

```
                          zahid@zahid: ~
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(2
55), 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 correspo
nds 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> _
```