Mawlana Bhashani Science and Technology University

Lab-Report

Report No: 05

Course code: ICT-3110

Course title: Operating System Lab

Date of Performance:

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Submitted by

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Dept. of ICT

MBSTU.

Submitted To

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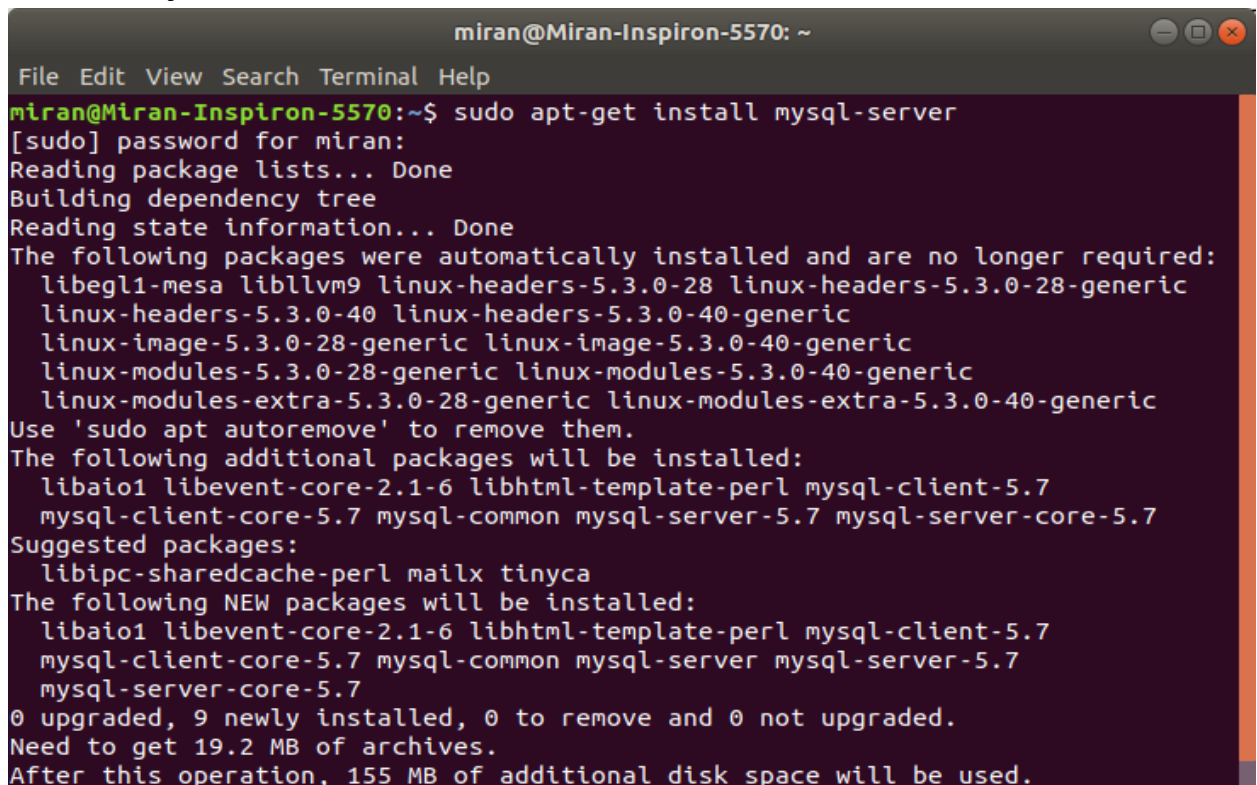
Assistant Professor

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Experiment No: 05

Experiment Name: Connecting a database with linux.

Objectives:

i)   Install MySQL on Ubuntu.
ii)   Log into MySQL by Linux.
iii)   Create database table.
iv)   Insert data into table.
v)   Describe table.
vi)   Alter table.
vii)   Modify table.
viii)   Drop data form table.
ix)   Update data of table.
x)   Where and delete operation.

1. **Install MySQL on Ubuntu.**

2. Log into MySQL by Linux.


```
miran@Miran-Inspiron-5570:~$ sudo mysql
[sudo] password for miran:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 4
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. Create database table.


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

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

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

mysql>
```

4. Insert data into table.

```
                         miran@Miran-Inspiron-5570: ~

 File  Edit  View  Search  Terminal  Help
mysql> use miran;
Database changed
mysql> show tables;
Empty set (0.00 sec)

mysql> create table info(serial_no int,
    -> name varchar(30),
    -> ocupation varchar(30),
    -> address varchar(30));
Query OK, 0 rows affected (0.76 sec)

mysql> show tables;
+-----------------+
| Tables_in_miran |
+-----------------+
| info            |
+-----------------+
1 row in set (0.00 sec)

mysql> ;2~
```

5. Describe table.

```
                         miran@Miran-Inspiron-5570: ~

 File  Edit  View  Search  Terminal  Help
mysql> describe info;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| serial_no | int(11)     | YES  |     | NULL    |       |
| name      | varchar(30) | YES  |     | NULL    |       |
| ocupation | varchar(30) | YES  |     | NULL    |       |
| address   | varchar(30) | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
4 rows in set (0.01 sec)

mysql>
```

6. Alter table.

```
mysql> alter table info add age int;
Query OK, 0 rows affected (0.87 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select * from info;
+-----------+-------+-----------+---------+------+
| serial_no | name  | ocupation | address | age  |
+-----------+-------+-----------+---------+------+
|         1 | miran | student   | tangail | NULL |
|         1 | miran | student   | tangail | NULL |
|         1 | miran | student   | tangail | NULL |
|         1 | miran | student   | tangail | NULL |
+-----------+-------+-----------+---------+------+
4 rows in set (0.00 sec)

mysql>
```

7. Modify table.

```
mysql> alter table info modify serial_no varchar(20);
Query OK, 4 rows affected (1.17 sec)
Records: 4  Duplicates: 0  Warnings: 0

mysql> describe info;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| serial_no | varchar(20) | YES  |     | NULL    |       |
| name      | varchar(30) | YES  |     | NULL    |       |
| ocupation | varchar(30) | YES  |     | NULL    |       |
| address   | varchar(30) | YES  |     | NULL    |       |
| age       | int(11)     | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)

mysql>
```
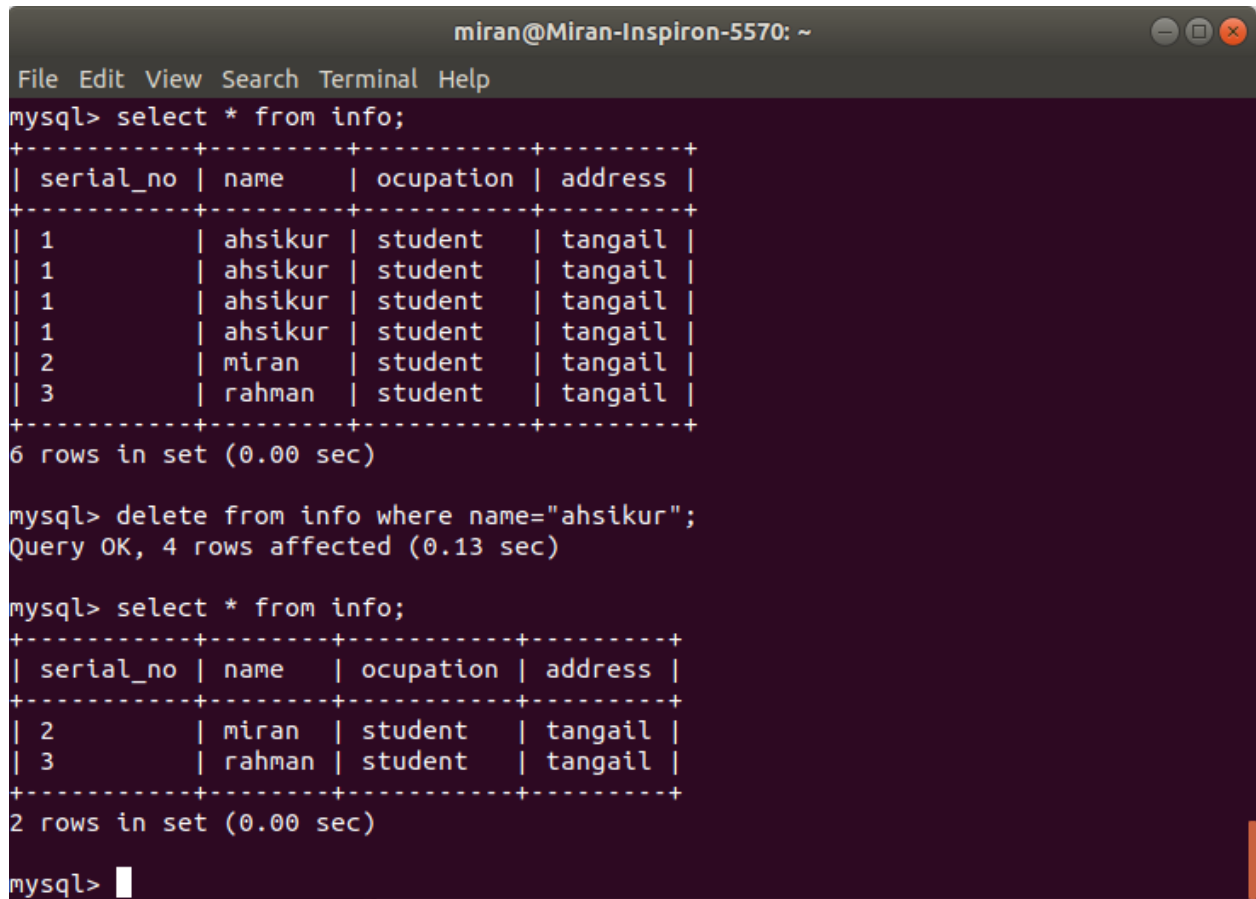
8. Drop data form table.

```
                          miran@Miran-Inspiron-5570: ~

 File  Edit  View  Search  Terminal  Help

mysql> alter table info drop age;
Query OK, 0 rows affected (0.85 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select * from info;
+-----------+-------+-----------+---------+
| serial_no | name  | ocupation | address |
+-----------+-------+-----------+---------+
| 1         | miran | student   | tangail |
| 1         | miran | student   | tangail |
| 1         | miran | student   | tangail |
| 1         | miran | student   | tangail |
+-----------+-------+-----------+---------+
4 rows in set (0.00 sec)

mysql>
```

9. Update data of table.

```
                          miran@Miran-Inspiron-5570: ~

 File  Edit  View  Search  Terminal  Help

mysql> update info set name="ahsikur" where serial_no=1;
Query OK, 4 rows affected (0.13 sec)
Rows matched: 4  Changed: 4  Warnings: 0

mysql> select * from info;
+-----------+---------+-----------+---------+
| serial_no | name    | ocupation | address |
+-----------+---------+-----------+---------+
| 1         | ahsikur | student   | tangail |
| 1         | ahsikur | student   | tangail |
| 1         | ahsikur | student   | tangail |
| 1         | ahsikur | student   | tangail |
+-----------+---------+-----------+---------+
4 rows in set (0.00 sec)

mysql>
```

10. Where and delete operation:

```
                        miran@Miran-Inspiron-5570: ~
File  Edit  View  Search  Terminal  Help
mysql> select * from info;
+-----------+---------+-----------+---------+
| serial_no | name    | ocupation | address |
+-----------+---------+-----------+---------+
| 1         | ahsikur | student   | tangail |
| 1         | ahsikur | student   | tangail |
| 1         | ahsikur | student   | tangail |
| 1         | ahsikur | student   | tangail |
| 2         | miran   | student   | tangail |
| 3         | rahman  | student   | tangail |
+-----------+---------+-----------+---------+
6 rows in set (0.00 sec)

mysql> delete from info where name="ahsikur";
Query OK, 4 rows affected (0.13 sec)

mysql> select * from info;
+-----------+--------+-----------+---------+
| serial_no | name   | ocupation | address |
+-----------+--------+-----------+---------+
| 2         | miran  | student   | tangail |
| 3         | rahman | student   | tangail |
+-----------+--------+-----------+---------+
2 rows in set (0.00 sec)

mysql>
```

Conclusion:

In this lab I learn how to install mysql server in Ubuntu, create database, create table, alter table . I also run all the code and show the output.