Mawlana Bhashani Science and Technology University

Lab-Report

Report No:05

Course code:ICT-3110

Course title:Operating Systems Lab

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Submitted by

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Experiment No: 05

Experiment Name: Connection a database(mysql) with linux.

Aim and objectives :

To know how to install database in Linux and perform various operation via connecting to it .

Commands :

To word with database we first need to install the database in our system using the command below we can install mysql-server

sudo apt-get update sudo apt-get install mysql-server

```
meraz@meraz-VirtualBox:~$ sudo apt-get  install mysql-server
[sudo] password for meraz:
Reading package lists... Done
Building dependency tree
Reading state information... Done
mysql-server is already the newest version (5.7.31-0ubuntu0.18.04.1).
0 upgraded, 0 newly installed, 0 to remove and 435 not upgraded.
```

```
Success.

Reloading the privilege tables will ensure that all changes
made so far will take effect immediately.

Reload privilege tables now? (Press y|Y for Yes, any other key for No) : y
Success.

All done!
meraz@meraz-VirtualBox:~$ sudo mysql -u root -p
Enter password:
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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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

after installation we need to set it up , to do so we can type the command /usr/bin/mysql_secure_installation

The secure installer goes through the process of setting up MySQL including creating a root user password. It will prompt us for some security options, including removing remote access to the root user and setting the root password.

Now that we are done with setups we can start out experimenting with database system by logging in

To get the list of data Databases type show Databases .

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
4 rows in set (0.08 sec)
```

We need to select a database first to do so we use the keyword select 'DatabaseName'.

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

mysql> use meraz;
Database changed
```

Now to create a table we use the syntax create table 'TableName' Values(val1_name <data_type> , val2_name <data_type>…….);

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| meraz              |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
```

Now to see whats in the table we use select * from ‘TableName’

```
mysql> select * from meraz2;
+-------+-----+------+----------+
| name  | age | dept | id       |
+-------+-----+------+----------+
| Meraz |  20 | ICT  | IT-18005 |
+-------+-----+------+----------+
1 row in set (0.00 sec)
```

```
mysql> alter table meraz2 add district varchar(50);
Query OK, 0 rows affected (0.15 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc meraz2;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| name     | varchar(50) | NO   |     | NULL    |       |
| age      | int(11)     | NO   |     | NULL    |       |
| dept     | varchar(50) | NO   |     | NULL    |       |
| id       | varchar(50) | NO   |     | NULL    |       |
| district | varchar(50) | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
```

Conclusion :

In this lab we learnt how to install database in Linux bases operating systems . Using database is a convenient way of saving data in both research and technical fields , so it will be of great help in near future .