Lab No-05

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

Objectives:
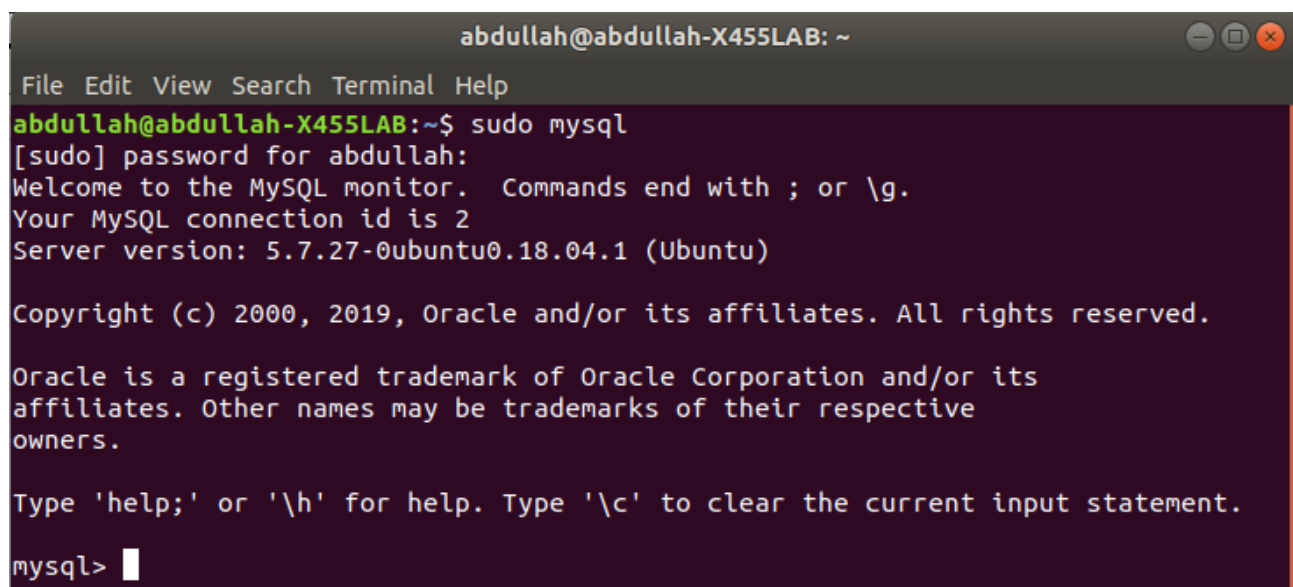
i.	Install mysql on Ubuntu
ii.	login into mysql
iii.	Create database table.
iv.	Insert data into table.
v.	Describe table.
vi.	Alter table.
vii.	Modify table.
viii.	Drop data from table.
ix.	Update data of table.
x.	Where and delete operation.

1.Install mysql on ubuntu: To install mysql on ubuntu we need to write the following commands on linux terminal.

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

2.Login into mysql: For login into mysql after installation we need to write the following commands in linux terminal.

```
Sudo mysql
```

3.Create and show databases: To show databases we need to write a command "show databases".to create database we need to write "create database databaseName".

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| db                 |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
5 rows in set (0.03 sec)
```

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

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

4.Create database table: In mysql database table is created by using below command.

Create table tablename(attributes name type)

```
mysql> use abdullah
Database changed
mysql> create table course(course_code varchar(20),course_name varchar(20));
Query OK, 0 rows affected (0.24 sec)
```

```
mysql> select *from course;
Empty set (0.01 sec)
```

5.Insert Data into table: Data is inserted into table by using following commands:

insert into table_name values("value1","value2...");

```
mysql> insert into course values("ICT-3107","operating system");
Query OK, 1 row affected (0.07 sec)

mysql> insert into course values("ICT-3108","operating system lab");
Query OK, 1 row affected (0.04 sec)

mysql> insert into course values("ICT-3101","analog and digital communication");
ERROR 1406 (22001): Data too long for column 'course_name' at row 1
mysql> insert into course values("ICT-3101","analog and digital communication");
ERROR 1406 (22001): Data too long for column 'course_name' at row 1
mysql> insert into course values("ICT-3101","analog communication"); Query OK, 1 row affected (0.32 sec)
```

```
mysql> select *from course;
+-------------+----------------------+
| course_code | course_name          |
+-------------+----------------------+
| ICT-3107    | operating system     |
| ICT-3108    | operating system lab |
| ICT-3101    | analog communication |
+-------------+----------------------+
3 rows in set (0.00 sec)
```

6.Describe table:list the contents of the table,types of attribute.

```
mysql> describe course;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| course_code | varchar(20) | YES  |     | NULL    |       |
| course_name | varchar(20) | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql>
```

7.Alter table:we can change our table contents by alter commands.Here i Add an extra column credit of integer types.

```
mysql> alter table course add credit int;
Query OK, 0 rows affected (0.57 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select *from course;
+-------------+----------------------+--------+
| course_code | course_name          | credit |
+-------------+----------------------+--------+
| ICT-3107    | operating system     |  NULL  |
| ICT-3108    | operating system lab |  NULL  |
| ICT-3101    | analog communication |  NULL  |
+-------------+----------------------+--------+
3 rows in set (0.00 sec)
```

8.Modify table: Change the exitence contents of a table.Here I delete the column credit.

```
mysql> alter table course drop credit;
Query OK, 0 rows affected (0.52 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select *from course;
+-------------+----------------------+
| course_code | course_name          |
+-------------+----------------------+
| ICT-3107    | operating system     |
| ICT-3108    | operating system lab |
| ICT-3101    | analog communication |
+-------------+----------------------+
3 rows in set (0.00 sec)
```

9.Drop data from table:

```
mysql> delete from course where course_code="ICT-3107";
Query OK, 1 row affected (0.04 sec)

mysql> select *from course;
+-------------+----------------------+
| course_code | course_name          |
+-------------+----------------------+
| ICT-3108    | operating system lab |
| ICT-3101    | analog communication |
+-------------+----------------------+
2 rows in set (0.00 sec)
```

10.Update table:

```
mysql> update course set credit=3;
Query OK, 2 rows affected (0.06 sec)
Rows matched: 2  Changed: 2  Warnings: 0

mysql> select *from course;
+-------------+----------------------+--------+
| course_code | course_name          | credit |
+-------------+----------------------+--------+
| ICT-3108    | operating system lab |      3 |
| ICT-3101    | analog communication |      3 |
+-------------+----------------------+--------+
2 rows in set (0.00 sec)
```

11.where and Delete operations:

```
mysql> delete from course where course_code="ICT-3107";
Query OK, 1 row affected (0.04 sec)

mysql> select *from course;
+-------------+----------------------+
| course_code | course_name          |
+-------------+----------------------+
| ICT-3108    | operating system lab |
| ICT-3101    | analog communication |
+-------------+----------------------+
2 rows in set (0.00 sec)
```