

Assignment No : 02

Database Management Lab

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DDL(Data Definition Language)

Start the SQL Server

```
[shyam@localhost ~]$ su
Password:
[root@localhost shyam]# systemctl start mysqld
[root@localhost shyam]# systemctl enable mysqld
[root@localhost shyam]# systemctl status mysqld
● mysqld.service - MySQL compatibility service (another name for mariadb.service; you should use mariadb.service instead)
   Loaded: loaded (/usr/lib/systemd/system/mysqld.service; enabled)
   Active: active (exited) since Wed 2017-10-18 11:56:43 IST; 1min 39s ago
 Main PID: 1453 (code=exited, status=0/SUCCESS)
   CGroup: /system.slice/mysqld.service
[root@localhost shyam]# mysql
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 3
Server version: 10.0.21-MariaDB MariaDB Server
Copyright (c) 2000, 2015, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

Creating database

```
MariaDB [(none)]> create database department;
Query OK, 1 row affected (0.04 sec)
```

Switching to the database

```
MariaDB [(none)]> use department;
Database changed
```

Create Table

```
MariaDB [department]> create table student(roll_no int(10),stud_name char(10),class char(10),marks int(10));
Query OK, 0 rows affected (0.18 sec)
```

ALTER TABLE

1.add :

```
MariaDB [department]> alter table student add result int(10);
Query OK, 0 rows affected (0.86 sec)
Records: 0 Duplicates: 0 Warnings:
```

```
MariaDB [department]> describe student;
```

Field	Type	Null	Key	Default	Extra
roll_no	int(10)	YES		NULL	
stud_name	char(10)	YES		NULL	
class	char(10)	YES		NULL	
marks	int(10)	YES		NULL	
result	int(10)	YES		NULL	

5 rows in set (0.17 sec)

2.modify:

MariaDB [department]> alter table student modify result char(10);

Query OK, 0 rows affected (0.58 sec)

Records: 0 Duplicates: 0 Warnings: 0

MariaDB [department]> describe student;

Field	Type	Null	Key	Default	Extra
roll_no	int(10)	YES		NULL	
stud_name	char(10)	YES		NULL	
class	char(10)	YES		NULL	
marks	int(10)	YES		NULL	
result	char(10)	YES		NULL	

5 rows in set (0.00 sec)

3. delete(drop):

MariaDB [department]> alter table student drop result;

Query OK, 0 rows affected (0.23 sec)

Records: 0 Duplicates: 0 Warnings: 0

MariaDB [department]> describe student;

Field	Type	Null	Key	Default	Extra
roll_no	int(10)	YES		NULL	
stud_name	char(10)	YES		NULL	
class	char(10)	YES		NULL	
marks	int(10)	YES		NULL	

4 rows in set (0.00 sec)

RENAME TABLE NAME

MariaDB [department]> rename table student to students;

Query OK, 0 rows affected (0.17 sec)

DROP

1.drop(table):

MariaDB [department]> drop table students;

Query OK, 0 rows affected (0.10 sec)

2.drop(database):

MariaDB [department]> drop database department;

Query OK, 0 rows affected (0.16 sec)

VIEW

MariaDB [department]> create view stud_view1 as select* from student;

Query OK, 0 rows affected (0.08 sec)

TO display VIEW

MariaDB [department]> select * from stud_view1;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 101 | Shyam | TEB | 50 |
| 102 | Vinay | TEB | 60 |
| 103 | Dhiraj | TEB | 60 |
| 104 | Abhishek | TEB | 40 |
| 105 | Mayur | TEB | 40 |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

To create specific field view

MariaDB [department]> create view stud_view2 as select roll_no,stud_name from student;
Query OK, 0 rows affected (0.02 sec)

MariaDB [department]> select * from stud_view2;

```
+-----+-----+
| roll_no | stud_name |
+-----+-----+
| 101 | Shyam |
| 102 | Vinay |
| 103 | Dhiraj |
| 104 | Abhishek |
| 105 | Mayur |
+-----+-----+
5 rows in set (0.05 sec)
```

To create view for where condition

MariaDB [department]> create view stud_view3 as select* from student where marks>50;
Query OK, 0 rows affected (0.04 sec)

MariaDB [department]> select * from stud_view3;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 102 | Vinay | TEB | 60 |
| 103 | Dhiraj | TEB | 60 |
+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

MariaDB [department]> create view stud_view4 as select* from student where marks<50;
Query OK, 0 rows affected (0.04 sec)

MariaDB [department]> select * from stud_view4;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 104 | Abhishek | TEB | 40 |
| 105 | Mayur | TEB | 40 |
+-----+-----+-----+-----+
```

2 rows in set (0.00 sec)

To Update view field

MariaDB [department]> update stud_view1 set marks =73 where roll_no=101;

Query OK, 1 row affected (5.40 sec)

Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [department]> select * from stud_view1;

roll_no	stud_name	class	marks
101	Shyam	TEB	73
102	Vinay	TEB	60
103	Dhiraj	TEB	60
104	Abhishek	TEB	40
105	Mayur	TEB	40

5 rows in set (0.00 sec)

Drop view

MariaDB [department]> drop view stud_view1;

Query OK, 0 rows affected (0.00 sec)

MariaDB [department]> select * from stud_view1;

ERROR 1146 (42S02): Table 'department.stud_view1' doesn't exist

MariaDB [department]>

INDEX

Single column index

MariaDB [department]> create index ind1 on student(roll_no);

Query OK, 0 rows affected (0.36 sec)

Records: 0 Duplicates: 0 Warnings: 0

Composite index :

MariaDB [department]> create index ind2 on student(roll_no,stud_name);

Query OK, 0 rows affected (0.18 sec)

Records: 0 Duplicates: 0 Warnings: 0

Unique index :

MariaDB [department]> create UNIQUE index ind3 on student(stud_name);

Query OK, 0 rows affected (0.08 sec)

Records: 0 Duplicates: 0 Warnings: 0
