

Assignment No : 02
Database Management Lab

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RollNo: TEB1602

DML(Data Manipulation Language)

Insert values in all column:

MariaDB [department]> insert into student values(101,"Shyam","TEB",75);
Query OK, 1 row affected (0.17 sec)

MariaDB [department]> insert into student values(102,"Abhishek","TEB",75);
Query OK, 1 row affected (0.07 sec)

MariaDB [department]> insert into student values(102,"Dhiraj","TEB",75);
Query OK, 1 row affected (0.00 sec)

MariaDB [department]> insert into student values(104,"Mayur","TEB",75);
Query OK, 1 row affected (0.05 sec)

MariaDB [department]> insert into student values(105,"Vinay","TEB",75);
Query OK, 1 row affected (0.08 sec)

MariaDB [department]> insert into student values(106,"Sanjay","TEB",75);
Query OK, 1 row affected (0.06 sec)

To display values in the table using “select”

MariaDB [department]> select * from student;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 101 | Shyam | TEB | 75 |
| 102 | Abhishek | TEB | 75 |
| 102 | Dhiraj | TEB | 75 |
| 104 | Mayur | TEB | 75 |
| 105 | Vinay | TEB | 75 |
| 106 | Sanjay | TEB | 75 |
+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

To display specific values in the table using “select”

MariaDB [department]> select stud_name,class from student;

```
+-----+-----+
| stud_name | class |
+-----+-----+
| Shyam | TEB |
| Abhishek | TEB |
| Dhiraj | TEB |
| Mayur | TEB |
| Vinay | TEB |
| Sanjay | TEB |
+-----+-----+
6 rows in set (0.00 sec)
```

Insert values in specific columns

MariaDB [department]> insert into student(roll_no,stud_name,marks)values(106,"Aarati",90);
Query OK, 1 row affected (0.09 sec)

MariaDB [department]> select * from student;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 101 | Shyam | TEB | 85 |
| 102 | Abhishek | TEB | 75 |
| 102 | Dhiraj | TEB | 75 |
| 104 | Mayur | TEB | 75 |
| 105 | Vinay | TEB | 75 |
| 106 | Sanjay | TEB | 75 |
| 106 | Aarati | NULL | 90 |
+-----+-----+-----+-----+
7 rows in set (0.00 sec)
```

Update

MariaDB [department]> update student set marks=85 where stud_name='Shyam';
Query OK, 1 row affected (0.18 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [department]> select * from student;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 101 | Shyam | TEB | 85 |
| 102 | Abhishek | TEB | 75 |
| 102 | Dhiraj | TEB | 75 |
| 104 | Mayur | TEB | 75 |
| 105 | Vinay | TEB | 75 |
| 106 | Sanjay | TEB | 75 |
+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

Delete specific record

MariaDB [department]> delete from student where roll_no='101';
Query OK, 1 row affected (0.10 sec)

MariaDB [department]> delete from student where roll_no='106';
Query OK, 2 rows affected (0.14 sec)

MariaDB [department]> select * from student;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 102 | Abhishek | TEB | 75 |
| 102 | Dhiraj | TEB | 75 |
| 104 | Mayur | TEB | 75 |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

Delete all records from existing table

MariaDB [department]> delete from student;
Query OK, 4 rows affected (0.09 sec)

MariaDB [department]> select * from student;
Empty set (0.00 sec)

Where clauses (less than, less than equal, greater than, greater than equal)

MariaDB [department]> select * from student where marks <60;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 108 | Pornima | TEB | 50 |
| 108 | Poonam | TEB | 40 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

MariaDB [department]> select * from student where marks >60;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 101 | Shyam | TEB | 75 |
| 102 | Abhishek | TEB | 75 |
| 103 | Dhiraj | TEB | 75 |
| 104 | Mayur | TEB | 75 |
| 105 | Vinay | TEB | 75 |
| 106 | Sanjay | TEB | 75 |
| 109 | Reshma | TEB | 65 |
+-----+-----+-----+-----+
7 rows in set (0.00 sec)
```

MariaDB [department]> select * from student where marks <=60;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 107 | Arati | TEB | 60 |
| 108 | Pornima | TEB | 50 |
| 108 | Poonam | TEB | 40 |
+-----+-----+-----+-----+
3 rows in set (0.03 sec)
```

MariaDB [department]> select * from student where marks >=60;

```
+-----+-----+-----+-----+
| roll_no | stud_name | class | marks |
+-----+-----+-----+-----+
| 101 | Shyam | TEB | 75 |
| 103 | Dhiraj | TEB | 75 |
| 107 | Arati | TEB | 60 |
| 109 | Reshma | TEB | 65 |
+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

DISTINCT clause

MariaDB [department]> select distinct(stud_name)from student;

```
+-----+
| stud_name |
+-----+
| Abhishek |
| Arati    |
| Dhiraj   |
| Mayur    |
| Poonam   |
| Pornima  |
| Reshma   |
| Sanjay   |
| Shyam    |
| Vinay    |
+-----+
10 rows in set (0.00 sec)
```

1. Display sum of marks roll_no wise

MariaDB [department]> select roll_no,sum(marks)from student group by roll_no;

```
+-----+-----+
| roll_no | sum(marks) |
+-----+-----+
| 101     | 75         |
| 102     | 75         |
| 103     | 75         |
| 104     | 75         |
| 105     | 75         |
| 106     | 75         |
| 107     | 60         |
| 108     | 90         |
| 109     | 65         |
+-----+-----+
9 rows in set (0.08 sec)
```

2.Display maximum marks grouping on basis stud_name wise

MariaDB [department]> select stud_name,max(marks)from student group by stud_name;

```
+-----+-----+
| stud_name | max(marks) |
+-----+-----+
| Abhishek  | 75         |
| Arati     | 60         |
| Dhiraj    | 75         |
| Mayur     | 75         |
| Poonam    | 40         |
| Pornima   | 50         |
| Reshma    | 65         |
| Sanjay    | 75         |
| Shyam     | 75         |
| Vinay     | 75         |
+-----+-----+
10 rows in set (0.07 sec)
```

Having Clause

1.display sum of marks of roll no 101

```
MariaDB [department]> select roll_no,sum(marks)from student group by roll_no having  
roll_no='101';
```

```
+-----+-----+  
| roll_no | sum(marks) |  
+-----+-----+  
|    101 |        75 |  
+-----+-----+  
1 row in set (0.04 sec)
```

2. display sum of marks of roll no 101 and 107

```
MariaDB [department]> select roll_no,sum(marks)from student group by roll_no having roll_no in  
(101,107);
```

```
+-----+-----+  
| roll_no | sum(marks) |  
+-----+-----+  
|    101 |        75 |  
|    107 |        60 |  
+-----+-----+  
2 rows in set (0.03 sec)
```
