

**NEPAL COLLEGE OF INFORMATION TECHNOLOGY**

**BALKUMARI LALITPUR**



**(Affiliated To Pokhara University)**

**SUBJECT : Database Management System**

**LAB REPORT # 2**

**TITLE : Data Manipulation Language (DML) Commands**

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## OBJECTIVE

To practice and Implement data manipulation language commands.

## LAB EXERCISE :

➔ Creating a Database named 'ncit' and table called 'employee' with following structure :

Column Name	DataType
e_id	int
e_name	varchar(20)
e_job	varchar(20)
e_salary	int

= create database ncit;

= use ncit;

= create table employee(e\_id INT NOT NULL,e\_name VARCHAR(20) NOT NULL,e\_job VARCHAR(20),e\_salary INT NOT NULL);

## OUTPUT :

```
[zoro@archlinux ~]$ mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 3
Server version: 10.11.3-MariaDB Arch Linux

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.038 sec)

MariaDB [(none)]> create database ncit;
Query OK, 1 row affected (0.000 sec)

MariaDB [(none)]> use ncit;
Database changed
MariaDB [ncit]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| ncit |
| performance_schema |
| sys |
+-----+
5 rows in set (0.000 sec)

MariaDB [ncit]> create table employee(e_id INT NOT NULL,e_name VARCHAR(20) NOT NULL,e_job VARCHAR(20),e_salary INT NOT NULL);
Query OK, 0 rows affected (0.042 sec)

MariaDB [ncit]> show tables;
+-----+
| Tables_in_ncit |
+-----+
| employee |
+-----+
1 row in set (0.001 sec)
```

1) Insert a single record in employee table.

= INSERT into employee VALUES(1,'Pradip','mlEngineer',25000);

OUTPUT :

```
MariaDB [ncit]> INSERT into employee VALUES(1,'Pradip','mlEngineer',25000);
Query OK, 1 row affected (0.039 sec)

MariaDB [ncit]> select * from employee;
+-----+-----+-----+-----+
| e_id | e_name | e_job      | e_salary |
+-----+-----+-----+-----+
| 1    | Pradip | mlEngineer | 25000    |
+-----+-----+-----+-----+
1 row in set (0.001 sec)
```

2) Insert more than one Record in employee table using a single insert command.

= INSERT into employee VALUES(2,'Prabin','analyst',20000),(3,'Bishnu','HoD',15000),  
(4,'Ujjwal','WebDevelopment',10000),(5,'Nischal','lecturer',50000),  
(6,'Sabin','Programmer',20000),(7,'Pooja','Programmer',20000),  
(8,'Subash','Programmer',10000),(9,'Xaya','analyst',20000),(10,'Rajan','Designer',15000),  
(11,'Roshani','Designer',10000);

OUTPUT :

```
MariaDB [ncit]> INSERT into employee VALUES(2,'Prabin','analyst',20000),(3,'Bishnu','HoD',15000),(4,'Ujjwal','WebDevelopment',10000),(5,'Nischal','lecturer',50000),
(6,'Sabin','Programmer',20000),(7,'Pooja','Programmer',20000),(8,'Subash','Programmer',10000),(9,'Xaya','analyst',20000),(10,'Rajan','Designer',15000),(11,'Roshani','Designer',10000);
Query OK, 10 rows affected (0.037 sec)
Records: 10 Duplicates: 0 Warnings: 0

MariaDB [ncit]> select * from employee;
+-----+-----+-----+-----+
| e_id | e_name | e_job      | e_salary |
+-----+-----+-----+-----+
| 1    | Pradip | mlEngineer | 25000    |
| 2    | Prabin | analyst    | 20000    |
| 3    | Bishnu | HoD        | 15000    |
| 4    | Ujjwal | WebDevelopment | 10000    |
| 5    | Nischal | lecturer   | 50000    |
| 6    | Sabin  | Programmer | 20000    |
| 7    | Pooja  | Programmer | 20000    |
| 8    | Subash | Programmer | 10000    |
| 9    | Xaya   | analyst    | 20000    |
| 10   | Rajan  | Designer   | 15000    |
| 11   | Roshani | Designer   | 10000    |
+-----+-----+-----+-----+
11 rows in set (0.001 sec)
```

3) Update the employee table to set salary of all employees to Rs. 25,000 who is working as programmer.

= UPDATE employee SET e\_salary='25000' WHERE e\_job='programmer';

OUTPUT :

```
MariaDB [ncit]> select * from employee;
+-----+-----+-----+-----+
| e_id | e_name | e_job      | e_salary |
+-----+-----+-----+-----+
| 1    | Pradip | mlEngineer | 25000    |
| 2    | Prabin | analyst    | 20000    |
| 3    | Bishnu | HoD        | 15000    |
| 4    | Ujjwal | WebDevelopment | 10000    |
| 5    | Nischal | lecutrer   | 50000    |
| 6    | Sabin  | Programmer | 20000    |
| 7    | Pooja  | Programmer | 20000    |
| 8    | Subash | Programmer | 10000    |
| 9    | Xaya   | analyst    | 20000    |
| 10   | Rajan  | Designer   | 15000    |
| 11   | Roshani | Designer   | 10000    |
+-----+-----+-----+-----+
11 rows in set (0.001 sec)

MariaDB [ncit]> UPDATE employee SET e_salary='25000' WHERE e_job='programmer';
Query OK, 3 rows affected (0.013 sec)
Rows matched: 3  Changed: 3  Warnings: 0

MariaDB [ncit]> select * from employee;
+-----+-----+-----+-----+
| e_id | e_name | e_job      | e_salary |
+-----+-----+-----+-----+
| 1    | Pradip | mlEngineer | 25000    |
| 2    | Prabin | analyst    | 20000    |
| 3    | Bishnu | HoD        | 15000    |
| 4    | Ujjwal | WebDevelopment | 10000    |
| 5    | Nischal | lecutrer   | 50000    |
| 6    | Sabin  | Programmer | 25000    |
| 7    | Pooja  | Programmer | 25000    |
| 8    | Subash | Programmer | 25000    |
| 9    | Xaya   | analyst    | 20000    |
| 10   | Rajan  | Designer   | 15000    |
| 11   | Roshani | Designer   | 10000    |
+-----+-----+-----+-----+
11 rows in set (0.001 sec)

MariaDB [ncit]> □
```

4) Select all information from employee table.

= select \* from employee;

OUTPUT :



```
MariaDB [ncit]> select * from employee;
```

e_id	e_name	e_job	e_salary
1	Pradip	mlEngineer	25000
2	Prabin	analyst	20000
3	Bishnu	HoD	15000
4	Ujjwal	WebDevelopment	10000
5	Nischal	lecturer	50000
6	Sabin	Programmer	25000
7	Pooja	Programmer	25000
8	Subash	Programmer	25000
9	Xaya	analyst	20000
10	Rajan	Designer	15000
11	Roshani	Designer	10000

```
11 rows in set (0.001 sec)
```

```
MariaDB [ncit]> 
```

5) Select employee name and job from employee table.

= SELECT e\_name,e\_job FROM employee;

OUTPUT :

```
MariaDB [ncit]> SELECT e_name,e_job FROM employee;
```

e_name	e_job
Pradip	mlEngineer
Prabin	analyst
Bishnu	HoD
Ujjwal	WebDevelopment
Nischal	lecturer
Sabin	Programmer
Pooja	Programmer
Subash	Programmer
Xaya	analyst
Rajan	Designer
Roshani	Designer

6) Delete those who are working as designer.

= DELETE FROM employee where e\_job='Designer';

OUTPUT :

```
MariaDB [ncit]> DELETE FROM employee where e_job='Designer';
Query OK, 2 rows affected (0.011 sec)

MariaDB [ncit]> select * from employee;
+-----+-----+-----+-----+
| e_id | e_name | e_job      | e_salary |
+-----+-----+-----+-----+
| 1    | Pradip | mlEngineer | 25000    |
| 2    | Prabin | analyst    | 20000    |
| 3    | Bishnu | HoD        | 15000    |
| 4    | Ujjwal | WebDevelopment | 10000    |
| 5    | Nischal | lecutrer   | 50000    |
| 6    | Sabin  | Programmer | 25000    |
| 7    | Pooja  | Programmer | 25000    |
| 8    | Subash | Programmer | 25000    |
| 9    | Xaya   | analyst    | 20000    |
+-----+-----+-----+-----+
9 rows in set (0.001 sec)

MariaDB [ncit]> 
```

7) Display only those employees who work as analyst.

= SELECT \* FROM employee WHERE e\_job='analyst';

OUTPUT :

```
MariaDB [ncit]> SELECT * FROM employee WHERE e_job='analyst';
+-----+-----+-----+-----+
| e_id | e_name | e_job      | e_salary |
+-----+-----+-----+-----+
| 2    | Prabin | analyst    | 20000    |
| 9    | Xaya   | analyst    | 20000    |
+-----+-----+-----+-----+
2 rows in set (0.000 sec)

MariaDB [ncit]> 
```

8) Display employee job from table avoiding duplicate values.

= SELECT DISTINCT e\_job FROM employee;

OUTPUT:

```
MariaDB [ncit]> SELECT DISTINCT e_job FROM employee;
+-----+
| e_job |
+-----+
| mlEngineer |
| analyst |
| HoD |
| WebDevelopment |
| lecutrer |
| Programmer |
+-----+
6 rows in set (0.002 sec)

MariaDB [ncit]> █
```

9) Display employee name and job from table whose salary is greater than equal to 20,000.

= SELECT e\_name,e\_job FROM employee WHERE e\_salary>='20000';

OUTPUT :

```
MariaDB [ncit]> SELECT e_name,e_job FROM employee WHERE e_salary>='20000';
+-----+-----+
| e_name | e_job |
+-----+-----+
| Pradip | mlEngineer |
| Prabin | analyst |
| Nischal | lecutrer |
| Sabin | Programmer |
| Pooja | Programmer |
| Subash | Programmer |
| Xaya | analyst |
+-----+-----+
7 rows in set (0.001 sec)

MariaDB [ncit]> █
```