

Bachelors in Computer Application



Lab Report

Of

Database Management System (CACS 255)

4th Semester

Lab-2: DML Statements

Submitted To:
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PASCAL NATIONAL COLLEGE (Affiliated to TU), SATDOBATO
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```

MariaDB [keshab_10_company]> insert into employee(ssn,ename,gender,bdate,address,salary,years_of_experience,ono)
-> values(5,'Shyam','M','2050-01-22','Sanothimi,Bhaktapur',60000.50,2,6),
-> (6,'Krishna','M','2055-03-16','Bagbazar,Kathmandu',15000,1,8),
-> (7,'Gita','F','2058-03-19','Koteshwor,Kathmandu',70000,2,10),
-> (8,'Radha','F','2059-05-19','Lokanthali,Bhaktapur',38000.45,2,7),
-> (9,'Laxman','M',NULL,'Koteshwor,Kathmandu',25000,3,9);
Query OK, 5 rows affected (0.023 sec)
Records: 5 Duplicates: 0 Warnings: 0

```

```

MariaDB [keshab_10_company]> select * from employee;
+-----+-----+-----+-----+-----+-----+-----+-----+
| ssn | ename | gender | bdate | address | salary | years_of_experience | ono |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | Hari | M | 2060-01-22 | Thimi,Bhaktapur | 20000.00 | 5 | 2 |
| 2 | Sita | F | 2059-05-16 | Putalisadak,Kathmandu | 30000.00 | 2 | 3 |
| 3 | Ram | NULL | NULL | NULL | 0.00 | NULL | 4 |
| 4 | Keshav | NULL | NULL | NULL | 0.00 | NULL | 1 |
| 5 | Shyam | M | 2050-01-22 | Sanothimi,Bhaktapur | 60000.50 | 2 | 6 |
| 6 | Krishna | M | 2055-03-16 | Bagbazar,Kathmandu | 15000.00 | 1 | 8 |
| 7 | Gita | F | 2058-03-19 | Koteshwor,Kathmandu | 70000.00 | 2 | 10 |
| 8 | Radha | F | 2059-05-19 | Lokanthali,Bhaktapur | 38000.45 | 2 | 7 |
| 9 | Laxman | M | NULL | Koteshwor,Kathmandu | 25000.00 | 3 | 9 |
| 10 | Keshab | M | 2059-11-27 | Suryabinayak,Bhaktapur | 100000.00 | 10 | 5 |
+-----+-----+-----+-----+-----+-----+-----+-----+
10 rows in set (0.001 sec)

```

```

MariaDB [keshab_10_company]> insert into office(oname,country)
-> values('Shyam_Office_10','Nepal'),
-> ('Radha_Office','Nepal'),
-> ('Krishna_Office','Nepal'),
-> ('Laxman_Office','Nepal'),
-> ('Gita_Office','Nepal');
Query OK, 5 rows affected (0.003 sec)
Records: 5 Duplicates: 0 Warnings: 0

```

```

MariaDB [keshab_10_company]> select * from office;
+-----+-----+-----+
| onumber | oname | country |
+-----+-----+-----+
| 1 | Keshab_Office_10 | Nepal |
| 2 | Hari_Office | India |
| 3 | Sita_Office | Japan |
| 4 | Ram_Office | China |
| 5 | Keshab_Ntc_10 | NULL |
| 6 | Shyam_Office_10 | Nepal |
| 7 | Radha_Office | Nepal |
| 8 | Krishna_Office | Nepal |
| 9 | Laxman_Office | Nepal |
| 10 | Gita_Office | Nepal |
+-----+-----+-----+
10 rows in set (0.001 sec)

```

```

MariaDB [keshab_10_company]> insert into project(pname,proj_location,onumber)
-> values('Shyam_Project','Bkt',6),
-> ('Krishna_Project','Ktm',8),
-> ('Gita_Project','Ktm',10),
-> ('Radha_Project','Bkt',7),
-> ('Laxman_Project',NULL,9);

```

Query OK, 5 rows affected (0.020 sec)

Records: 5 Duplicates: 0 Warnings: 0

```

MariaDB [keshab_10_company]> select * from project;

```

pnumber	pname	proj_location	onumber
1	Hari_Project	Bkt	2
2	Keshab_ProjBCA	Bkt	1
3	Ram_Project	Llt	4
4	Sita_Project	Ktm	3
5	Keshab_Project	NULL	5
6	Shyam_Project	Bkt	6
7	Krishna_Project	Ktm	8
8	Gita_Project	Ktm	10
9	Radha_Project	Bkt	7
10	Laxman_Project	NULL	9

10 rows in set (0.001 sec)

```

MariaDB [keshab_10_company]> insert into dependents(dname,dage,ssn,drelation)
-> values('Sam',16,5,'Brother'),
-> ('Geet',14,7,'Cousin'),
-> ('Krish',15,6,'Father'),
-> ('Rajesh',25,8,'Uncle'),
-> ('Laxmi',15,9,'Sister');

```

Query OK, 5 rows affected (0.023 sec)

Records: 5 Duplicates: 0 Warnings: 0

```

MariaDB [keshab_10_company]> select * from dependents;

```

did	dname	dage	ssn	drelation
1	Gary	15	1	Brother
2	Rita	14	2	Mother
3	Chhatra	12	10	Father
4	Indira	NULL	4	Mother
5	Rom	NULL	3	Uncle
6	Sam	16	5	Brother
7	Geet	14	7	Cousin
8	Krish	15	6	Father
9	Rajesh	25	8	Uncle
10	Laxmi	15	9	Sister

10 rows in set (0.001 sec)

```
MariaDB [keshab_10_company]> insert into works_on(essn,pno)
-> values(1,1),
-> (2,4),
-> (3,3),
-> (4,5),
-> (5,6),
-> (6,7),
-> (7,8),
-> (8,9),
-> (9,10),
-> (10,2);
```

```
Query OK, 10 rows affected (0.023 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

```
MariaDB [keshab_10_company]> select * from works_on;
```

essn	pno
1	1
2	4
3	3
4	5
5	6
6	7
7	8
8	9
9	10
10	2

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

```

MariaDB [keshab_10_company]> create table pf(
  -> pfid int primary key auto_increment,
  -> ssn int,
  -> foreign key (ssn) references employee (ssn),
  -> pfcategoryname varchar(40),
  -> amount decimal(10,2),
  -> start_date date,
  -> remarks text
  -> )engine=innodb;

```

Query OK, 0 rows affected (0.066 sec)

```

MariaDB [keshab_10_company]> desc pf;

```

Field	Type	Null	Key	Default	Extra
pfid	int(11)	NO	PRI	NULL	auto_increment
ssn	int(11)	YES	MUL	NULL	
pfcategoryname	varchar(40)	YES		NULL	
amount	decimal(10,2)	YES		NULL	
start_date	date	YES		NULL	
remarks	text	YES		NULL	

6 rows in set (0.043 sec)

```
MariaDB [keshab_10_company]> desc employee;
```

Field	Type	Null	Key	Default	Extra
ssn	int(11)	NO	PRI	NULL	auto_increment
ename	varchar(25)	NO		NULL	
gender	char(1)	YES		NULL	
bdate	date	YES		NULL	
address	varchar(50)	YES		NULL	
salary	decimal(10,2)	YES		0.00	
years_of_experience	int(11)	YES		NULL	
ono	int(11)	YES	MUL	NULL	

```
8 rows in set (0.053 sec)
```

```
MariaDB [keshab_10_company]> alter table employee
```

```
-> add column marital_status varchar(8);
```

```
Query OK, 0 rows affected (0.029 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [keshab_10_company]> desc employee;
```

Field	Type	Null	Key	Default	Extra
ssn	int(11)	NO	PRI	NULL	auto_increment
ename	varchar(25)	NO		NULL	
gender	char(1)	YES		NULL	
bdate	date	YES		NULL	
address	varchar(50)	YES		NULL	
salary	decimal(10,2)	YES		0.00	
years_of_experience	int(11)	YES		NULL	
ono	int(11)	YES	MUL	NULL	
marital_status	varchar(8)	YES		NULL	

```
9 rows in set (0.038 sec)
```

```
MariaDB [keshab_10_company]> select * from employee;
```

	ssn	ename	gender	bdate	address	salary	years_of_experience	ono	marital_status
1	Hari	M	2060-01-22	Thimi, Bhaktapur	20000.00	5	2	NULL	
2	Sita	F	2059-05-16	Putalisadak, Kathmandu	30000.00	2	3	NULL	
3	Ram	NULL	NULL	NULL	0.00	NULL	4	NULL	
4	Keshav	NULL	NULL	NULL	0.00	NULL	1	NULL	
5	Shyam	M	2050-01-22	Sanothimi, Bhaktapur	60000.50	2	6	NULL	
6	Krishna	M	2055-03-16	Bagbazar, Kathmandu	15000.00	1	8	NULL	
7	Gita	F	2058-03-19	Koteshwor, Kathmandu	70000.00	2	10	NULL	
8	Radha	F	2059-05-19	Lokanthali, Bhaktapur	38000.45	2	7	NULL	
9	Laxman	M	NULL	Koteshwor, Kathmandu	25000.00	3	9	NULL	
10	Keshab	M	2059-11-27	Suryabinayak, Bhaktapur	100000.00	10	5	NULL	

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

```
MariaDB [keshab_10_company]> update employee
-> set marital_status='Married'
-> where ssn=1 or ssn=3 or ssn=5 or ssn=7;
Query OK, 4 rows affected (0.024 sec)
Rows matched: 4 Changed: 4 Warnings: 0

MariaDB [keshab_10_company]>
MariaDB [keshab_10_company]> update employee
-> set marital_status='Divorced'
-> where ssn=2 or ssn=6 or ssn=8 or ssn=9;
Query OK, 4 rows affected (0.004 sec)
Rows matched: 4 Changed: 4 Warnings: 0

MariaDB [keshab_10_company]>
MariaDB [keshab_10_company]> update employee
-> set marital_status='Single'
-> where ssn=4 or ssn=10;
Query OK, 2 rows affected (0.023 sec)
Rows matched: 2 Changed: 2 Warnings: 0

MariaDB [keshab_10_company]> select * from employee;
```

	ssn	ename	gender	bdate	address	salary	years_of_experience	ono	marital_status
1	Hari	M	2060-01-22	Thimi, Bhaktapur	20000.00	5	2	Married	
2	Sita	F	2059-05-16	Putalisadak, Kathmandu	30000.00	2	3	Divorced	
3	Ram	NULL	NULL	NULL	0.00	NULL	4	Married	
4	Keshav	NULL	NULL	NULL	0.00	NULL	1	Single	
5	Shyam	M	2050-01-22	Sanothimi, Bhaktapur	60000.50	2	6	Married	
6	Krishna	M	2055-03-16	Bagbazar, Kathmandu	15000.00	1	8	Divorced	
7	Gita	F	2058-03-19	Koteshwor, Kathmandu	70000.00	2	10	Married	
8	Radha	F	2059-05-19	Lokanthali, Bhaktapur	38000.45	2	7	Divorced	
9	Laxman	M	NULL	Koteshwor, Kathmandu	25000.00	3	9	Divorced	
10	Keshab	M	2059-11-27	Suryabinayak, Bhaktapur	100000.00	10	5	Single	

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

```

MariaDB [keshab_10_company]> insert into pf(ssn,pfcategoryname,amount,start_date,remarks)
-> values(1,'Category 1',50000,'2077-05-13','Remarks 1'),
-> (2,'Category 2',30000,'2078-09-11','Remarks 2'),
-> (3,'Category 3',NULL,'2079-04-22','Remarks 3'),
-> (4,'Category 4',60000,NULL,NULL),
-> (5,'Category 5',25000,NULL,'Remarks 5'),
-> (6,'Category 6',NULL,'2075-04-22',NULL),
-> (7,'Category 7',62000,NULL,NULL),
-> (8,'Category 8',3000,NULL,'Remarks 8'),
-> (9,'Category 9',NULL,'2079-11-27',NULL),
-> (10,'Category 10',35100,NULL,'Remarks 10');
Query OK, 10 rows affected (0.024 sec)
Records: 10  Duplicates: 0  Warnings: 0

```

```

MariaDB [keshab_10_company]> select * from pf;

```

pfid	ssn	pfcategoryname	amount	start_date	remarks
1	1	Category 1	50000.00	2077-05-13	Remarks 1
2	2	Category 2	30000.00	2078-09-11	Remarks 2
3	3	Category 3	NULL	2079-04-22	Remarks 3
4	4	Category 4	60000.00	NULL	NULL
5	5	Category 5	25000.00	NULL	Remarks 5
6	6	Category 6	NULL	2075-04-22	NULL
7	7	Category 7	62000.00	NULL	NULL
8	8	Category 8	3000.00	NULL	Remarks 8
9	9	Category 9	NULL	2079-11-27	NULL
10	10	Category 10	35100.00	NULL	Remarks 10

```

10 rows in set (0.001 sec)

```



```
MariaDB [keshab_10_company]> select * from employee;
```

ssn	ename	gender	bdate	address	salary	years_of_experience	ono	marital_status
1	Hari	M	2060-01-22	Thimi,Bhaktapur	20000.00	5	2	Married
2	Sita	F	2059-05-16	Putalisadak,Kathmandu	30000.00	2	3	Divorced
3	Ram	NULL	NULL	NULL	0.00	NULL	4	Married
4	Keshav	NULL	NULL	NULL	0.00	NULL	1	Single
5	Shyam	M	2050-01-22	Sanothimi,Bhaktapur	60000.50	2	6	Married
6	Krishna	M	2055-03-16	Bagbazar,Kathmandu	15000.00	1	8	Divorced
7	Gita	F	2058-03-19	Koteshwor,Kathmandu	70000.00	2	10	Married
8	Radha	F	2059-05-19	Lokanthali,Bhaktapur	38000.45	2	7	Divorced
9	Laxman	M	NULL	Koteshwor,Kathmandu	25000.00	3	9	Divorced
10	Keshab	M	2059-11-27	Suryabinayak,Bhaktapur	100000.00	10	5	Single

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

```
MariaDB [keshab_10_company]> select * from employee
-> where salary>30000
-> order by ename desc;
```

ssn	ename	gender	bdate	address	salary	years_of_experience	ono	marital_status
5	Shyam	M	2050-01-22	Sanothimi,Bhaktapur	60000.50	2	6	Married
8	Radha	F	2059-05-19	Lokanthali,Bhaktapur	38000.45	2	7	Divorced
10	Keshab	M	2059-11-27	Suryabinayak,Bhaktapur	100000.00	10	5	Single
7	Gita	F	2058-03-19	Koteshwor,Kathmandu	70000.00	2	10	Married

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

```
MariaDB [keshab_10_company]> select * from project order by pname;
```

pnumber	pname	proj_location	onumber
8	Gita_Project	Ktm	10
1	Hari_Project	Bkt	2
2	Keshab_ProjBCA	Bkt	1
5	Keshab_Project	NULL	5
7	Krishna_Project	Ktm	8
10	Laxman_Project	NULL	9
9	Radha_Project	Bkt	7
3	Ram_Project	Llt	4
6	Shyam_Project	Bkt	6
4	Sita_Project	Ktm	3

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

```
MariaDB [keshab_10_company]> select * from employee
-> where salary>30000 and years_of_experience<3;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| ssn | ename | gender | bdate | address | salary | years_of_experience | ono | marital_status |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | Shyam | M | 2050-01-22 | Sanothimi,Bhaktapur | 60000.50 | 2 | 6 | Married |
| 7 | Gita | F | 2058-03-19 | Koteswor,Kathmandu | 70000.00 | 2 | 10 | Married |
| 8 | Radha | F | 2059-05-19 | Lokanthali,Bhaktapur | 38000.45 | 2 | 7 | Divorced |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.001 sec)
```

```
MariaDB [keshab_10_company]> select ename,address,salary from employee
-> where salary>30000 and years_of_experience<3;
+-----+-----+-----+
| ename | address | salary |
+-----+-----+-----+
| Shyam | Sanothimi,Bhaktapur | 60000.50 |
| Gita | Koteswor,Kathmandu | 70000.00 |
| Radha | Lokanthali,Bhaktapur | 38000.45 |
+-----+-----+-----+
3 rows in set (0.001 sec)
```

```
MariaDB [keshab_10_company]> select * from dependents;
+-----+-----+-----+-----+-----+
| did | dname | dage | ssn | drelation |
+-----+-----+-----+-----+-----+
| 1 | Gary | 15 | 1 | Brother |
| 2 | Rita | 14 | 2 | Mother |
| 3 | Chhatra | 12 | 10 | Father |
| 4 | Indira | NULL | 4 | Mother |
| 5 | Rom | NULL | 3 | Uncle |
| 6 | Sam | 16 | 5 | Brother |
| 7 | Geet | 14 | 7 | Cousin |
| 8 | Krish | 15 | 6 | Father |
| 9 | Rajesh | 25 | 8 | Uncle |
| 10 | Laxmi | 15 | 9 | Sister |
+-----+-----+-----+-----+-----+
10 rows in set (0.001 sec)
```

```
MariaDB [keshab_10_company]> select dname,dage from dependents
-> where dage between 5 and 60;
```

dname	dage
Gary	15
Rita	14
Chhatra	12
Sam	16
Geet	14
Krish	15
Rajesh	25
Laxmi	15

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

```
MariaDB [keshab_10_company]> select * from office
-> where oname like '%nt%';
```

onumber	oname	country
5	Keshab_Ntc_10	NULL

```
1 row in set (0.001 sec)
```

```
MariaDB [keshab_10_company]> select * from office
-> where onumber in (1,2,3);
```

onumber	oname	country
1	Keshab_Office_10	Nepal
2	Hari_Office	India
3	Sita_Office	Japan

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

```
MariaDB [keshab_10_company]> select * from pf
-> where remarks is null;
```

pfid	ssn	pfcategoryname	amount	start_date	remarks
4	4	Category 4	60000.00	NULL	NULL
6	6	Category 6	NULL	2075-04-22	NULL
7	7	Category 7	62000.00	NULL	NULL
9	9	Category 9	NULL	2079-11-27	NULL

4 rows in set (0.001 sec)

```
MariaDB [keshab_10_company]> select pfcategoryname,amount,start_date,remarks from pf
-> where remarks is not null;
```

pfcategoryname	amount	start_date	remarks
Category 1	50000.00	2077-05-13	Remarks 1
Category 2	30000.00	2078-09-11	Remarks 2
Category 3	NULL	2079-04-22	Remarks 3
Category 5	25000.00	NULL	Remarks 5
Category 8	3000.00	NULL	Remarks 8
Category 10	35100.00	NULL	Remarks 10

6 rows in set (0.001 sec)

```
MariaDB [keshab_10_company]> select * from pf
-> limit 7;
```

pfid	ssn	pfcategoryname	amount	start_date	remarks
1	1	Category 1	50000.00	2077-05-13	Remarks 1
2	2	Category 2	30000.00	2078-09-11	Remarks 2
3	3	Category 3	NULL	2079-04-22	Remarks 3
4	4	Category 4	60000.00	NULL	NULL
5	5	Category 5	25000.00	NULL	Remarks 5
6	6	Category 6	NULL	2075-04-22	NULL
7	7	Category 7	62000.00	NULL	NULL

7 rows in set (0.001 sec)

```
MariaDB [keshab_10_company]> select pfcategorystate from pf
-> where amount<>3000;
```

```
+-----+
```

```
| pfcategorystate |
```

```
+-----+
```

```
| Category 1      |
```

```
| Category 2      |
```

```
| Category 4      |
```

```
| Category 5      |
```

```
| Category 7      |
```

```
| Category 10     |
```

```
+-----+
```

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

```
MariaDB [keshab_10_company]> select ename from employee
-> where ssn in (select essn from works_on where pno=2);
```

```
+-----+
```

```
| ename |
```

```
+-----+
```

```
| Keshab |
```

```
+-----+
```

```
1 row in set (0.001 sec)
```