

## DBMS LAB – 5

```
-- create table STUDENT (roll_no int, name varchar(30), address  
varchar(30), phone int, age int);
```

```
-- insert into STUDENT values (106121116, 'Sanjiv Kannaa', 'zircon b', 1,  
20);  
-- insert into STUDENT values (106121086, 'nithin', 'zircon b', 2, 19);  
-- insert into STUDENT values (106121074, 'bhoopesh', 'zircon b', 3, 21);  
-- insert into STUDENT values (106121118, 'newstudent', 'zircon b', 4,  
20);
```

```
-- create table STUDENTCOURSE (courseid int, rollno int);
```

```
-- insert into STUDENTCOURSE values (1, 106121116);  
-- insert into STUDENTCOURSE values (2, 106121116);  
-- insert into STUDENTCOURSE values (3, 106121116);  
-- insert into STUDENTCOURSE values (1, 106121086);  
-- insert into STUDENTCOURSE values (2, 106121086);  
-- insert into STUDENTCOURSE values (1, 106121074);  
-- insert into STUDENTCOURSE values (1, 106121122);
```

## Q1

```
mysql> select * from STUDENT INNER JOIN STUDENTCOURSE on  
STUDENT.roll_no = STUDENTCOURSE.rollno;
```

roll_no	name	address	phone	age	courseid	rollno
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	2	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	3	106121116
106121086	nithin	zircon b	2	19	1	106121086
106121086	nithin	zircon b	2	19	2	106121086
106121074	bhoopesh	zircon b	3	21	1	106121074

6 rows in set (0.00 sec)

## Q2

```
mysql> select * from STUDENT LEFT JOIN STUDENTCOURSE on  
STUDENT.roll_no = STUDENTCOURSE.rollno;
```

roll_no	name	address	phone	age	courseid	rollno
106121116	Sanjiv Kannaa	zircon b	1	20	3	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	2	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121116
106121086	nithin	zircon b	2	19	2	106121086
106121086	nithin	zircon b	2	19	1	106121086
106121074	bhoopesh	zircon b	3	21	1	106121074
106121118	newstudent	zircon b	4	20	NULL	NULL

7 rows in set (0.00 sec)

### Q3

mysql> select \* from STUDENT RIGHT JOIN STUDENTCOURSE on  
STUDENT.roll\_no = STUDENTCOURSE.rollno;

roll_no	name	address	phone	age	courseid	rollno
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	2	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	3	106121116
106121086	nithin	zircon b	2	19	1	106121086
106121086	nithin	zircon b	2	19	2	106121086
106121074	bhoopesh	zircon b	3	21	1	106121074
NULL	NULL	NULL	NULL	NULL	1	106121122

7 rows in set (0.00 sec)

### Q4

mysql> select \* from STUDENT FULL JOIN STUDENTCOURSE;

roll_no	name	address	phone	age	courseid	rollno
106121118	newstudent	zircon b	4	20	1	106121116
106121074	bhoopesh	zircon b	3	21	1	106121116
106121086	nithin	zircon b	2	19	1	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121116
106121118	newstudent	zircon b	4	20	2	106121116
106121074	bhoopesh	zircon b	3	21	2	106121116
106121086	nithin	zircon b	2	19	2	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	2	106121116
106121118	newstudent	zircon b	4	20	3	106121116
106121074	bhoopesh	zircon b	3	21	3	106121116
106121086	nithin	zircon b	2	19	3	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	3	106121116
106121118	newstudent	zircon b	4	20	1	106121086

106121074	bhoopesh	zircon b	3	21	1	106121086
106121086	nithin	zircon b	2	19	1	106121086
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121086
106121118	newstudent	zircon b	4	20	2	106121086
106121074	bhoopesh	zircon b	3	21	2	106121086
106121086	nithin	zircon b	2	19	2	106121086
106121116	Sanjiv Kannaa	zircon b	1	20	2	106121086
106121118	newstudent	zircon b	4	20	1	106121074
106121074	bhoopesh	zircon b	3	21	1	106121074
106121086	nithin	zircon b	2	19	1	106121074
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121074
106121118	newstudent	zircon b	4	20	1	106121122
106121074	bhoopesh	zircon b	3	21	1	106121122
106121086	nithin	zircon b	2	19	1	106121122
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121122

+-----+-----+-----+-----+-----+-----+-----+

28 rows in set, 1 warning (0.01 sec)

Q5

mysql> select \* from STUDENT NATURAL JOIN STUDENTCOURSE  
where STUDENT.roll\_no = STUDENTCOURSE.rollno;

roll_no	name	address	phone	age	courseid	rollno
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	2	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	3	106121116
106121086	nithin	zircon b	2	19	1	106121086
106121086	nithin	zircon b	2	19	2	106121086
106121074	bhoopesh	zircon b	3	21	1	106121074

+-----+-----+-----+-----+-----+-----+-----+

6 rows in set (0.00 sec)

Q6

mysql> select \* from STUDENT JOIN STUDENTCOURSE where  
roll\_no=106121116;

roll_no	name	address	phone	age	courseid	rollno
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	2	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	3	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121086
106121116	Sanjiv Kannaa	zircon b	1	20	2	106121086
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121074
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121122

7 rows in set (0.01 sec)

Q7

equi join and inner join are the same

mysql> select \* from STUDENT INNER JOIN STUDENTCOURSE on  
STUDENT.roll\_no = STUDENTCOURSE.rollno;

roll_no	name	address	phone	age	courseid	rollno
106121116	Sanjiv Kannaa	zircon b	1	20	1	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	2	106121116
106121116	Sanjiv Kannaa	zircon b	1	20	3	106121116
106121086	nithin	zircon b	2	19	1	106121086
106121086	nithin	zircon b	2	19	2	106121086
106121074	bhoopesh	zircon b	3	21	1	106121074

6 rows in set (0.00 sec)

## Q1

```
-- create table customer(cust_id int,cust_name varchar(20), primary
key(Cust_id));
-- create table item(item_id int,item_name varchar(20),price int, primary
key(item_id));
-- create table sale(bill_no int,bill_date date,cust_id int,item_id
int,qty_sold int, primary key(bill_no), foreign key(cust_id) refences
customer(cust_id), foreign key(item_id) references item(item_id));
```

```
-- insert into customer values(1,'Sanjiv Kannaa J');
-- insert into customer values(2,'Nithin');
-- insert into customer values(3,'Sri Vignesh');
-- insert into customer values(4,'Sri Kanth');
-- insert into customer values(5,'Bhoopesh');
-- insert into customer values(6,'JSK');
-- insert into customer values(7,'vijay');
-- insert into customer values(8,'Appruval');
-- insert into customer values(9,'Abinav');
-- insert into customer values(10,'SKM');
```

```
-- insert into item values(1,'Computer',1000);
-- insert into item values(2,'Mouse',120);
-- insert into item values(3,'Keyboard',130);
-- insert into item values(4,'CPU',250);
-- insert into item values(5,'Cable',10);
-- insert into item values(6,'Watch',60);
-- insert into item values(7,'Phone',580);
-- insert into item values(8,'Laptop',900);
-- insert into item values(9,'Glass',75);
-- insert into item values(10,'Clock',50);
```

```
-- insert into sale values(1,'2021-02-21',1,1,200);  
-- insert into sale values(2,'2021-04-16',2,2,1200);  
-- insert into sale values(3,'2021-03-08',3,3,500);  
-- insert into sale values(4,'2021-05-12',4,4,900);  
-- insert into sale values(5,'2021-08-24',5,5,2400);  
-- insert into sale values(6,'2022-08-24',6,6,1000);  
-- insert into sale values(7,'2022-08-24',7,7,400);  
-- insert into sale values(8,'2023-08-24',8,8,240);  
-- insert into sale values(9,'2023-08-24',9,9,750);  
-- insert into sale values(10,'2023-08-24',10,10,1500);
```

Q2

```
mysql> create view viewq2 as (select bill_no, bill_date, cust_id,  
item.item_id, price, qty_sold, qty_sold*price as amount from item inner  
join sale on item.item_id=sale.item_id);  
Query OK, 0 rows affected (0.11 sec)
```

```
mysql> select * from viewq2;
```

bill_no	bill_date	cust_id	item_id	price	qty_sold	amount
1	2021-02-21	1	1	1000	200	200000
2	2021-04-16	2	2	120	1200	144000
3	2021-03-08	3	3	130	500	65000
4	2021-05-12	4	4	250	900	225000
5	2021-08-24	5	5	10	2400	24000
6	2022-08-24	6	6	60	1000	60000
7	2022-08-24	7	7	580	400	232000
8	2023-08-24	8	8	900	240	216000

```
| 9 | 2023-08-24 | 9 | 9 | 75 | 750 | 56250 |
| 10 | 2023-08-24 | 10 | 10 | 50 | 1500 | 75000 |
+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

### Q3

```
mysql> create view viewq3 as (select * from sale where bill_date>'2023-
08-22' ORDER BY bill_date);
Query OK, 0 rows affected (0.11 sec)
```

```
mysql> select * from viewq3;
+-----+-----+-----+-----+-----+
| bill_no | bill_date | cust_id | item_id | qty_sold |
+-----+-----+-----+-----+-----+
| 8 | 2023-08-24 | 8 | 8 | 240 |
| 9 | 2023-08-24 | 9 | 9 | 750 |
| 10 | 2023-08-24 | 10 | 10 | 1500 |
+-----+-----+-----+-----+-----+
3 rows in set (0.03 sec)
```

### Q4

```
mysql> select item_name, price*qty_sold as total_price from item inner
join sale on item.item_id = sale.item_id order by total_price desc limit 5;
+-----+-----+
| item_name | total_price |
+-----+-----+
| Phone | 232000 |
| CPU | 225000 |
| Laptop | 216000 |
| Computer | 200000 |
| Mouse | 144000 |
+-----+-----+
5 rows in set (0.00 sec)
```



Q5

```
mysql> (select cust_name, sum(qty_sold*price), 'platinum' as lvl from
sale, customer, item where bill_date like '2021%' and
sale.cust_id=customer.cust_id and sale.item_id=item.item_id group by
customer.cust_name having sum(qty_sold*price)>50000) union
```

```
  -> (select cust_name, sum(qty_sold*price), 'gold' as lvl from sale,
customer, item where bill_date like '2021%' and
sale.cust_id=customer.cust_id and sale.item_id=item.item_id group by
customer.cust_name having sum(qty_sold*price)>10000 and
sum(qty_sold*price)<50000) UNION
```

```
  -> (select cust_name, sum(qty_sold*price), 'silver' as lvl from sale,
customer, item where bill_date like '2021%' and
sale.cust_id=customer.cust_id and sale.item_id=item.item_id group by
customer.cust_name having sum(qty_sold*price)>10000 and
sum(qty_sold*price)<10000)
```

```
-> ;
```

cust_name	sum(qty_sold*price)	lvl
Sanjiv Kannaa J	200000	platinum
Nithin	144000	platinum
Sri Vignesh	65000	platinum
Sri Kanth	225000	platinum
Bhoopesh	24000	gold

5 rows in set (0.00 sec)

Q6

```
mysql> select cust_name, price*qty_sold as total_amount from customer
inner join item inner join sale on customer.cust_id=sale.cust_id and
item.item_id=sale.item_id where bill_date like '2021%' order by
total_amount desc limit 5;
```

```
+-----+-----+
| cust_name | total_amount |
+-----+-----+
| Sri Kanth |    225000 |
| Sanjiv Kannaa J |    200000 |
| Nithin    |    144000 |
| Sri Vignesh |    65000 |
| Bhoopesh  |    24000 |
+-----+-----+
5 rows in set (0.01 sec)
```