

DBMS LAB – 5

q1.

```
create table STUDENT(Roll_number int,Name varchar(20),Address varchar(40),Phone int,Age int);
```

```
create table StudentCourse(CourseId int,Roll_number int);
```

```
insert into STUDENT values(106121134,'Soma','Zircon C',1234567890,19);
insert into STUDENT values(106121132,'SR Vijay','Zircon C',1234567891,21);
insert into STUDENT values(106121130,'Sri Vignesh','Zircon B',1234567892,20);
insert into STUDENT values(106121128,'SRI K','Zircon B',1234567893,21);
insert into STUDENT values(106121126,'Soubaghya','Zircon C',1234567890,22);
```

```
insert into StudentCourse values(876594,106121134);
insert into StudentCourse values(876593,106121132);
insert into StudentCourse values(876592,106121130);
insert into StudentCourse values(876591,106121128);
insert into StudentCourse values(876590,106121126);
```

-- Joins

a. INNER JOIN and g.equi join are the same

```
select * from STUDENT inner join StudentCourse on
STUDENT.Roll_number=StudentCourse.Roll_number;
```

Roll_number	Name	Address	Phone	Age	CourseId	Roll_number
106121134	Soma	Zircon C	1234567890	19	876594	106121134
106121132	SR Vijay	Zircon C	1234567891	21	876593	106121132
106121130	Sri Vignesh	Zircon B	1234567892	20	876592	106121130
106121128	SRI K	Zircon B	1234567893	21	876591	106121128
106121126	Soubaghya	Zircon C	1234567890	22	876590	106121126

b. LEFT JOIN

```
select * from STUDENT left join StudentCourse on
STUDENT.Roll_number=StudentCourse.Roll_number;
```

Roll_number	Name	Address	Phone	Age	CourseId	Roll_number
106121134	Soma	Zircon C	1234567890	19	876594	106121134
106121132	SR Vijay	Zircon C	1234567891	21	876593	106121132
106121130	Sri Vignesh	Zircon B	1234567892	20	876592	106121130
106121128	SRI K	Zircon B	1234567893	21	876591	106121128
106121126	Soubaghya	Zircon C	1234567890	22	876590	106121126

c. RIGHT JOIN

```
select * from STUDENT right join StudentCourse on
```

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STUDENT.Roll_number=StudentCourse.Roll_number;

Roll_number	Name	Address	Phone	Age	CourseId	Roll_number
106121134	Soma	Zircon C	1234567890	19	876594	106121134
106121132	SR Vijay	Zircon C	1234567891	21	876593	106121132
106121130	Sri Vignesh	Zircon B	1234567892	20	876592	106121130
106121128	SRI K	Zircon B	1234567893	21	876591	106121128
106121126	Soubaghya	Zircon C	1234567890	22	876590	106121126

d.FULL JOIN

select * from STUDENT full join StudentCourse on
STUDENT.Roll_number=StudentCourse.Roll_number;

Roll_number	Name	Address	Phone	Age	CourseId	Roll_number
106121134	Soma	Zircon C	1234567890	19	876594	106121134
106121132	SR Vijay	Zircon C	1234567891	21	876593	106121132
106121130	Sri Vignesh	Zircon B	1234567892	20	876592	106121130
106121128	SRI K	Zircon B	1234567893	21	876591	106121128
106121126	Soubaghya	Zircon C	1234567890	22	876590	106121126

e.NATURAL JOIN

select * from STUDENT natural join StudentCourse on
STUDENT.Roll_number=StudentCourse.Roll_number;

Roll_number	Name	Address	Phone	Age	CourseId	Roll_number
106121134	Soma	Zircon C	1234567890	19	876594	106121134
106121132	SR Vijay	Zircon C	1234567891	21	876593	106121132
106121130	Sri Vignesh	Zircon B	1234567892	20	876592	106121130
106121128	SRI K	Zircon B	1234567893	21	876591	106121128
106121126	Soubaghya	Zircon C	1234567890	22	876590	106121126

f.THETA JOIN

select * from STUDENT join StudentCourse ON STUDENT.Roll_number=StudentCourse.Roll_number
where CourseId=876594;

Roll_number	Name	Address	Phone	Age	CourseId	Roll_number
106121134	Soma	Zircon C	1234567890	19	876594	106121134

q2.

1.

```
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));
```

```
insert into Customer values(1,'Soma');  
insert into Customer values(2,'SRV');
```

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```
insert into Customer values(3,'Sri Vignesh');
insert into Customer values(4,'Sri K');
insert into Customer values(5,'Soubaghya');
insert into Customer values(6,'Nitin');
insert into Customer values(7,'Sanjiv');
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,'2023-04-16',2,2,1200);
insert into Sale values(3,'2021-03-08',3,3,500);
insert into Sale values(4,'2023-05-12',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,'2023-08-24',7,7,400);
insert into Sale values(8,'2021-08-24',8,8,240);
insert into Sale values(9,'2021-08-24',9,9,750);
insert into Sale values(10,'2023-08-24',10,10,1500);
```

2.

```
create view view2 as (select
bill_no,bill_date,cust_id,Item.item_id,price,qty_sold,qty_sold*price as amount from Sale inner
join Item on Item.item_id=Sale.item_id);
select * from view2;
```

bill_no	bill_date	cust_id	item_id	price	qty_sold	amount
1	2021-02-21	1	1	1000	200	200000
2	2023-04-16	2	2	120	1200	144000
3	2021-03-08	3	3	130	500	65000
4	2023-05-12	4	4	250	900	225000
5	2021-08-24	5	5	10	2400	24000
6	2022-08-24	6	6	60	1000	60000
7	2023-08-24	7	7	580	400	232000
8	2021-08-24	8	8	900	240	216000
9	2021-08-24	9	9	75	750	56250
10	2023-08-24	10	10	50	1500	75000

3.

```
create view view3 as(select * from Sale where bill_date >'2023-08-21' order by bill_date);
select * from view3;
```

bill_no	bill_date	cust_id	item_id	qty_sold
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7	2023-08-24	7	7	400
10	2023-08-24	10	10	1500

4.

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.

(select Customer.cust_name,sum(qty_sold*price), 'platinum' as lvl from Sale,Item,Customer
where bill_date like '2021%' and Sale.cust_id=Customer.cust_id and Sale.item_id group by
Customer.cust_name having sum(qty_sold*price)>50000) union (select
Customer.cust_name,sum(qty_sold*price), 'gold' as lvl from Sale,Item,Customer where bill_date
like '2021%' and Sale.cust_id=Customer.cust_id and Sale.item_id group by Customer.cust_name
having sum(qty_sold*price)>10000 and sum(qty_sold*price)<50000) union(select
Customer.cust_name,sum(qty_sold*price), 'silver' as lvl from Sale,Item,Customer where
bill_date like '2021%' and Sale.cust_id=Customer.cust_id and Sale.item_id group by
Customer.cust_name having sum(qty_sold*price)>10000);

cust_name	sum(qty_sold*price)	lvl
Abinav	2381250	platinum
Appruval	762000	platinum
Soubaghya	7620000	platinum
Sri Vignesh	1587500	platinum
Soma	635000	platinum
Abinav	2381250	silver
Appruval	762000	silver
Soubaghya	7620000	silver
Sri Vignesh	1587500	silver
Soma	635000	silver

6.

select Cust_name,qty_sold*price as total_amount from Customer inner join Sale inner join Item
on Sale.item_id=Item.item_id and Customer.cust_id=Sale.cust_id where bill_date like '2021%'
order by total_amount desc limit 5;

Cust_name	total_amount
Appruval	216000
Soma	200000
Sri Vignesh	65000
Abinav	56250
Soubaghya	24000