create table EmployeesTable(EMP\_ID number(10), FIRST\_NAME varchar2(50), LAST\_NAME varchar2(50),SALARY number(10), JOINING\_DATA date, DEPARTMENT varchar2(10));

insert into EmployeesTable values(001,'Manish','Agarwal',700000,TO\_DATE('2019/04/20 09:00:00', 'yyyy/mm/dd hh24:mi:ss'),'HR');

insert into EmployeesTable values(002,'Niranjan','Bose',20000,TO\_DATE('2019/02/11 09:00:00', 'yyyy/mm/dd hh24:mi:ss'),'DA');

insert into EmployeesTable values(003,'Vivek','Singh',100000,TO\_DATE('2019/01/20 09:00:00', 'yyyy/mm/dd hh24:mi:ss'),'DA');

insert into EmployeesTable values(004,'Asutosh','Kapoor',700000,TO\_DATE('2019/03/20 09:00:00', 'yyyy/mm/dd hh24:mi:ss'),'HR');

insert into EmployeesTable values(005,'Vihaan','Banerjee',300000,TO\_DATE('2019/06/11 09:00:00', 'yyyy/mm/dd hh24:mi:ss'),'DA');

insert into EmployeesTable values(006,'Atul','Diwedi',400000,TO\_DATE('2019/05/11 09:00:00', 'yyyy/mm/dd hh24:mi:ss'),'Account');

insert into EmployeesTable values(007,'Satyendra','Tripathi',95000,TO\_DATE('2019/03/20 09:00:00', 'yyyy/mm/dd hh24:mi:ss'),'Account');

insert into EmployeesTable values(008,'Pritika','Bhatt',80000,TO\_DATE('2019/02/11 09:00:00', 'yyyy/mm/dd hh24:mi:ss'),'DA');

create table VariableDetails(EMP\_REF\_ID number(10), VARIABLES\_DATE date, VARIABLES\_AMOUNT number(10));

insert into VariableDetails values(1,TO\_DATE('2019/02/20 00:00:00', 'yyyy/mm/dd hh24:mi:ss'),15000);

insert into VariableDetails values(2,TO\_DATE('2019/06/11 00:00:00', 'yyyy/mm/dd hh24:mi:ss'),30000);

insert into VariableDetails values(3,TO\_DATE('2019/02/20 00:00:00', 'yyyy/mm/dd hh24:mi:ss'),42000);

insert into VariableDetails values(4,TO\_DATE('2019/02/20 00:00:00', 'yyyy/mm/dd hh24:mi:ss'),14500);

insert into VariableDetails values(5,TO\_DATE('2019/06/11 00:00:00', 'yyyy/mm/dd hh24:mi:ss'),23500);

create table DesignationTable(EMP\_REF\_ID number(10),EMP\_TITLE varchar2(50), AFFECTED\_FROM date);

insert into DesignationTable values(1,'Asst. Manager',TO\_DATE('2019/02/20 00:00:00', 'yyyy/mm/dd hh24:mi:ss'));

insert into DesignationTable values(2,'Senior Analyst',TO\_DATE('2019/01/11 00:00:00', 'yyyy/mm/dd hh24:mi:ss'));

insert into DesignationTable values(8,'Senior Analyst',TO\_DATE('2019/04/06 00:00:00', 'yyyy/mm/dd hh24:mi:ss'));

insert into DesignationTable values(5,'Manager',TO\_DATE('2019/10/06 00:00:00', 'yyyy/mm/dd hh24:mi:ss'));

insert into DesignationTable values(4,'Asst. Manager',TO\_DATE('2019/12/06 00:00:00', 'yyyy/mm/dd hh24:mi:ss'));

insert into DesignationTable values(7,'Team Lead',TO\_DATE('2019/06/06 00:00:00', 'yyyy/mm/dd hh24:mi:ss'));

insert into DesignationTable values(6,'Team Lead',TO\_DATE('2019/09/06 00:00:00', 'yyyy/mm/dd hh24:mi:ss'));

insert into DesignationTable values(3,'Senior Analyst',TO\_DATE('2019/08/06 00:00:00', 'yyyy/mm/dd hh24:mi:ss'));

1. **ADD PRIMARY KEY**

alter table EmployeesTable ADD CONSTRAINT EMP\_ID PRIMARY KEY(EMP\_ID);

1. **ADD FOREIGN KEY**

alter table DesignationTable ADD CONSTRAINT EMP\_REF\_ID FOREIGN KEY(EMP\_REF\_ID) REFERENCES EmployeesTable(EMP\_ID);

alter table VariableDetails ADD CONSTRAINT EMP\_REFs\_ID FOREIGN KEY(EMP\_REF\_ID) REFERENCES EmployeesTable(EMP\_ID);

**2)ANSWER**

They are four types of joins

1. Inner join
2. outer join
3. self join
4. cross join
5. select concat(FIRST\_NAME,LAST\_NAME) from EmployeesTable where EMP\_ID IN(select EMP\_REF\_ID from(select EMP\_REF\_ID from VariableDetails order by VARIABLES\_AMOUNT) where rownum=1);

select concat(FIRST\_NAME,LAST\_NAME) from EmployeesTable where EMP\_ID IN(select EMP\_REF\_ID from(select EMP\_REF\_ID from VariableDetails order by VARIABLES\_AMOUNT desc) where rownum=1);

1. select \* from EmployeesTable inner join VariableDetails on EmployeesTable.EMP\_ID=VariableDetails.EMP\_REF\_ID where EmployeesTable.EMP\_ID IN(select EMP\_REF\_ID from DesignationTable where to\_char(AFFECTED\_FROM,'MON') in('JULY','AUG','SEP','OCT','NOV','DEC')) order by VARIABLES\_AMOUNT DESC;
2. **cross join:** cross join is also known as Cartesian join. Each row of one table combines with each of the another table.

**Example:** select EmployeesTable.EMP\_ID,EmployeesTable.FIRST\_NAME, DesignationTable.EMP\_TITLE from EmployeesTable cross join DesignationTable where EmployeesTable.EMP\_ID = DesignationTable.EMP\_REF\_ID;

1. where ,group by, having, order by clauses used along with select statements

preferences order is where, group by, having , order by

3)

a) select \* from EmployeesTable inner join VariableDetails on EmployeesTable.EMP\_ID=VariableDetails.EMP\_REF\_ID where EmployeesTable.EMP\_ID IN(select EMP\_REF\_ID from DesignationTable where to\_char(AFFECTED\_FROM,'MON') in('JULY','AUG','SEP','OCT','NOV','DEC')) order by VARIABLES\_AMOUNT DESC;

b) create or replace procedure display(o\_name OUT EmployeesTable.FIRST\_NAME%TYPE)

IS

BEGIN

select concat(FIRST\_NAME,LAST\_NAME) INTO o\_name from EmployeesTable where EMP\_ID IN(select EMP\_REF\_ID from(select EMP\_REF\_ID from VariableDetails order by VARIABLES\_AMOUNT desc) where rownum=1);

end display;

/

DECLARE

name EmployeesTable.FIRST\_NAME%TYPE;

BEGIN

display(name);

dbms\_output.put\_line(name);

end;

/