**1)Movies DB:-**

create database moviedb;

use moviedb;

create table actor(

act\_id int,

act\_name varchar(20),

act\_gender varchar(3),

primary key(act\_id)

);

create table director(

dir\_id int,

dir\_name varchar(20),

dir\_phone int,

primary key(dir\_id)

);

create table movies(

mov\_id int,

mov\_title varchar(30),

mov\_year int,

mov\_lang varchar(20),

dir\_id int,

primary key(mov\_id),

foreign key(dir\_id) references director(dir\_id) on delete cascade on update cascade

);

create table movie\_cast(

act\_id int,

mov\_id int,

role varchar(20),

primary key(act\_id,mov\_id),

foreign key(act\_id) references actor(act\_id) on delete cascade on update cascade,

foreign key(mov\_id) references movies(mov\_id) on delete cascade on update cascade

);

create table rating (

mov\_id int,

rev\_stars real,

foreign key(mov\_id) references movies(mov\_id) on delete cascade on update cascade

);

insert into actor values

(100,"Steve Carrel","M"),

(101,"John Krasinski","M"),

(102,"Jenna Fischer","F"),

(103,"Ed Helms","M"),

(104,"Mindy Kaling","F");

insert into actor values

(105,"Jamie Bell","M"),

(106,"Tom Hanks","M"),

(107,"Christian Bale","M"),

(108,"Laura Dern","F");

insert into director values

(1,"Greg Daniels",459876),

(2,"Steven Spielberg",465462),

(3,"Tom Shadyac",465423),

(4,"Christopher Nolan",898434),

(5,"David Lynch",134657);

insert into movies values

(1000,"The Office",2005,"English",1),

(1001,"TinTin",2011,"English",2),

(1002,"The Terminal",2004,"English",2),

(1003,"The Dark Night",2008,"English",4),

(1004,"Evan Almighty",2007,"English",3),

(1005,"Blue Velvet",1986,"English",5);

insert into movie\_cast values

(100,1000,"Michael Scott"),

(105,1001,"TinTin"),

(106,1002,"Victor"),

(107,1003,"Bruce Wayne"),

(100,1004,"Evan Baxter"),

(108,1005,"Sandy Williams");

insert into rating values

(1000,8.8),

(1001,7.5),

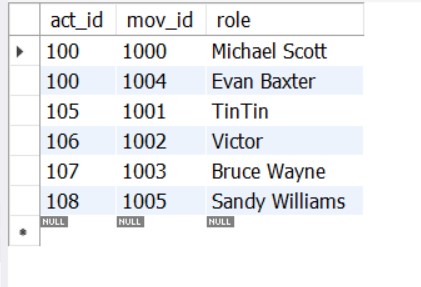
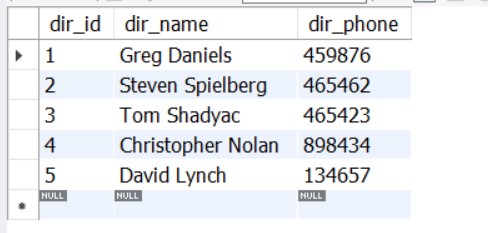
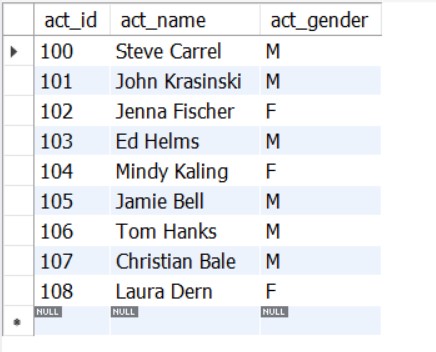
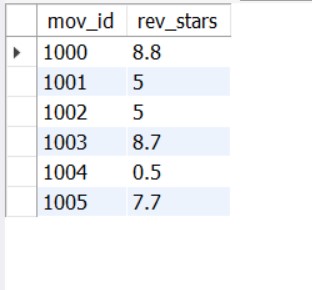
(1002,8.9),

(1003,8.7),

(1004,0.5),

(1005,7.7);

**Tables:-**



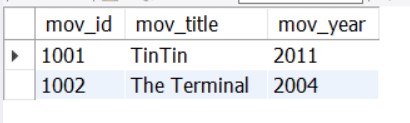
**Outputs:-**

/\* Ques 1 \*/

select m.mov\_id,m.mov\_title,m.mov\_year from movies m

inner join director d

on d.dir\_id=m.dir\_id

where dir\_name="Steven Spielberg";

/\* Ques 2 \*/

select m.mov\_id,m.mov\_title,m.mov\_year from movie\_cast mc

inner join movies m

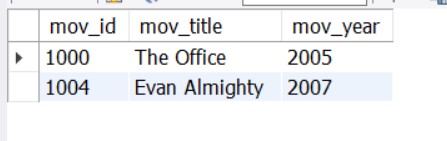
on m.mov\_id=mc.mov\_id

where mc.act\_id=(

select mci.act\_id from movie\_cast mci

group by mci.act\_id

having count(mci.act\_id)>=2

);

/\* Ques 3 \*/

select a.act\_name,m.mov\_title from movie\_cast mc

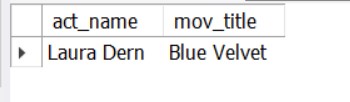
inner join actor a

on a.act\_id=mc.act\_id

inner join movies m

on mc.mov\_id=m.mov\_id

where m.mov\_year>=2015 or m.mov\_year<=2000;



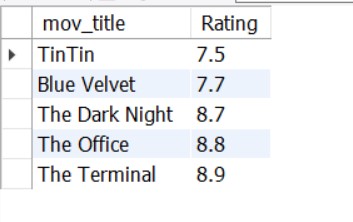
/\* Ques 4 \*/

select m.mov\_title,r.rev\_stars as "Rating" from movies m

inner join rating r

on r.mov\_id=m.mov\_id

where r.rev\_stars>=1

order by r.rev\_stars;

/\* Ques 5 \*/

update rating r

set r.rev\_stars= 5

where mov\_id=any(

select distinct m.mov\_id from movies m

inner join director d

on d.dir\_id=m.dir\_id

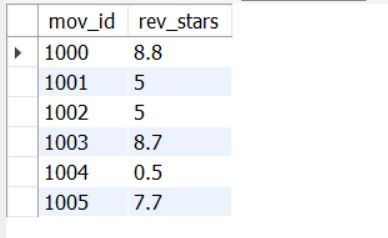
where d.dir\_name="Steven Spielberg"

);

update rating r

set r.rev\_stars=8.9

where r.mov\_id=1002;



**2) AirlinesDB**

create database airlinedb;

use airlinedb;

create table flights(

flno int,

from\_loc varchar(20),

to\_loc varchar(20),

distance int,

departs time,

arrives time,

price int,

primary key(flno)

);

create table aircraft(

aid int,

aname varchar(20),

cruisingrange int,

primary key(aid)

);

create table certified(

eid int,

aid int,

foreign key(aid) references aircraft(aid),

foreign key(eid) references employee(eid),

primary key(aid,eid)

);

create table employee(

eid int,

ename varchar(20),

salary int,

primary key(eid)

);

insert into flights values

(1000,"Chicago","Tulsa",268,"22:30:00","01:15:00",500),

(1001,"Madison","Albuquerque",500,"12:30:00","14:00:00",100),

(1002,"Albuquerque","New York",450,"14:30:00","16:00:00",300),

(1003,"Madison","Philadelphia",400,"12:30:00","15:00:00",450),

(1004,"Philadelphia","New York",120,"16:10:00","17:30:00",200),

(1005,"New York","Nashville",670,"19:30:00","01:00:00",100),

(1006,"El Paso","Santa Fe",300,"05:20:00","09:15:00",350);

insert into flights values

(1007,"Bangalore","Frankfurt",10000,"10:30:00","22:00:00",2000),

(1008,"Bangalore","Frankfurt",10000,"01:20:00","10:45:00",1500),

(1009,"Bangalore","Frankfurt",10000,"06:55:00","23:35:00",2000);

insert into flights values

(1010,"Bangalore","Chennai",236,"06:55:00","23:35:00",200),

(1011,"Chennai","New Delhi",2387,"06:55:00","23:35:00",400),

(1012,"Bangalore","Mumbai",800,"06:55:00","23:35:00",100),

(1013,"Mumbai","New Delhi",780,"06:55:00","23:35:00",150);

insert into flights values

(1014,"Bangalore","New Delhi",1800,"06:55:00","23:35:00",120);

update flights

set flights.distance=1800

where flights.flno=1014;

update flights

set flights.to\_loc="New Delhi"

where flights.flno=1014;

insert into aircraft values

(100,"Boeing 747-400",2000),

(101,"Boeing 777-200",3000),

(102,"Boeing 777-300",1500),

(103,"AirBus A380-800",4000),

(104,"AirBus A380-plus",5000),

(105,"Airbus A350-500",3700),

(106,"Fly High-500",1000),

(107,"Cruise Perfect-200",1700),

(108,"Cruise Perfect-500",4000),

(109,"Fly High-400",7800);

insert into employee values

(10,"Alex",10000),

(11,"Sam",14000),

(12,"Jonas",17500),

(13,"John",10600),

(14,"Michael",9000),

(15,"Stanley",2000),

(16,"Chris",4000),

(17,"Verstappen",16000),

(18,"Perez",13000),

(19,"Hamilton",1300);

insert into employee values

(20,"Norris",12300),

(21,"Riccardo",13000),

(22,"Lincoln",18000),

(23,"Cole",14000);

insert into employee values

(24,"Ryan",600),

(25,"Jan",800),

(26,"Gareth",1100);

insert into certified values

(10,100),

(11,101),

(12,104),

(13,103),

(14,104),

(20,105),

(20,106),

(20,107),

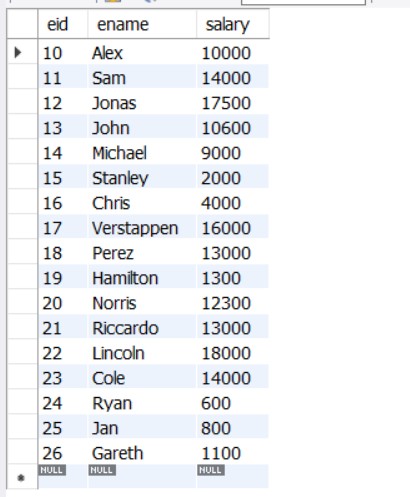
(21,108),

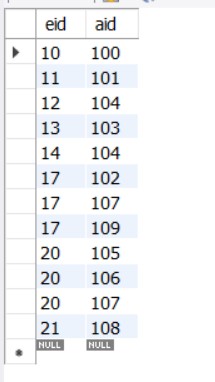
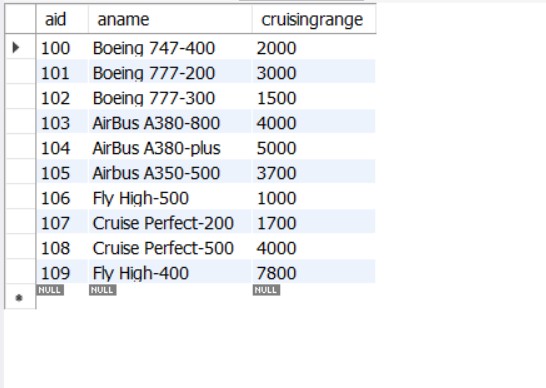
(17,102),

(17,109),

(17,107);

**Tables:-**





**Outputs:-**

/\* QUES 1 (changed the salary from Rs.80,000 to $14,000)\*/

select a.aname from certified c

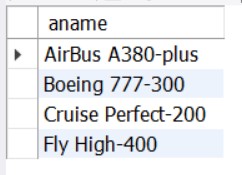
inner join aircraft a

on a.aid=c.aid

inner join employee e

on e.eid=c.eid

where e.salary>14000;



/\* QUES 2 \*/

select e.eid,max(a.cruisingrange) from certified c

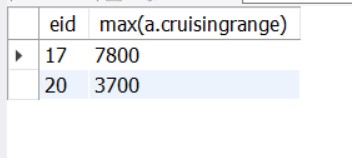
inner join employee e

on e.eid=c.eid

inner join aircraft a

on a.aid=c.aid

group by c.eid having count(c.eid)>=3;



/\* QUES 3 \*/

select e.ename from employee e

where e.salary<(select min(f.price) from flights f

where from\_loc="Bangalore"and to\_loc="Frankfurt");



/\* Ques 4 (Changed the cruising range from 1000 to 3000 for conveniece)\*/

select a.aname, avg(e.salary) from certified c

inner join aircraft a

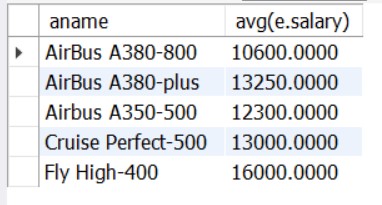
on a.aid=c.aid

inner join employee e

on e.eid=c.eid

where a.cruisingrange>3000

group by a.aid;



/\* QUES 5 \*/

select e.ename, a.aname from certified c

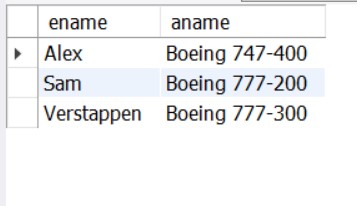
inner join aircraft a

on a.aid=c.aid

inner join employee e

on e.eid=c.eid

where a.aname like "Boeing%";

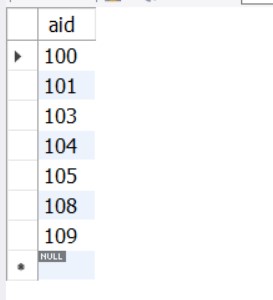


/\*QUES 6\*/

select a.aid from aircraft a

where a.cruisingrange>=(select f.distance from flights f

where from\_loc="Bangalore" and to\_loc="New Delhi");



**3)Student\_faculty DB**

|  |
| --- |
| create database student\_faculty; |
|  |

|  |
| --- |
| use student\_faculty; |
|  |

|  |
| --- |
| create table student ( |
|  |

|  |
| --- |
| usn varchar (10) primary key, |
|  |

|  |
| --- |
| sname varchar (25), |
|  |

|  |
| --- |
| address varchar (25), |
|  |

|  |
| --- |
| phone int (10), |
|  |

|  |
| --- |
| gender char (1)); |
|  |

|  |
| --- |
| create table semsec ( |
|  |

|  |
| --- |
| ssid varchar (5) primary key, |
|  |

|  |
| --- |
| sem int (2), |
|  |

|  |
| --- |
| sec char (1)); |
|  |

|  |
| --- |
| create table class ( |
|  |

|  |
| --- |
| usn varchar (10), |
|  |

|  |
| --- |
| ssid varchar (5), primary |
|  |

|  |
| --- |
| key (usn, ssid), |
|  |

|  |
| --- |
| foreign key (usn) references student (usn), |
|  |

|  |
| --- |
| foreign key (ssid) references semsec (ssid)); |
|  |

|  |
| --- |
| create table subject ( |
|  |

|  |
| --- |
| subcode varchar (8), |
|  |

|  |
| --- |
| title varchar (20), |
|  |

|  |
| --- |
| sem int (2), |
|  |

|  |
| --- |
| credits int (2), |
|  |

|  |
| --- |
| primary key (subcode)); |
|  |

|  |
| --- |
| create table iamarks ( |
|  |

|  |
| --- |
| usn varchar (10), |
|  |

|  |
| --- |
| subcode varchar (8), |
|  |

|  |
| --- |
| ssid varchar(5), |
|  |

|  |
| --- |
| test1 int(2), |
|  |

|  |
| --- |
| test2 int(2), |
|  |

|  |
| --- |
| test3 int(2), |
|  |

|  |
| --- |
| finalia int (2), |
|  |

|  |
| --- |
| primary key (usn, subcode, ssid), |
|  |

|  |
| --- |
| foreign key (usn) references student (usn), |
|  |

|  |
| --- |
| foreign key (subcode) references subject (subcode), |
|  |

|  |
| --- |
| foreign key (ssid) references semsec (ssid)); |
|  |

|  |
| --- |
| insert into student values('1rn13cs020','akshay','belagavi', |
|  |

|  |
| --- |
| 88778811,'m'); |
|  |

|  |
| --- |
| insert into student values('1rn13cs062','sandhya','bengaluru', |
|  |

|  |
| --- |
| 77228299,'f'); |
|  |

|  |
| --- |
| insert into student values('1rn13cs091','teesha','bengaluru', |
|  |

|  |
| --- |
| 77123123,'f'); |
|  |

|  |
| --- |
| insert into student values('1rn13cs066','supriya','mangaluru', |
|  |

|  |
| --- |
| 88778811,'f'); |
|  |

|  |
| --- |
| insert into student values('1rn14cs010','abhay','bengaluru', |
|  |

|  |
| --- |
| 99002112,'m'); |
|  |

|  |
| --- |
| insert into student values('1rn14cs032','bhaskar','bengaluru', |
|  |

|  |
| --- |
| 99232110,'m'); |
|  |

|  |
| --- |
| insert into student values ('1rn14cs025','asmi','bengaluru', 78947373,'f'); |
|  |

|  |
| --- |
| insert into student values ('1rn15cs011','ajay','tumkur', 98450913,'m'); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| insert into student values ('1rn15cs029','chitra','davangere', |
|  |

|  |
| --- |
| 76967721,'f'); |
|  |

|  |
| --- |
| insert into student values ('1rn15cs045','jeeva','bellary', 99448501,'m'); |
|  |

|  |
| --- |
| insert into student values ('1rn15cs091','santosh','mangaluru', |
|  |

|  |
| --- |
| 8812332,'m'); |
|  |

|  |
| --- |
| insert into student values('1rn16cs045','ismail','kalburgi', |
|  |

|  |
| --- |
| 99002322,'m'); |
|  |

|  |
| --- |
| insert into student values ('1rn16cs088','sameera','shimoga', |
|  |

|  |
| --- |
| 99055422,'f'); |
|  |

|  |
| --- |
| insert into student values ('1rn16cs122','vinayaka','chikamagalur', |
|  |

|  |
| --- |
| 88008800,'m'); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| insert into semsec values ('cse8a', 8,'a'); |
|  |

|  |
| --- |
| insert into semsec values ('cse8b', 8,'b'); |
|  |

|  |
| --- |
| insert into semsec values ('cse8c',8,'c'); |
|  |

|  |
| --- |
| insert into semsec values ('cse7a',7,'a'); |
|  |

|  |
| --- |
| insert into semsec values ('cse7b',7,'b'); |
|  |

|  |
| --- |
| insert into semsec values ('cse7c',7,'c'); |
|  |

|  |
| --- |
| insert into semsec values ('cse6a',6,'a'); |
|  |

|  |
| --- |
| insert |
|  |

|  |
| --- |
| into semsec values ('cse6b', 6,'b'); |
|  |

|  |
| --- |
| insert into semsec values ('cse6c', 6,'c'); |
|  |

|  |
| --- |
| insert into semsec values ('cse5a', 5,'a'); |
|  |

|  |
| --- |
| insert into semsec values ('cse5b', 5,'b'); |
|  |

|  |
| --- |
| insert into semsec values ('cse5c', 5,'c'); |
|  |

|  |
| --- |
| insert into semsec values ('cse4a',4,'a'); |
|  |

|  |
| --- |
| insert into semsec values ('cse4b', 4,'b'); |
|  |

|  |
| --- |
| insert into semsec values('cse4c',4,'c'); |
|  |

|  |
| --- |
| insert into semsec values ('cse3a', 3,'a'); |
|  |

|  |
| --- |
| insert into semsec values ('cse3b', 3,'b'); |
|  |

|  |
| --- |
| insert into semsec values('cse3c',3,'c'); |
|  |

|  |
| --- |
| insert into semsec values ('cse2a', 2,'c'); |
|  |

|  |
| --- |
| insert into semsec values ('cse2b', 2,'b'); |
|  |

|  |
| --- |
| insert into semsec values ('cse2c', 2,'c'); |
|  |

|  |
| --- |
| insert into semsec values ('cse1a', 1,'a'); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| insert into semsec values ('cse1b', 1,'b'); |
|  |

|  |
| --- |
| insert into semsec values ('cse1c', 1,'c'); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| insert into class values('1rn13cs020','cse8a'); |
|  |

|  |
| --- |
| insert into class values('1rn13cs062','cse8a'); |
|  |

|  |
| --- |
| insert into class values('1rn13cs066','cse8b'); |
|  |

|  |
| --- |
| insert into class values('1rn13cs091','cse8c'); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| insert into class values('1rn14cs010','cse7a'); |
|  |

|  |
| --- |
| insert into class values('1rn14cs025','cse7a'); |
|  |

|  |
| --- |
| insert into class values('1rn14cs032','cse7a'); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| insert into class values('1rn15cs011','cse4a'); |
|  |

|  |
| --- |
| insert into class values('1rn15cs029','cse4a'); |
|  |

|  |
| --- |
| insert into class values('1rn15cs045','cse4b'); |
|  |

|  |
| --- |
| insert into class values('1rn15cs091','cse4c'); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| insert into class values('1rn16cs045','cse3a'); |
|  |

|  |
| --- |
| insert into class values('1rn16cs088','cse3b'); |
|  |

|  |
| --- |
| insert into class values('1rn16cs122','cse3c'); |
|  |

|  |
| --- |
| insert into subject values ('10cs81','aca', 8, 4); |
|  |

|  |
| --- |
| insert into subject values ('10cs82','ssm', 8, 4); |
|  |

|  |
| --- |
| insert into subject values ('10cs83','nm', 8, 4); |
|  |

|  |
| --- |
| insert into subject values ('10cs84','cc', 8, 4); |
|  |

|  |
| --- |
| insert into subject values ('10cs85','pw', 8, 4); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| insert into subject values ('10cs71','ooad', 7, 4); |
|  |

|  |
| --- |
| insert into subject values ('10cs72','ecs', 7, 4); |
|  |

|  |
| --- |
| insert into subject values ('10cs73','ptw', 7, 4); |
|  |

|  |
| --- |
| insert into subject values ('10cs74','dwdm', 7, 4); |
|  |

|  |
| --- |
| insert into subject values ('10cs75','java', 7, 4); |
|  |

|  |
| --- |
| insert into subject values ('10cs76','san', 7, 4); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| insert into subject values ('15cs51', 'me', 5, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs52','cn', 5, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs53','dbms', 5, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs54','atc', 5, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs55','java', 5, 3); |
|  |

|  |
| --- |
| insert into subject values ('15cs56','ai', 5, 3); |
|  |

|  |
| --- |
| insert into subject values ('15cs41','m4', 4, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs42','se', 4, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs43','daa', 4, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs44','mpmc', 4, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs45','ooc', 4, 3); |
|  |

|  |
| --- |
| insert into subject values ('15cs46','dc', 4, 3); |
|  |

|  |
| --- |
| insert into subject values ('15cs31','m3', 3, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs32','ade', 3, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs33','dsa', 3, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs34','co', 3, 4); |
|  |

|  |
| --- |
| insert into subject values ('15cs35','usp', 3, 3); |
|  |

|  |
| --- |
| insert into subject values ('15cs36','dms', 3, 3); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| insert into iamarks (usn, subcode, ssid, test1, test2, test3)values |
|  |

|  |
| --- |
| ('1rn13cs091','10cs81','cse8c', 15, 16,18); |
|  |

|  |
| --- |
| insert into iamarks (usn, subcode, ssid, test1, test2, test3)values |
|  |

|  |
| --- |
| ('1rn13cs091','10cs82','cse8c', 12, 19,14); |
|  |

|  |
| --- |
| insert into iamarks (usn, subcode, ssid, test1, test2, test3)values |
|  |

|  |
| --- |
| ('1rn13cs091','10cs83','cse8c', 19, 15,20); |
|  |

|  |
| --- |
| insert into iamarks (usn, subcode, ssid, test1, test2, test3)values |
|  |

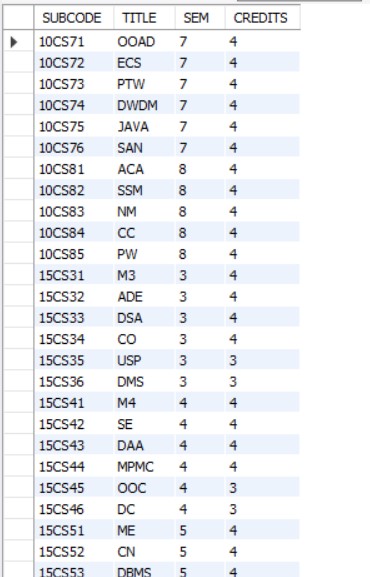
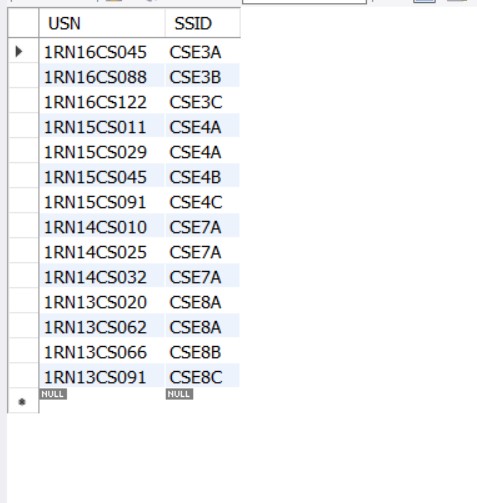
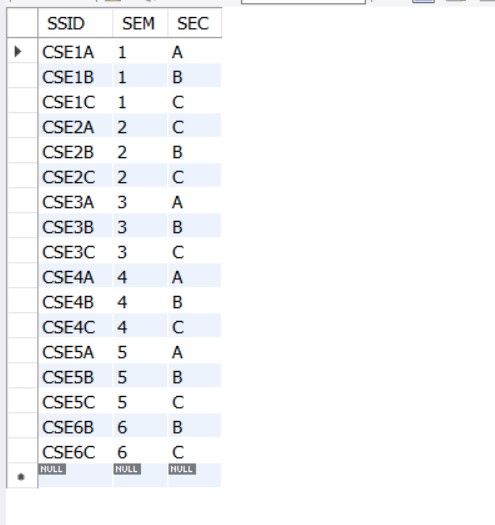
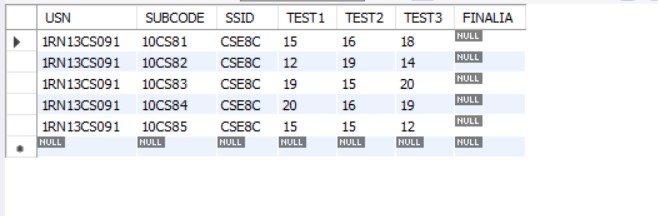
|  |
| --- |
| ('1rn13cs091','10cs84','cse8c', 20, 16,19); |
|  |

|  |
| --- |
| insert into iamarks (usn, subcode, ssid, test1, test2, test3)values |
|  |

|  |
| --- |
| ('1rn13cs091','10cs85','cse8c', 15, 15,12); |
|  |

|  |
| --- |
|  |
|  |

**Tables:**

****

**Outputs:**

|  |
| --- |
| select s.\*, ss.sem, ss.sec |
|  |

|  |
| --- |
| from student s, semsec ss, class c |
|  |

|  |
| --- |
| where s.usn = c.usn and |
|  |

|  |
| --- |
| ss.ssid = c.ssid and |
|  |

|  |
| --- |
| ss.sem = 4 and |
|  |

|  |
| --- |
| ss.sec='c'; |
|  |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| select ss.sem, ss.sec, s.gender, count(s.gender) as count |
|  |

|  |
| --- |
| from student s, semsec ss, class c |
|  |

|  |
| --- |
| where s.usn = c.usn and |
|  |

|  |
| --- |
| ss.ssid = c.ssid |
|  |

|  |
| --- |
| group by ss.sem, ss.sec, s.gender |
|  |

|  |
| --- |
| order by sem; |
|  |
|  |

|  |
| --- |
| create view stu\_test1\_marks\_view |
|  |

|  |
| --- |
| as |
|  |

|  |
| --- |
| select test1, subcode |
|  |

|  |
| --- |
| from iamarks |
|  |

|  |
| --- |
| where usn = ‘1rn13cs091’; |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| select \* from stu\_test1\_marks\_view; |
|  |
|  |

|  |
| --- |
| -- query 4 |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| delimiter // |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| create procedure avg\_marks() |
|  |

|  |
| --- |
| begin |
|  |

|  |
| --- |
| declare c\_a integer; |
|  |

|  |
| --- |
| declare c\_b integer; |
|  |

|  |
| --- |
| declare c\_c integer; |
|  |

|  |
| --- |
| declare c\_sum integer; |
|  |

|  |
| --- |
| declare c\_avg integer; |
|  |

|  |
| --- |
| declare c\_usn varchar(10); |
|  |

|  |
| --- |
| declare c\_subcode varchar(8); |
|  |

|  |
| --- |
| declare c\_ssid varchar(5); |
|  |

|  |
| --- |
| declare c\_iamarks cursor for |
|  |

|  |
| --- |
| select greatest(test1,test2) as a, greatest(test1,test3) as b, greatest(test3,test2) as c, usn, subcode, ssid |
|  |

|  |
| --- |
| from iamarks |
|  |

|  |
| --- |
| where finalia is null |
|  |

|  |
| --- |
| for update; |
|  |

|  |
| --- |
| open c\_iamarks; |
|  |

|  |
| --- |
| loop |
|  |

|  |
| --- |
| fetch c\_iamarks into c\_a, c\_b, c\_c, c\_usn, c\_subcode, c\_ssid; |
|  |

|  |
| --- |
| if (c\_a != c\_b) then |
|  |

|  |
| --- |
| set c\_sum=c\_a+c\_b; |
|  |

|  |
| --- |
| else |
|  |

|  |
| --- |
| set c\_sum=c\_a+c\_c; |
|  |

|  |
| --- |
| end if; |
|  |

|  |
| --- |
| set c\_avg=c\_sum/2; |
|  |

|  |
| --- |
| update iamarks set finalia = c\_avg |
|  |

|  |
| --- |
| where usn = c\_usn and subcode = c\_subcode and ssid = c\_ssid; |
|  |

|  |
| --- |
| end loop; |
|  |

|  |
| --- |
| close c\_iamarks; |
|  |

|  |
| --- |
| end; |
|  |

|  |
| --- |
| // |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| call avg\_marks(); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| select \* from iamarks; |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| select \* from iamarks; |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| -- query 5 |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| select s.usn,s.sname,s.address,s.phone,s.gender, |
|  |

|  |
| --- |
| (case |
|  |

|  |
| --- |
| when ia.finalia between 17 and 20 then 'outstanding' |
|  |

|  |
| --- |
| when ia.finalia between 12 and 16 then 'average' |
|  |

|  |
| --- |
| else 'weak' |
|  |

|  |
| --- |
| end) as cat |
|  |

|  |
| --- |
| from student s, semsec ss, iamarks ia, subject sub |
|  |

|  |
| --- |
| where s.usn = ia.usn and |
|  |

|  |
| --- |
| ss.ssid = ia.ssid and |
|  |

|  |
| --- |
| sub.subcode = ia.subcode and |
|  |

sub.sem = 8;

**4)Student\_enrollDB**

CREATE DATABASE stud\_fac;

USE stud\_fac;

CREATE TABLE STUDENT(snum INT PRIMARY KEY,sname VARCHAR(40),major VARCHAR(40),lvl VARCHAR(40),age INT);

CREATE TABLE FACULTY(fid INT PRIMARY KEY,fname VARCHAR(40),deptid INT);

CREATE TABLE CLASS(cname VARCHAR(40) PRIMARY KEY,meets\_at timestamp,room VARCHAR(40),fid INT,FOREIGN KEY(fid) REFERENCES faculty(fid));

CREATE TABLE ENROLLED(snum INT,cname VARCHAR(40),PRIMARY KEY(snum,cname),FOREIGN KEY(snum) REFERENCES STUDENT(snum),FOREIGN KEY(cname) references CLASS(cname));

insert into Student values(1,'jhon', 'CS', 'Sr', 19),

(2, 'Smith', 'CS', 'Jr', 20),

(3 , 'Jacob', 'CV', 'Sr', 20),

(4, 'Tom ', 'CS', 'Jr', 20),

(5, 'Rahul', 'CS', 'Jr', 20),

(6, 'Rita', 'CS', 'Sr', 21);

select \* from Student;

insert into faculty values(11, 'Harish', 1000),

(12, 'MV', 1000),

(13 , 'Mira', 1001),

(14, 'Shiva', 1002),

(15, 'Nupur', 1000);

select \* from Faculty;

insert into Class values('class1', '12/11/15 10:15:16', 'R1', 14),

('class10', '12/11/15 10:15:16', 'R128', 14),

('class2', '12/11/15 10:15:20', 'R2', 12),

('class3', '12/11/15 10:15:25', 'R3', 11),

('class4', '12/11/15 20:15:20', 'R4', 14),

('class5', '12/11/15 20:15:20', 'R3', 15),

('class6', '12/11/15 13:20:20', 'R2', 14),

('class7', '12/11/15 10:10:10', 'R3', 14);

select\*from Class;

insert into Enrolled values

(1,'class1'),

(2,'class1'),

(3,'class3'),

(4,'class3'),

(5,'class4'),

(1,'class5'),

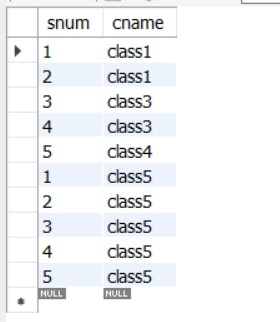
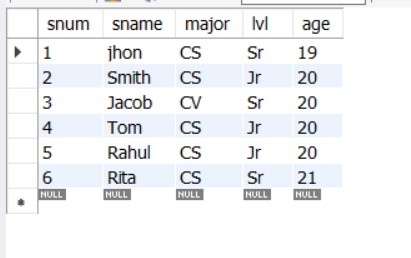
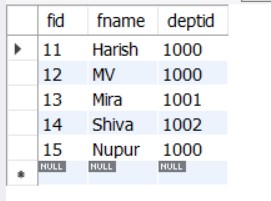
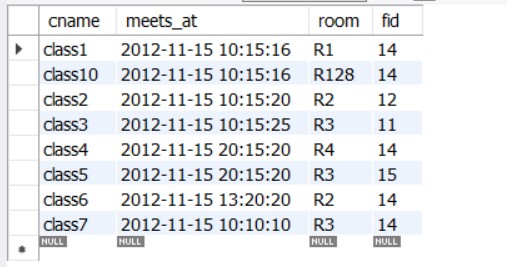
(2,'class5'),

(3,'class5'),

(4,'class5'),

(5,'class5');

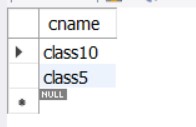
**Tables:-**



**Outputs:-**

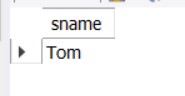
/\*i. Find the names of all Juniors (level = JR) who are enrolled in a class taught by Harish \*/

SELECT sname FROM student,faculty,class,enrolled WHERE student.snum= enrolled.snum and enrolled.cname=class.cname and faculty.fid=class.fid and lvl='Jr' and Faculty.fname='Harish';



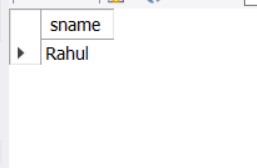
/\*ii. Find the names of all classes that either meet in room R128 or have five or more Students enrolled.\*/

SELECT class.cname FROM class where room='R128' OR class.cname IN(SELECT enrolled.cname FROM enrolled GROUP BY enrolled.cname having COUNT(\*)>=5);



/\*iii. Find the names of all students who are enrolled in two classes that meet at the same time.\*/

select sname from Student where snum in (select e1.snum from Enrolled e1,Enrolled e2,Class c1,Class c2 where e1.snum=e2.snum and e1.cname=c1.cname and e2.cname=c2.cname and e1.cname<>e2.cname and c1.meets\_at=c2.meets\_at);/\*student no is same and meeting time is the same\*/



/\*iv. Find the names of faculty members who teach in every room in which some class is taught.\*/

SELECT fname FROM faculty WHERE NOT EXISTS(select room from class where room not in(select distinct room WHERE faculty.fid=class.fid));/\*innner query selects a room in which they do not teach\*/



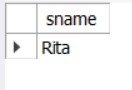
/\*v. Find the names of faculty members for whom the combined enrollment of the courses that they

teach is less than five.\*/

SELECT distinct fname FROM faculty WHERE 5>(SELECT count(enrolled.snum) from enrolled,class where enrolled.cname=class.cname AND class.fid=faculty.fid);

/\*vi. Find the names of students who are not enrolled in any class.\*/

select sname from Student where snum not in (select snum from Enrolled);



/\*vii. For each age value that appears in Students, find the level value that appears most often. For

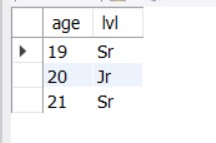
example, if there are more FR level students aged 18 than SR, JR, or SO students aged 18, you

should print the pair (18, FR).\*/

select S.age, S.lvl from Student S group by S.age, S.lvl having S.lvl in (select S1.lvl from Student S1 where S1.age = S.age

group by S1.lvl, S1.age having count(\*) >= all (select count(\*) from Student S2

where s1.age = S2.age group by S2.lvl, S2.age));



**5)SuppliersDB**

create database suppliersdb;

use supplier;

/\*q1\*/

SET FOREIGN\_KEY\_CHECKS=0;

create table suppliers(sid INT PRIMARY KEY,sname VARCHAR(40),address VARCHAR(40));

/\*q2\*/

INSERT INTO suppliers(sid,sname,address) VALUES(10001,'Acme Widget','Bangalore'),

(10002,'Johns','Kolkata'),

(10003,'Vimal','Mumbai'),

(10004,'Reliance','Delhi');

create table parts(pid INT PRIMARY KEY,pname VARCHAR(40),color varchar(40));

INSERT INTO parts(pid,pname,color) VALUES

(20001,'Book','Red'),

(20002,'Pen','Red'),

(20003,'Pencil','Green'),

(20004,'Mobile','Green'),

(20005,'Charger','Black');

create table catalog(sid INT,pid INT,COST real,primary key(sid,pid),FOREIGN KEY(sid) REFERENCES suppliers(sid),FOREIGN KEY(pid) REFERENCES parts(pid));

show tables;

DESC catalog;

DESC parts;

DESC suppliers;

INSERT INTO catalog(sid,pid,COST) VALUES

(10001,20001,10),

(10001,20002,10),

(10001,20003,30),

(10001,20004,10),

(10001,20005,10),

(10002,20001,10),

(10002,20002,20),

(10003,20003,30),

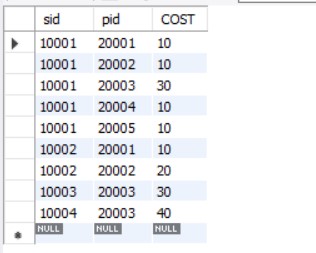
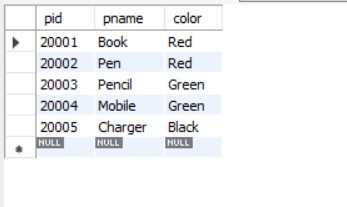
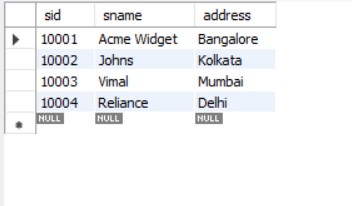
(10004,20003,40);

SELECT\*FROM catalog;

SELECT\*FROM parts;

SELECT\*FROM suppliers;

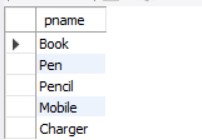
**Tables:-**



**Outputs:-**

/\*1)Find the pnames of parts for which there is some supplier.\*/

SELECT distinct pname FROM parts,catalog WHERE parts.pid=catalog.pid;



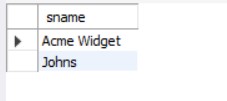
/\*2)Find the snames of suppliers who supply every part.\*/

SELECT sname FROM suppliers,parts,catalog WHERE suppliers.sid=catalog.sid GROUP BY Catalog.sid AND catalog.pid=ALL(SELECT distinct pid FROM parts) ;



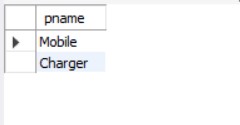
/\*3) Find the snames of suppliers who supply every red part.\*/

SELECT DISTINCT sname FROM suppliers,catalog,parts WHERE suppliers.sid=catalog.sid AND catalog.pid=PARTS.pid AND parts.color='red';



/\*4)Find the pnames of parts supplied by Acme Widget Suppliers and by no one else.\*/

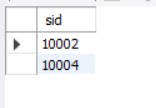
select pname from Parts,Catalog,Suppliers where Catalog.pid=Parts.pid and Catalog.sid=Suppliers.sid and Suppliers.sname='Acme Widget' and Catalog.pid not in (select c.pid from Catalog c ,Suppliers s where s.sid=c.sid and s.sname<>'Acme Widget');/\*not equal <>\*/



/\*5) Find the sids of suppliers who charge more for some part than the average cost of that part (averaged

over all the suppliers who supply that part).\*/

SELECT distinct c.sid FROM catalog c WHERE c.cost>(SELECT AVG(c1.cost) FROM catalog c1 WHERE c1.pid=c.pid);/\*doing self join so that it sums up only costs of dif suppliers\*/



/\*6) For each part, find the sname of the supplier who charges the most for that part.\*/

SELECT p.pid,s.sname from parts p,suppliers s,Catalog c where c.pid=p.pid and c.sid=s.sid and c.cost=(select max(c1.cost) from catalog c1 where c1.pid=p.pid);

