Create database studentfaculty;

CREATE TABLE student(snum INT,sname VARCHAR(10),major VARCHAR(10),lvl VARCHAR(10),age INT, PRIMARY KEY(snum));

CREATE TABLE faculty(fid INT,fname VARCHAR(20),deptid INT,PRIMARY KEY(fid));

CREATE TABLE class(cname VARCHAR(20),meets\_at TIME,room VARCHAR(10),fid INT,PRIMARY KEY(cname),FOREIGN KEY(fid) REFERENCES faculty(fid));

CREATE TABLE enrolled(snum INT,cname VARCHAR(20),PRIMARY KEY(snum,cname),FOREIGN KEY(snum) REFERENCES student(snum),FOREIGN KEY(cname) REFERENCES class(cname));

INSERT INTO STUDENT VALUES(1, 'raj','CS','Sr',19);

INSERT INTO STUDENT VALUES(2, 'Smitha','CS','Jr',20);

INSERT INTO STUDENT VALUES(3, 'karan','CV','Sr',20);

INSERT INTO STUDENT VALUES(4, 'jerry','CS','Jr',20);

INSERT INTO STUDENT VALUES(5, 'tom','CS','Jr',20);

INSERT INTO STUDENT VALUES(6, 'Ramya','CS','Sr',21);

SELECT \*FROM student;

INSERT INTO FACULTY VALUES(11, 'hamsa', 1000);

INSERT INTO FACULTY VALUES(12, 'Manu', 1000);

INSERT INTO FACULTY VALUES(13 , 'Makar', 1001);

INSERT INTO FACULTY VALUES(14, 'Shankar', 1002);

INSERT INTO FACULTY VALUES(15, 'Neeli', 1000);

SELECT \*FROM FACULTY;

INSERT INTO class VALUES('class1', '10:15:16', 'R1', 14);

INSERT INTO class VALUES('class10', '10:15:16', 'R128', 14);

INSERT INTO class VALUES('class2', '10:15:20', 'R2', 12);

INSERT INTO class VALUES('class3', '10:15:25', 'R3', 12)

INSERT INTO class VALUES('class4', '20:15:20', 'R4', 14);

INSERT INTO class VALUES('class5', '20:15:20', 'R3', 15);

INSERT INTO class VALUES('class6', '13:20:20', 'R2', 14);

INSERT INTO class VALUES('class7', '10:10:10', 'R3', 14);

SELECT \*FROM CLASS;

INSERT INTO enrolled VALUES(1, 'class1');

INSERT INTO enrolled VALUES(2, 'class1');

INSERT INTO enrolled VALUES(3, 'class3');

INSERT INTO enrolled VALUES(4, 'class3');

INSERT INTO enrolled VALUES(5, 'class4');

INSERT INTO enrolled VALUES(1, 'class5');

INSERT INTO enrolled VALUES(2, 'class5');

INSERT INTO enrolled VALUES(3, 'class5');

INSERT INTO enrolled VALUES(4, 'class5');

INSERT INTO enrolled VALUES(5, 'class5');

SELECT \*FROM ENROLLED;

SELECT DISTINCT S.Sname FROM Student S,Class C,Enrolled E,Faculty F WHERE S.snum=E.snum AND E.cname=C.cname AND C.fid=F.fid AND F.fname='manu' AND S.lvl='Jr';

SELECT C.cname FROM Class C WHERE C.room='R128'OR C.cname IN(SELECT E.cname FROM Enrolled E GROUP BY E.cname HAVING COUNT(\*)>=5)

SELECT DISTINCT S.sname FROM Student S WHERE S.snum IN(SELECT E1.snum FROM Enrolled E1, Enrolled E2, Class C1, Class C2 WHERE E1.snum = E2.snum AND E1.cname <> E2.cname AND E1.cname = C1.cname AND E2.cname = C2.cname AND C1.meets\_at = C2.meets\_at);

SELECT DISTINCT F.fname FROM Faculty F WHERE NOT EXISTS(SELECT C.room FROM Class C WHERE C.fid = F.fid );

SELECT DISTINCT F.fname FROM Faculty F WHERE 5>(SELECT COUNT(E.snum)FROM Class C, Enrolled E WHERE C.cname = E.cname AND C.fid = F.fid)

SELECT DISTINCT S.sname FROM Student S WHERE S.snum NOT IN(SELECT E.snum FROM Enrolled E );

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));