select \* from student;

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

| snum | sname | major | lvl | age |

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

| 1 | prateek | CS | Sr | 19 |

| 2 | Saurab | CS | Jr | 20 |

| 3 | Pranav | CS | Sr | 20 |

| 4 | Renu | CV | Jr | 20 |

| 5 | Rahul | CS | Jr | 20 |

| 6 | raghu | CS | Sr | 21 |

| 7 | Pawan | CS | Sr | 20 |

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

7 rows in set (0.01 sec)

mysql> select \* from class;

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

| cname | metts\_at | room | fid |

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

| class1 | 10:15:00 | R1 | 14 |

| class10 | 10:15:00 | R128 | 14 |

| class2 | 11:30:00 | R2 | 12 |

| class3 | 12:15:00 | R3 | 12 |

| class4 | 20:15:00 | R4 | 14 |

| class5 | 20:30:00 | R3 | 15 |

| class6 | 13:20:00 | R2 | 14 |

| class7 | 10:10:00 | R2 | 14 |

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

8 rows in set (0.00 sec)

mysql> select \* from enrolled;

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

| snum | cname |

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

| 1 | class1 |

| 2 | class1 |

| 3 | class3 |

| 4 | class3 |

| 5 | class4 |

| 1 | class5 |

| 2 | class5 |

| 3 | class5 |

| 4 | class5 |

| 5 | class5 |

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

10 rows in set (0.01 sec)

mysql> select \* from faculty;

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

| fid | fname | deptid |

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

| 11 | Harish | 1000 |

| 12 | MV | 1000 |

| 13 | MMR | 1001 |

| 14 | PRK | 1002 |

| 15 | Ramarao | 1000 |

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

5 rows in set (0.00 sec)

1. **Find the names of all Juniors (level(lvl) = Jr) who are enrolled in a class taught by Harish.**

select sname from student, enrolled, class, faculty where student.snum = enrolled.snum and enrolled.cname = class.cname and class.fid = faculty.fid and faculty.fname = 'Harish' and student.lvl = 'Jr';

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

select cname from class where room = 'R128' or (select cname from enrolled group by cname having count(cname)>=5);

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

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);

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

SELECT DISTINCT F.fname

FROM Faculty F

WHERE NOT EXISTS ((SELECT C.roomFROM Class C )

MINUS

(SELECTC1.room

FROM Class C1

WHERE C1.fid = F.fid ));

**vii. Find the names of faculty members for whom the combined enrollment of the courses that they teach is less than five.**

SQL>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);

**viii. Find the names of students who are not enrolled in any class.**

select sname from student where student.snum not in (select snum from enrolled);