<u>To open the database:</u>

mysql> use <your name>;

Q4. Consider the following tables and identify primary and foreign keys, specify the not null property for mandatory keys.
STUDENT(*RollNo, StudentName, Class, Major*)
COURSE(*CourseNo, CourseName, ProfessorName, Department*)
REPORT(*RollNo, CourseNo, Grade*)

To create student table:

mysql>create table student
-> (rollno int(6) primary key,
-> studentname varchar(15) not null,
-> class varchar(15),
-> major varchar(15));

mysql> insert into student(rollno,studentname,class,major)
-> values(001,'Anu','IBCA','Computers');

mysql> insert into student(rollno,studentname,class,major)
->values(002,'Charvi','IBCA','AI');

Similarly insert 03 records.

To create course table:

mysql>create table course
->(courseno int(6),
-> coursename varchar(15) not null,
-> professorname varchar(15) not null,
-> department varchar(20) not null,
-> foreign key(courseno) references student(rollno));

mysql> insert into course(courseno,coursename,professorname,department)
->values(001,'BCA','Pramada Basu','Computer Science');

mysql> insert into course(courseno,coursename,professorname,department)
->values(002,'BCJ','Raman','Arts');

mysql>insert into course(courseno,coursename,professorname,department)
->values(003,'MBA','Sanvi','Management');

Similarly insert 02 records.

To create report table:

create table report

(rollno int(6) references student(rollno),
courseno int(6) references course(courseno),
grade char(2));

mysql> insert into report(rollno,courseno,grade)
-> values(001,001,'A');

mysql> insert into report(rollno,courseno,grade)
->values(002,002,'B');

Similarly insert 03 records.

Write. SQL commands for the following:

a) **Retrieve the names of all students majoring in 'Computers'.**
mysql>select studentname from student where major in('Computers');

b) **Retrieve the names of all students and class, who are doing the course taught by professor 'Pramada Basu'.**
mysql>select studentname,class from student, course where student.rollno=course.courseno and ->course.professorname='Pramada Basu';

c) **Retrieve all department names who are offering more than one course.**
mysql>select department from course group by department having count(*)>1;

d) **Retrieve the roll number and names of all students who could not get grade 'A' in any of their course.**
mysql>select studentname,rollno from student where rollno in(select rollno from report where grade ->not in('A'));