# Tutorial - 6

## Implement the following SQL Queries on Case study 2

## 1) Create all the necessary tables with all the required constraints

#### **STUDENT**

create table student(SID int not null,name varchar(50),address varchar(50),phone int not null,emgPN int,primary key(SID));

#### **COURSE**

create table course(CID int not null auto\_increment,name varchar(50),coursecode varchar(50),dept varchar(50),primary key(CID));

## **CREGD**

create table cregd(dept varchar(50) not null check (dept='cse'or dept='ece'), sid int not null, foreign key(sid) references student(sid));

## **CREG**

create table creg(sno int not null auto\_increment,SID int not null,CID int not null,primary key(sno),foreign key(SID) references cregd(SID),foreign key(CID) references Course(CID));

## **FACULTY**

create table fac(FID int not null,name varchar(50),address varchar(50),phone int not null,emgPN int,primary key(FID));

## **EXAM SECTION**

create table examclass(sno int not null auto\_increment ,CLID int not null,SID int not null,primary key (sno),foreign key(SID) references student(SID));

## **EXAM FACULTY**

create table examf(FID int not null, staffrole varchar(20) not null check (staffrole='proctor' or staffrole='squad'));

#### **EXAM TIMINGS**

create table examt(t int not null auto\_increment,CID int not null,examtype varchar(20) not null check (examtype='detained' or examtype='regular' or examtype='supply'),dte date not null,FID INT NOT NULL,primary key(t),foreign key (FID) references fac(FID));

## 2) Insert appropriate data into the tables

#### **STUDENT**

insert into student(sid,name,address,phone,emgPN) values(2,'rk','vjy',123456,111213), (3,'ajay','vjy',15689944,264445), (1,'pavan','vjy',987654,111231);

#### COURSE

insert into course(name,coursecode,dept) values('dbms','19sc1230','cse'),('os','19cs1200','cse'),('qp','19sc166','ece');

## **CREGD**

insert into cregd(dept,sid) values ('cse',2),('ece',3),('cse',1);

## **CREG**

insert into creg(SID,CID) values(1,1),(1,2),(3,1);

## **FACULTY**

insert into fac(FID,name,address,phone,emgPN) values(3012,'raj','vjy',13456,1113), (3013,'kevin','vjy',15515,1115);

#### **EXAM SECTION**

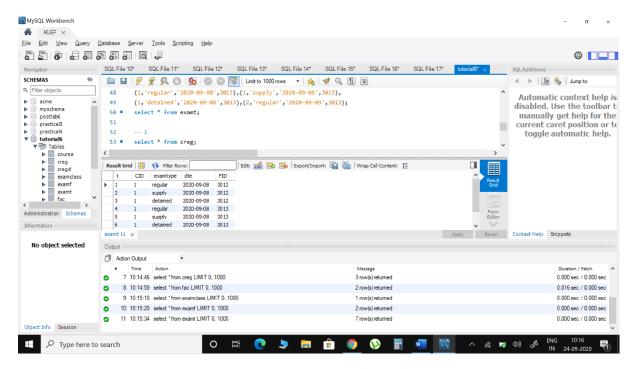
insert into examclass(CLID,st,sid) value(102,24,1);

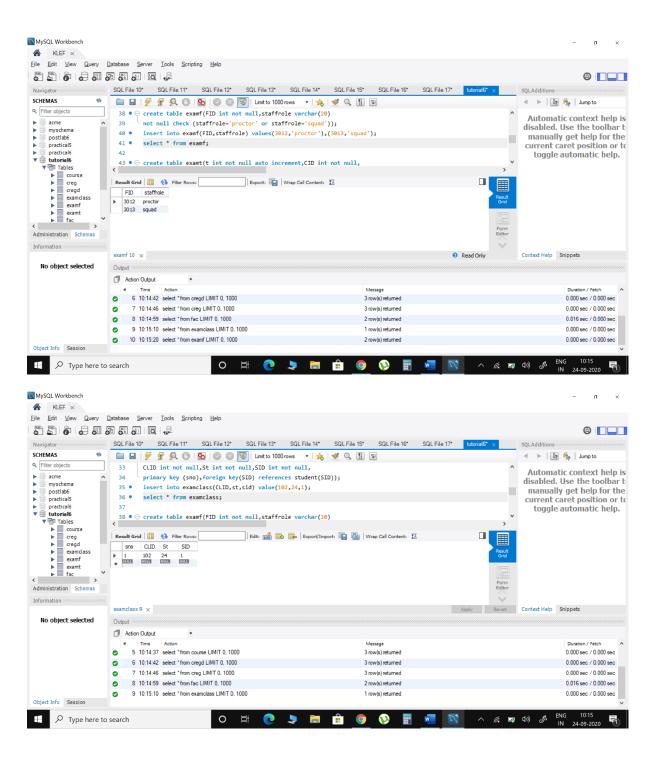
## **EXAM FACULTY**

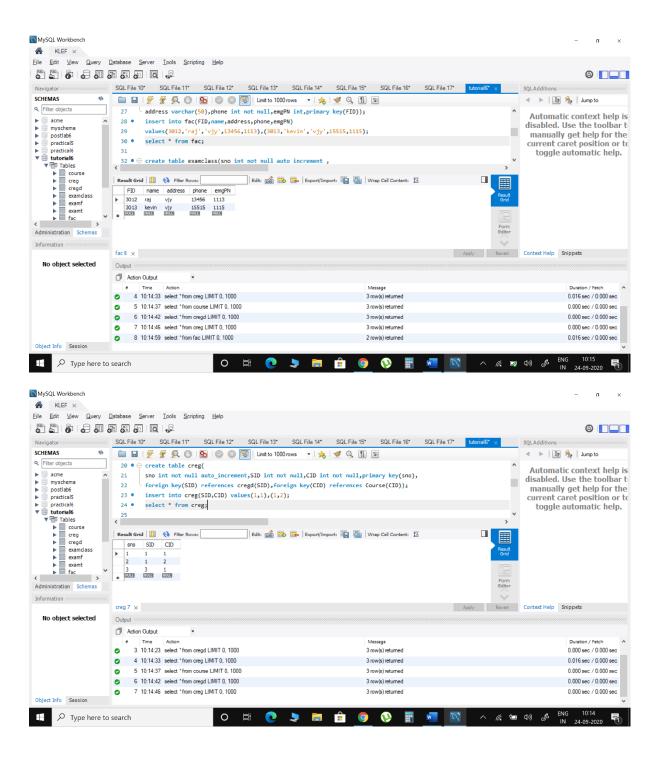
insert into examf(FID, staffrole) values(3012, 'proctor'),(3013, 'squad');

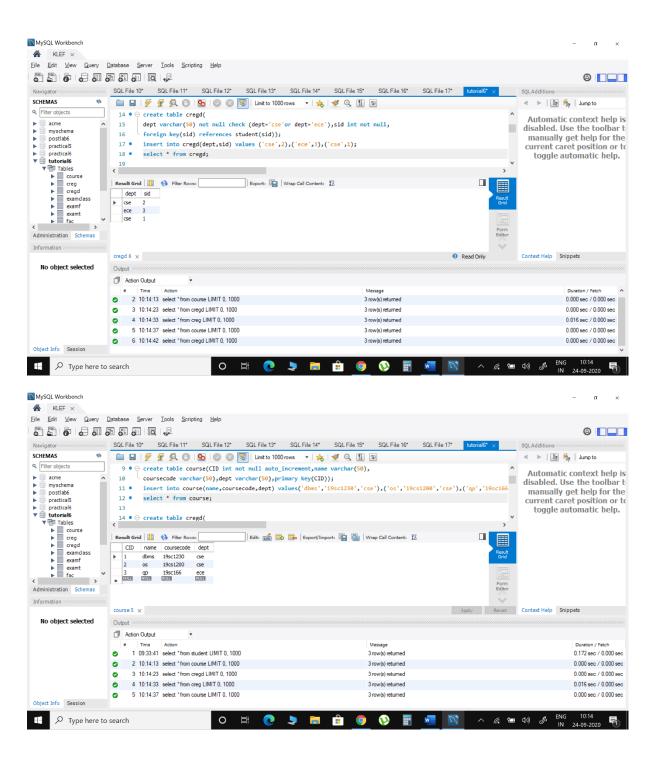
#### **EXAM TIMINGS**

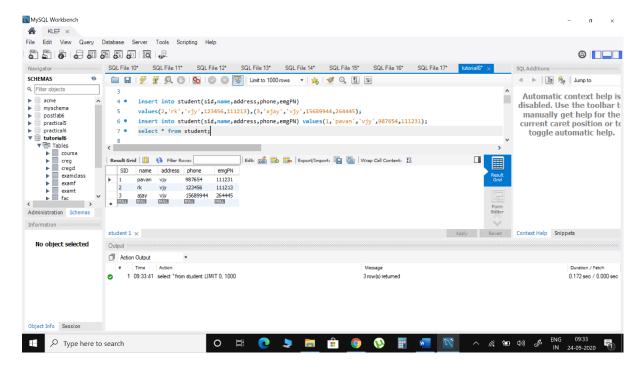
insert into examt(CID,examtype,dte,FID) values (1,'regular','2020-09-08',3012), (1,'supply','2020-09-08',3012),(1,'detained','2020-09-08',3012),(1,'regular','2020-09-08',3013), (1,'supply','2020-09-08',3013),(1,'detained','2020-09-08',3013),(2,'regular','2020-09-09',3013);





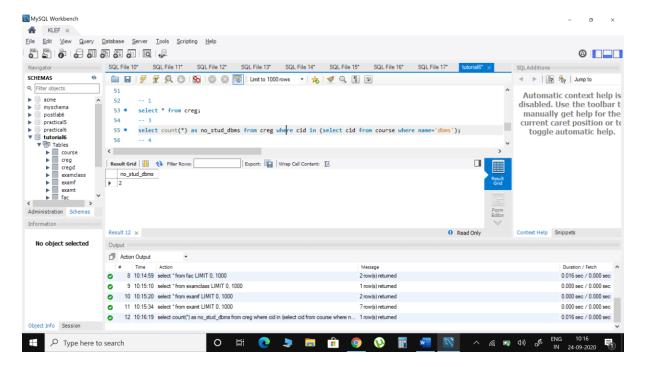






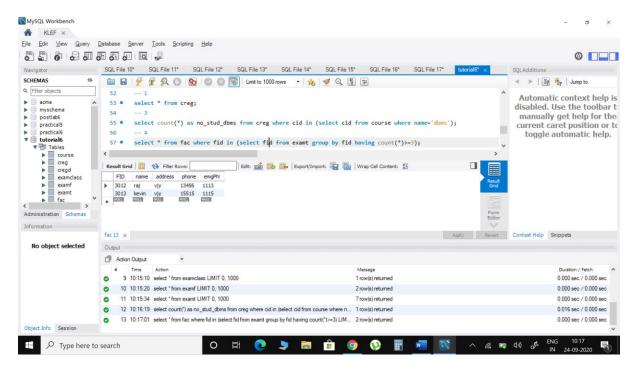
# 3) Display the number of students enrolled for exam 'DBMS'

select count(\*) as no\_stud\_dbms from creg where cid in (select cid from course where name='dbms');



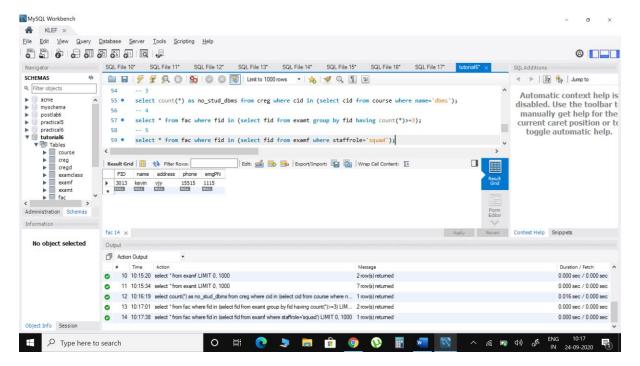
## 4) Show the details of proctors having duty more than 3 times

select \* from fac where fid in (select fid from examt group by fid having count(\*)>=3);



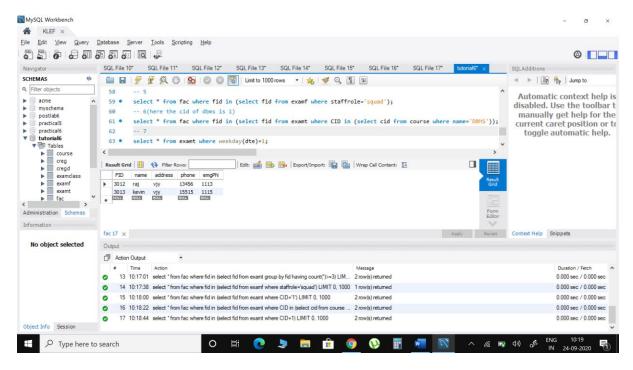
## 5) Get the details of faculty working as squad

select \* from fac where fid in (select fid from examf where staffrole='squad');



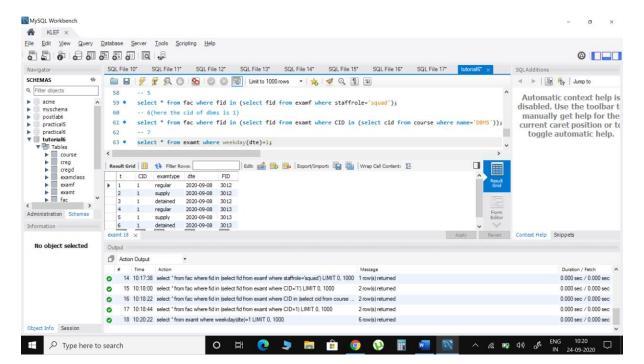
## 6) Display the details of proctors and squad for exam 'DBMS'

select \* from fac where fid in (select fid from examt where CID in (select cid from course where name='DBMS'));



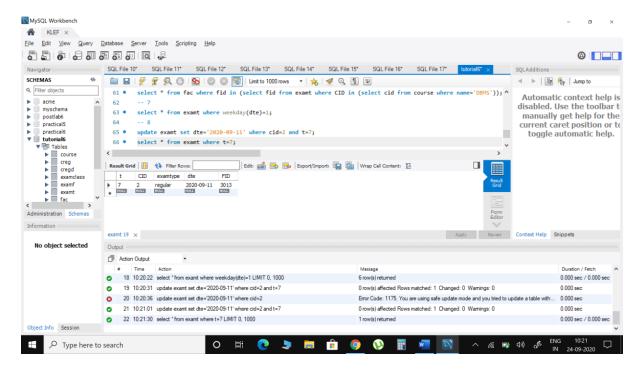
## 7) Show the number of rooms allotted for each course on 'Tuesday'

select \* from examt where weekday(dte)=1;



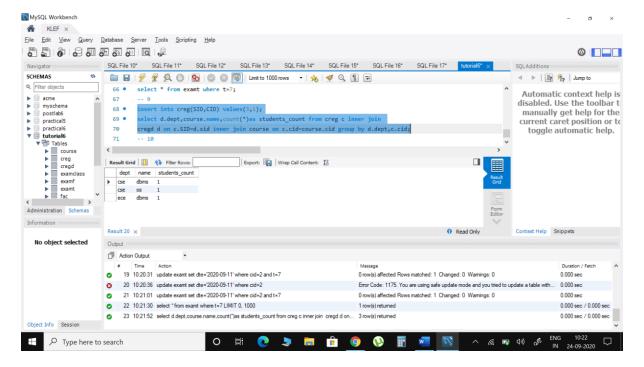
8) Update the exam date of 'OS' which is postponed to 2 days after the scheduled date update examt set dte='2020-09-11' where cid=2 and t=7;

select \* from examt where t=7;



## 9) Give the no. of students enrolled in each course department-wise

select d.dept,course.name,count(\*)as students\_count from creg c inner join cregd d on c.SID=d.sid inner join course on c.cid=course.cid group by d.dept,c.cid;



# 10) Display the course details where the enrolled students are greater than the enrolled students in DBMS

select \* from creg group by cid having count(\*) > (select count(\*) from creg where cid in (select cid from course where name='DBMS'));

