CS3400 Database Systems

SQL Lab Session (Group-2) - 19th Dec 2006

For the questions given below, write the corresponding SQL statements in part A. In part B, write the SQL statements after executing and modifying (if necessary) on SQL Server Management Studio. In part C, write down SQL statements after executing them on SQL Learning Suite. The primary keys for each of the relations are underlined.

Patient (int <u>PatientId</u>, varchar(255) PatientName, char Gender, int Age ,varchar(255) City)

PatientHistory (int <u>PatientId</u>,varchar(20) <u>JoiningDate</u>, varchar(10) DoctorId, varchar(10) NurseId, varchar(20) Leaving_Date, int Ward)

Dept (varchar(10) <u>DeptId</u>, varchar(255) DeptName, varchar(10) HOD, int No_of_Staff)

Employee (varchar(10) <u>EmpId</u>, varchar(255) EmpName,int Salary,varchar(25) Designation, varchar(10) DeptId)

where Designation is either "Doctor" or "Nurse".

The foreign key, primary key relationships:
PatientHistory(DoctorId) references Employee(EmpId)
PatientHistory(NurseId) references Employee(EmpId)
PatientHistory(PatientId) references Patient(PatientId)
Employee(DeptId) references Dept(DeptId)
Dept(HOD) references Employee(EmpId)

1. Give the details (Patient name and city) of all those patients who have been treated by a doctor, who works in a department of strength less than 20.

   Select P.PatientName, P.City
   From Patient P, PatientHistory PH, Employee E, Dept D
   Where P.PatientId = PH.PatientId and PH.DoctorId = E.EmpId and E.DeptId = D.DeptID and D.No_Of_Staff < 20;

2. Delete all those tuples from 'PatientHistory' where the patient has been treated by a doctor and nurse of different departments.

   Delete From PatientHistory PH
   Where PH.DoctorId in (Select E1.EmpId
                         From Employee E1, Employee E2
                         Where E1.Designation = 'Doctor' and E2.Designation = 'Nurse' and E2.EmpId = PH.NurseId and E2.DeptId != E1.DeptId);

3. Update the salary of all those doctors to 60000 who have treated atleast 3 patients and who are HODs of their respective departments.

   Update Employee E
   Set E.Salary = 60000
   Where E.Designation = 'Doctor'
   and E.EmpId in (Select D.HOD From Dept D
       Where D.DeptId = E.DeptId)
   and E.EmpId in (Select DoctorId From PatientHistory
       Group By DoctorId
       Having Count(*) >= 3);

4. Delete all those nurses from Employee table, who have treated more than 2 patients and who work in a department where the salary of HOD of that department < 35000.

   Delete From Employee E
   Where E.Designation = 'Nurse'
   and E.EmpId in (Select PH.NurseId
       From PatientHistory PH
       Group By PH.NurseId
       Having Count(*) > 2)
   and E.DeptId in (Select D.DeptId
       From Dept D, Employee E1
       Where D.HOD = E1.EmpId and E1.Salary < 35000);