DATA AND APPLICATIONS (CS4.301, MONSOON 2023)

PROJECT PHASE 4

Team 12

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1 List of Commands implemented

1.1 Insert:-

1. We have implemented insert command in each of the tables of our database . THe list of all tables are given in Project Phase-3 doc.

2. Example : If a new Department is build in Hospital, the corresponding entries can be added in the database by entering Dept-Name, HOD-ID, Dept-Location,etc.

3. Some extra features added are:-

   (a) Whenever new case is registered in hospital , if it belongs to new patient, the patient details are automatically updated in database. If patient is already present in DB, taking inputs of details is avoided which avoids load.

   (b) Whenever a new department is added , the ID is allotted automatically to it rather than taking ID from user as input(which is the same case as real life).

1.2 Update:-

1. Similarly , we have implemented update statements for all modifiable entries in tables.

2. The following is list of all update statements implemented by us:-

   (a) Doctors: Salary , Designation

   (b) Nurse: Salary

   (c) Receptionist: Salary

   (d) Workers: Shift, Salary per hour

   (e) Cases: Case status, last visit

   (f) Medical History: desc of past conditions

1.3 Delete:-

1. The following delete options are available:-

    (a) Delete Worker whose ID is specified by user

    (b) Similar to above , delete is implemented for doctors, nurse and other coworkers.

2. Some other special features:-

    (a) Whenever a Case entry is deleted from DB, its corresponding details like Bills, Prescription, etc are also deleted from respective tables.

    (b) But the above is not applicable for table like Departments. Before deleting a department entry, it is checked whether there is any doctor belonging to department. If found, department deletion is rejected.

    (c) Deletion of entries like doctors will delete corresponding Alma mater.

1.4 Select:-

1. The Database for doctors by name and ID.

2. Select Names of doctors whose first name are same(or substring).

3. Similarly, it searches for case details of the given case id.

1.5 Project:-

1. We have projected all names and contact info of patients whose appointments are pending in the next month.

2. Also , we have projected names of all workers whose shifts are "Night" Shifts.

1.6 Analysis:-

1. Details of Number of successes cases of a Doctor, which may be useful to hospital in future promotions,etc.

2. List of patients who visited the hospital in last six months and whose blood group is the one entered by administrator. This is useful to the hospital for purposes of analysis of most frequently demanded Blood group,etc.

1.7 Aggregate:-

1. Average Salary of the employees(doctors,nurses,workers,receptionist)

2. Max salary of doctor in each department.

1.8 Extra Functionalities:-

1. Inner join of Cases with Patients,Doctors and Medicine tables. In this functionality, hospital may require all info of a case at once, so on entering caseid , the details will be displayed.

2. Inner join of Patients with Cases, Doctors and Medicine. Here a hospital will require all details of cases of patient with a patient id.

2 OneDrive Video Link

Click here to watch the video.