Project Phase-4

TEAM - 51

List of Commands implemented

1) **INSERT**
   a) We have implemented an insert command in each of the tables of our database . THe list of all tables are given in Project Phase-3 .
   b) **Example** : If a new Department is built in the Hospital, the corresponding entries can be added in the database by entering Dept-Name, HOD-ID, Dept-Location,etc.
   c) Some extra features added are:-
      i) Whenever a new case is registered in the hospital , if it belongs to a new patient, the patient details are automatically updated in the database. If a patient is already present in DB, taking inputs of details is avoided which avoids load.
      ii) Whenever a new department is added , the ID is allotted automatically to it rather than taking the ID from user as input(which is the same case as real life).

2) **DELETE**
   a) Similarly , we have implemented delete statements for some modifiable entries in tables.
   b) **Example:** Delete Worker whose ID is specified by user
   c) Some other special features:-

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

ii) 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 the department. If found, department deletion is rejected.

iii) Deletion of entries like doctors will delete corresponding Previous_Degrees.

3) SEARCH

a) Similarly , we have implemented update statements for some modifiable entries in tables.

b) **Example:** get access to any employee details by providing their name(for doctors, nurse,etc).

4) UPDATE

a) Similarly , we have implemented update statements for some modifiable entries in tables.

b) The following is list of all update statements implemented by us:-

i) **Nurse:** Paycheck, Department_Id

ii) **Doctor:** Paycheck, Address, Phone no

iii) **Receptionist:** Paycheck

iv) **Inventory:** Available stock

v) **General_Staff:** Hourly_wage, Weekly_hours, Shift

vi) **Patient:** Phone no

vii) **Medical Record:** Total Visits, Recent Visit, Next appointment, Status

5) COMPLEX QUERIES

    a) We have also retrieved the patient details, doctor information, and total charges associated with a specific case ID.

    b) Showing the Doctor Efficiency(Total patients and avg visits)

    c) Details of doctors belonging to a particular department

    d) We are also fetching the details of a doctor with a specific ID along with the details of successful operations.

    e) We have identified the list of all workers assigned to either the 'Night' or 'Day' shifts.

    f) We have extracted the names and contact details of patients with appointments scheduled for the upcoming month

    g) Displaying the total charges in the hospital incurred by each patient

    h) Searching a doctor whose name is like a substring

    i) Patient whose total medical cases are greater than 2

6) AGGREGATE

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

    b) Max salary of doctor in each department.

    c) Avg Age of Doctors

    d) Sum of the hourly wage of doctors

    e) Maximum Paycheck of nurses

7) ALL THE FUNCTIONAL REQUIREMENTS ARE SATISFIED BUT NOT MENTIONED HERE EXPLICITLY
SIMILARLY FOR EACH OF THE OTHER SEARCH ,UPDATE , AGGREGATE MANY OTHER QUERIES ARE ALSO IMPLEMENTED IN THE PYTHON CODE BUT NOT MENTIONED HERE

ORDER OF EXECUTION OF OUR QUERIES

```
1. Option 1 for Insert
2. Option 2 for Delete
3. Option 3 for Search
4. Option 4 for all details of case
5. Option 5 for Doctor Efficiency in Each Department
6. Option 6 for all details of average salary
7. Option 7 for all details of doctor in Department
8. Option 8 for all details of SUCCESS case of doctor
9. Option 9 for Update
11. Option 11 for list of current working workers
12. option 12 for list of patient whose appointment within next month
13. For displaying maximum salary of doctor in a department
14. For displaying total hospital charges incurred by each patient
15. Printing the Table
16. Search doctors with substring
17. Patient with past medical cases greater than or equal to 2
18. Average age of doctors
19. Sum of hourly wage of workers
20. Maximum paycheck of nurses
21. Exit
Enter choice> 
```