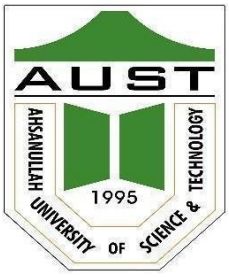

Ahsanullah University of Science & Technology

Department of Computer Science & Engineering

Project Report on

Hospital Management System

Course Title: Database Lab
Course No: CSE 3104

Prepared By-

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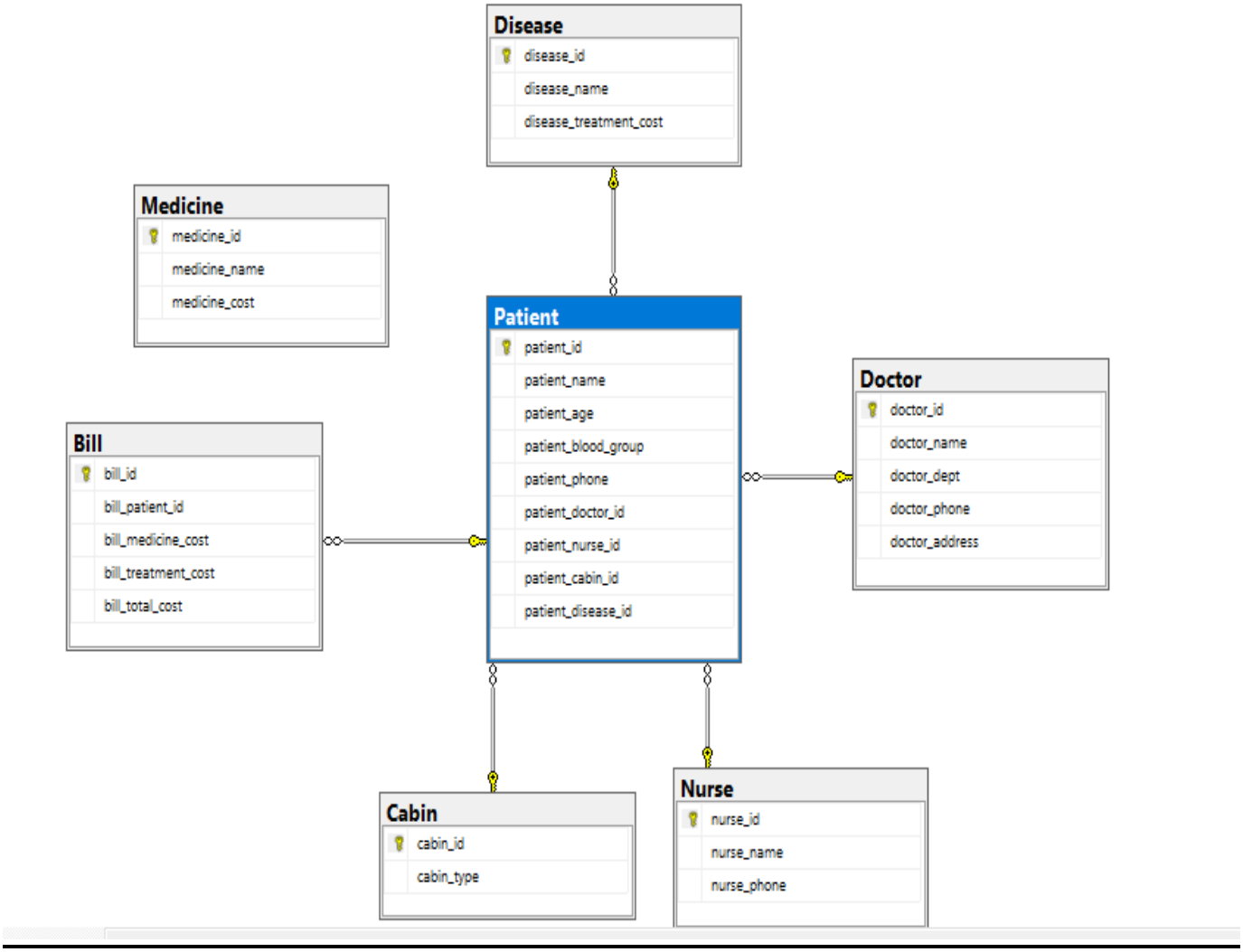
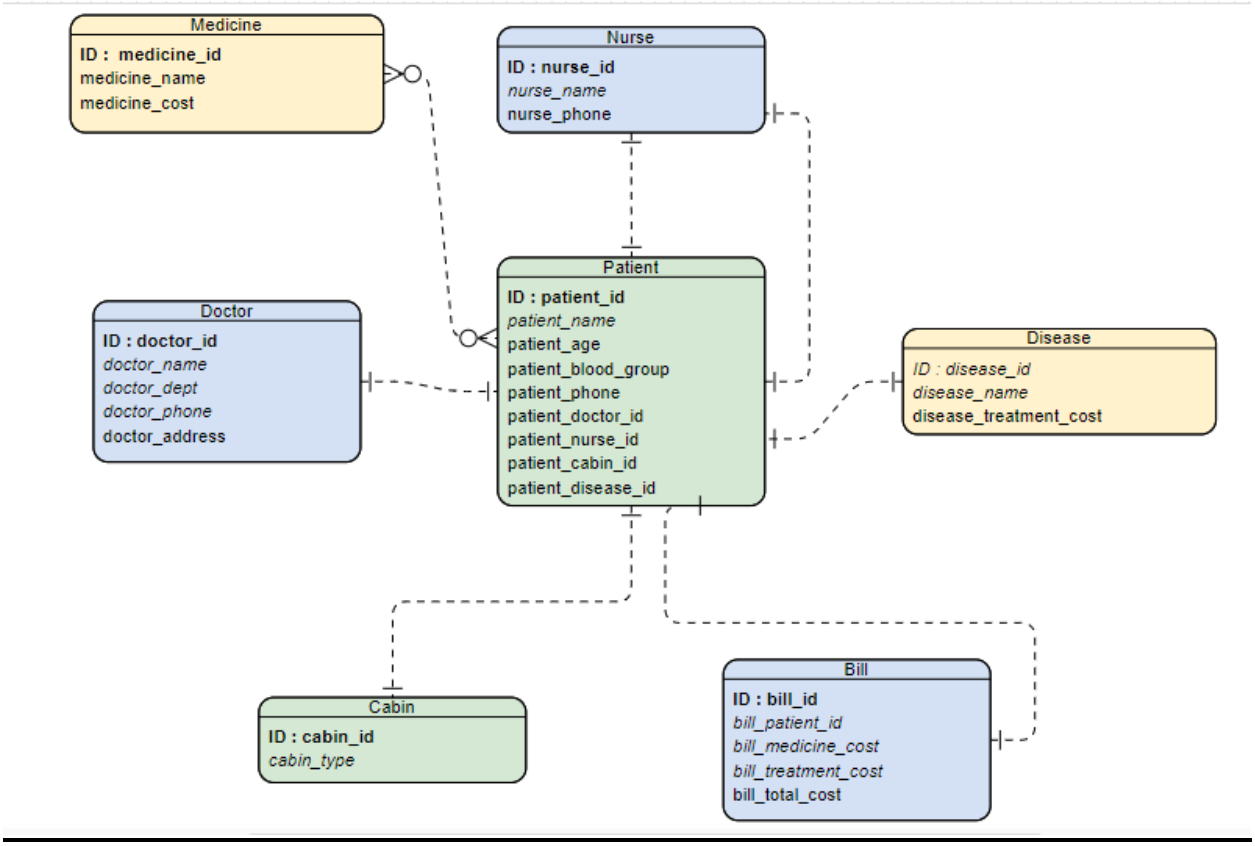

Disease
disease_id
disease_name
disease_treatment_cost
Medicine
medicine_id
medicine_name
medicine_cost
Patient
patient_id
patient_name
patient_age
patient_blood_group
patient_phone
patient_doctor_id
patient_nurse_id
patient_cabin_id
patient_disease_id
Doctor
doctor_id
doctor_name
doctor_dept
doctor_phone
doctor_address
Bill
bill_id
bill_patient_id
bill_medicine_cost
bill_treatment_cost
bill_total_cost
Cabin
cabin_id
cabin_type
Nurse
nurse_id
nurse_name
nurse_phone

Relational Schema:



Technology We Used:

In this project we have used JAVA (jdk-16.0.2) language along with an open-source Java-based framework, JavaFX. JavaFX is used to design our interface and UI. For managing data we have used a relational database management system (RDBMS). In this project we have used Microsoft SQL Server 2019.

Analysing Project Scenario:

Possible Entity	Possible Attributes
1. Medicine 2.Nurse 3.Disease 4.Cabin 5.Bill 6.Doctor 7.Patient	1. Medicine **Medicine_id** Medicine_name Medicine_cost 2.Nurse **Nurse_id** Nurse_name Nurse_phone 3.Disease **Disease_id** disease_name disease_treatment_cost 4.Cabin **Cabin_id** Cabin_type 5.Doctor **Doctor_id** Doctor_name doctor_phone doctor_dept doctor_address 6.Patient **patient_id** patient_name patient_phone patient_age patient_blood_group

	patient_doctor_id patient_nurse_id patient_cabin_id patient_disease_id 7.Bill **bill_id** bill_patient_id bill_medicine_cost bill_treatment_cost bill_total_cost

Project Overview:

Our project name is "Hospital Management System".
The first page is a "login" page. Where Admin , Receptionist and Doctor can login by giving the username and the password.

Login as Admin:

An admin can do lots of things with Doctor table, Nurse table, Cabin table, Medicine table, Disease table and Bill table. An admin can insert any information about doctor, nurse, cabin, medicine , disease into the database. There is an "add" page from where an admin can do this things. To do this we have used "insert" query.
There is a "view" page from where an admin can view Doctor, Nurse, Medicine, Disease, Cabin and Bill tables information and also can edit them or delete any data if he wants to. In "Doctor" table admin can show all data, search a doctor by his/her id, name , department, phone , address. Admin can use some Operators too. They are like, not like, greater than, less than. Admin can also sort the data by using id, name, department, phone, address both ascending and descending. Admin can also update any data and delete any data. To do this we have used operators "like", "not like", "greater than", "less than" and "sort", "update", "delete".
In "View" page from "Nurse" admin can show all data, search a nurse by his/her id, name, phone. Admin can use some Operators too. They are like, not like, greater than, less than. Admin can also sort the data by using id, name, phone both ascending and descending. Admin can also update any data and delete any data. To do this we have used operators "like", "not like", "greater than", "less than" and "sort", "update", "delete".
In "View" page from "Cabin" admin can show all data, search a cabin by its id and type. Admin can use some Operators too. They are like, not like, greater than, less than. Admin can also sort the data by using id and type both ascending and descending. Admin can also update any data and delete any data. To do this we have used operators "like", "not like", "greater than", "less than" and "sort", "update", "delete".
In "View" page from "Medicine" admin can show all data, search a cabin by its id, name, cost. Admin can use some Operators too. They are like, not like, greater than, less than. Admin can also sort the data by using id, name and cost both ascending and descending. Admin can also update any data and delete any data. To do this we have used operators "like", "not like",

“greater than”, “less than” and “sort”, “update”, “delete”.
In “View” page from “Disease” admin can show all data, search a cabin by its id, name, cost. Admin can use some Operators too. They are like, not like, greater than, less than. Admin can also sort the data by using id, name and cost both ascending and descending. Admin can also update any data and delete any data. To do this we have used operators “like”, “not like”, “greater than”, “less than” and “sort”, “update”, “delete”.
In “view” page from “Bill” admin can show all data and also can show top patients who have more paid total cost. To do this we have used “top” query.

Login as Receptionist:

In Receptionist there is two options. “Add” and “View”.
In “add” receptionist can add any patient . Here four foreign keys have been used. They are Doctor id, Nurse id, Cabin id and Disease id. To do this we have used “insert” query.
In “add” there is “Payment” option. If a receptionist search patient id who is already admitted his/her treatment cost will appear. Than receptionist will enter the names of the medicine that the patient need. And also the quantity of medicine than the medicine cost will appear. Medicine cost and treatment cost will add as total cost. After pressing the add button Patient id, Medicine cost, Treatment cost and Total cost will be inserted into the “Bill” table if in Bill table there is no information of the patient. If there is already a information about the Patient in Bill table than the new medicine which the patient has brought will add with the previous one and it will add with the treatment cost. And medicine cost and treatment cost will updated in the Bill table To do this we have used “insert” and “update” query.
In “View” page receptionist can show all data, search a patient by his/her id, name, age, blood group, phone, patients doctor id, patients nurse id, patients cabin id, patients disease id. Receptionist can use some Operators too. They are like, not like, greater than, less than. Receptionist can also update any data. Receptionist can change the discharge from no to yes for a patient if the patient has been discharged from the hospital. To do this we have used operators “like”, “not like”, “greater than”, “less than” and “sort”, “update”.

Login as Doctor:

Doctor can show all of his patients. For that doctor has to input his/her id. Than he can see data of his patients. Here patient table , nurse table, disease table has “join” query together. By join we can get the Nurse name and Disease name from nurse table and disease table. There is also used count which will give the total patients under the doctor. Doctor can select all patients from Ward or ICU or CCU or HDU. For which “join” and “subquery” has used. Ward, ICU, CCU, HDU are type of Cabin. We are selecting all from a specific type of Cabin. Which we are using into another query where patient cabin id will be between the result of the query. The total patient under this category will also appear. For this we have used “group by” , “having” and “subquery”. The doctor can also use all this query for discharged patients, not discharger patients and default which will show both discharged and not discharged patients. So for this category we have used “join”, ”group by”, “having” , “subquery”.