DATABASE MANAGEMENT SYSTEM

HOSPITAL MANAGEMENT SYSTEM

Aayushi Bardia, Mahathi N, Pratik Goswami, Rashmi Moger

Abstract

Our project, Hospital Management System, includes registration of patients, storing their disease details into the system. It also contains doctor's information and will digitalize the whole billing system. Our software has the facility to assign a unique id to every patient and store the details of every patient and staff automatically. It includes a facility to know the

current status of each room. Users can search availability of a doctor and the details of a patient using the id.

The Hospital Management System can be used by entering respective username and password. It is accessible only by admin. Only the respective person can add data in the database. The data can be retrieved easily. The interface is very user-friendly. The data are well protected and data processing is very fast, accurate and relevant.

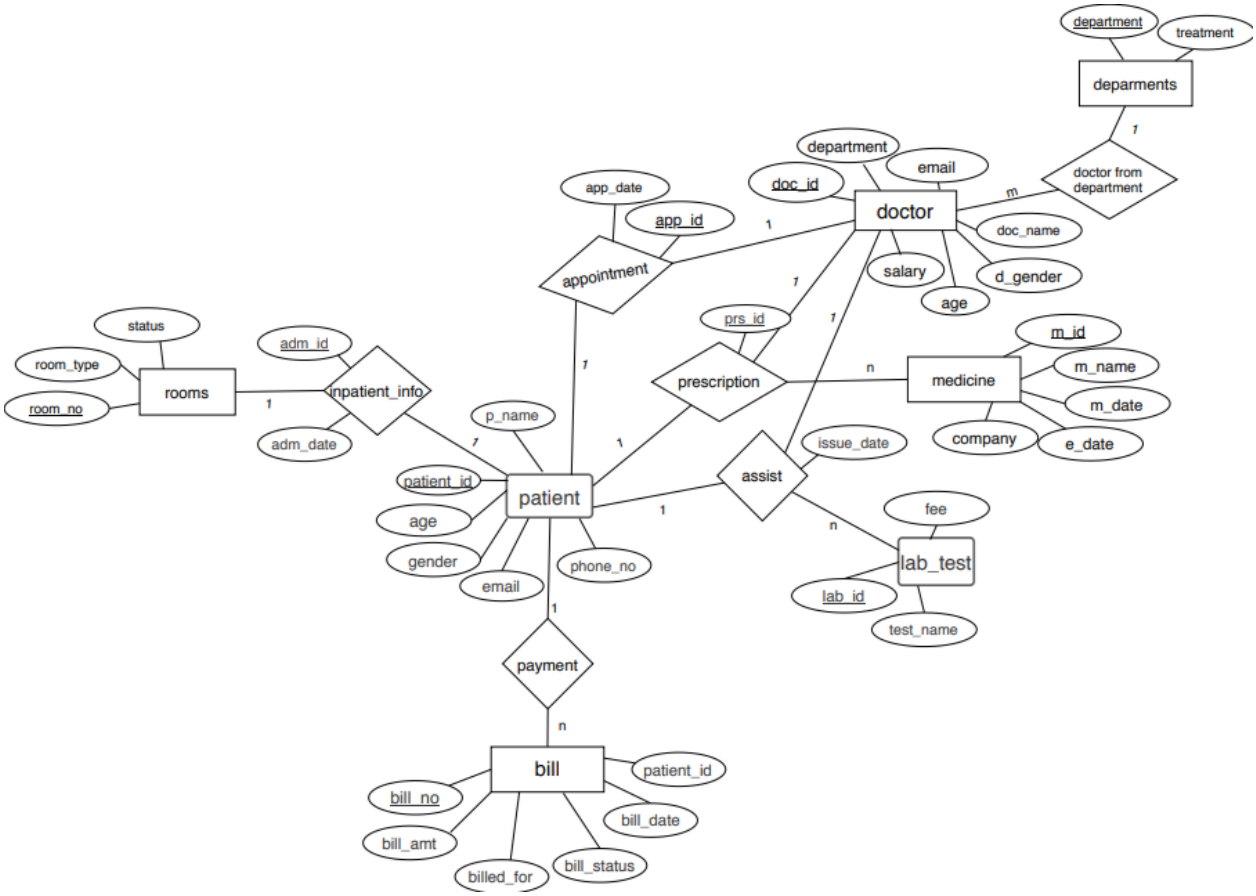
Introduction

The purpose of this system is to computerize the Front Office Management of Hospital and to develop software which is user friendly, simple, fast, and cost – effective. It deals with the collection of patient's information, diagnosis details, etc. Traditionally, it was done manually.

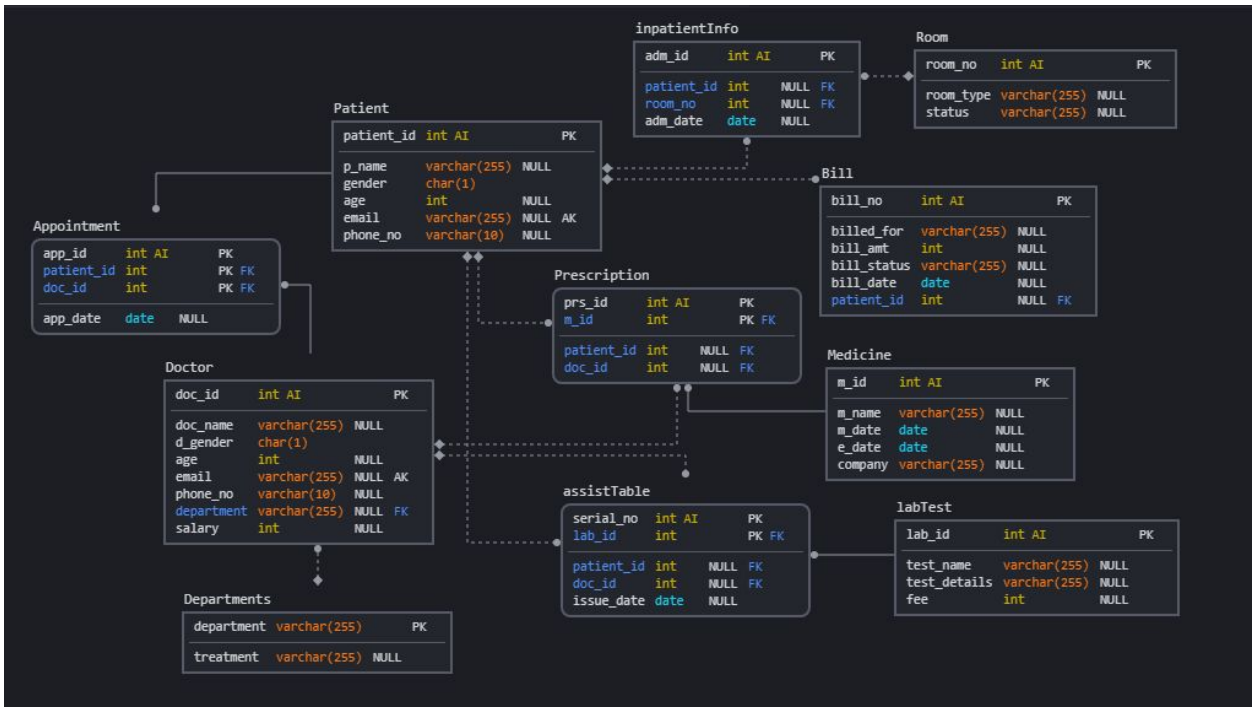
The main function of the system is to register and store patient details and doctor details and retrieve these details as and when required, and also to manipulate these details meaningfully.

Design of the Database

ER Diagram



Conceptual Schema



Features of the system:

The receptionist will manage the entire database

Register patients by filling out necessary details before scheduling an appointment.

Patients can have multiple appointments with different doctors.

can schedule appointments,update and delete appointments if the patient doesn't turn up.

Can add new doctor appointed ,also update doctor information.

Patient can view their previous appointment,bills and prescriptions

Candidate keys

Conceptual Schema Candidate Keys The choice of candidate keys was made by finding attribute closure of all subsets of the attributes of the relation followed by identification of Super Keys (Set of attributes whose attribute close contains all attributes of the relation). Next we select the super keys which do not have a proper subset which is a super key in itself. These keys qualify as our candidate keys. Following are our candidate keys of few tables:

Patient:

primary key:patient_id

candidate key:{email},{phone}

Doctor:

primary key:doc_id

candidate key:{email},{phone}

Appointment:

primary key:app_id

candidate key:{patient_id,doc_id,app_date}

Bill:

primary key:bill_no

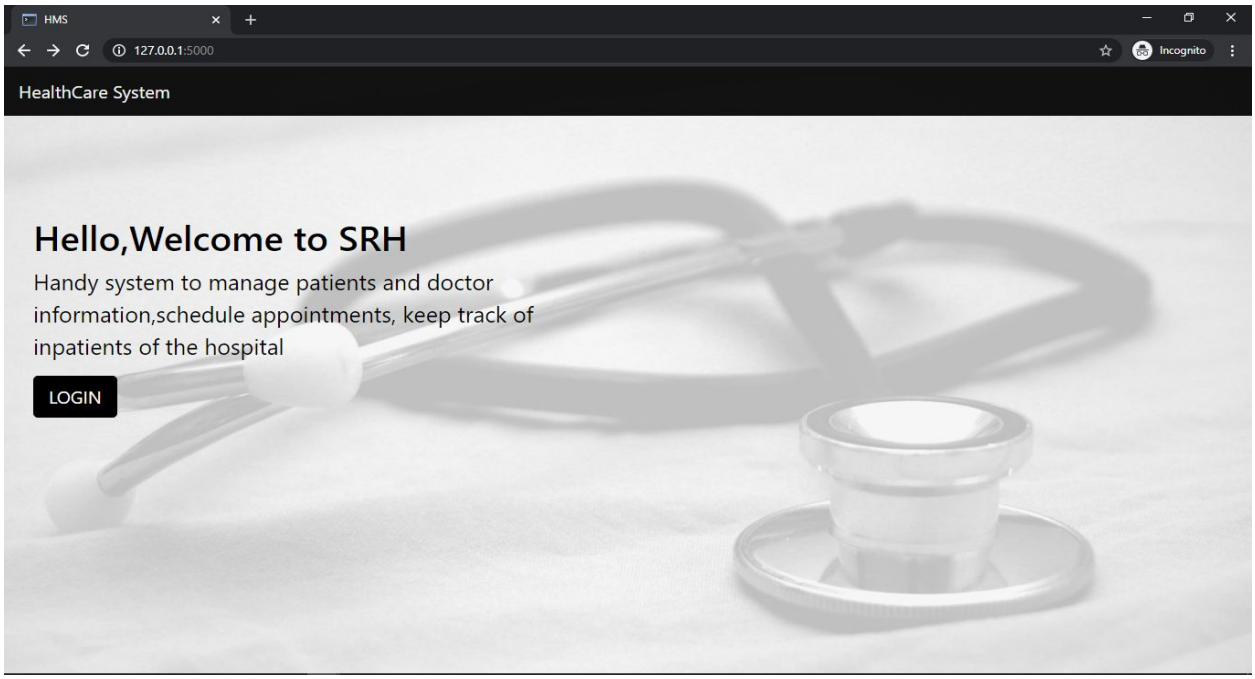
inpatientInfo:

primary key: adm_id

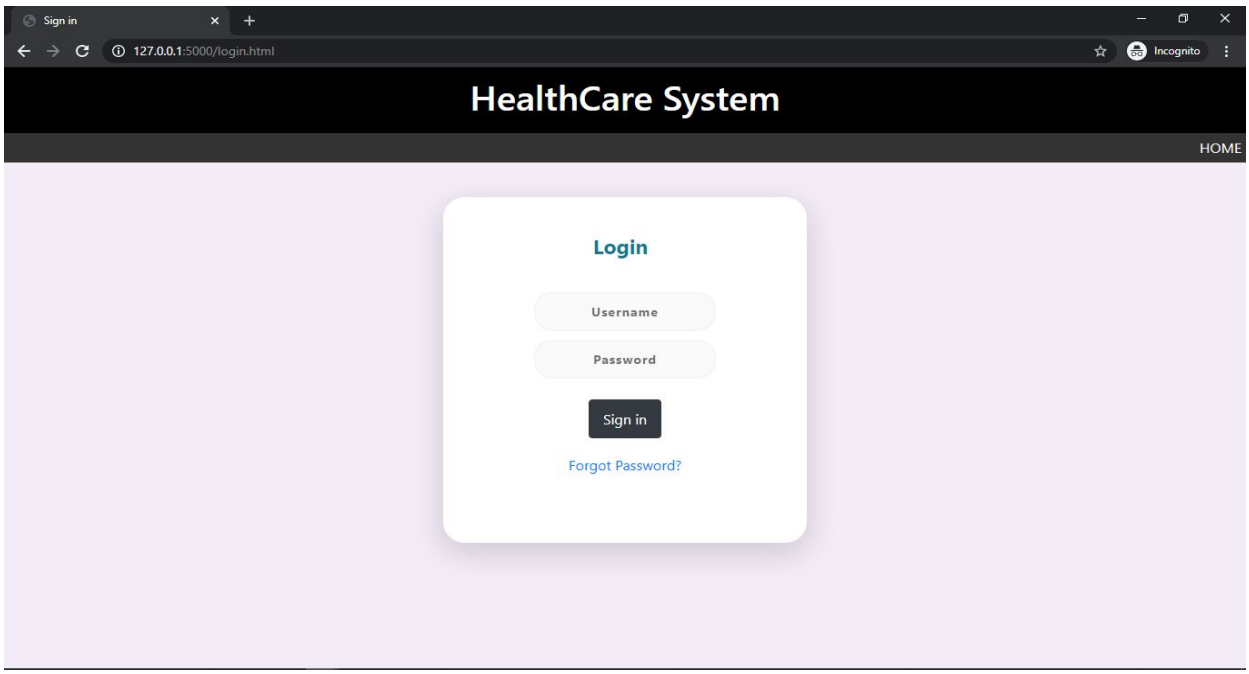
candidate key:patient_id,room_no

Results:

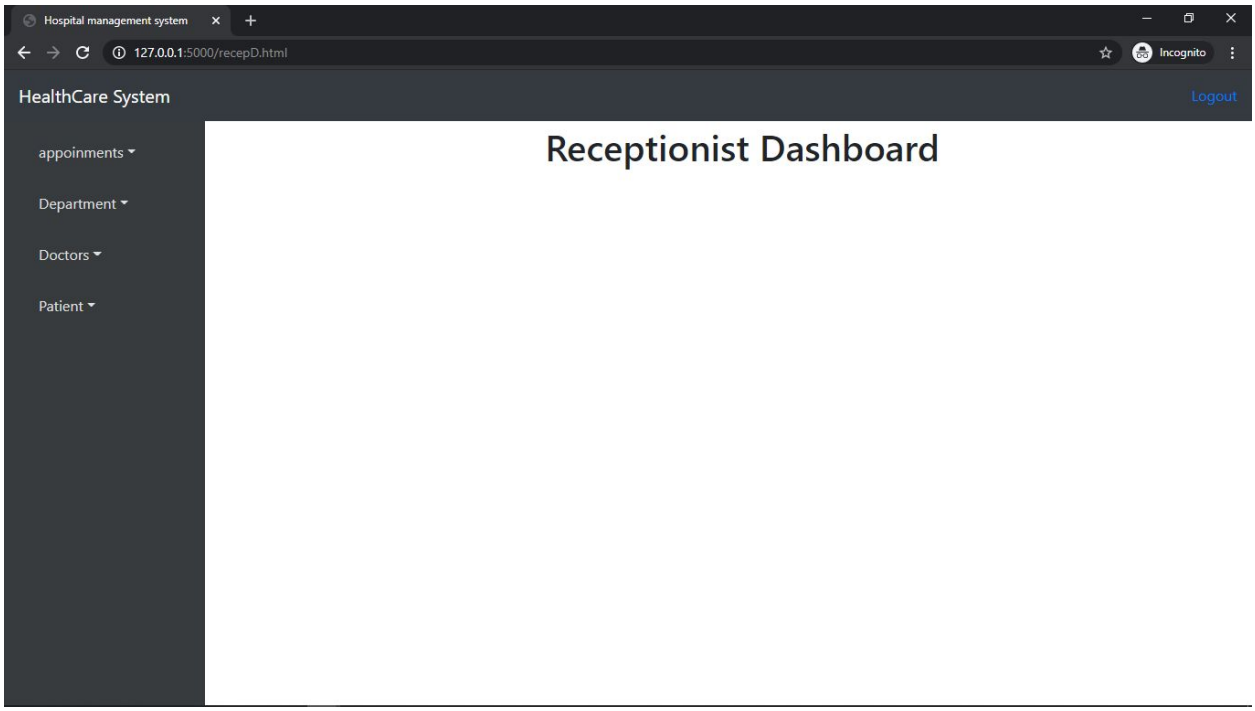
Screenshots: 1)home page



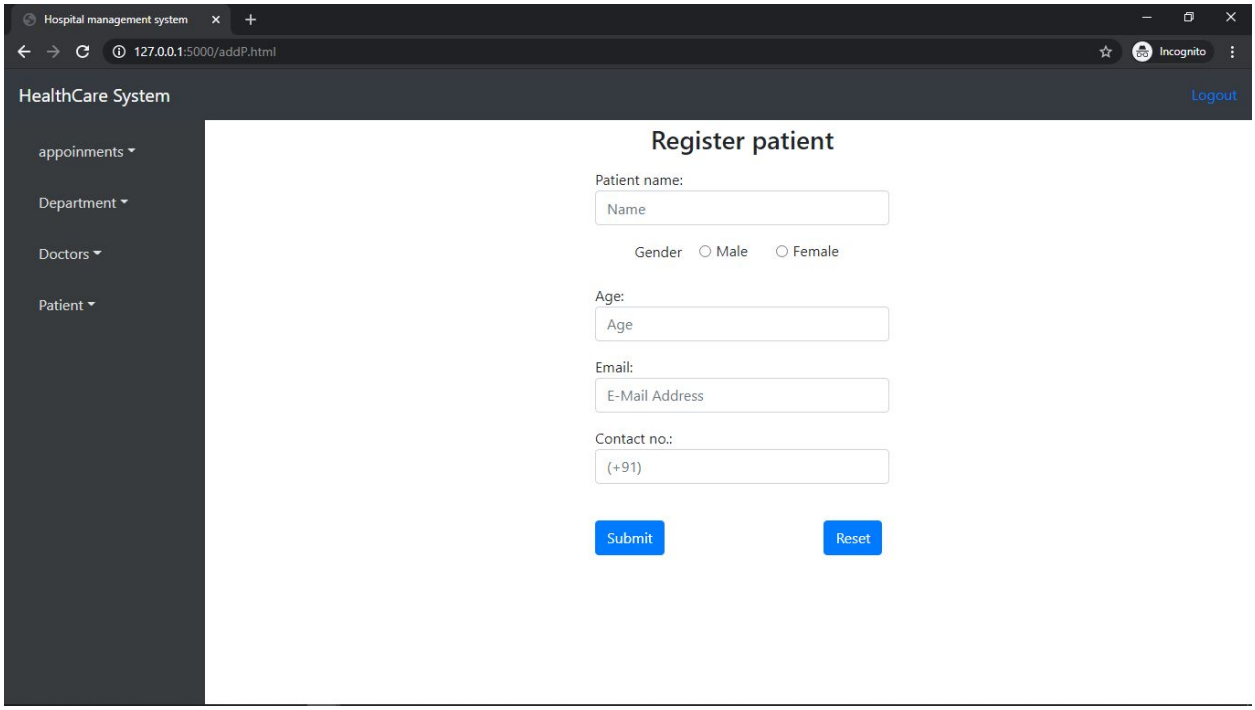
2)Login page



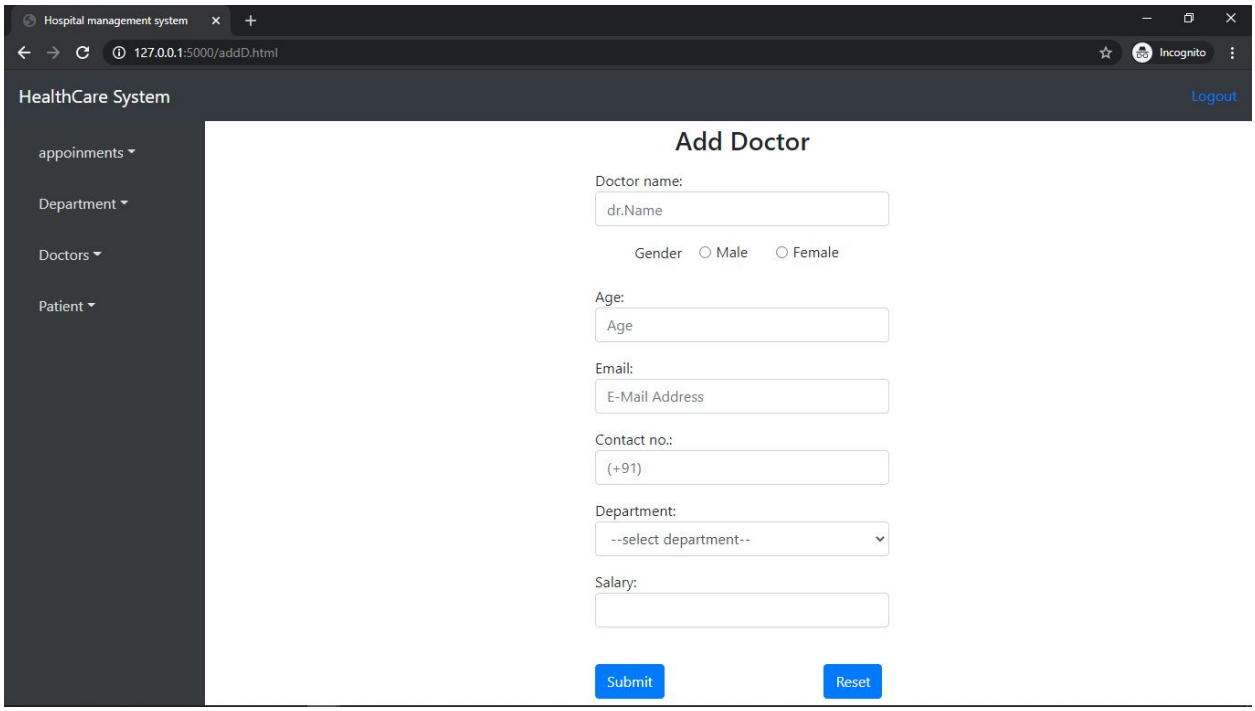
3)Receptionist Dashboard



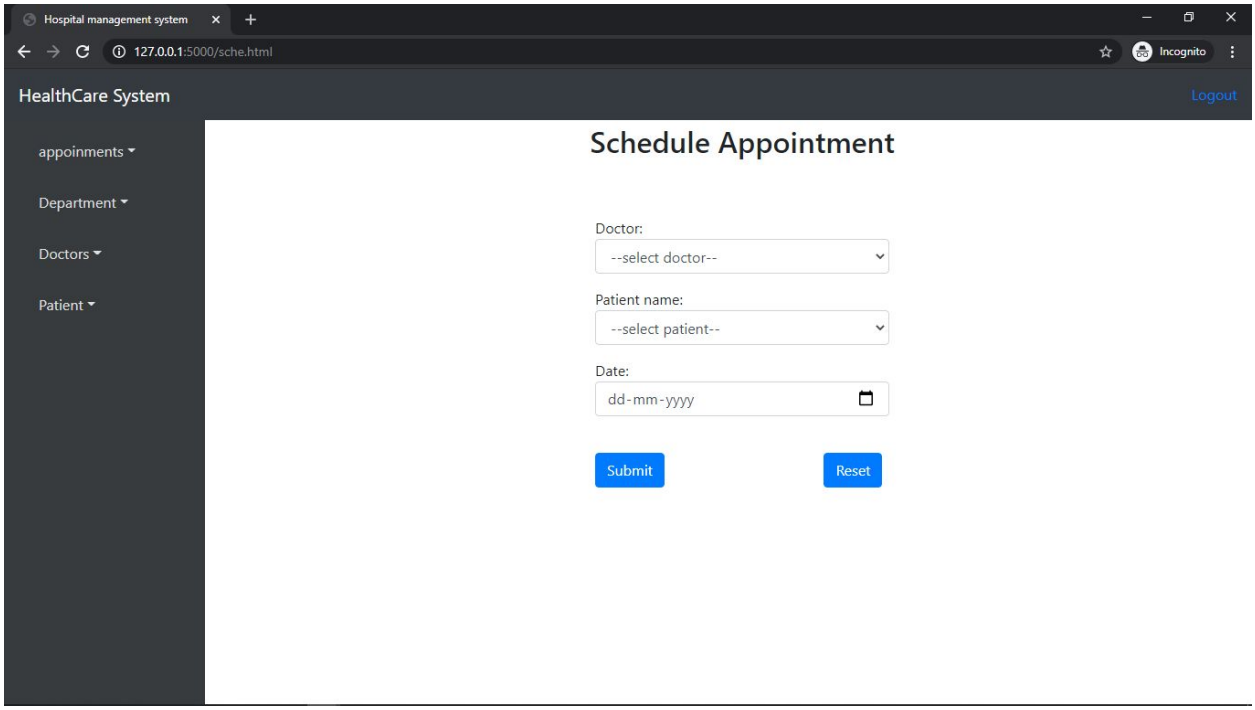
4)Patient registration page



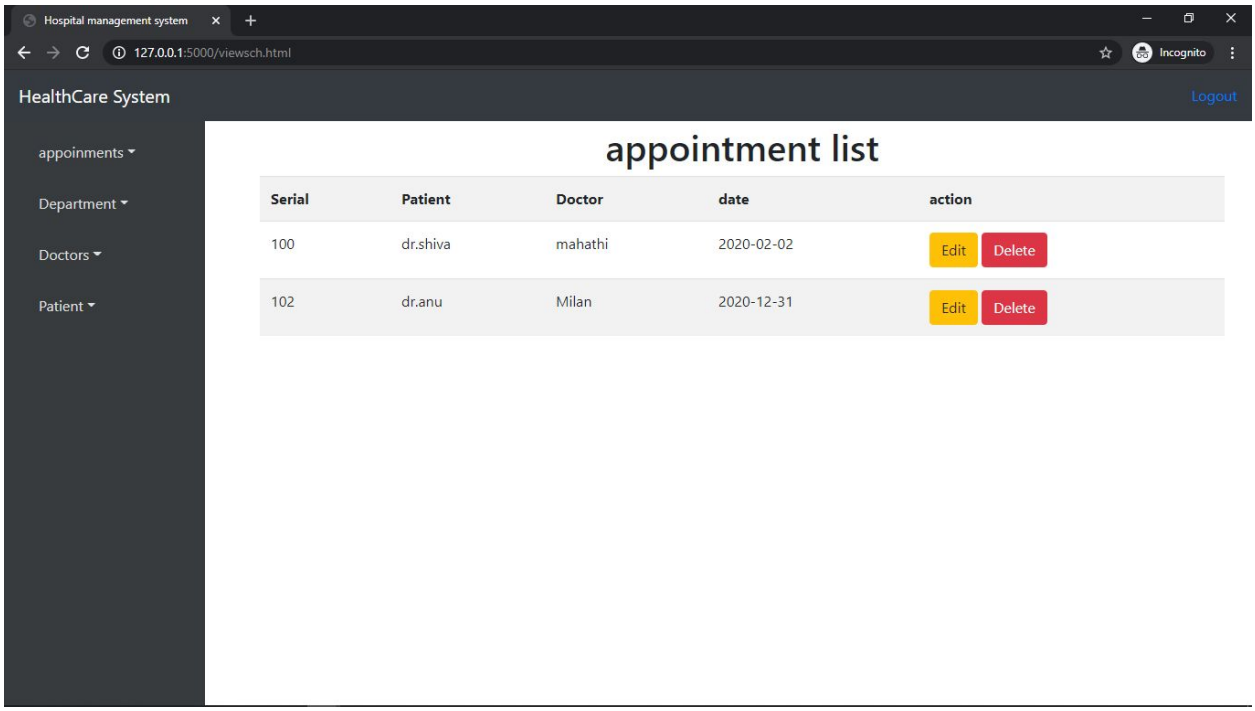
5)Add doctor page



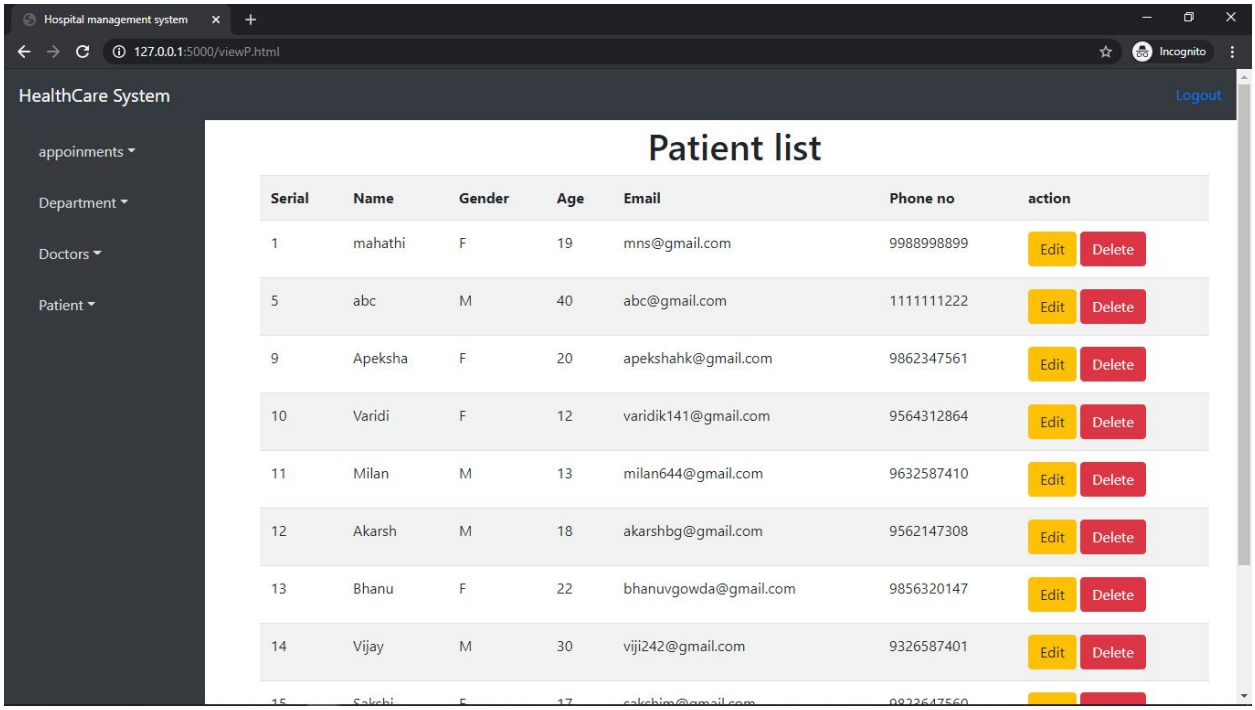
6)Schedule appointment page



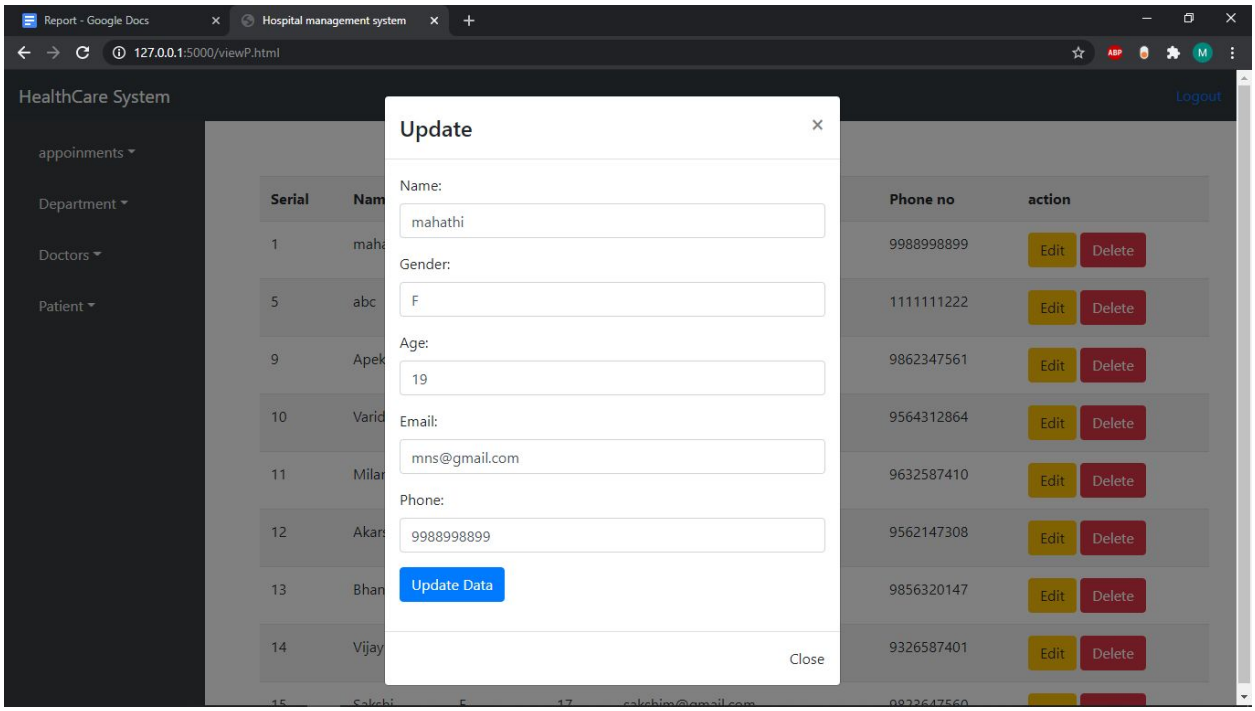
7)view Appointment



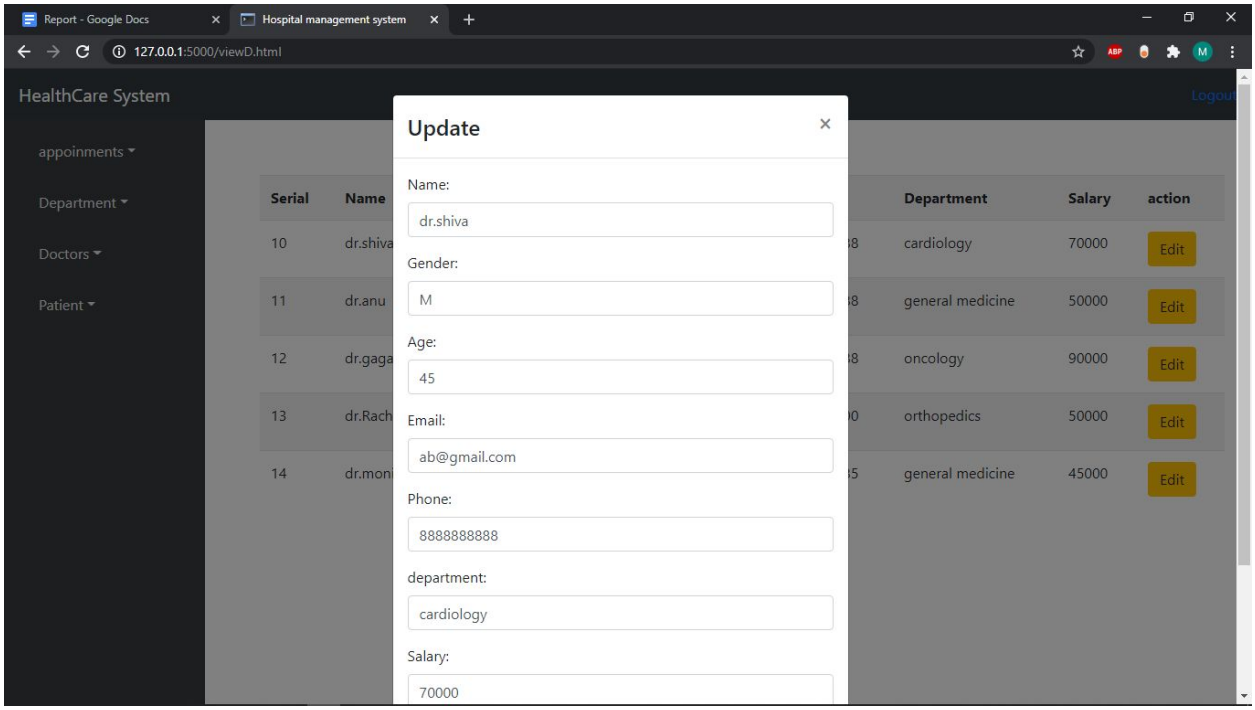
8)Patient list



9)Update patient information



10)update doctor information



Conclusion

The project Hospital Management System is for computerizing the working in a hospital. It is a great improvement over the manual system. The computerization of the system has speed up the process. In the current system, the front office management is very slow. The hospital managing system was thoroughly checked and tested with dummy data and thus is found to be very reliable. The software takes care of all requirements of an average hospital and is capable of providing easy and effective storage of information related to patients that come up to the hospital.

It generates test reports and also provides the facility for searching the details of the patients. It also provides a billing facility on the basis of the patient's status whether it is an indoor or outdoor patient. The system also provides the facility of backup as per the requirement.

Future Enhancements

The proposed system is the Hospital Management System. We can enhance this system by including more facilities like a pharmacy system for the stock detail of medicines in the pharmacy. Providing such features enable the users to include more comments into the system.

Limitations

- The size of the database increases day-by-day, increasing the load on the database backup and data maintenance activity.
- Training for simple computer operations is necessary for the users working on the system.