

Efficient Doctor Patient Management Portal

Proposed here is a doctor patient handling, managing system that helps doctors in their work and also patients to book doctor appointments and view medical progress.

The system allows doctors to manage their booking slots online. Patients are allowed to book empty slots online and those slots are reserved in their name.

The system manages the appointment data for multiple doctors for various date and times. Each time a user visits a doctor his/her medical entry is stored in the database by doctor.

Next time a user logs in he may view his/her entire medical history as and when needed. At the same time a doctor may view patients medical history even before the patient visits him. This allows for an automated patient doctor handling system through an online interface.

The system also consists of organ donor module. This module allows for organ donation registration as well as organ search. The module is designed to help urgent organ requirements through easy/instant searches.

Following is the list of functional requirements

1. Doctor has to register on the site by entering his/her details like MCI license number, field of specialization, personal details etc.
2. The doctor after registration needs to enter his slot preferences. There will be two slots morning 9 AM to 12 noon and evening 6.00pm to 9.00 pm. They are named as slot-1 and slot-2 respectively.
3. A doctor is allowed to see maximum 10 patients in either slot.
4. A patient who visits the portal needs to first register by entering his/her aadhar no. and personal details.
5. Once registered the patient can book a doctor's appointment. He has to enter the specialization from a list shown. Automatically he will be presented with a list of doctors available for that specialization.
6. After selecting a doctor he/she has to choose either slot-1 or slot-2. Accordingly for that doctor id slot is available then it will be allocated.
7. A doctor can see the list of his bookings on the website.
8. The doctor can record the history of a patient on the website. It should also include the visit no.

9. The patient if he tries to re-book a doctor will automatically see his history after selecting the same doctor for appointment.
10. The admin can add, edit or delete the details of a doctor.
11. The doctor is allowed to change his basic information.
12. The patient details can be added, modified or deleted only by the admin.
13. A query system should be in place to show the list of all appointments carried out by a doctor, on entering his MCI license ID.
14. The doctor can see details of all the patients who have visited him/her.

Things to do :

- A. All entries across the entire application should be validated properly.
- B. Use the appropriate data-structures for all processes.
- C. Dynamic memory should be used throughout.
- D. Only binary files should be used for data storage.
- E. Ensure that no memory leak is there throughout the application.
- F. Ensure minimum data entry for doctor/patient by providing list of options.
- G. Instead of frequent file I/O carry out all operations in memory and do the reading/writing to and from file only once at the beginning and end.