

# SMARTCARE HOSPITAL INVENTORY MANAGEMENT SYSTEM

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## ABSTRACT

The main aim of the project is to improve medical services and to maintain an inventory management. Our project hospital management system and nearest domain search is a web application which is develop for secure storage of patients medical history and also search for nearest hospital, disease analysis and finally both the user and admin can order the medicines in online. We have provided security for authenticated user as new user have to register according to their type of perspective and existing user have to login The user can fill in their concerned details and make an appointment. As soon as the appointment is made by the user the server database will be updated and if the users wish to cancel their booking, the process of cancellation can be made. This project requires internet connection as it runs dynamically. This application stores user account information in the database server and for nearest domain search we are providing GPS. We are also providing search option of doctors as per there specialization so that patients can take appointment.

## I. INTRODUCTION

The project facilitates the user to reserve an appointment to the doctors according to the specialization in a nearest hospital. This system involves patients, doctors and the admin. In patient login, the user can login into their home page and check the availability of doctors for booking. If the login is not valid then the user must register their respective details in the registration form to create their account in the site. Then, if the appointment is available, it facilitates the user to book an appointment , otherwise an optional date and time will be suggested for the users from which they can select their comfortable timing. If the user wishes to cancel their booking, the process of cancellation can be made. It also maintain the user information in database inventory. For nearest hospital search this application providing GPS. Diseases analysis also done which contain the details of the diseases their symptoms and specialized doctors to consult. This project includes ordering the medicines through online.

## II. EXISTING SYSTEM

A patient appointment system or appointment e for health care center started long time ago. Management of patient's appointments has earlier works and has developed simplified queuing models and fairly static scheduling conditions. The existing system is not much efficient and reliability for getting medicines from the Medical Shop. Now the existing system is subjected to close study and problem areas are identified. The designer now functions as a problem solver and tries to sort out the difficulties that the enterprise faces, and much user friendly.

## III. PROPOSED SYSTEM

The proposed project is a smart appointment booking system that provides patients or any user to book a doctor's appointment according to the specilization in a easy way through online and also through map user can identify the nearest hospitals .This is a web based application that overcomes the issue of managing and booking appointments according to the user's choice and demands. The task becomes very tedious for the compounder or doctor in manually allotting the appointments for the users as per their availability. The proposed online medicine purchasing is helpful in rural area who stayed away from

pharmacy and it enhances privacy. According to the existing system it was revealed with a problem that patients were appointed with a similar time which caused confusion and stress among the patients. Hence this project offers an effective solution where the users can view various booking slots available and they can select the preferred date and time. This system also allows the user to cancel their booking anytime so the subsequent users will be scheduled to the previous time where the cancellation occurred and the notification regarding the changes in the schedule will be sent to the user.

This reduces the waiting time of the users. At the same time in the social welfare view, it reduces the rush in the hospital. The project also includes identifying the nearest hospital through GPS tracking and it maintains the inventory of ordering medicines through online.

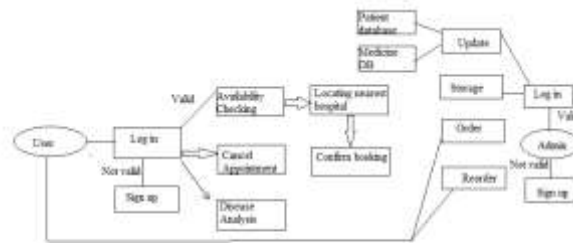


Figure 1. Design Architecture

#### IV. PATIENT LOGIN

The username entered by the user will be given in textbox and the password entered by the user will be given in the password type and phone number in the respective box. These details of the user will be verified with the login database then, the user will be validated to the next page. The users who have not registered can create their new account by entering their details in the “Sign up” module. This patient login is the one which are becoming common place within healthcare organizations, provide online access to a patient’s healthcare information. The type of patient identifiers collected during registration is important for finding an accurate match. The phone number is necessary for the activation process and subsequent communications. Balancing the need to establish secure patient details procedures with ease of use of the patient login is important. The details are stored in MySQL database and the doctor details are accessed every time when the application is started.

This maintains an inventory which helps in ordering what you need. Proper inventory cut costs and increase profits. The details are stored in MySQL database and the user details are accessed every time when the application is started. When the user is validated to their home page, it consist of modules for availability checking, booking appointment, cancelling appointment, viewing doctor details and hospital details. When the doctor login to their account, there will be several modules which is needed by the doctors. They will have their patient’s details and the schedule for them. This schedule display for the doctors will be updated on daily bases, so that the doctors could view over their appointments. The doctor’s site will help them to view and store their patient’s database clearly. The patient’s database from this will be useful in our medication remainder process. Simply, this will facilitates the doctors to manage their patients details effectively.

#### AVAILABILITY CHECKING

The availability checking page allows the user to check for the availability of the doctors in a hospital. When the patient login to their account they can book the appointment after seeing the availability status of the doctors. The page contains a form where the user should choose the doctor name from the drop-down list box, for their required date and time. The appointment can be booked if the doctor is available. Incase if a particular doctor is not available, the list of other doctors who are available at the time mentioned by the user will be displayed. This module is present to avoid the clashing of timings between the patients

for a particular doctor. This module is present inside each user account. Every user before booking their appointment to a particular doctor should check the doctor's availability.

### **APPOINTMENT BOOKING**

This module facilitates the user to fix an appointment to the doctor. When the patient login to their account they can book the appointment after seeing the availability status of the doctors and the notification will be sent to the booked users.

### **NEAREST MEDICAL SERVICES**

This module contains a search button when the user click on search and it will list the nearest hospital. It uses Dijkstra and spatial indexing algorithm. This module helps the people who is unaware of the places and also it will save more time and cost by identifying the nearest hospital .

### **DISEASES ANALYSIS:**

This module contains the list of diseases and its symptoms and the specialized doctor details. The user can check with the symptoms and can identify the disease it also gives the medicine which the user can take and also consult with the doctor who is specialized on it. No need of searching for the doctor separately.

### **INVENTORY MANAGEMENT**

Inventory management which holds the patient details and medicine details. This module contains four options update, storage, order/purchase and reorder. When the admin log in to this module admin can update the patient entire detail in patient database and medical detail in medical database by choosing this update information. Patient database contains information like patient id, issue, doctor name,etc.,Likewise Medicine database contains manufacturing date, expiry date, manufacturer name, id, etc., Everything is stored when the admin update the information. The Storage option holds the details with respective of medical categories. User can order the medicines by choosing the respective category. Cancelling the order and reorder option also enabled. Automated reordering and stock information are one of the advantages of inventory management.

### **24-HOUR CONVINIENCE**

Scheduling appointments over the phone usually requires an individual to phone in during office hours, as few facilities offer round-the-clock phone booking. This is an inconvenience for most patients, as they too are working at this time. Additionally, many individuals prefer to schedule their appointments online rather than over the phone. An online scheduling system allows for 24-hour scheduling, not just during normal facility or office hours.

### **CUSTOMER SUPPORT**

24-hour, live support should be a requirement when researching an online scheduling software provider. The ability to immediately reach a dedicated contact or support representative is imperative for a scheduling application and ordering the medicines that needs to be functional at all times and one that reaches across multiple locations.

## **V. CONCLUSION**

With the development of web based medical appointment booking system, patients are able to book and manage their own appointment with ease. They will be easily identifying the nearest hospital and through the disease analysis they can identify with the symptoms and reach out to the specific doctor as soon as possible. These functions could indirectly help to reduce the number of missed medical appointments and patients no-show up for their appointment.

Inventory management keep records of the patient sensitive details which help in future and it also helpful in holding the information of medicines. Automated update of medicines help in ordering the medicines priorly. Faster retrievals of medicines quick and accurate counting can be done.

In today's competitive service industry, the technology in service systems is used in a wide range of areas. One of the most important service system institutions is the hospital. In the aim of increasing the hospitals service quality level, internet based appointment systems are used. With this help of expert system at hospitals, the queues in the hospitals decline, the patients and doctors save time and finally the user satisfaction and quality level increases.

## VI. REFERENCES

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