Chapter 1

Introduction

Now, we are facing a pandemic situation due to the novel Coronavirus (COVID -19).In this tough time, it is precarious to go outside and see a doctor for health issues, even if it is not for coronavirus. A remote meeting would be beneficial for both doctors and patients in this situation. And hospitals can be the medium by which they can reach for each other. So, a hospital management system could be the solution for hospitals, doctors, and patients. We have to make a system where all these three parties can meet their health-related needs.

1.1 Purpose

Our primary target is to create such a website-based system that will create a platform where patients can quickly get treatment without any hassle and risk of going outside in this pandemic situation. We are trying to bring the hospital into a patient's device where he/she can get most of the services he/she usually gets when physically present in the hospital. Hospital authority will be in control of the whole system.

1.2 Intended Audience

The Hospital Management System (HMS) is designed for any Hospital to provide a virtual place to carry out their service alongside its existing manual, paper-based system. It is also designed in such a way where a user/patient can easily navigate through the various features of this system to get their desired service. These services are to be provided in an efficient, cost-effective manner, with the goal of reducing the time and resources currently required for such tasks. The intended audience of this SRS would-be patient and specific employees like manager and Receptionist, consultants and System operators of the hospital to refer and analyze the information This the system is also intended for

- **Development team**
- **The project manager**
- **Project tester**

- **And a documentation writer.**

1.3 Intended Use

Developers

Developers who will able to review this system and find out the project's drawbacks and place for improvement.--- Developers are responsible for the design and maintenance of software programs for any operating systems or applications, such as word processing or database management systems. Developers create software programs customized for a specific organization, or Software that is suitable for a wide variety of consumers or business users.

Testers

Testing is a critical part of the development process. Test programs to ensure that they meet the requirements of the specification and that they are free of errors, known as bugs. Developers test the programs by entering data and trying out all program functions. They may also ask users to try test versions of programs to ensure that they are easy to use.

Users

At last, users can use this application and give their valuable feedback to us.

1.4 Product Scope

This Hospital management system is created for the hospital to provide them with a virtual place where they can provide their service to the general people. Using this system will be beneficial for both the hospital and patients. It also has many unique and attractive features that will attract a user to this system and make them stay with the system over another similar system. The main features are :

- **Easy registration**
- **Information/help Desk**
- **Searching Doctor by doctor's name/disease name/tags**
- **Downloadable prescription prescribed by doctors**
- **User history**
- **Rate a doctor's service**

- **Report on a doctor's service**
- **Appointment**
- **Easy hassle-free appointment cancellation**
- **SMS/Email notification**

1.5 Risk Definition

Since this is a web application, there is always a risk of being hacked. And the most significant threat is convincing a user to move into this system over the traditional method and holding them back from switching into another similar system.

Chapter 2

2.1 User Classes and Characteristics

The entire project mainly consists of 3 modules, which are

1. *Admin module*
2. *User module*
3. *Doctor module*

Admin module

- Dashboard: In this section, admin can view the Patients, Doctors, Appointments, and New queries.
- Doctors: In this section, admin can add doctor's specialization and manage doctors (Add/Update).
- Users: In this section, admin can view users detail(who take online appointment) and also have the right to
- delete an irrelevant user.
- Patients: In this section, the admin can view the patient's details.
- Appointment History: In this section, admin can view appointment history.

- Contact us Queries: In this section, admin can view queries that are sent by users.
- Doctor Session Logs: In this section, admin can see login and logout time of doctor.
- User Session Logs: In this section, admin can see the login and logout time of the user.
- Reports: In this section, admin can view reports of patients in particular periods.
- Patient Search: In this section, the admin can search the patient with the help of the patient name and mobile number.
- Admin can also change his/her password.

User module (patient)

- Dashboard: In this section, patients can view his/her profile, Appointments, and Book appointments.
- Book Appointment: In this section, the patient can book his/her appointment.
- Appointment History: In this section, Patients can see his/her appointment history.
- Medical History: In this section, Patients can see his/her appointment history.
- User can update his/her profile, change the password and recover the password.

Doctor module

- Dashboard: In this section, the doctor can view his/her profile and online appointments.
- Appointment History: In this section, the doctor can see the patient's appointment history.
- Patients: In this section, the doctor can manage patients (Add/Update).
- Search: In this section, the doctor can search the patient with the help of the patient name and mobile number.
- A doctor can also update his profile, change the password and recover the password.

2.2 User Needs

The administration of the hospital will use the admin module to check out all the information about doctors and patients. They will also connect with the people through this module. A patient will need to make an appointment to visit a doctor. For this, they will use a booking appointment. For checking previous medical history, patients will use medical history function. To check patients' appointment, doctor will use appointment history. In case of any information about patient-doctor will use search.

2.3 Operating Environment

Hospital Management System is a web application for the hospital which manages doctors and patients. In In this project, we will use PHP and MySQL database. Operating environment of this project is listed below:

Technology Implemented: Apache Server

Language Used: PHP 5.62 (Developed in Core PI-IF))

database: My SQL

User Interface Design: HTML, AJAX, JQUERY, JAVASCRIPT

Web Browser: Mozilla, Google Chrome, IE8, OPERA

Software: XAMPP Server

This web app can be accessed through desktop and smartphones.

2.4 Constraints

Design Constraints

- Must be easy enough to operate.
- All features must work in every browser, and also the interface should be the same in every browser.

Technical Constraints

- User must be 16+

- Users must use a browser that supports JavaScripts.

Time Constraints

The project should be done before the time limit.

2.5 Assumptions

- The user knows English.
- Users have internet service enabled devices.
- Users have basic computer/mobile skills.
- Administration has people who are capable of taking care of the system.

Chapter 3

3.1 Functional Requirements

Functional Requirements/User Stories

3.2 Non Functional Requirements

Performance requirements

Since this product is web-based, this performs best when the user has fast internet and medium/high configuration device. Moreover, the performance of our Software is at its best when the database is regularly archived and ensures protection from any virus.

Safety Requirements

We tried to limit the common error made by the user. E.g., users will be asked for confirmation when they try to delete something. Users can confirm the command or cancel the command.

Security

Users are required to enter an individual username and password when accessing the Software. The password is expected to be eight characters long to ensure protection.

Quality Attributes

- A reliable source for treatment
- A secure platform that ensures the security of user data