Software Requirements Specification

for

<Hospital Management System >

Version 1.0 approved

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Revision History

Name	Date	Reason for Changes	Version

1. Introduction

A hospital management system (HMS) is an advanced software database system that facilitates in the efficient management of health-care information and the work completion of health-care providers. They are in charge of all data connected to healthcare departments such as, clinical, financial, laboratory and other related fields. It offers excellent health-care services as well as administrative and medical support. The purpose of this project is to make the program more user-friendly. This project's contemporary and superior technologies will provide people with safety and a speedier method.

The system is intended to be far easier and faster than the manual management system.

1.1 Purpose

The project is essentially a web-based hospital management system that can be accessed by administrators, doctors, and patients. Patients can register, visit the hospital's website, choose a doctor, and schedule a checkup appointment. Emergency services are available to patients. Doctors can also check their schedule. Patients' and doctors' data can also be managed by the system. It has the ability to efficiently update and store data.

1.2 Intended Audience

- Project developers
- Project testers
- Hospital employees
    - Doctors
    - Admin etc.
- Marketing team

1.3 <u>Intended Use</u>

Project Developers:

Developers may use this SRS to gain a better knowledge of the entire project, determine which areas require greater attention and which areas need improvement, and add new features for upgrading if there is room.

Project Testers:

This SRS may be used by testers to test software according to the requirements that were added. This will make testing more efficient and structured since SRS testers will know where to search and what mistakes or defects, they should look for.

Hospital employees:

Hospital employees, such as administrators, doctors, and others, can customize the program to match their needs.

Marketing Team:

This SRS may be used by the marketing department to obtain a concept of what they want to advertise, as well as what the project's characteristics are and how they will benefit the clients.

1.4 Product Scope

With this web application we will try to create a functional and user-friendly web page which will be beneficial for the authority of the hospital to manage their hospitals fluently.

The benefits which will be provided through our web application are given bellow:

- Authority can remotely maintain their system as everything will be connected online.
- The Doctors, Doctor's assistants can check patient details, patient appointment load and provide their available time.
- Patients can choose their preferable time (if available) for their checkup.
- People can visit our web page from anywhere and get all the information about the hospital doctors, specialists, facilities and expenses.
- The authority will be financially benefited as online services require less man power.

Main objectives of our web application:

- Provide medical services online to the users.
- Ensure that the authority is always able to manage their hospital properly

Our goals:

- No One should die without treatment due to lack of accessibility and proper information.
- Both the authority and the patients should be equally benefited because of the web page.

1.5 Risk Definition

- Like all web pages users will not be able to access the information of the web page and get the services if the server is temporary down. Backup servers might increase the cost.
- Lack of security can lead to the web page being hacked. Thus, important data might be stolen or data can be manipulated for one's own benefit.

2. Overall Description

2.1 User classes and Characteristics:
This web-based software will help any hospital to maintain and manage their services and work. This software is very user friendly so anyone can use this software.

- User can be a doctor.

- User can be a patient.

- User can be an admin.

- User can be an assistant of a doctor.

- User can be an emergency service provider.

2.2 User Needs:

Any hospital can use this software to maintain and manage their services and work. This software will help the hospital to provide their services and also keep track of their activities through online.
Any patient can get to know detail information about the hospital and their services by using this software. Patient can find a doctor, take appointment in the hospital by using this software.

Doctors can do their activity in a very organized way by using this software.

2.3 Operating Environment:

Operating environment of this software is given below:

• Operating system: Any kind of operating system which support online web browser.

• Database: SQL

• Platform: php, xampp.

2.4 Constraints:

• Since it is a software of web platform for any reason if its server gets down then its real time services like cabin or ward booking, appointment taking will be disrupted for the server issues.

• The present version of this software doesn't support doing medical college activities such as showing academic programs, publishing journals and health magazines, announcing academic notice etc.

• This version of the software only supports hospital management related services such as taking appointments, finding doctors, knowing information about its department, clinics, services and their costs.

2.5 Assumptions:

There might be some factors that can impact our ability to fulfill the requirements that we have outlined in our SRS.

• Every user of this software knows English language.

• The owner of this software has to keep their database in an online server and if they failed to manage e good server then because of bad server issues performance of this software may be affected.

• Since we are still developing the project some features of the software might be changed a little if we couldn't implement that while building the software.

• External factors like internet connection problem, web browser error or corrupted operating system may affect performance of the software.

• This software can be hacked by hackers but since we are making this software very securely and not sharing its source code anywhere publicly so hacker may not hack this software, so this assumption could turn out to be false.

3. Requirements

*Functional Requirements

*Non-Functional Requirements

3.1 Functional Requirements…………

1. As a patient, I can register at the hospital

So that, I can get all the services from this hospital.

Confirmation

   • Patient has to provide all of his basic information such as name, date of birth, gender, age, email, mobile number etc. to register to the hospital.

   • Patient phone number will be taken as a user Id. Every user id will be unique even if any user enters same number to register to the hospital then the software will show a message that the number, he/she has provided is already registered for a patient.

   • After registering to the hospital patient has to write his user id and password to log in to the hospital. If he/she forget the password in that case there will be a recovery option.

2. As a patient I can take appointment of the doctors who I want to checkup for

So that, I can consult with a doctor and get proper guidance for my illness.

Confirmation:

• A patient has to register or sign in first to appoint a doctor.

• A patient can search department lists, and doctor details.

• A patient will get notification, if he/she will take multiple appointments at the same time.

3. As a patient I can find a doctor according to their name, departments and branches

So that, I can check the doctor details and can consult with them about my illness.

Confirmation:

• A patient must enter the branch name (if added) and the department name.

• A patient can get suggestion of department doctors.

• A patient must enter the doctor's name accurately to his search preferences.

• A patient can check doctor details and hospital details.

4. As an admin I want to maintain the database of the software

So that, I can moderate the database of the hospital and make changes according to needs.

Confirmation

• Admin has to enter his user id and password to sing in.

• Some information of the admin will be stored within the database as security questions which will be able to asked to the admin to verify himself if he requests to recover his password or if he login after 15 days.

• Admin will have the access of all public information of the users.

• Admin can search about any doctors, assistant of a doctor, patient, departments, clinics, services, emergency service providers by typing their name to know their information.

• There will be also a voice search option for the admin to search anything.

• Admin can update any public information of the users if they send request to him.

• Admin can delete or block any user.

5. As an assistant of a doctor, I want to check my doctor's appointment list

So that, patient can get better service and my doctor can get his appointments in a very organized form.

Confirmation

• Assistant has to enter his user id and password to sing in.

• Assistant can check appointments and clear the appointment records of his doctor.

• Assistant can also know the general information of the patients.

• Assistant can change the serial number and priority of any appointment in terms of emergency or critical cases.

• One assistant can assist multiple doctors.

6. As a doctor, I can check my patient's appointment list

So that, I can provide best service to my patients.

Confirmation

• Doctor has to enter his user id and password to sing in to the system.

• After successful login, doctor will be able to create a patient health record during the duty time which will be helpful for future treatment. Health records will be kept in the database.

• In the user interface of a doctor, show the basic information and previous heath records of the patient.

• The doctor can view his profile and update it.

• If a doctor does not log in to the system for a long time, he will have to answer some safety questions in order to verify himself and then he can log in successfully.

7. As a patient I can take emergency services

So that, I can save the life of a patient and also mine in any emergency situation.

Confirmation

• A patient has to register or sign in first to get the emergency services.

• A patient has to select what types of emergency service he/she wants as this service includes both ambulance and oxygen services.

• A patient has to give his/her address so that authority can provide that emergency service.

8. As an emergency service provider I want to provide oxygen and ambulance to the people

So that, I can save the life of the people.

Confirmation

• Service provider can see the requested list of the patients who want an ambulance and oxygen.

• Service provider can contact the patients.

• Service provider can accept their request for emergency service.

3.2 Non-Functional Requirements

Performance

  • The system will respond correctly to any valid query within a second.

  • All kinds of online hospitality can be found on this website 24 hours a day.

Security

  • The database information will be secured in the system

  • Patients and other users cannot delete or update any data without the admin

Safety Requirements

  • The system will not be harmful to any user.

  • Data backup policy has been taken for safety.

Quality

  • Provide a user-friendly interface.

  • The system will provide the best quality of hospitality