Software Requirements Specification

for

<Hospital Management>

Version 1.0 approved

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Revision History

Name	Date	Reason for Changes	Version

1. Introduction

The Hospital Management System is an advanced software database project which can control different directions of clinical workings. It provides great health care performance along with administrative and medical facilities. In this project our goal is to make the software user friendly. This project will be modern and advanced technology of this project will give people safety and faster system.
At the end, the system will be much easier and faster than the manual system.

1.1 Purpose

The project is basically a web-based hospital management system where admins, doctors and patients can easily access the software. Any patient can register, check the hospital website, find a doctor and take appointments for checkup. A patient can take emergency services. A doctor can check his schedule as well. The system can also handle the patients and doctor's data. It can update and store data efficiently.

1.2 Intended Audience

- Hospital Staffs
- Developers
- Project Testers
- Marketing Department

1.3 Intended Use

- **Hospital Staffs:**
  Hospital staffs like admin, doctors and others can use the software according to their uses.

- **Developers:**
  Developers can use this SRS for understanding the whole project, which part they need to focus more and which part to improve, they can add new features for upgrade, if there is any scope.

- **Project Testers:**
  Testers can use this SRS for testing the software as per requirements added. This will make the testing more efficient and organized as from SRS testers can get the idea where to check and what are the errors or bugs, they need to look at.

- **Marketing Department:**
  Marketing department can use this SRS for getting an idea of what they are going to promote and what are the features of this project would be and how these features will help the clients.

1.4 Product Scope

In this web application we are trying to create a webpage that will be beneficial for the authority of the hospital to run their hospitals.
Benefits of this web application:
1. Authority can easily maintain their system through online.
2. Doctors can easily check the patients' details and provide their available time.
3. Patients can easily choice their preferable time for the checkup.
4. Patients can visit the webpage anytime and get the information about the hospital.
5. Authority will be financially benefited as it's an online service.
Objects of our web application:
1. Give online service to the users.
2. Give support to the authority to maintain their hospital properly.
Our goal:
1. We want that none should die without treatment.
2. We want to make everything easier both for the users and the authority.

1.5 Risk definition

1. Users will no longer be available to use the information of this page and get the services temporary if the server is down.

2. This web page can also be hacked by professional hackers.

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 organizable 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: sqlite3
- Platform: Python, Django.

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

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.