Software Requirements Specification
for
MediSolution

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Software Engineering (CSE- 327)

8th July, 2021

Contents

Revision History

Revision	Date	Author(s)	Description
1.0	04.07.2021	Sajid Ansari, Nusrat Pathan Meem, Tamzid Alam Alvi,Mainuzzaman Mahin, Sabit-Bin-Hamid	Chapter 1, Chapter 2
2.0	07.07.2021	Sajid Ansari, Nusrat Pathan Meem, Tamzid Alam Alvi,Mainuzzaman Mahin, Sabit-Bin-Hamid	User Stories and Non-Functional requirements
3.0	08.07.2021	Sajid Ansari, Nusrat Pathan Meem, Tamzid Alam Alvi,Mainuzzaman Mahin, Sabit-Bin-Hamid	Finale Version

Chapter 1

Introduction

At the moment, the entire planet is afflicted with the "Covid-19" pandemic virus. While people throughout the world are mainly confined to their homes, with businesses and educational institutions shut down in an attempt to contain the virus, doctors, health-care workers, and medical staff members are at the forefront of the fight against COVID-19. Furthermore, many doctors have given their lives in the course of their work. For that schedule and timetable of doctors are upside down now. Moreover many doctors are busy with combating Covid-19. So, their regular consultation hours are not available like before.“Medisolution” is a platform where people can find doctors and book appointments according to their preferences or needs online.

1.1 Purpose

The objectives of creating “Medisolution” are to quickly request an appointment with the trusted doctor according to location and category, share scans/reports - all from the comfort of your own home with MediSolution. There’s no need to travel large distances for a quick consultation. Using the website gives flexibility to save money and time.It can search for medicine according to the user’s preference. Users can also review doctors. As doctors are having hard times, they are not sitting in their chambers regularly. Most of the doctors are not visiting their chambers at all due to their Covid-19 duty. “Medisolution” is a platform aiming to reduce that miscommunication.

1.2 Intended Audience

- Developer
- Marketing Department
- Project Testers

1.3 Intended Use

- Developer: Developers can use this SRS to easily identify what the project is about, which features they should concentrate on, which aspects they should enhance, and whether

there is any room for new features or functions in any upgrade.

- Marketing Department: The marketing department can utilize this SRS to get a sense of what they want to advertise, as well as what the project's features are and how they would benefit clients or users.
- Project Testers: This SRS can be used by testers to test software according to specifications. This will make testing more coordinated because testers will be able to efficiently figure out where to look and what error or bug they should be looking for.

1.4 Product Scope

This project will be the middleman between the doctor and the patient. We often have some information gaps and communication problems between doctors and patients. Our web application will have some features which will help a patient to have better communication service.

1. **Benefits:**
   - User can know about doctors
   - User can see the reviews about a doctor
   - User can know the location of the doctor
   - User can see the available doctors in desired location
   - User can make a appointment with a doctor
   - User can see his prescriptions in our website
   - Doctors can see the patient history
   - User can search the prescribed medicine in our website
   - User can see the details about a medicine
   - User can find the location of the doctor's chamber through google map
2. **Objectives:**
   - To give the middle man service between doctor and patient
   - To let the user know more about doctor details and medicines
   - To give user access to the prescriptions anytime and anywhere
3. **Goals:**
   - Our goal is to make the doctor patient path more transparent with our features

1.5 Risk Definition

- The user's and doctor's activity may be interrupted due to poor network and infrastructure.
- Cyber attack, an hacker user can harm our website
- Server traffic can be caused by having too many users online at the same time

Chapter 2

Overall Description

We are going to build a website that will provide services to the users who basically need medical care. It will be a common platform for service takers and service provider doctors.

2.1 User Classes and Characteristics

This web-based application will help sick people or related to sick people who want to book an appointment with a doctor. Patients can take guidelines and can write reviews about the doctors. Users or patients can also see the reviews. Doctors also can benefit from this since it is easy to access and it has an online payment method. They can easily track their appointment. This is a user-friendly web application which may help people in their emergency times.

- Users can be any sick person.
- Users can be doctors.
- Users can be related to sick people.

2.2 User Needs

Patients and Doctors will be using this web application for appointment purposes. Users or patients can have prescriptions and consultancy from doctors. They can find information about medicine as well. They can also pay the fee through online payment. Area-based hospitals and doctors will be shown to users, users can easily book their app. On the other hand, Doctors will be able to track his appointment using this application.

2.3 Operating Environment

Operating environment for the “Medisolution” is listed below.

- The website is expected to be hosted on an open-source cross-platform web server called SQLite Server, which will allow for easier and extremely fast web migration as the web-server is expected to be running on a virtual machine. Targeted users/developers from

Windows, Mac and Linux operating systems will be able to access the server through the web.

- Operating system: Any kind of Operating system which supports web browsing.
- Database: SQLite.
- Platform: Python, Django Framework.

2.4 Constraints

- We have to develop the application in the Python language.
- The system must be finished by the proposed deadline.
- The system must be user-friendly.
- Developed system must work in the client's OS environment.

2.5 Assumptions

- All required applications inside the device are installed and are in working order.
- Users have devices which support internet service.
- Users can read and write English.
- Users are familiar with web browsing and can interact with website
- Users must have internet connection.

Chapter 3

Requirements

3.1 Functional Requirements

1. **As both** Doctor and User
   I want to view my profile **so that,**I can modify it.
   Confirmation:
   - They need to go 'View profile'.
   - They will enter the new information.
   - Need to answer Yes/No to update profile.
   - This information then replaces the old information in database.
2. **As a** user
   I want to search similar medicine **so that,** I can get alternative medicine if prescribed one is not found.
   Confirmation:
   - User have to put the medicine generic name to search for similar medicine brands.
   - User can also search by medicine name.
   - User can view the medicine indication.
   - User can view the medicine price.
3. **As a** user
   I want to search for available doctors of a particular field **so that,** I can consult the type of doctor that i need
   Confirmation:
   - The user should be able to enter the first name or last name of doctor to be searched for.
   - The system displays the all doctors that fits patient's criteria.
   - The system shall display the doctor's available time.
4. **As a** user
   I want to search doctor based on my area **so that,** I can find my desired doctor in my reachable distance.
   Confirmation:

- User has to choose his/her own area.
- User have to select particular area from the list of areas
- User can see the doctor's list after selecting the area

5. **As a** user
I want to book an appointment **so that,** I can see the doctor and take proper medication for my illness.
Confirmation:

- User has to select "Appointment "option.
- User needs to select particular medical field to choose doctor.
- User can see the list of doctors where he/she can select one.
- User has to put date and time to fix an appointment.
- If the date and time matches with doctors' selected timing, then user can see his/her appointment as booked.

6. **As a** user
I want to share my caring experience **so that,** I can help other people which may be useful.
Confirmation:

- Users will have an option in appointment window: they can share their experience.
- Users have to put their information in the blank box.
- User can also give ratings.

7. **As a** user
I want to see my prescription in my profile **so that,** I can use it later or get help from it.
Confirmation:

- Users can select the option where he/she can see the prescription.
- Users can see the list of prescriptions that the doctors gave.

8. **As a** doctor
I want toset my available time **so that,**I can take care of my patients on given time.
Confirmation:

- The doctor will enter the time he'll be available.
- This information is saved in the database.

9. **As a** doctor
I want to consult with my patients and prescribe them medicine if needed **so that,** patients can get necessary treatments.
Confirmation:

- Doctors can view request list with type of emergency to choose which patient to consult first.
- Doctors can confirm any request considering the type of emergency.
- Doctors can send prescription as message.

10. **As a** Doctor
I want to prescribe my patients and upload the prescription in the profile **so that,** patient can use it later.
Confirmation:
    - Doctors can see the option where he/she can upload the prescription.
    - Doctors can upload multiple prescription.

11. **As a** doctor
I want to receive my fees through online payment method **so that,** I can take without any problem.
Confirmation:
    - Doctors can see the option "check payment"
    - Doctors can check their balance in payment window

3.2 Non Functional Requirements

- **Performance Requirements:**

1. The website must be available around the clock, seven days a week. As a result, a computer (server) with an internet connection will be required. The computer will store both the application and the database.
2. The site should load in 3 seconds when the number of simultaneous users less than 1000
3. Each request should be processed within 10 seconds

- **Error Handling:**

1. The operating system must handle predicted and unexpected failures in a way that prevents data loss and prolonged downtime.
2. Customer orders shall be backed up at least once per month to prevent data loss.
3. The system must be able to recover from failures like power down, so it should be convenient to have a power generator that runs automatically if the power supply fails

- **Safety Requirements:**

1. System use must not cause any harm to human users.
2. System shutdown in the case of a cyber attack
3. Software system protects sensitive data and allows only authorized access to the data. For example- Website will not retain customer credit or debit card information entered during the Checkout payment processing.
4. Verification email is sent to the user whenever he/she registers for the first time on some software system.

Appendices

Appendix A

Glossary

(SRS): A software requirements specification (SRS) is a description of a software system that will be produced. The software requirements specification brings out functional and non-functional requirements, as well as a set of use cases that explain how the software should interact with the user for a seamless interaction.