Software Requirements Specification (SRS)

Project Title: HELP RX

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1. Introduction

1.1 Purpose

The purpose of this project is to develop a web platform that facilitates the donation and provision of medicines to those in need at a lower cost. This platform will connect donors who have surplus or unused medicines with individuals who require them but may not be able to afford them. The platform aims to ensure that medicines are utilized efficiently and reach those who need them the most.

1.2 Scope

The platform will feature user registration, medicine listing, a search functionality for medicines, a donation process, and a system for managing requests from the needy. The application will be accessible to users with different roles: donors, needy individuals, and administrators.

1.3 Objectives

- To provide a user-friendly interface for both donors and needy individuals.
- To facilitate the secure and efficient exchange of medicines.
- To ensure proper tracking and management of medicine donations.

1.4 Overview

This document outlines the functional and non-functional requirements, system architecture, team roles, and task assignments for the project.

2. System Overview

The system is a web-based application with a client-server architecture. It will consist of the following main components:

- Frontend: User interface for donors, needy individuals, and administrators.

- Backend: API services, database management, and business logic.

- Database: Storage of user data, medicine inventory, transaction history, and logs.

- Security: Authentication, authorization, and data encryption.

3. Functional Requirements

3.1 User Registration and Authentication

- Users (donors and needy individuals) must register with their details.

- Administrators will have higher access privileges.

3.2 Medicine Listing and Search

- Donors can list medicines with details such as name, quantity, and expiry date.

- Users can search for available medicines using filters.

3.3 Donation Process

- Donors can donate medicines, and needy individuals can request these donations.

- The system will facilitate communication between donors and needy individuals.

3.4 Tracking and Notification

- Track the status of donations and requests.
- Users will receive notifications about the status of their requests or donations.

3.5 Admin Panel

- Administrators can manage users, approve or reject donations, and oversee the overall operation.

4. Non-Functional Requirements

4.1 Performance

- The platform should handle concurrent users efficiently.

4.2 Security

- All sensitive data must be encrypted.
- Use HTTPS for secure communication.

4.3 Usability

- The user interface should be intuitive and easy to navigate.

4.4 Scalability

- The system should be scalable to handle an increasing number of users and transactions.

5. System Architecture

The platform will be developed using a MERN stack (MongoDB, Express.js, React.js, Node.js). The frontend will be developed using React.js, while the backend will be developed using Node.js and Express.js. MongoDB will be used as the database.

6. Task Assignment

- Nikhil (Team Lead):

- Oversee the overall project management and integration of components.
- Develop the backend API and manage database schemas.
- Implement user authentication and authorization.

- Lakshita:

- Develop the frontend user interface using React.js.
- Create components for user registration, login, and the admin dashboard.
- Integrate API calls for the frontend.

- Mishthy:

- Handle the design and implementation of the medicine listing and search functionality.
- Work on the donation process flow and user notifications.
- Conduct frontend testing and validation.

- Sahil:

- Assist in developing the backend, focusing on donation tracking and notification services.
- Implement security features like encryption and secure communication.
- Assist Nikhil in database management and optimization.

7. Conclusion

This SRS document outlines the objectives, scope, and team responsibilities for the medicine facilitation platform. The project aims to make a significant impact by ensuring that essential medicines reach those in need through a streamlined and secure process. The team is expected to collaborate closely to ensure timely and efficient delivery of the project.