Software Requirements Specification

for

<Lawyer Connect Website>

Version 1.0

Prepared by Group 1

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1.   Introduction

1.1.   Purpose

The purpose of this Software Requirements Specification (SRS) is to provide a comprehensive overview of the functionalities, features, and constraints of the proposed web application for finding lawyers. This document aims to delineate the specific requirements and specifications necessary for the development, testing, and deployment phases of the project.

This document serves as a foundational guide for all stakeholders involved in the development lifecycle of the web application, facilitating clear communication, alignment of expectations, and successful project delivery.

1.2.   Scope

The web application to be produced is a comprehensive web-based platform designed to facilitate the search and connection between individuals seeking legal assistance and legal professionals providing legal services.

The web application aims to revolutionize the process of seeking legal assistance by leveraging technology. Its objectives and benefits include:

- Providing individuals with a centralized platform to find, evaluate, and connect with legal professionals tailored to their specific needs and preferences.
- Enhancing access to legal services by overcoming geographical barriers and simplifying the search process.
- Empowering legal professionals to showcase their expertise and reach a wider audience of potential clients, thereby increasing their client base and revenue opportunities.
- Improving the efficiency and effectiveness of legal services by streamlining communication, appointment scheduling, and case management processes.
- Contributing to the modernization of the legal industry by embracing digital solutions and promoting transparency and accessibility in legal services.

The website will:
- Provide a user-friendly interface for individuals to search for legal professionals based on various criteria such as practice area, location, experience, and user ratings.
- Offer detailed profiles of legal professionals, showcasing their expertise, qualifications, reviews, and contact information.
- Enable users to schedule appointments with legal professionals seamlessly.
- Facilitate communication between users and legal professionals through messaging or video conferencing features.
- Ensure the security and confidentiality of user data and communications

The website will not:
- Offer legal advice or services directly to users; it will only serve as a platform for connecting users with legal professionals.
- Handle financial transactions between users and legal professionals directly within the platform.

1.3. References

Software Engineering course slides provided by lecturers.

1.4. Definitions, acronyms, and abbreviations

SRS: Software Requirements Specification

1.5. Overview

This document is written based on the standard "IEEE Recommended Practice for Software Requirements Specifications".
This document is organized into three parts:
- Part 1. Introduction: provide an overview of the entire SRS.
- Part 2. Overall description: describe the general factors that affect the web application and its requirements.
- Part 3. Specific requirements: contain all of the software requirements to a level of detail sufficient to enable designers to design a system to satisfy those requirements, and testers to test that the system satisfies those requirements.

2. Overall description

2.1. Product perspective

The web application operates as a standalone platform, independent of any other systems or software. It serves as a centralized hub connecting individuals seeking legal assistance with legal professionals offering their services.

2.2. Product functions

2.2.1. User Management
- Registration and Authentication

2.3.   User characteristics

- User: Individuals seeking legal assistance who utilize the web application to search for legal professionals and manage their appointments with lawyers.
- Lawyer: Legal professionals offering their services through the web application to connect with potential clients and manage their client interactions.
- Administrator: people are responsible for managing and overseeing the operation of the system, ensuring its smooth functioning and adherence to policies and standards.

2.4.   Constraints

- The web application must comply with legal regulations regarding data privacy and security, particularly concerning sensitive legal information.
- It should be compatible with commonly used web browsers and accessible on various devices, including desktops, laptops, and mobile devices.

2.5.   Assumptions and dependencies

- The product must have an interface which is simple enough to understand.
- All necessary hardware and software are available for implementing and use of the website.
- The proposed system would be designed, developed and implemented based on the software requirements specifications document.
- Users will provide accurate and truthful information when using the platform.
- The web application depends on reliable internet connectivity for seamless operation.

3.   Specific requirements

3.1.   External interface requirements

3.1.1.   User interfaces

- The system shall have a user-friendly web interface accessible via standard web browsers.
- The interface shall support user registration, login, and profile management functionalities.

- Appointment scheduling with architects shall be facilitated through a calendar interface.

3.1.2. Hardware interfaces

- The system shall be compatible with standard computing hardware including desktops, laptops, tablets, and smartphones.
- It shall not require any specialized hardware components for normal operation.

3.1.3. Software interfaces

- The web application should be compatible with commonly used operating systems, including but not limited to: Windows, macOS and Linux.
- The front end of the web application will be accessible through standard web browsers, including but not limited to: Google Chrome, Mozilla Firefox, Safari, Microsoft Edge, Bings and CocCoc.
- The backend of the web application will utilize the following technologies and frameworks: MERN Stack.

3.1.4. Communications interfaces

The system shall support secure communication protocols (HTTPS) for data transmission.

3.2. Functional requirements

3.2.1. User Management

3.2.1.1. Registration and Authentication

User Class: User, Lawyer

- Users and lawyers can register a new account by providing necessary personal information.
- Users and lawyers can log in to the system using their registered credentials.
- The system must validate the entered credentials during registration and login processes.
- Users and lawyers can reset the password if they forget their old password.

3.2.2. Search and Browse

3.2.2.1. Lawyer Search

User Class: User

- Users can search for lawyers based on various criteria such as location, practice area, or lawyer's name.
- The system must provide search suggestions based on user input.
- Search results should display a list of relevant lawyers with detailed information.

3.2.2.2. Lawyer Profile Viewing

User Class: User

- Users can view detailed profiles of lawyers, including their practice areas, contact information, availability, and ratings.
- Users can directly contact lawyers or schedule appointments through the system.

3.2.3. Appointment Management

3.2.3.1. Appointment Scheduling

User Class: User
- Users can request appointments with lawyers by selecting suitable dates and times from the online scheduling system.
- The system must notify the lawyer about the appointment request and allow them to accept or reject it.

3.2.3.2. Appointment Handling

User Class: Lawyer
- Lawyers can view and manage their appointment schedules, including accepting or rejecting appointment requests.
- Lawyers should be able to update the status of appointments and provide feedback after the appointment.

3.2.3.3. In-app chatting

User Class: User, Lawyer
- Users and lawyers should be able to communicate with each other through an in-app messaging system for appointment-related discussions and inquiries.

3.2.4. Profile Management

3.2.4.1. Personal Information Management

User Class: User, Lawyer
- Users and lawyers can update their personal information, including contact details and professional credentials.
- Lawyers can add or modify their service offerings and pricing details.

3.2.4.2. Profile Visibility

User Class: Lawyer
- Lawyers can control the visibility of their profiles and availability status on the platform

3.2.5. System Administration

3.2.5.1. User Management

User Class: Admin
- Admin can manage user accounts, including creating, updating, and deactivating accounts.
- Admin can handle user account-related issues and inquiries.

3.2.5.2. Content Management

User Class: Admin
- Admin can manage content on the platform, including lawyer profiles, FAQs, and other informational resources.

- Admin can moderate user-generated content, such as reviews and comments.

3.3. Performance requirements

- The system shall respond to user interactions within less or equal to 3 seconds under normal load conditions.
- Appointment scheduling functionalities shall be available with minimal latency.

3.4. Design constraints

3.4.1. Technology Stack

The system must be developed using specific technologies MERN Stack:
- Front-end: React, Tailwind CSS
- Back-end: Node.js, Express.js
- Database: MongoDB

3.4.2. Hosting Environment

- The website must be hosted on a reliable and scalable hosting platform
- Considerations should be made for scalability, security, and cost-effectiveness of the hosting solution.

3.5. Software system attributes

3.5.1. Reliability

- The system shall have a mean time between failures (MTBF) of at least 30 days.
- It shall be capable of recovering from failures within 5 minutes with minimal disruption to user activities.

3.5.2. Security

- User authentication and authorization processes shall be secure, following industry-standard encryption protocols.
- The system shall employ mechanisms to prevent unauthorized access, including session management and access control lists.
- All data transmissions shall be encrypted using protocols to protect against eavesdropping and data interception.
- Regular security audits and penetration testing shall be conducted to identify and address vulnerabilities.

3.5.3. Scalability

- The system should be designed to handle growing user traffic and data volume.
- Scalability considerations should include horizontal and vertical scaling options, as well as the ability to add or remove resources dynamically based on demand.

3.5.4. Usability

- The user interface shall be intuitive and easy to navigate, requiring minimal training for users to operate effectively.

- Error messages shall be clear and concise, providing guidance on how to resolve issues.

3.5.5. Performance
- The system shall be optimized for performance, with response times kept under 3 seconds for normal operations.
- Database queries shall be efficiently designed and indexed to minimize latency.

3.5.6. Maintainability
- The system shall be modularly designed, with well-defined components that can be easily maintained and updated.
- Code documentation shall be comprehensive and up-to-date to facilitate ongoing development and troubleshooting.

3.5.7. Compliance
- The system shall comply with relevant industry standards and regulations, including GDPR, CCPA, and PCI DSS, etc,..
- Third-party libraries and components shall be used judiciously, ensuring they do not introduce licensing or compliance issues.
- Regular audits shall be conducted to verify compliance with applicable standards and regulations.

3.6. Other requirements

3.6.1. User Documentation
- Comprehensive user documentation should be provided to guide users on how to use the website effectively.
- Documentation should cover features, functionalities, and troubleshooting tips.

3.6.2. Training and Support
- Training sessions or materials should be provided to users and administrators to familiarize them with the system.

3.6.3. Localization and Internationalization
- The system should support multiple languages and cultural preferences to cater to a diverse user base.

3.6.4. Accessibility
- The system should be accessible to users with disabilities, following WCAG (Web Content Accessibility Guidelines) standards.
- Features such as screen reader compatibility and keyboard navigation should be implemented to ensure accessibility for all users.