\*\*Software Requirements for Appointment Scheduling and Communication System for Doctor's Offices\*\*

\*\*1. Introduction\*\*

The appointment scheduling and communication system for doctor's offices aims to address the inefficiencies and inconveniences prevalent in the current healthcare service system in Bosnia and Herzegovina. The existing process of physically visiting facilities to schedule appointments leads to long wait times, potential exposure to illnesses, and overall dissatisfaction among patients. This project proposes the development of an online management system accessible via web and mobile applications. The system will enable users to book appointments remotely, reducing the need for physical presence and minimizing wait times. Additionally, the system will feature a chat functionality allowing users to seek medical advice for mild ailments from receptionists or doctors, thereby promoting proactive healthcare management.

\*\*2. Team Structure and Roles\*\*

The development team consists of four members:

- \*\*Haris (Coordinator):\*\* Responsible for project management, overseeing the project lifecycle, and administering project tasks using Jira.

- \*\*Faris, Mustafa, and Kerim:\*\* Cross-functional members capable of fulfilling various roles such as designers, analysts, or developers as per project requirements. Flexibility is emphasized to adapt to evolving needs efficiently.

\*\*3. Agile Methodology Overview\*\*

The project will follow the SCRUM agile methodology, characterized by iterative development and regular reviews. Key aspects of the methodology include:

- \*\*Sprints:\*\* Development will be organized into sprints, with each sprint typically lasting two to four weeks.

- \*\*Flexibility:\*\* The team will prioritize adaptability to accommodate changing requirements and optimize the development process.

- \*\*Continuous Improvement:\*\* Regular sprint reviews will provide opportunities to evaluate progress, identify issues, and implement enhancements, crucial for a team with limited experience.

- \*\*Collaboration:\*\* Close collaboration among team members, stakeholders, and end-users will be fostered to ensure alignment with project objectives and user needs.

- \*\*Incremental Delivery:\*\* Functionality will be delivered incrementally, allowing for early feedback and refinement.

\*\*Functional Requirements:\*\*

1. \*\*Appointment Scheduling:\*\*

- Users can register and log in to the system.

- Users can view available appointment slots based on doctors' schedules.

- Users can select preferred dates and times for appointments.

- Users can receive confirmation of booked appointments via email or SMS.

2. \*\*Chat Feature:\*\*

- Users can initiate chat sessions with receptionists or doctors.

- Users can describe symptoms and receive medical advice or recommendations for home remedies.

- Chat sessions are secure and confidential.

3. \*\*User Management:\*\*

- Admins can manage user accounts, including registration, login, and profile updates.

- Admins can assign roles and permissions to team members.

- Users can update their personal information and preferences.

4. \*\*Appointment Management:\*\*

- Admins can manage appointment schedules, including adding, editing, or canceling appointments.

- Users receive reminders and notifications about upcoming appointments.

\*\*Non-functional Requirements:\*\*

1. \*\*Security:\*\*

- The system must comply with relevant data protection regulations (e.g., GDPR).

- User data must be encrypted during transmission and storage.

2. \*\*Performance:\*\*

- The system must handle concurrent user sessions without significant performance degradation.

- Response times for booking appointments and accessing chat features should be minimal.

3. \*\*Scalability:\*\*

- The system should be scalable to accommodate increasing user traffic and additional features in the future.

4. \*\*Reliability:\*\*

- The system should have high availability, minimizing downtime for maintenance or upgrades.

- Backup and recovery mechanisms should be in place to prevent data loss.

5. \*\*Usability:\*\*

- The user interface should be intuitive and user-friendly, catering to users with varying levels of technical proficiency.

- The system should support multiple languages to cater to diverse user demographics.

6. \*\*Accessibility:\*\*

- The system should adhere to accessibility standards (e.g., WCAG) to ensure usability for users with disabilities.

7. \*\*Compatibility:\*\*

- The system should be compatible with modern web browsers and mobile devices.

- Mobile applications should be available for popular platforms (iOS and Android).

8. \*\*Documentation:\*\*

- Comprehensive documentation should be provided for users, administrators, and developers, including user guides, API documentation, and system architecture diagrams.

These requirements serve as a foundation for the development of the appointment scheduling and communication system, ensuring its effectiveness, reliability, and user satisfaction.