**Online Diagnosis**

**Software Requirements Specification**

Version 2.0

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# Revision History

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# Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

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| **Signature** | **Printed Name** | **Title** | **Date** |
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**Project Documentation**

**1.Introduction**

**Project Overview:** Our project revolves around the development of an innovative iOS healthcare application aimed at modernizing the conventional medical appointment process. This application empowers patients by providing them with a user-friendly and efficient means to manage their healthcare journey.

**Stakeholders:** The project's key stakeholders encompass the dedicated project team responsible for development, healthcare professionals (including doctors and nurses), patients who stand to benefit from the application's services, and potential investors or partners interested in the project's success.

**2.Project Scope**

**Scope Statement:** This project boasts an extensive scope, covering the creation of a feature-rich iOS application. It encompasses several critical modules and functionalities, including:

**Patient Profiles:** Empowering patients to create comprehensive profiles within the application, featuring personal information, medical history, and preferences. This data enhances diagnostic accuracy and ensures healthcare providers possess a thorough understanding of patients' medical backgrounds.

**Doctor Search:** The application offers a robust doctor search feature, enabling patients to locate healthcare practitioners based on various criteria, such as specialization, location, and availability. This feature ensures swift and convenient access to suitable healthcare providers.

**Appointment Scheduling:** Allowing patients to schedule appointments at their preferred times, thereby reducing wait times and enhancing access to healthcare services. This functionality simplifies appointment booking and ensures timely care.

**Live Video Calls/Chat:** Facilitating secure video calls and messaging for remote consultations between patients and healthcare providers. This feature offers convenience and flexibility, reducing the need for in-person visits.

**Prescription Generation:** Enabling doctors to digitally generate prescriptions within the app, streamlining the process and reducing paperwork. This feature guarantees accurate and easily accessible prescriptions.

**Medicine Procurement:** Allowing patients to conveniently order medications online and select their preferred pharmacy for delivery or pickup. This functionality enhances patient flexibility.

**Payment Integration:** Ensuring secure payment options are available for appointment bookings and medicine purchases. This guarantees safe and efficient financial transactions.

**Appointment Reminders:** Sending automated reminders to patients to minimize no-shows and enhance appointment adherence.

**Data Privacy and Security:** Imposing stringent measures to ensure compliance with healthcare data privacy regulations, safeguarding patient confidentiality and data integrity.

**Target Audience:** The application caters to individuals seeking medical care and healthcare professionals eager to provide their services.

**3.Key Features and Functionalities**

**Patient Profile Creation:** Patients can register and establish comprehensive profiles within the application. These profiles encompass personal details, medical history, and preferences. This information enriches diagnostic accuracy and ensures that healthcare providers possess a holistic understanding of patients' medical backgrounds.

**Doctor Search:** The application boasts a potent doctor search function that empowers patients to discover healthcare practitioners based on specific criteria, such as specialization, location, and availability. This feature guarantees swift and easy connections with appropriate healthcare providers.

**Appointment Scheduling:** The application facilitates patients in scheduling appointments at their preferred times, reducing wait times and enhancing access to healthcare services. This functionality simplifies appointment booking, guaranteeing timely care.

**Live Video Calls/Chat:** Secure video calls and messaging within the application enable remote consultations between patients and healthcare providers. This feature delivers convenience and flexibility, allowing patients to engage with their doctors without physical visits.

**Prescription Generation:** Doctors can digitally generate prescriptions within the app, streamlining the process and reducing paperwork. This feature guarantees precise and easily accessible prescriptions, enhancing healthcare delivery.

**Medicine Procurement:** Patients can conveniently order medications online and choose their preferred pharmacy for delivery or pickup. This functionality provides patients with the flexibility to access prescribed medications with ease, further enriching their healthcare experience.

**Payment Integration:** The application incorporates secure payment options for appointment bookings and medicine purchases. This ensures that financial transactions are conducted safely and efficiently, instilling trust in users and simplifying payment processes.

**Appointment Reminders:** Automated appointment reminders are dispatched to patients to minimize no-shows and improve appointment adherence. This feature keeps patients informed about upcoming appointments, reducing missed appointments, and improving overall healthcare service utilization.

**Data Privacy and Security:** The application places a premium on data privacy and security by implementing stringent measures to ensure compliance with healthcare data privacy regulations. Patient confidentiality and data integrity are paramount, and the application is designed to meet these standards.

**4.Technology Stack**

**Call Kit:** The application leverages Apple's Call Kit to seamlessly integrate incoming calls, ensuring that patients and doctors can engage in voice conversations within the app. This integration enhances communication, making it smooth and user-friendly.

**Message Kit:** Message Kit is employed to enable in-app messaging and push notifications. This technology facilitates real-time communication between patients and healthcare providers, allowing them to exchange messages securely within the application. Additionally, push notifications keep users informed about important updates, such as appointment reminders and new messages, ensuring timely and relevant communication.

**Apple Maps:** Apple Maps integration enables location-based services, helping patients find nearby doctors and clinics with ease. This enhances the accessibility of healthcare services, allowing patients to locate suitable healthcare providers quickly and efficiently.

**Firebase Database:** Firebase Database plays a pivotal role in real-time data storage and synchronization within the application. This technology ensures that data remains consistently updated and readily available in real time, providing patients and healthcare providers with access to the most up-to-date information. Firebase Database contributes significantly to delivering a seamless and responsive user experience.

**Face ID:** Face ID, an advanced biometric authentication technology developed by Apple, is integrated to enhance security within the application. By leveraging Face ID, we ensure that user authentication is highly secure and convenient. Patients and healthcare providers can access the app and their data with confidence, knowing that their personal information is protected.

**Payment Gateway:** The application incorporates a secure payment gateway to facilitate financial transactions. This payment gateway ensures the safety and reliability of payment processes, allowing users to book appointments and purchase medications with peace of mind. By implementing a robust payment solution, we enhance the overall user experience and trust in the application.

**Video Call and Chat:** Real-time video calls and messaging capabilities within the application are powered by WebRTC (Web Real-Time Communication) technology. WebRTC enables seamless and secure video communication between patients and healthcare providers, making remote consultations convenient and effective. The use of WebRTC ensures high-quality video and audio interactions, supporting the application's core functionality.

**5.Appointment System**

**Scheduling Logic:** The appointment system is equipped with sophisticated scheduling logic, considering doctor availability, patient preferences, and clinic schedules. This ensures that patients can book appointments at times that align with their needs while accommodating the availability of healthcare providers.

**Calendar Integration:** Calendar integration is a critical component of the appointment system, enabling healthcare providers to efficiently manage their availability and appointments. Patients can view available time slots and select appointments that suit their schedules. Calendar integration streamlines the appointment booking process and minimizes scheduling conflicts.