

# HealthSphere

## Project Presentation

The primary objective of this project is to optimize and improve access to medical services through a user-friendly online platform. The system aims to reduce administrative overhead, accelerate medical response times, and enable continuous care through digital channels. The project focuses on providing a distributed, scalable, and modular architecture, ensuring reliability and the ability to easily integrate additional services or technologies in the future.

## System Overview

At its core, the platform allows patients and doctors to create individual profiles, each containing relevant, personal and professional details. For example, patients can include medical histories, allergies, or insurance data, while doctors can list their specialties, office hours, certifications, and experience. A search mechanism enables patients to filter healthcare professionals based on criteria such as location, specialty, or availability. Once a match is found, communication can happen via an integrated chat or ticketing system, ensuring that routine queries and urgent requests alike are tracked efficiently.

Beyond communication, the platform supports file sharing in formats commonly used in healthcare—particularly PDFs, which might include test results, clinical reports, and detailed medical records. This feature allows doctors to review patient documents in advance, enhancing the quality and speed of the consultation process.

Appointments are managed through an online booking system that displays real-time availability for each doctor. Patients can schedule visits or online consultations at their convenience, and doctors can confirm or suggest alternative time slots. Post-consultation, doctors can issue digital prescriptions or other relevant documents that patients can immediately access within their user dashboard. For billing, an integrated payment module ensures easy and secure transaction handling.

## Users

### 1. Patients:

- Create and manage personal profiles, including medical histories and insurance details.
- Search for doctors based on specialty, location, or other custom filters.
- Initiate chat or create tickets to communicate with healthcare professionals.
- Upload medical documents (laboratory results, diagnoses, etc.) for review.
- Schedule appointments and pay consultation fees online.

- Receive prescriptions or follow-up instructions from doctors in digital format.

## **2. Doctors:**

- Build professional profiles detailing areas of expertise, credentials, and availability.
- Receive and respond to patient inquiries through chat or ticket-based messages.
- Review attached patient files (e.g., PDFs, images).
- Manage calendars, confirm or propose alternate appointment times.
- Upload documents (prescriptions, instructions) for patients.
- Handle billing.

## **3. System Admins (Us):**

- Oversee platform performance and user management.
- Manage doctor verification, compliance checks, or content moderation.
- Configure payment gateways, security policies, and notification settings.

## **Functionalities**

1. User Registration & Profile Setup
2. Doctor Search & Filter
3. Chat & Ticketing System
4. File Sharing & Review
5. Appointment Scheduling & Management
6. Prescription & Document Issuance
7. Payment Processing