BSCS FINAL PROJECT
Phase 2

CareHub
UNIFIED PATIENT-CENTRIC PORTAL AND HOSPITAL OPERATIONS HUB

Project Advisor

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Faculty of Information Technology & Computer Science

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Software Design Specification

SDP Phase II

CareHub

Advisor: Asad Kamal

Team S25BS024

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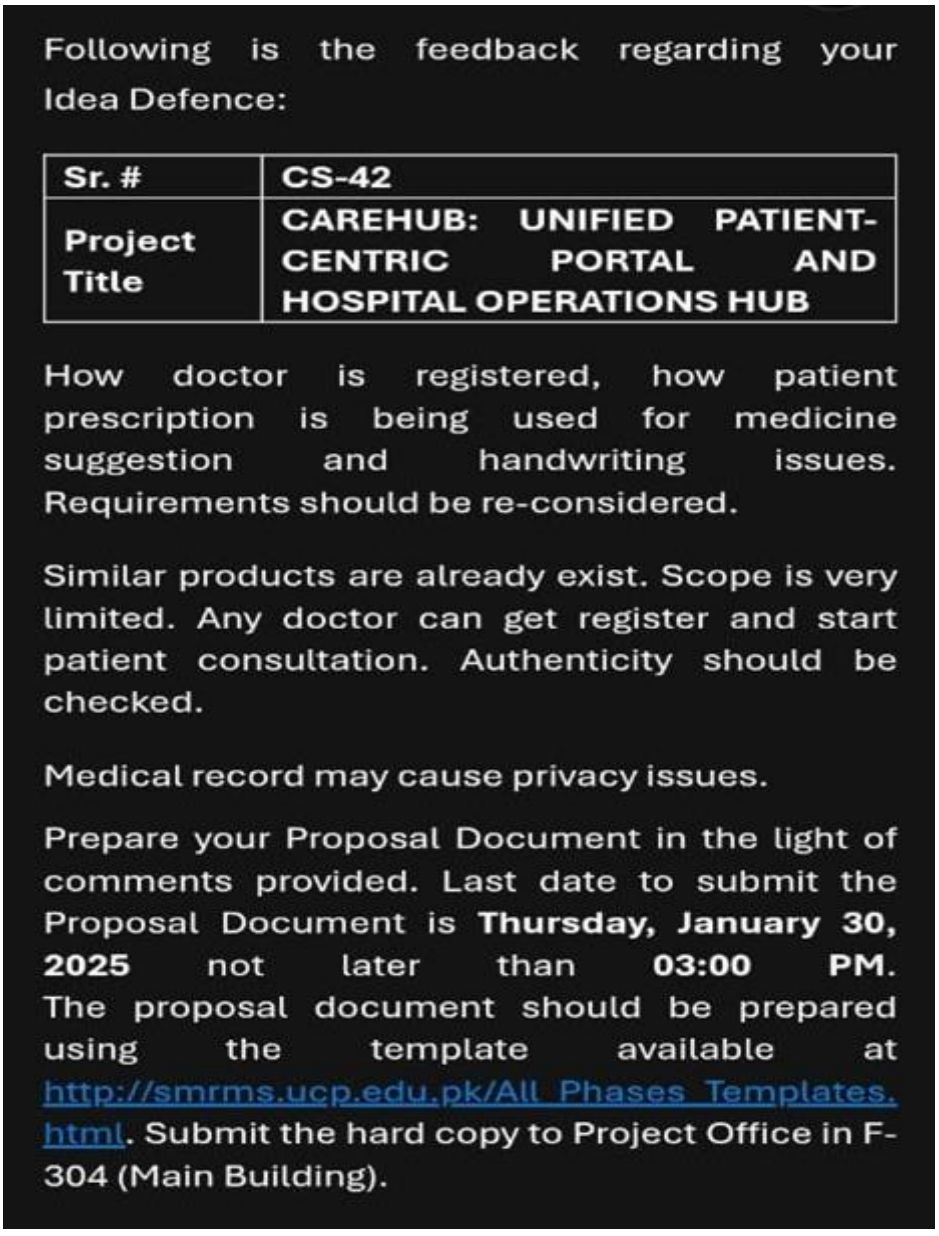
Table of Contents

Revision History

Name	Date	Reason For Changes	Version

Previous Phases Feedback

Idea Defence Feedback (Screenshot)



Following is the feedback regarding your Idea Defence:

Sr. #	CS-42
Project Title	CAREHUB: UNIFIED PATIENT-CENTRIC PORTAL AND HOSPITAL OPERATIONS HUB

How doctor is registered, how patient prescription is being used for medicine suggestion and handwriting issues. Requirements should be re-considered.

Similar products are already exist. Scope is very limited. Any doctor can get register and start patient consultation. Authenticity should be checked.

Medical record may cause privacy issues.

Prepare your Proposal Document in the light of comments provided. Last date to submit the Proposal Document is **Thursday, January 30, 2025** not later than **03:00 PM**. The proposal document should be prepared using the template available at http://smrms.ucp.edu.pk/All_Phases_Templates.html. Submit the hard copy to Project Office in F-304 (Main Building).

Abstract

In the current, swiftly changing healthcare environment, there is an increasing demand for centralized and sophisticated digital solutions that improve administrative efficiency and patient care. Our suggested initiative, “Hospital Management and Patient Portal System,” fulfills this requirement by integrating hospital operations with a centralized digital platform that facilitates coordination among hospitals, doctors, and patients. The solution enables hospitals to register on the network and conduct internal verification of doctors. Patients can upload, store, and manage their diagnostic findings, including MRIs, CT scans, and blood tests, within a protected environment.

The patient portal's primary attribute is its dual suggestion mechanism. The Medicine Recommendation System proposes alternative medications. The Medicine Recommendation System offers a pricing comparison (optional). The Hospital Recommendation System utilizes geolocation to suggest only local hospitals that are registered on our platform, guaranteeing reliable and validated choices.

Physicians may request access to a patient's records, and after OTP authentication by the patient, they are permitted to see the information and upload prescriptions. This guarantees secure and consent-driven data exchange. The technology enables patients to manage their health information while streamlining hospital processes. The objective is to enhance healthcare accessibility, transparency, and decision-making via a contemporary, secure, and scalable system.

1. Introduction

1.1 Product

Numerous healthcare institutions lack a centralized and secure system for managing hospital operations and patient health information. Patients frequently encounter difficulties in storing and monitoring diagnostic records such as MRIs, CT scans, and prescriptions. Furthermore, they encounter challenges in evaluating alternative medications and identifying reputable hospitals in proximity.

Medical professionals necessitate a validated platform to safely access patient information and prescribe therapies. Current solutions either lack integration or fail to facilitate patient-controlled data sharing.

The proposed Hospital Management and Patient Portal System addresses these challenges by providing a platform for hospitals to register and manage physicians, while enabling patients to securely upload and regulate access to their health records. Physicians may solicit access, and after OTP authentication, they can examine records and upload prescriptions. The system, moreover, offers astute choices for pharmaceuticals and proximate certified medical facilities.

1.2 Background

Digital transformation in healthcare has progressed slowly in numerous areas due to the absence of integrated systems, antiquated infrastructure, and security apprehensions. Many hospitals continue to depend on paper records or disjointed software systems that obstruct the effective management of patient information, physician qualifications, and healthcare operations. Consequently, people encounter difficulties in accessing their medical history, securely sharing data with healthcare professionals, and locating reputable facilities in proximity. Contemporary platforms frequently do not provide seamless connectivity among hospitals, physicians, and patients, and are deficient in features such as medication recommendations and location-based hospital referrals. Our technology seeks to enhance healthcare services by bridging these gaps through a secure, unified digital platform.

1.3 Objective(s)/Aim(s)/Target(s)

The Hospital Management and Patient Portal System seeks to establish a streamlined, effective digital system to enhance healthcare services. The goals are:

1. **Centralized Health Data Management:** Establish a cohesive platform enabling hospitals and patients to access and manage medical data, prescriptions, and diagnostic reports in a singular location, therefore obviating the necessity for different systems.

2. **Optimized Hospital and Physician Registration:** Facilitate the seamless registration and verification of physicians by hospitals, ensuring effective management of healthcare providers and resources within the system.
3. **Intelligent drug and Hospital Recommendations:** Develop a sophisticated drug recommendation system that proposes alternatives and pricing is optional, with a hospital recommendation system to identify nearby registered hospitals based on the patient's geographical location. Ensure secure communication between doctors and patients with OTP verification, allowing only authorized personnel to access or share sensitive health information.
4. **Accessible Interface:** Create a user-friendly platform for patients of all ages, guaranteeing accessibility and simplicity of usage.

1.4 Scope

The Hospital Management and Patient Portal System aims to deliver a cohesive digital solution for hospitals, physicians, and patients. This technology optimizes hospital operations, improves patient data management, and guarantees secure contact between doctors and patients. The project's scope encompasses hospital registration, patient data management, and secure communications.

Principal Attributes Within Our Purview:

1. **Hospital Registration and Physician Authentication:** Hospitals may register on the platform, and physicians are validated by the hospital.

2. **Patient Data Management:** Patients can upload, access, and oversee laboratory reports, medications, and diagnostic information.

3. **Pharmaceutical Recommendation System:** Proposes alternative medications and offers pricing comparisons is optional.

4. **Hospital Recommendation System:** Suggests local hospitals listed on the platform according to the patient's location.

5. **Secure OTP-Based Data Sharing:** Physicians may request access to patient records, which are disseminated following OTP verification by the patient.

1.5 Business Goals

1. **Secure Digital Healthcare Infrastructure:** Provide a HIPAA-compliant platform that streamlines hospital operations and guarantees secure access to patient data.
2. **Subscription-Based Revenue Model:** Provide hospitals with tiered subscription plans that include premium services such as encrypted data storage, comprehensive analytics, secure backups, and audit trails.

3. **Scalable and Auditable Infrastructure:** Construct the system to securely accommodate numerous users and hospital networks, incorporating comprehensive activity logs and role-based access control.
4. **Patient Trust and Data Privacy:** Maintain patient confidence with robust encryption, consent-driven data sharing, and clear privacy policies.
5. **Give Ads:** On patient portal to generate revenue.

1.6 Document Conventions

This document follows the guidelines and conventions necessary for maintaining consistency, clarity, and readability throughout the report. The following conventions are applied:

1. **Headings**:
    - Heading 1: Font size 14, bold, and underlined.
    - Heading 2 and onwards: Font size 12, bold, and underlined.
2. **Body Text**:
    - Font: Times New Roman, size 12, justified alignment.
    - Line spacing: 1.15.
    - Spacing before and after paragraphs to enhance readability.
3. **Margins**:
    - Page margins are set to 1 inch (top, bottom, left, and right) throughout the document.
4. **Figures and Tables**:
    - All figures, tables, and graphs are unshaded and centered on the page.
    - Captions for tables are placed at the **top-left** of the table.
    - Captions for figures are placed at the **bottom-center** of the figure.
5. **Page Numbering**:
    - All pages before the main body (e.g., Table of Contents, List of Figures, List of Tables, and Abstract) use small Roman numerals (i, ii, iii, etc.).
    - The main body of the document restarts page numbering with Arabic numerals (1, 2, 3, etc.).
6. **Table of Contents**:

- The table of contents includes accurate page numbers that match the headings on corresponding pages.
- Separate lists for figures and tables are provided after the Table of Contents.

7. **References and Citations**:
    - References are formatted following the **IEEE citation style**.
    - In-text citations include reference numbers enclosed in square brackets, corresponding to the bibliography.
8. **Graphics and Layout**:
    - All figures, tables, line drawings, and graphs are placed at the center of the page.
    - They are unshaded and formatted for maximum clarity.

1.7 Miscellaneous

N/A

2. Overall Description

2.1 Product Features

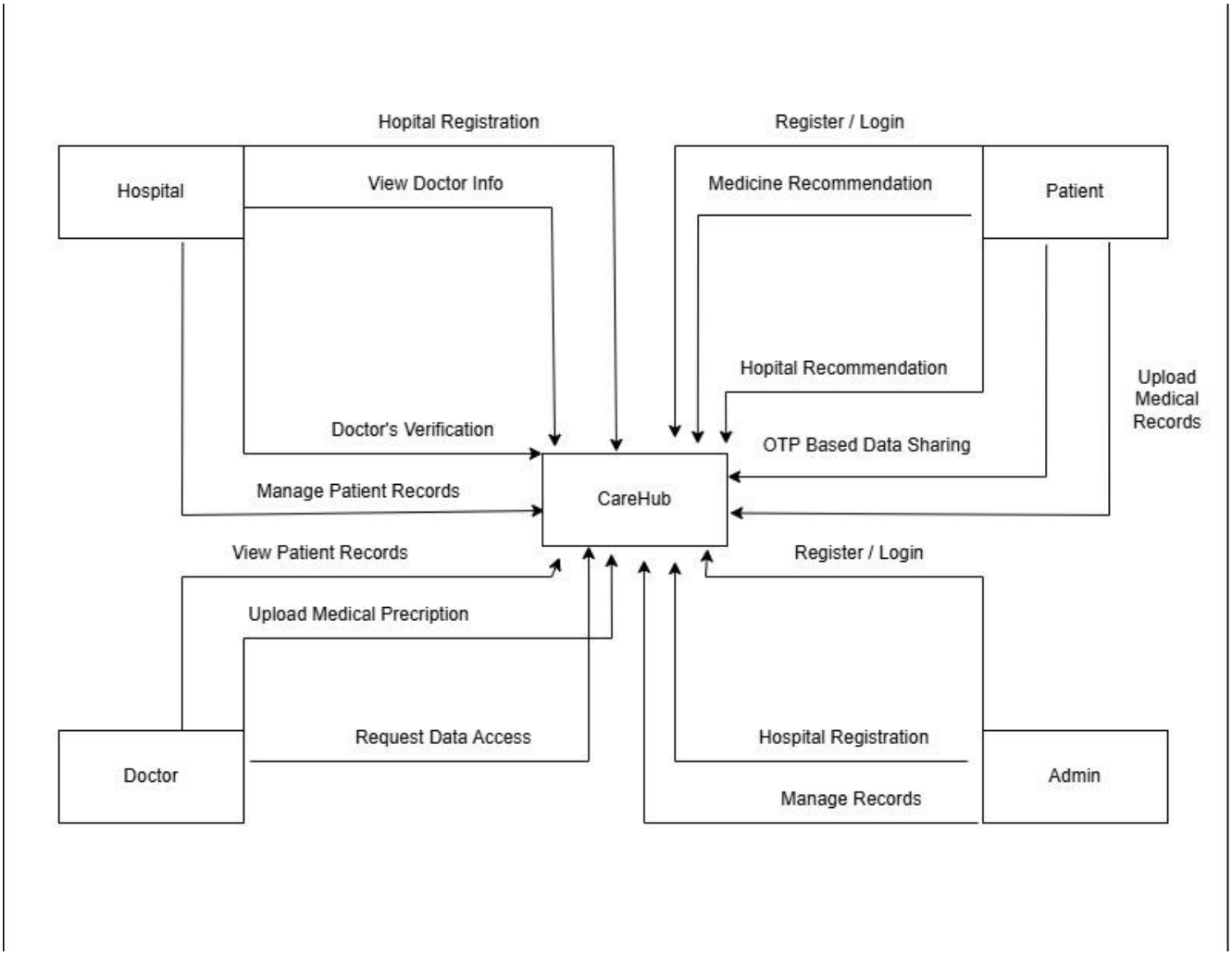
The Hospital Management and Patient Portal System focuses on improving healthcare coordination, data management, and recommendation services while ensuring privacy and security.

The product features are:

1. Hospital Registration & Doctor Management
2. Doctor–Patient Secure Interaction
3. Patient Report Upload & Management
4. Medicine Recommendation System
5. Hospital Recommendation System
6. OTP-Based Data Sharing
7. Data Privacy & Audit Logs

2.2 Functional Description

CareHub is a secure, cloud-based healthcare system that connects hospitals, doctors, and patients. It allows patients to upload and manage medical records, while doctors can request access via OTP to view data and upload prescriptions. Hospitals register and verify doctors, ensuring trust. The system also provides medicine and hospital recommendations, ensuring informed decisions, real-time access, and consent-driven data sharing through user-specific dashboards and audit logging.



2.3 User Classes and Characteristics

CareHub is designed to support a diverse set of user roles, each with specific functionalities and access rights within the system:

1. **Patients**:
    - Characteristics: General users including individuals from various age groups and backgrounds.
    - Responsibilities: Upload and manage their medical reports, control access to data via OTP, view prescription history, and receive personalized recommendations for medicine and hospitals.
2. **Doctors**:
    - Characteristics: Verified healthcare professionals associated with registered hospitals.
    - Responsibilities: Request access to patient data through OTP verification, analyze patient reports, and upload prescriptions securely.
3. **Hospitals**:
    - Characteristics: Registered healthcare institutions responsible for verifying their affiliated doctors.
    - Responsibilities: Register on the platform, manage physician credentials, and oversee patient interactions within their network.

Each user class is provided with a tailored interface and access to specific features relevant to their role, ensuring usability and system security.

2.4 Design and Implementation Constraints

1. **Regulatory Compliance**: Adherence to HIPAA standards for secure handling of patient data.
2. **OTP Integration**: Reliable real-time OTP services for secure data sharing.
3. **Medicine Recommendation**: Needs current pharmaceutical data; if unavailable, we use dataset from kaggle.
4. **Performance**: Critical features like OTP, uploads, and recommendations must be fast.
5. **Real-Time Data Synchronization:** Synchronizing data in real-time could face latency issues if system experiencing high traffic

2.5 Assumptions and Dependencies

1. Users will have reliable internet access to interact with the system.
2. Hospitals and doctors will provide accurate and verified information during registration.
3. Third-party APIs (OTP, Maps, Drug Info) will be consistently available and reliable.
4. Patients are expected to actively participate by uploading data and responding to OTPs.
5. Data from external sources (e.g., medicine info, hospital listings) will be timely and regularly updated.

3. Technical Architecture

The Technical Architecture section of CareHub presents a detailed overview of the system's structural and functional design. It outlines the custom-built nature of the application, the processing responsibilities, and the technologies involved. It also reflects the modular layout of subsystems and their interactions across cloud-based architecture.

- Is the system custom-built? COTS?

CareHub is entirely custom-built to address specific healthcare needs such as secure patient record management, doctor-patient interaction through OTP, hospital verification, and personalized health recommendations.

- What type of processing is the current system responsible for?
    - Batch and/or online:
        - The system is primarily based on Online Transaction Processing (OLTP) for real-time actions like logins, OTP verifications, and record access.
        - Batch Processing is used for scheduled data backups and log archiving.
    - Transaction processing and/or analytical reporting:
        - Supports transactional processing for record handling, uploads, and access control.
        - Future versions may include basic analytics for usage patterns and hospital trends.
- What are the major application components?
    - **Frontend**: Web-based GUI built using React.js.
    - **Backend**: Django for API and logic processing.
    - **Database**: PostgreSQL for structured and secure data storage.
    - **External Interfaces**: Google Maps API, OTP gateways, pharmaceutical APIs.
    - **Recommendation Engine**: For suggesting medicines and nearby hospitals.
    - **Access Control**: Secure role-based authorization and OTP validation modules.

- What data does the current system collect and manage?
  - **User Data**: Patient profiles, doctor credentials, hospital registrations.
  - **Medical Data**: Lab reports, prescriptions, medical history.

- What is the basic application architecture?
  - **Client/Server Architecture:** A web client communicates with a server over secure HTTPS.
  - **Layered Architecture**: Separates presentation, application processing, and data management layers.

- What programming language is the current system built in?
  - **Frontend**: React.js, JavaScript, HTML, CSS.
  - **Backend**: Django
  - **Scripting and Integration**: JSON for API responses, Python.

- What is the hardware platform that supports the current system?
  - Hosted and deployed via cloud infrastructure, supported by platforms like:
    - AWS (Amazon Web Services)
- What database platform supports the current system?
  - **Primary**: PostgreSQL for relational structured data.

- Does the system have an end-user interface? What type?

  Yes, CareHub offers a **browser-based GUI**:
  - Accessible through Chrome, Firefox, Edge, Safari.
  - Fully responsive for desktop, tablets, and smartphones.

- What is the basic network architecture?

CareHub operates over the **Internet**, using an **internet-based architecture**:

- Secure HTTPS communication.
- Globally accessible web application.

- Where is the system hosted?

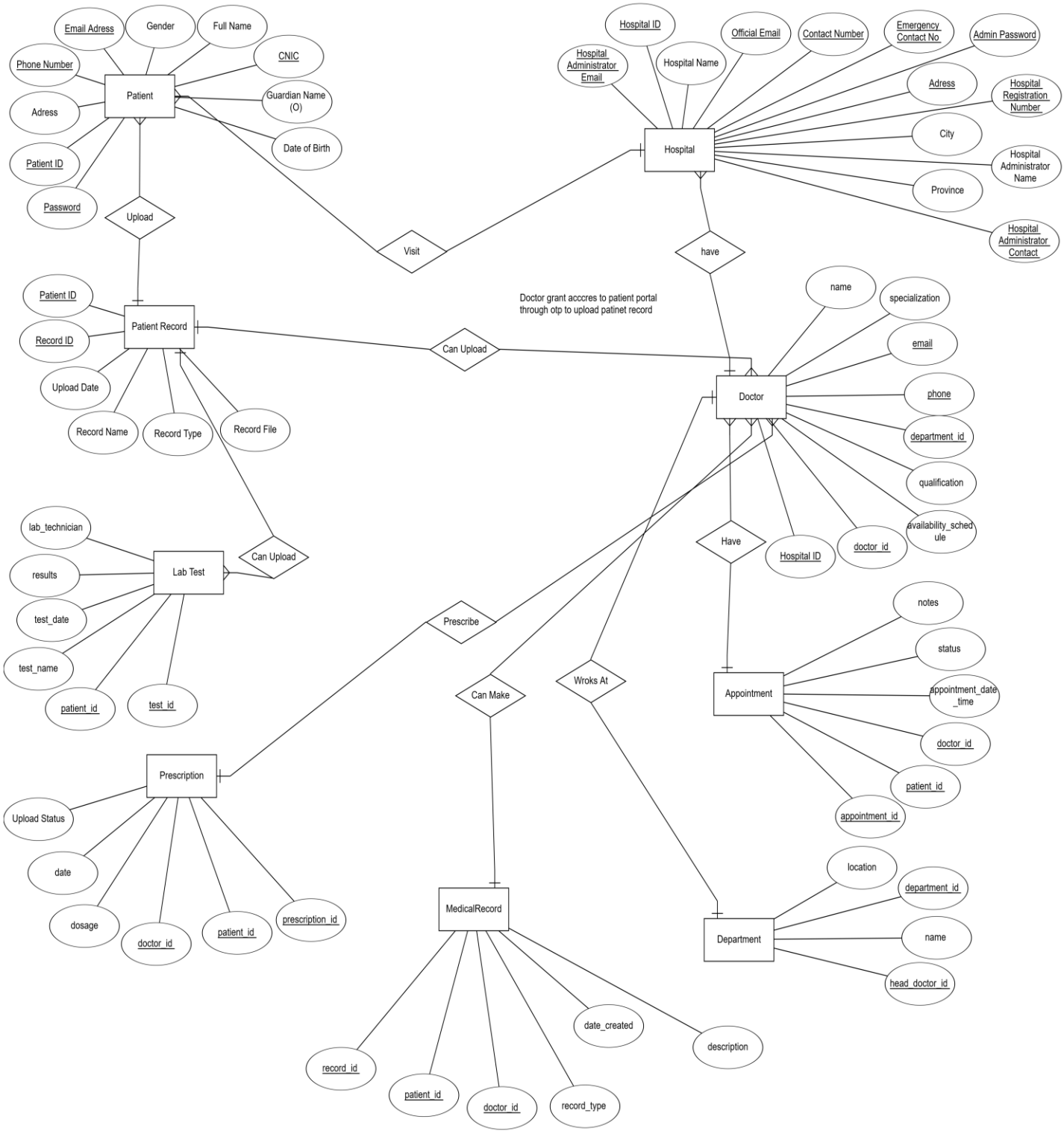
  Hosted on **external cloud platforms** such as:

  - Amazon Web Services (AWS)

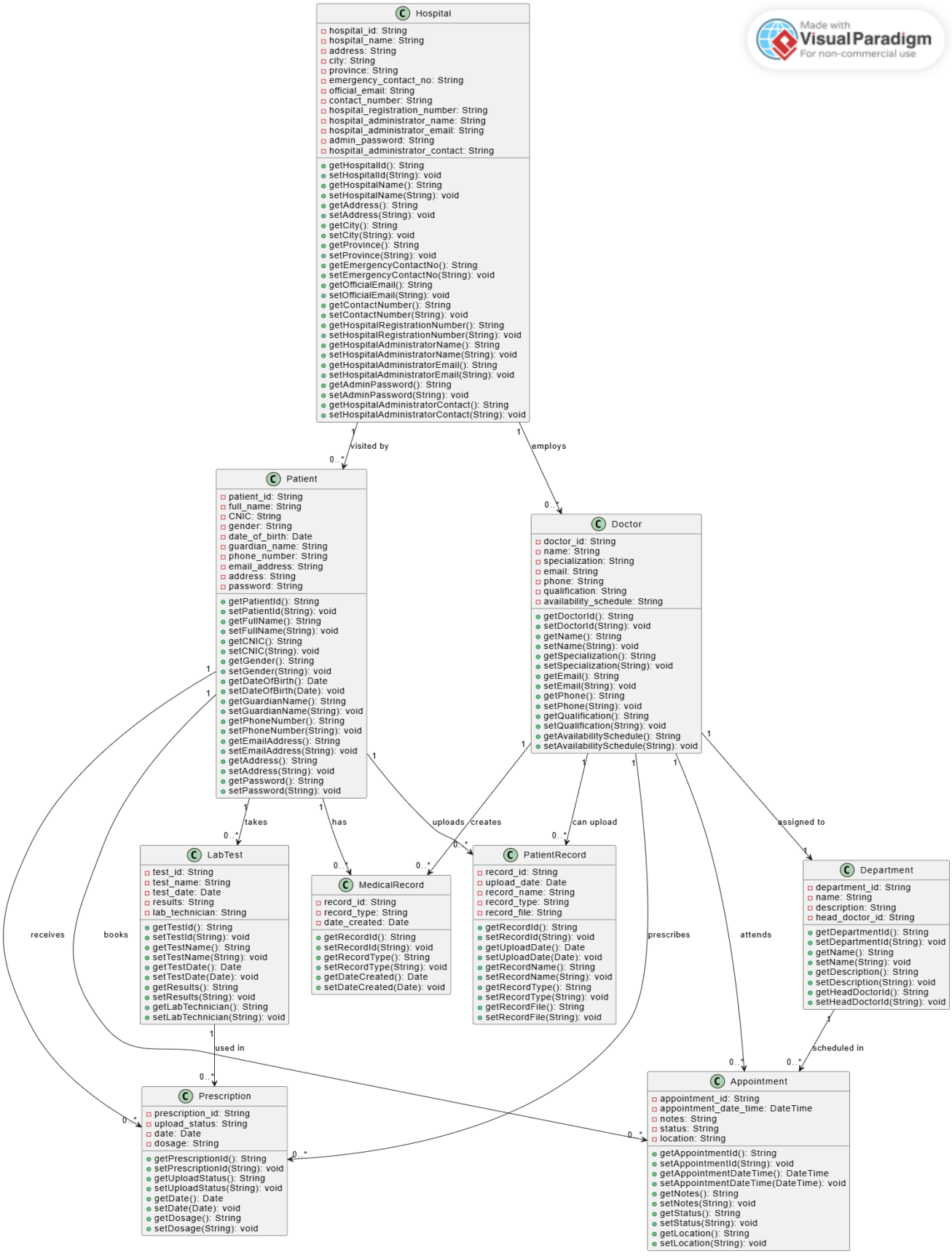
3.1 Application and Data Architecture

Condition	C1: Patient Logged In	C2: Patient Has Uploaded Medical Report	C3: Doctor Logged In	C4: OTP Verified	C5: Doctor Requests Access	C6: Patient Grants Access via OTP	Action 1: Doctor Views Patient Medical Records	Action 2: Doctor Uploads Prescription	Action 3: System Logs Activity
C1, C2, C3, C4, C5, C6	Yes	Yes	Yes	Yes	Yes	Yes	Display Reports and History	Upload Prescription	Log Activity
C1, C2, C3, C4, C5, C6 (Invalid)	Yes	Yes	Yes	No	No	No	No Access	No Upload	No Activity Logged
C1, C2, C3, C4, C5 (No Patient)	Yes	Yes	Yes	Yes	No	No	No Access	No Upload	No Activity Logged
C1, C2, C3 (No Medical Report)	Yes	No	Yes	Yes	Yes	Yes	No Access	No Upload	No Activity Logged
C1, C2 (No Login)	No	Yes	Yes	Yes	Yes	Yes	No Access	No Upload	No Activity Logged
C1 (Invalid Login)	No	Yes	Yes	Yes	Yes	Yes	No Access	No Upload	No Activity Logged

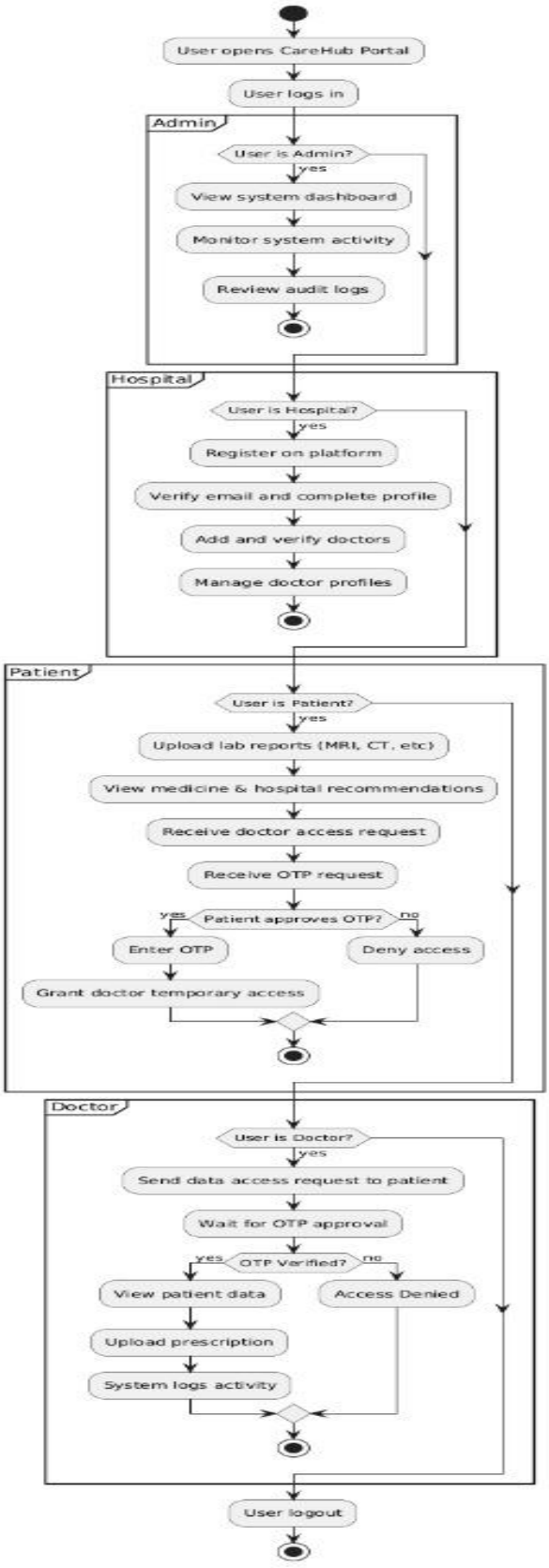
ERD:


Email Adress
Gender
Full Name
Phone Number
CNIC
Patient
Adress
Guardian Name (O)
Date of Birth
Patient ID
Password
Upload
Visit
Hospital ID
Official Email
Contact Number
Emergency Contact No
Admin Password
Hospital Administrator Email
Hospital Name
Adress
Hospital Registration Number
City
Hospital
Hospital Administrator Name
Province
Hospital Administrator Contact
have
Patient ID
Record ID
Patient Record
Upload Date
Record Name
Record Type
Record File
Can Upload
Doctor grant accres to patient portal through otp to upload patinet record
name
specialization
email
Doctor
phone
department_id
qualification
availability_schedule
Have
Hospital ID
doctor_id
lab_technician
results
test_date
test_name
patient_id
test_id
Lab Test
Can Upload
Prescribe
notes
status
appointment_date_time
doctor_id
patient_id
appointment_id
Appointment
Can Make
Wroks At
Prescription
Upload Status
date
dosage
doctor_id
patient_id
prescription_id
MedicalRecord
location
department_id
name
head_doctor_id
Department
date_created
description
record_id
patient_id
doctor_id
record_type

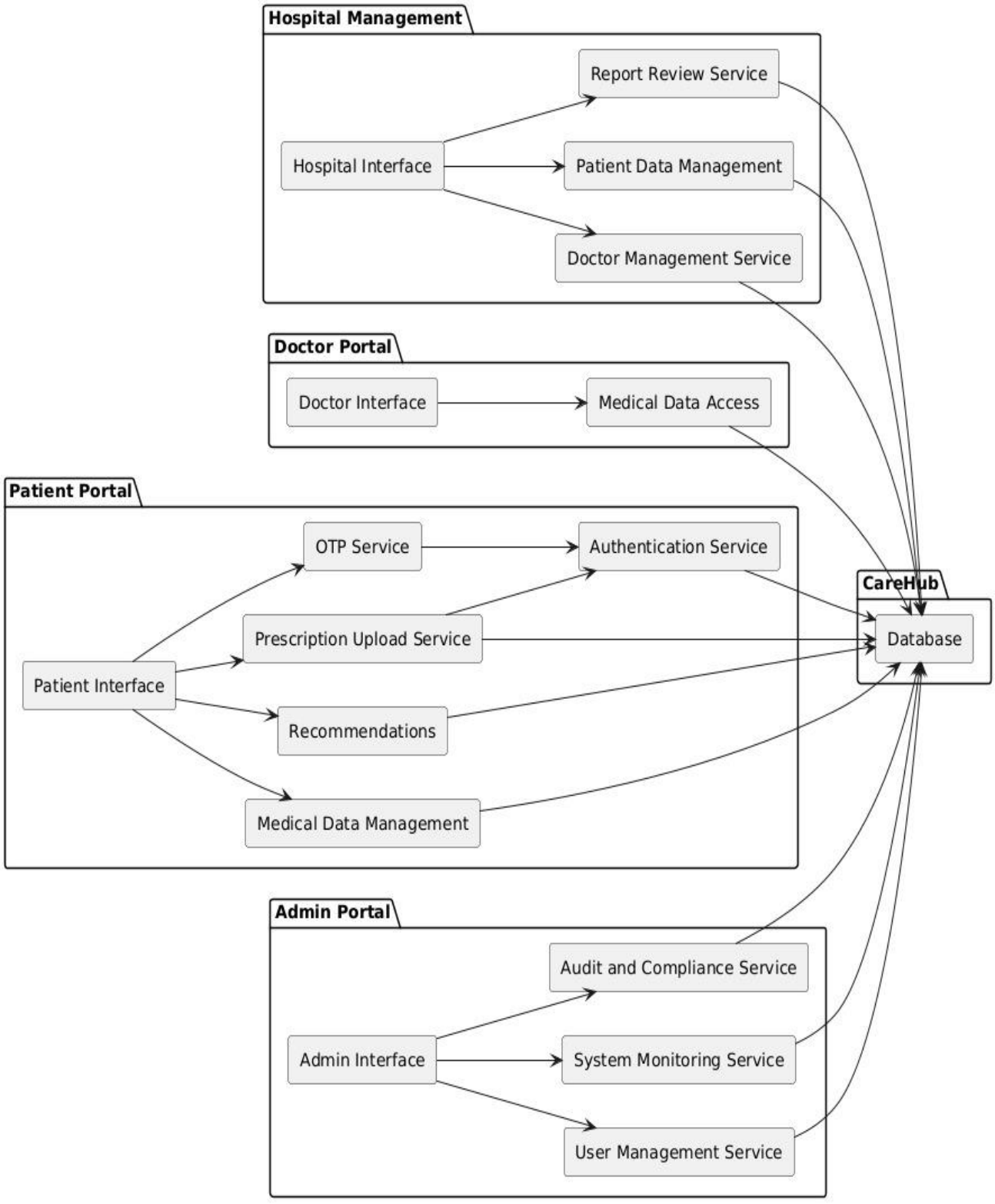
Class Diagram:



Activity Diagram:

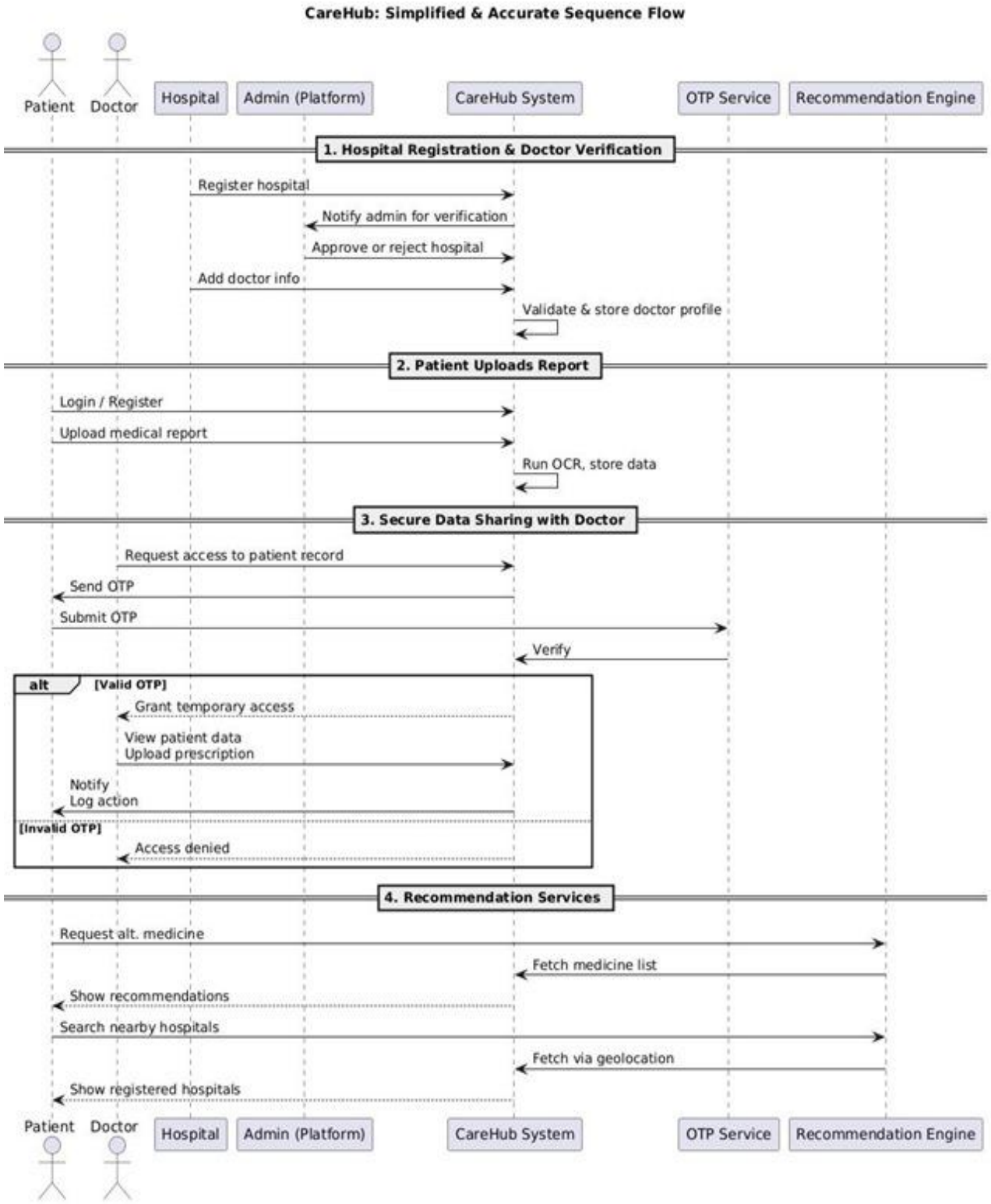


Component Diagram:

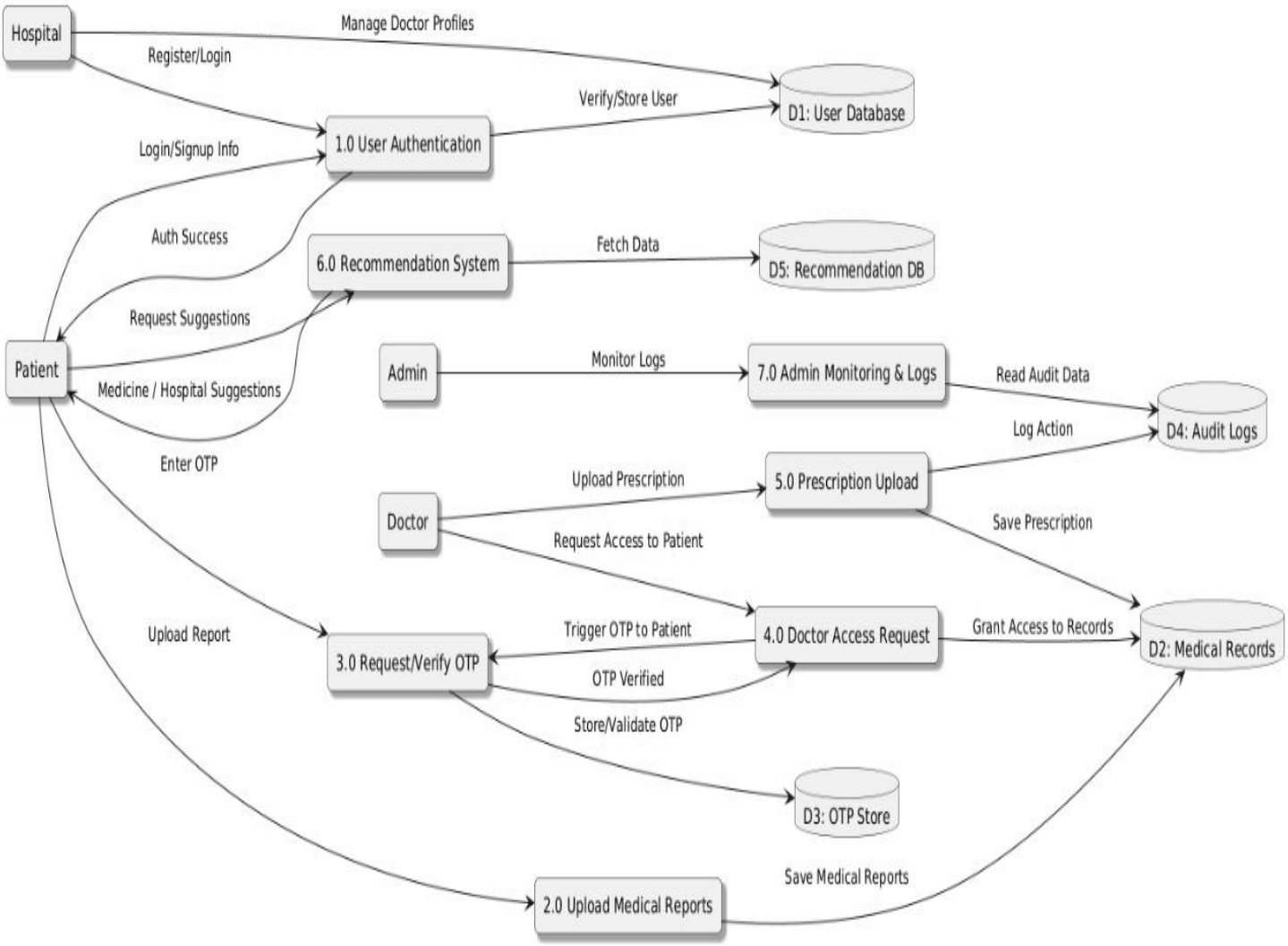


3.2 Component Interactions and Collaborations

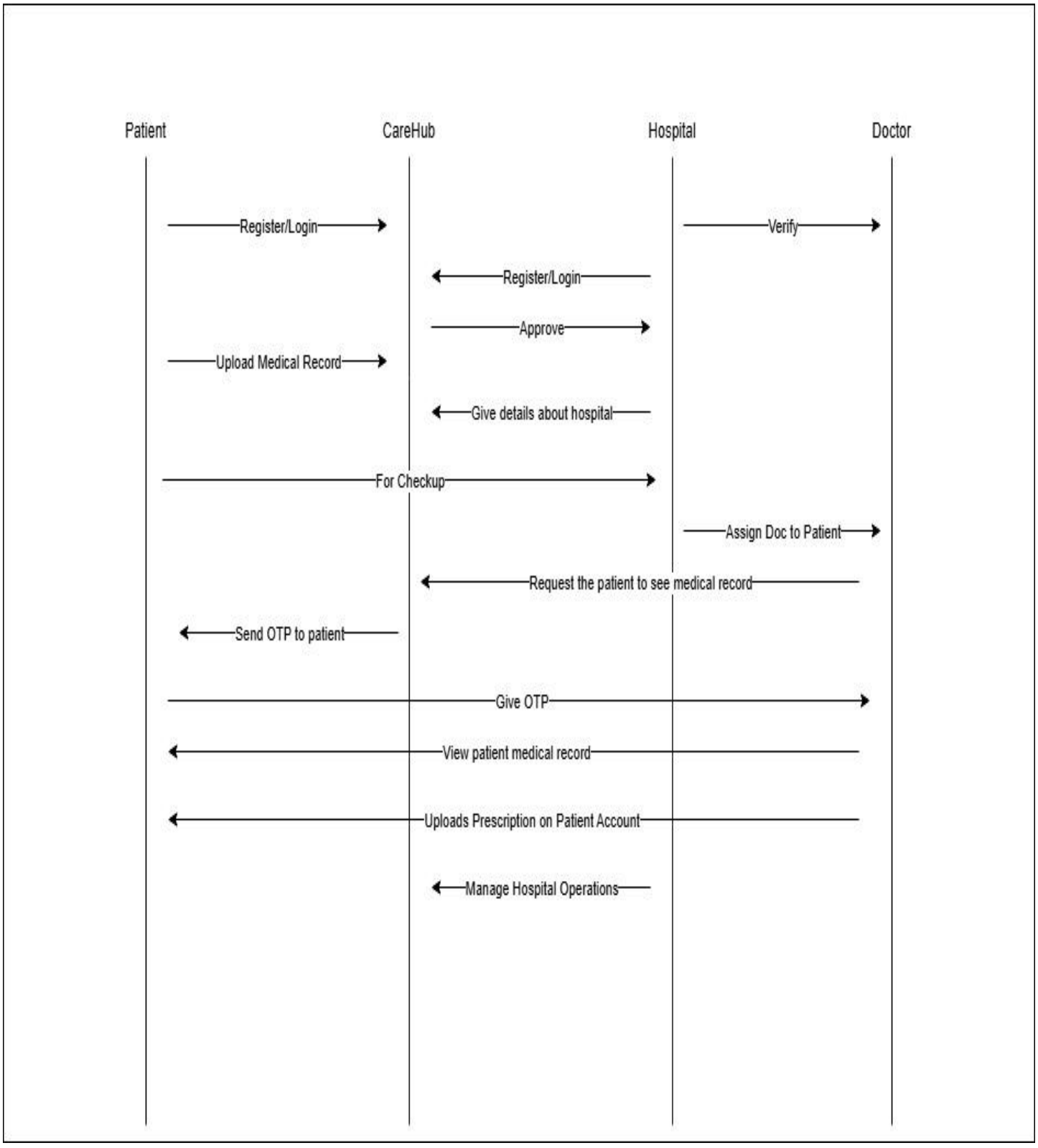
Sequence Diagram:



DFD:


Hospital
Manage Doctor Profiles
Register/Login
D1: User Database
Verify/Store User
1.0 User Authentication
Login/Signup Info
Auth Success
6.0 Recommendation System
Fetch Data
D5: Recommendation DB
Request Suggestions
Patient
Admin
Monitor Logs
7.0 Admin Monitoring & Logs
Read Audit Data
D4: Audit Logs
Log Action
Medicine / Hospital Suggestions
Enter OTP
Upload Prescription
5.0 Prescription Upload
Doctor
Save Prescription
Request Access to Patient
Upload Report
Trigger OTP to Patient
4.0 Doctor Access Request
Grant Access to Records
D2: Medical Records
3.0 Request/Verify OTP
OTP Verified
Store/Validate OTP
D3: OTP Store
Save Medical Reports
2.0 Upload Medical Reports

Event Trace:


Patient
CareHub
Hospital
Doctor
Register/Login
Verify
Register/Login
Approve
Upload Medical Record
Give details about hospital
For Checkup
Assign Doc to Patient
Request the patient to see medical record
Send OTP to patient
Give OTP
View patient medical record
Uploads Prescription on Patient Account
Manage Hospital Operations

3.3 Design Reuse and Design Patterns

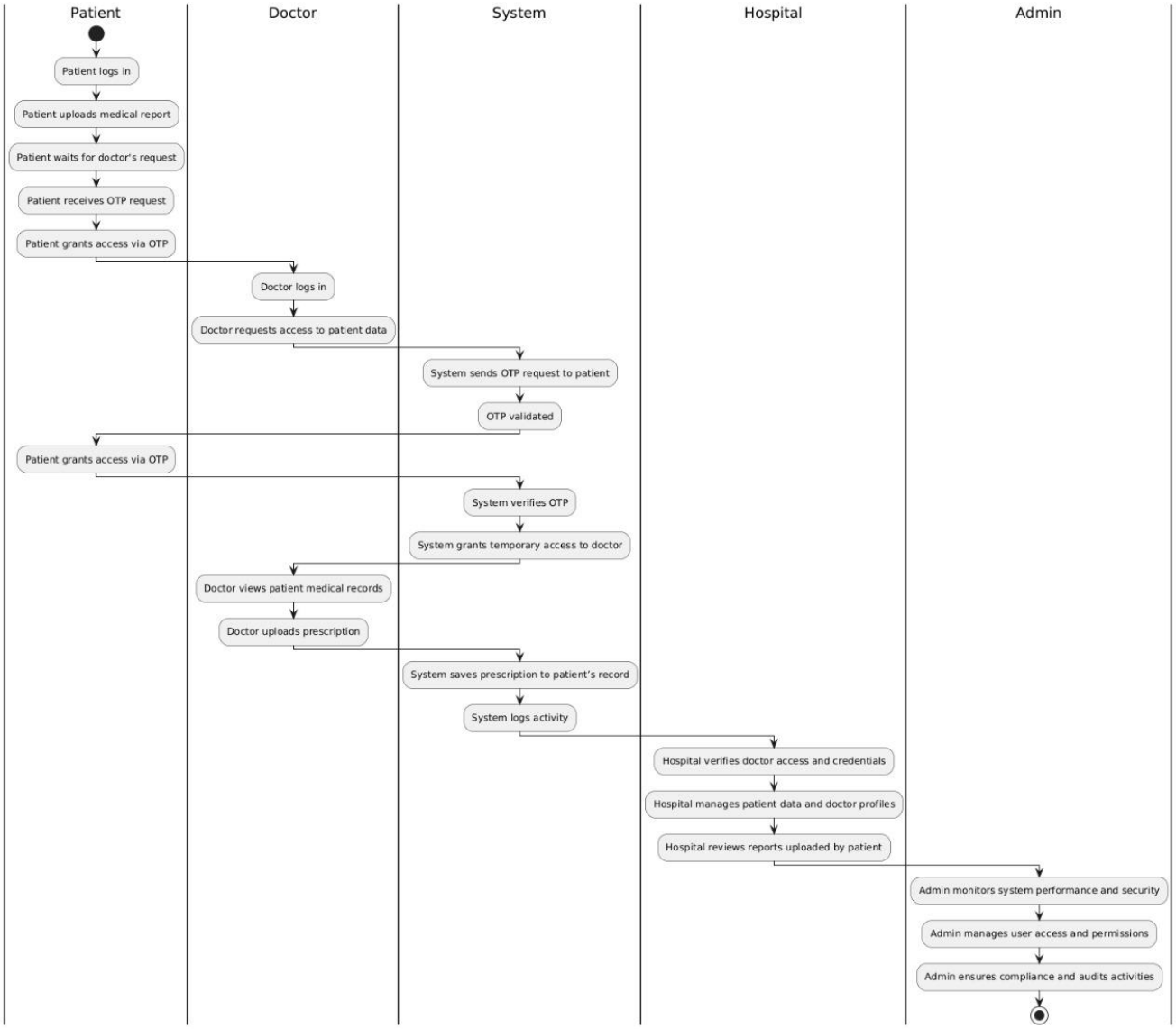
We will be designing component-based UI to increase the reusability of code we will use React.js for this purpose.

3.4 Technology Architecture

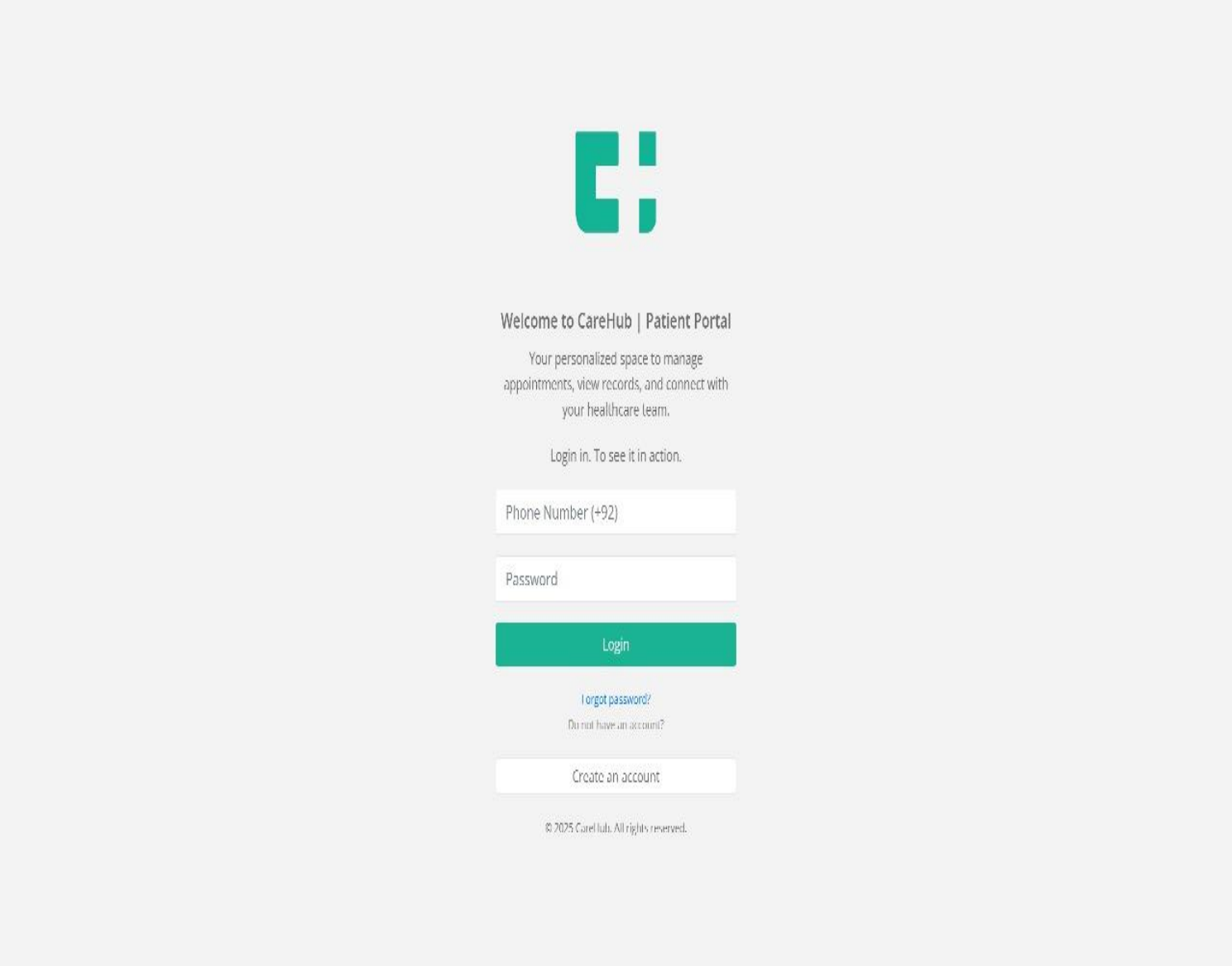
1. **Frontend:** HTML, CSS, JavaScript (React.js). Provides an interactive and responsive user interface for accessing CareHub services.
2. **Backend:** Will be using Python (Django) and the purpose is Manages application logic, processes user requests, and handles interactions between the frontend, database, and external APIs.
3. **Database**: Will be using PostgreSQL, purpose is to stores user profiles, recipes, ingredients, order details, and other application-related data.
4. **Internet Connectivity:** Ensures seamless interaction between users' devices and the CareHub application. Requires a stable internet connection to access frontend services, which then communicate with the backend servers hosted on cloud platforms.
5. **Security:** Protect user data and application integrity. It Includes HTTPS for secure data transmission, firewalls, regular security audits.
6. **Production Environment:** Hosts the live application used by end-users

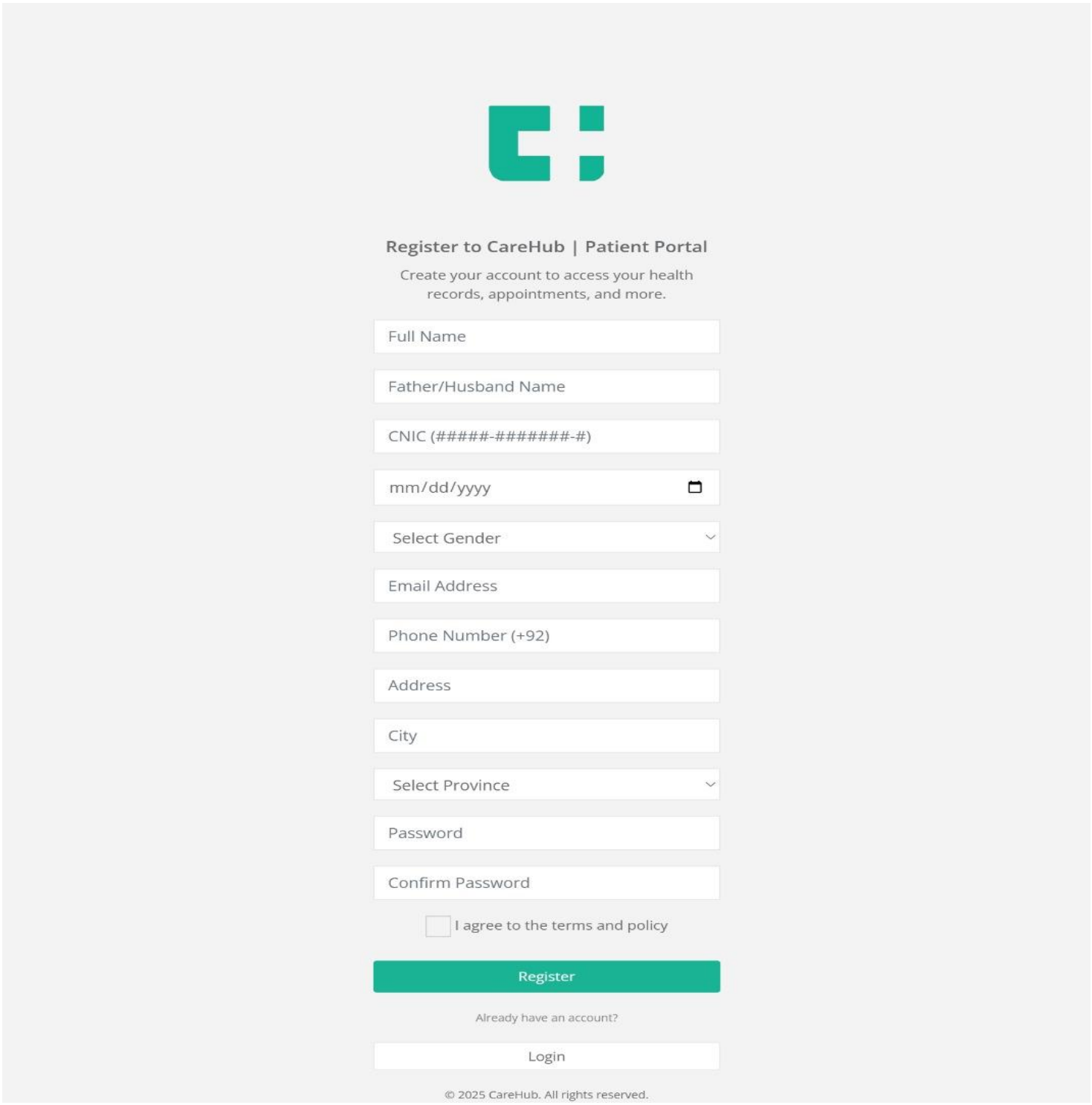
4. Screenshots/Prototype

4.1 Workflow



4.2 Screens


Welcome to CareHub | Patient Portal
Your personalized space to manage appointments, view records, and connect with your healthcare team.
Login in. To see it in action.
Phone Number (+92)
Password
Login
I orgot password?
Do not have an account?
Create an account
© 2025 CareHub. All rights reserved.


Register to CareHub | Patient Portal
Create your account to access your health records, appointments, and more.
Full Name
Father/Husband Name
CNIC (#####-#######-#)
mm/dd/yyyy
Select Gender
Email Address
Phone Number (+92)
Address
City
Select Province
Password
Confirm Password
I agree to the terms and policy
Register
Already have an account?
Login
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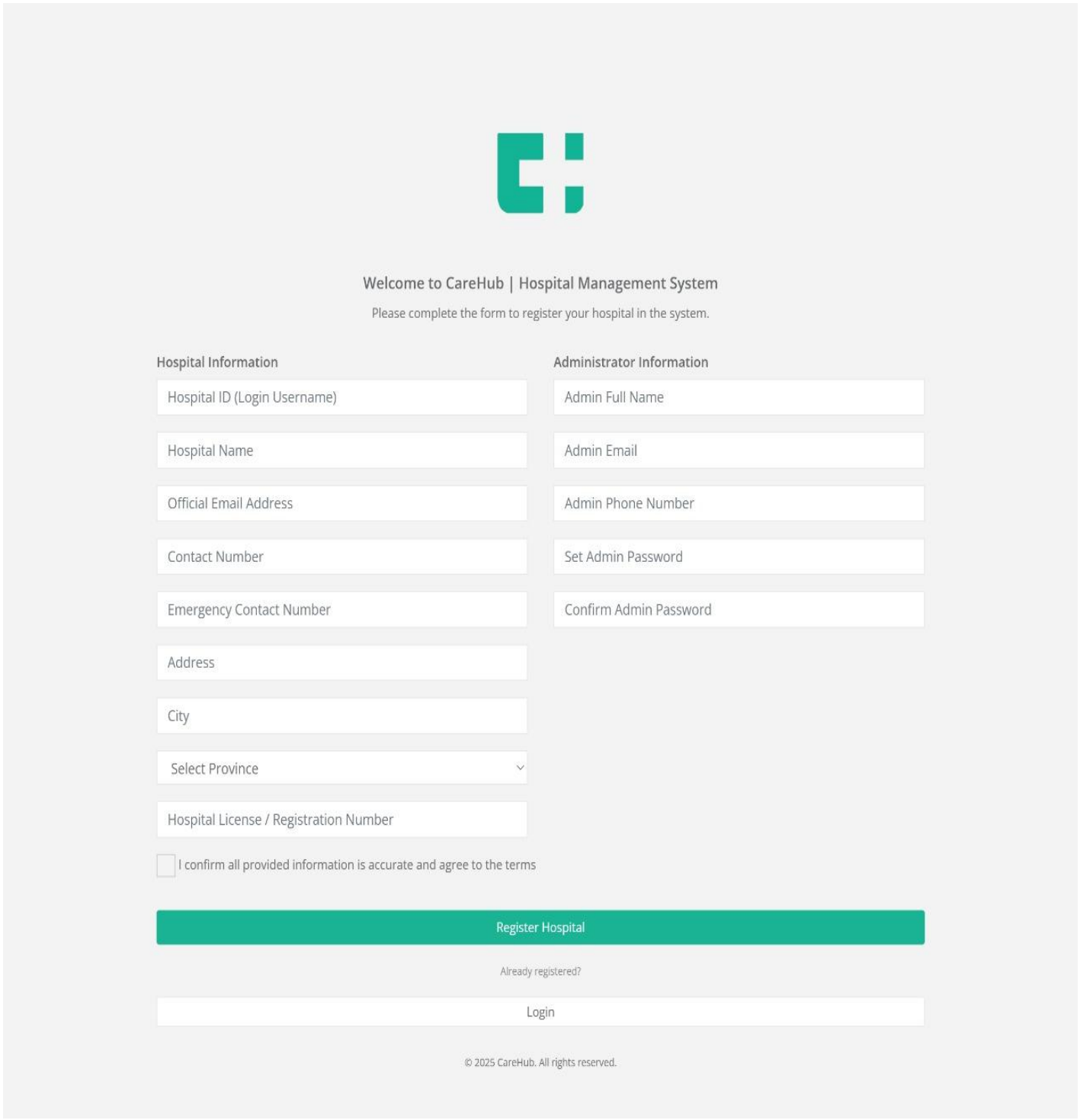
Welcome to CareHub | Hospital Management System
Please complete the form to register your hospital in the system.
Hospital Information
Hospital ID (Login Username)
Hospital Name
Official Email Address
Contact Number
Emergency Contact Number
Address
City
Select Province
Hospital License / Registration Number
Administrator Information
Admin Full Name
Admin Email
Admin Phone Number
Set Admin Password
Confirm Admin Password
I confirm all provided information is accurate and agree to the terms
Register Hospital
Already registered?
Login
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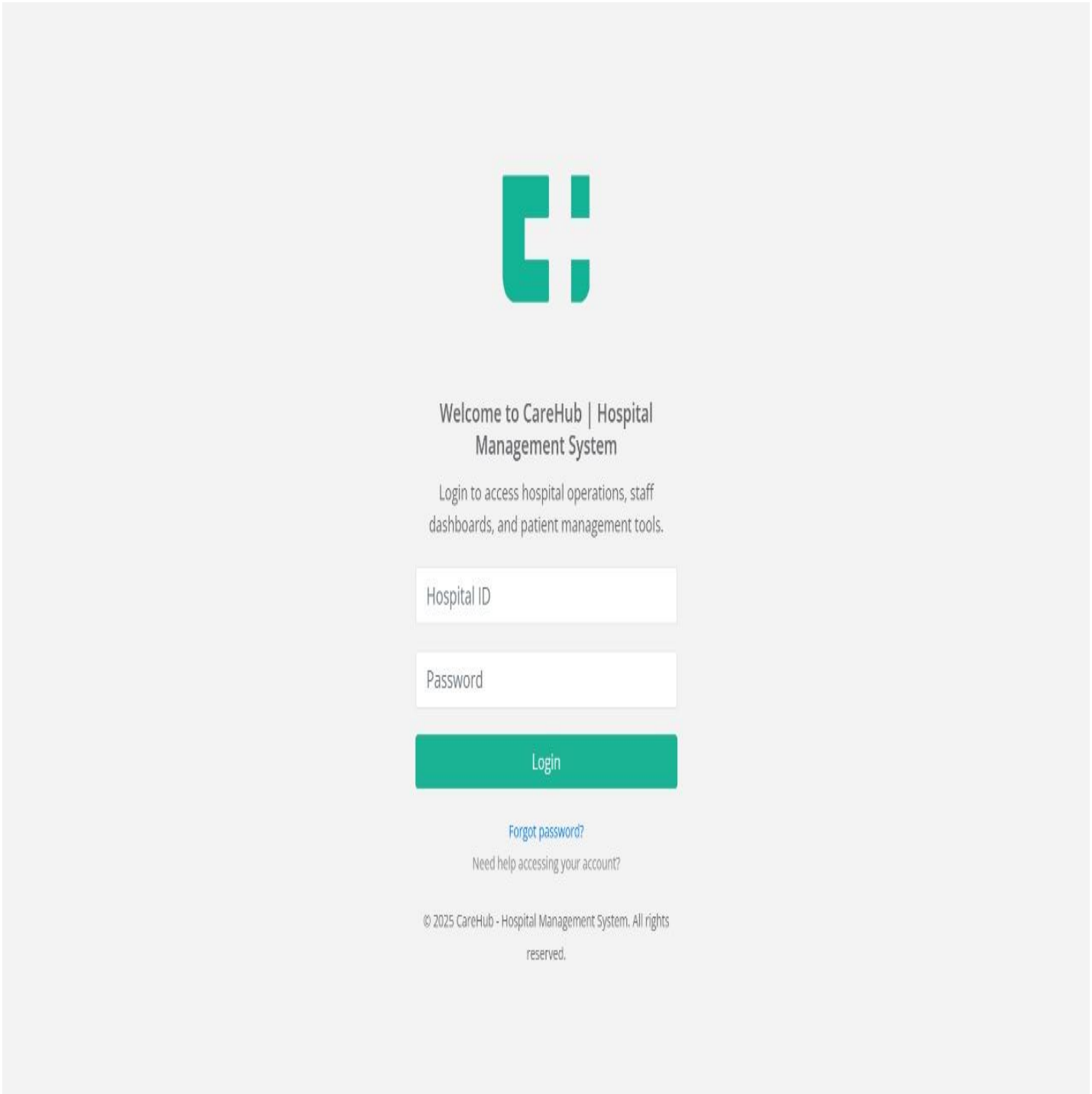
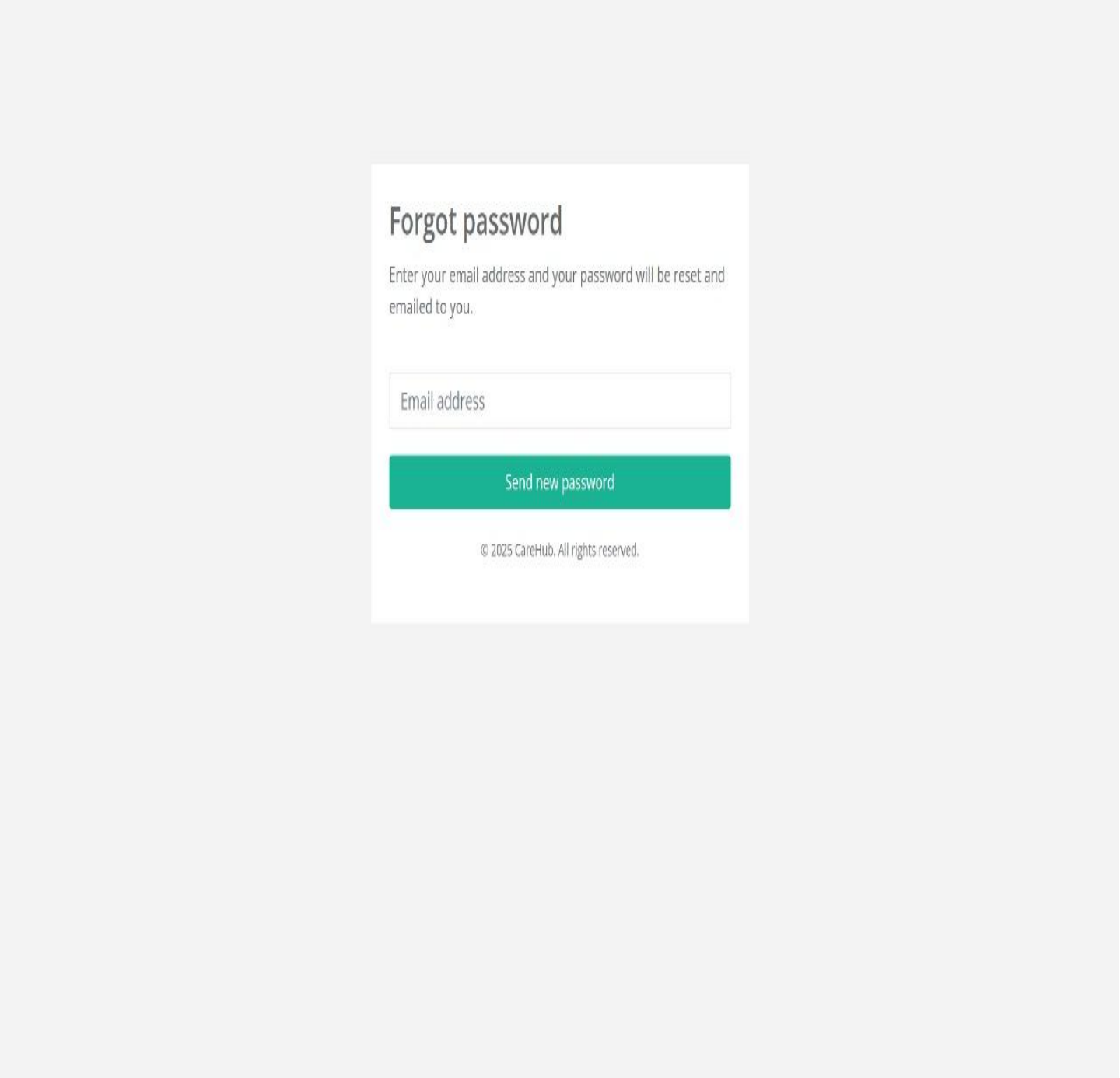

Welcome to CareHub | Hospital Management System
Login to access hospital operations, staff dashboards, and patient management tools.
Hospital ID
Password
Login
Forgot password?
Need help accessing your account?
© 2025 CareHub - Hospital Management System. All rights reserved.


Forgot password
Enter your email address and your password will be reset and emailed to you.
Email address
Send new password
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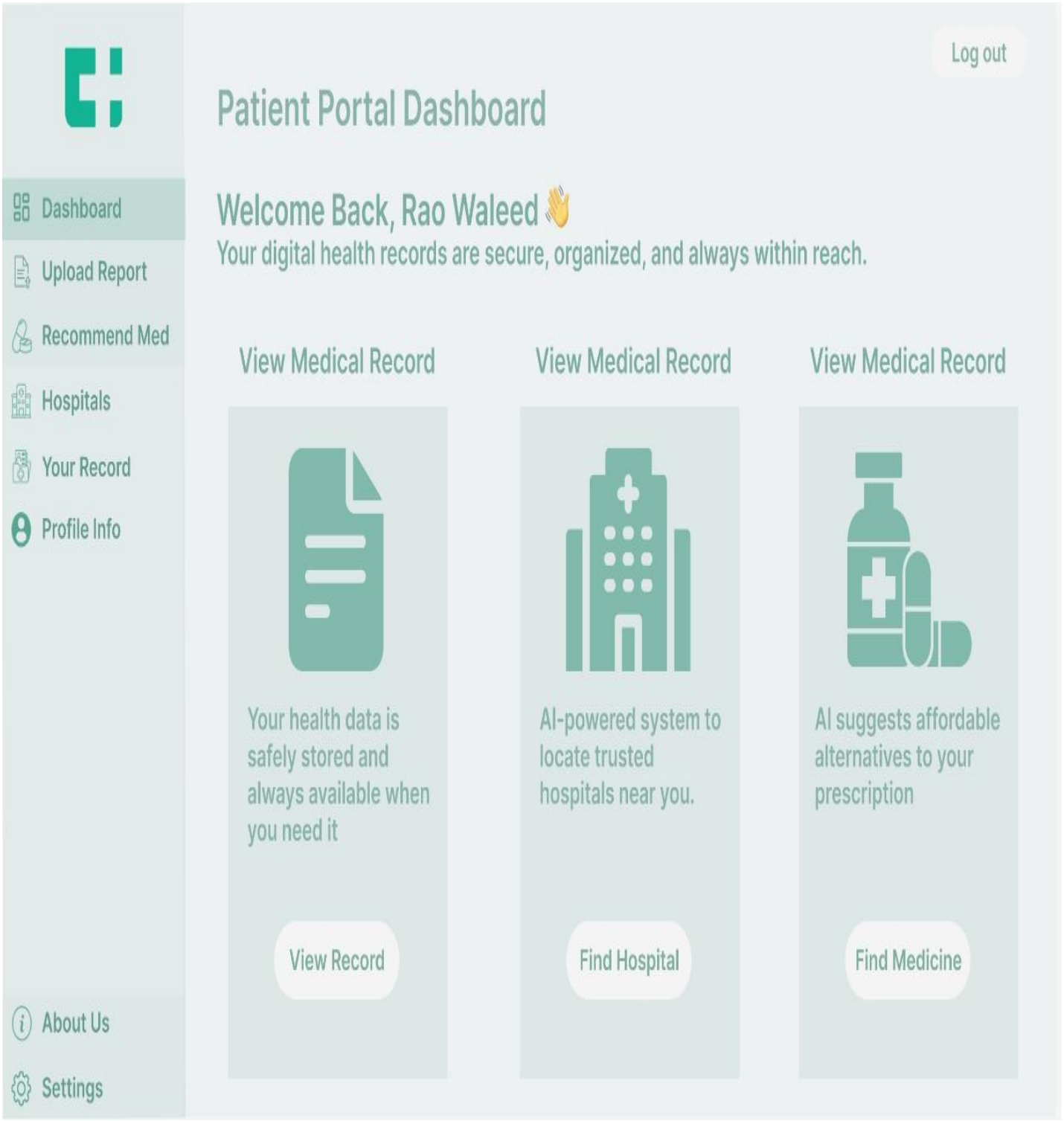
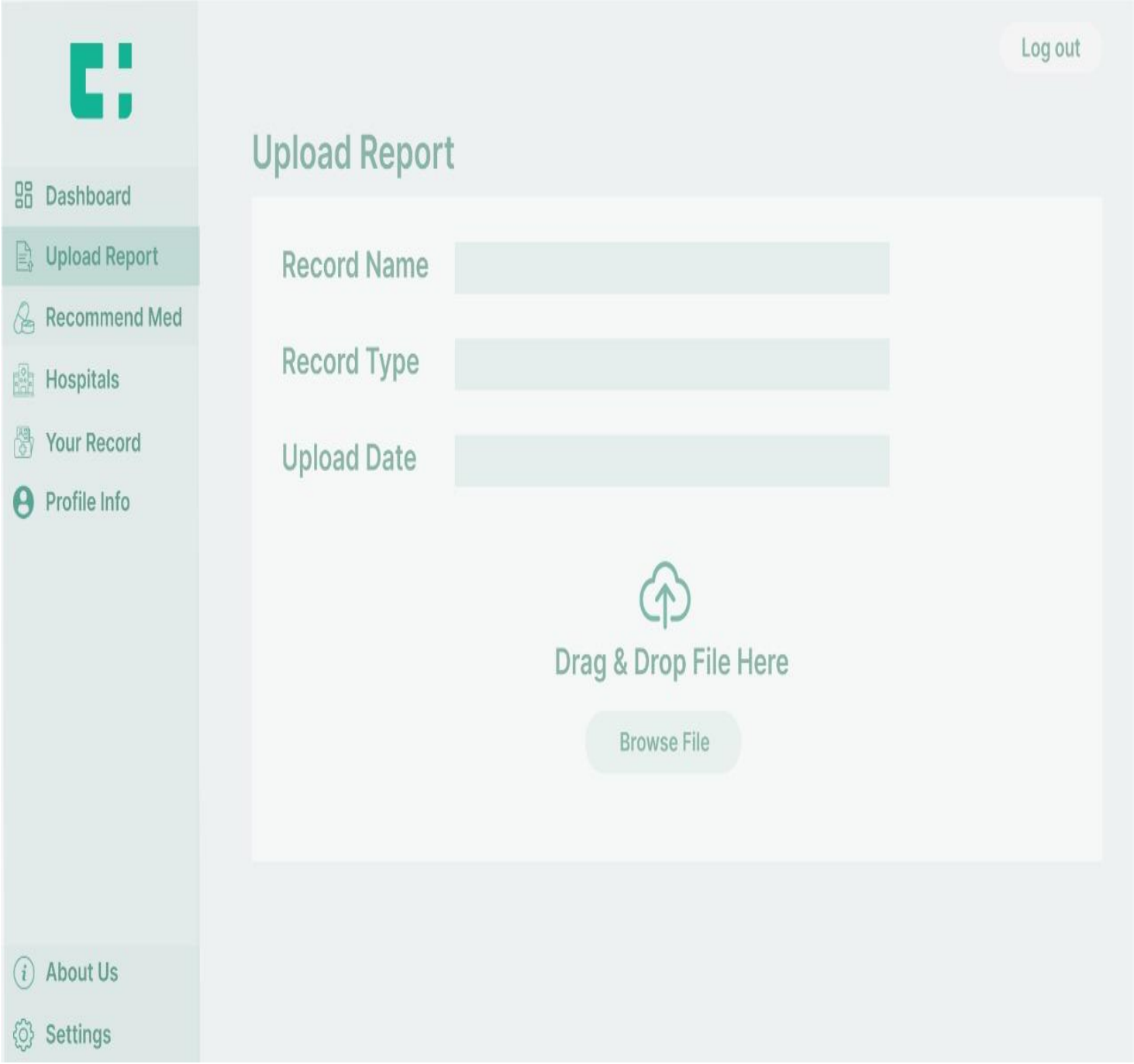
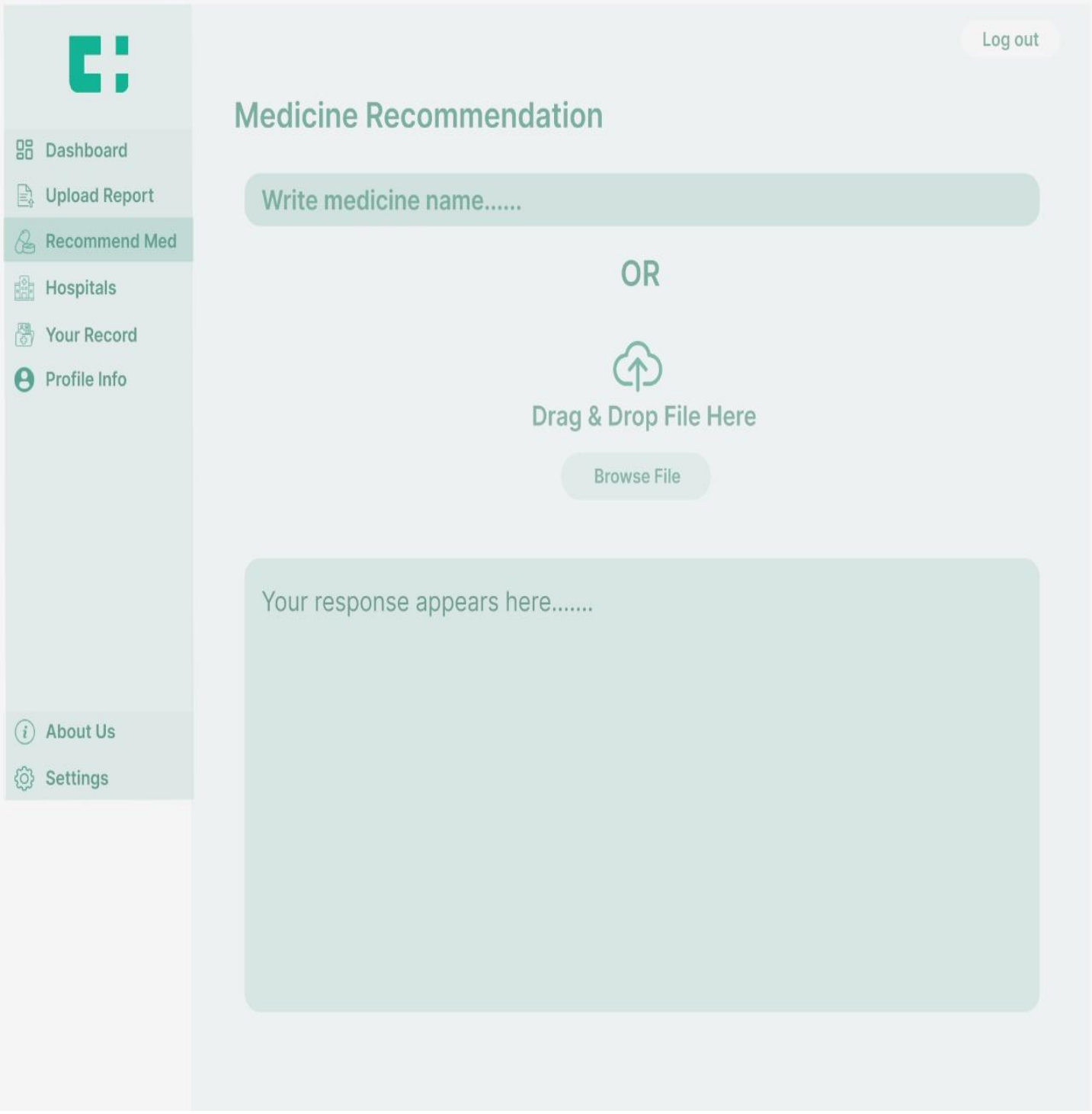
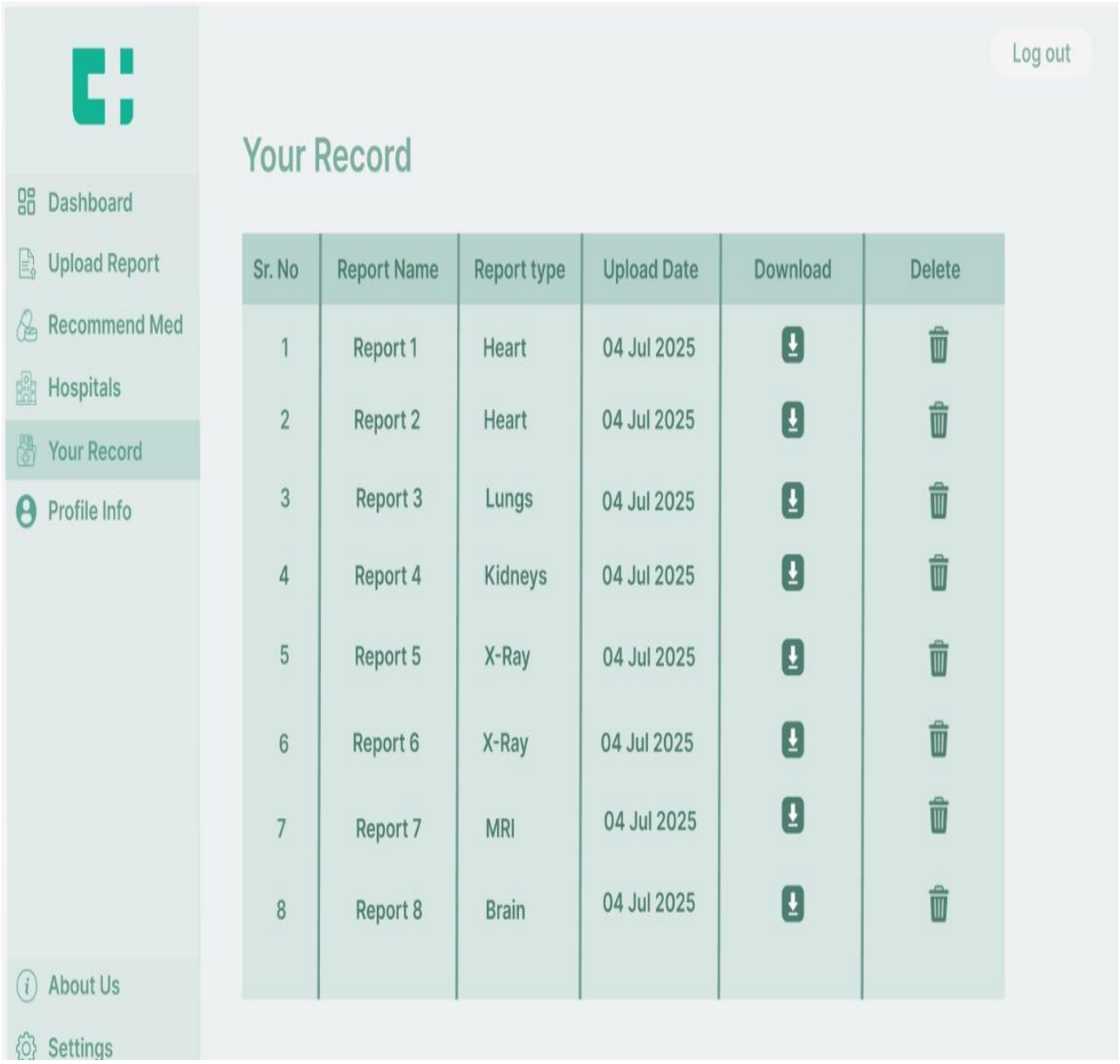
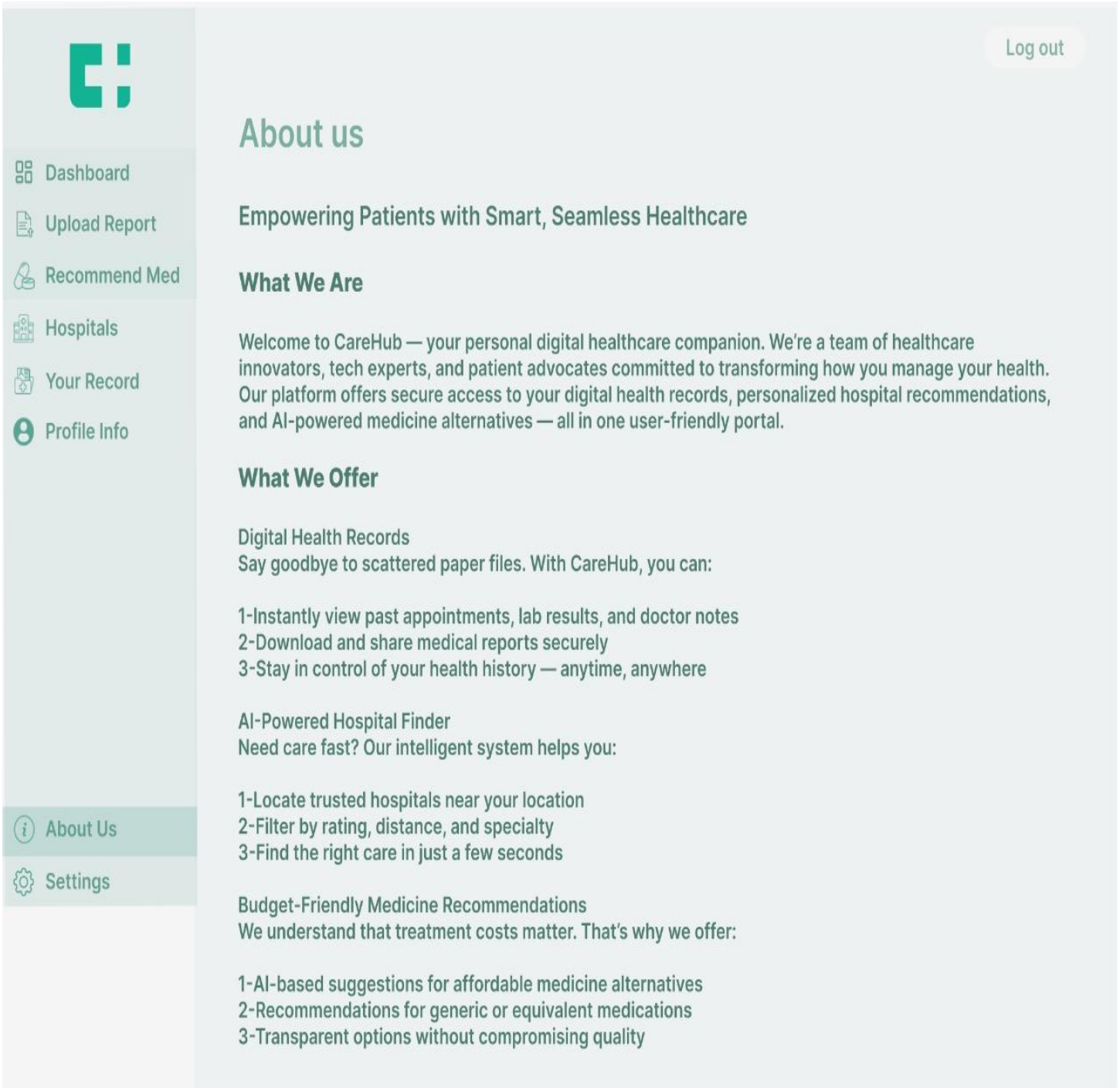
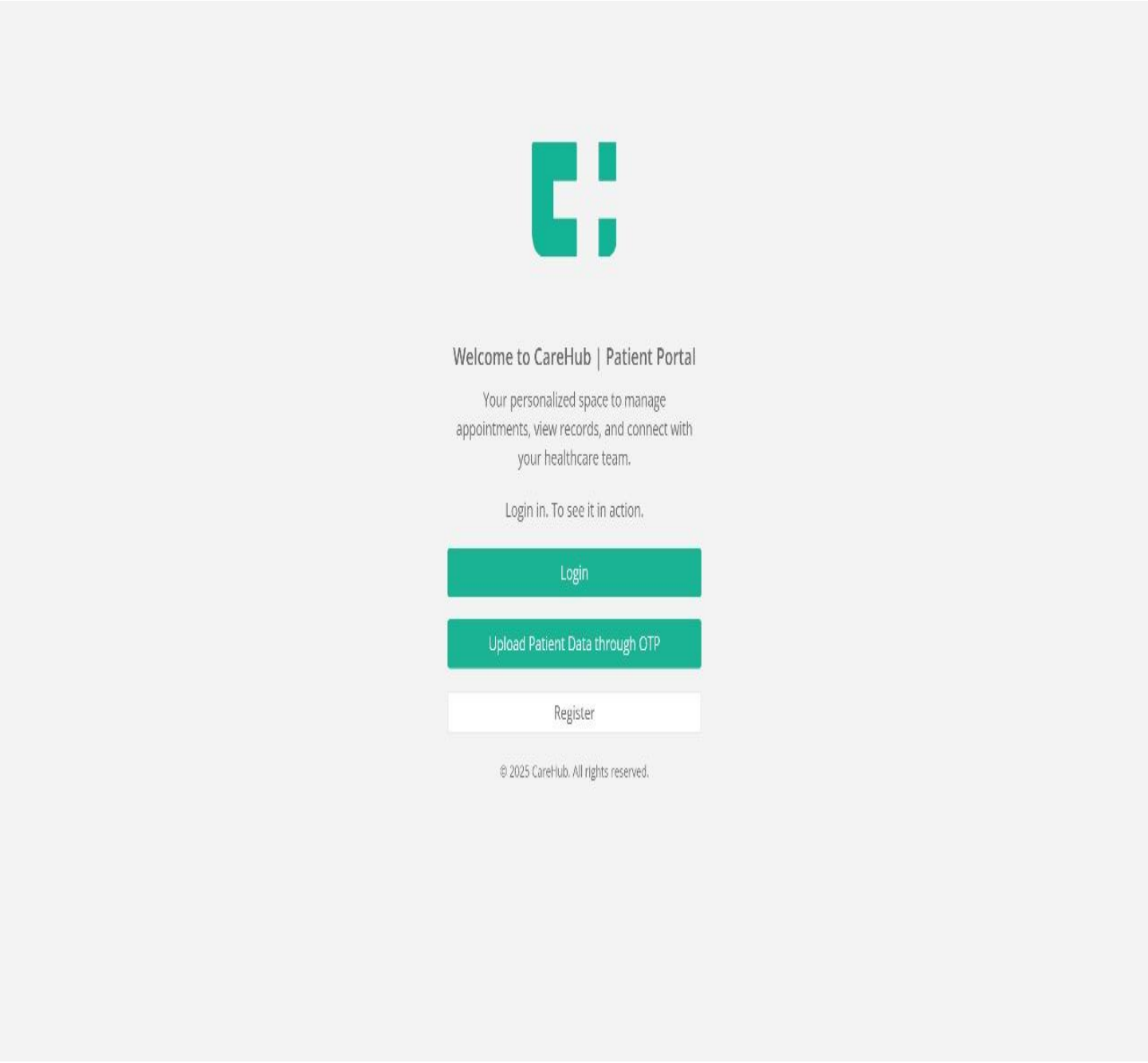

Log out
Patient Portal Dashboard
Dashboard
Upload Report
Recommend Med
Hospitals
Your Record
Profile Info
About Us
Settings
Welcome Back, Rao Waleed
Your digital health records are secure, organized, and always within reach.
View Medical Record
Your health data is safely stored and always available when you need it
View Record
View Medical Record
AI-powered system to locate trusted hospitals near you.
Find Hospital
View Medical Record
AI suggests affordable alternatives to your prescription
Find Medicine


Log out
Upload Report
Dashboard
Upload Report
Recommend Med
Hospitals
Your Record
Profile Info
Record Name
Record Type
Upload Date
Drag & Drop File Here
Browse File
About Us
Settings


Log out
Medicine Recommendation
Dashboard
Upload Report
Recommend Med
Hospitals
Your Record
Profile Info
Write medicine name.....
OR
Drag & Drop File Here
Browse File
Your response appears here.....
About Us
Settings


Log out
Your Record
Dashboard
Upload Report
Recommend Med
Hospitals
Your Record
Profile Info
About Us
Settings
Sr. No
Report Name
Report type
Upload Date
Download
Delete
1
Report 1
Heart
04 Jul 2025
2
Report 2
Heart
04 Jul 2025
3
Report 3
Lungs
04 Jul 2025
4
Report 4
Kidneys
04 Jul 2025
5
Report 5
X-Ray
04 Jul 2025
6
Report 6
X-Ray
04 Jul 2025
7
Report 7
MRI
04 Jul 2025
8
Report 8
Brain
04 Jul 2025


Log out
Dashboard
Upload Report
Recommend Med
Hospitals
Your Record
Profile Info
About Us
Settings
About us
Empowering Patients with Smart, Seamless Healthcare
What We Are
Welcome to CareHub — your personal digital healthcare companion. We're a team of healthcare innovators, tech experts, and patient advocates committed to transforming how you manage your health. Our platform offers secure access to your digital health records, personalized hospital recommendations, and AI-powered medicine alternatives — all in one user-friendly portal.
What We Offer
Digital Health Records
Say goodbye to scattered paper files. With CareHub, you can:
1-Instantly view past appointments, lab results, and doctor notes
2-Download and share medical reports securely
3-Stay in control of your health history — anytime, anywhere
AI-Powered Hospital Finder
Need care fast? Our intelligent system helps you:
1-Locate trusted hospitals near your location
2-Filter by rating, distance, and specialty
3-Find the right care in just a few seconds
Budget-Friendly Medicine Recommendations
We understand that treatment costs matter. That's why we offer:
1-AI-based suggestions for affordable medicine alternatives
2-Recommendations for generic or equivalent medications
3-Transparent options without compromising quality


Welcome to CareHub | Patient Portal
Your personalized space to manage appointments, view records, and connect with your healthcare team.
Login in. To see it in action.
Login
Upload Patient Data through OTP
Register
© 2025 CareHub. All rights reserved.

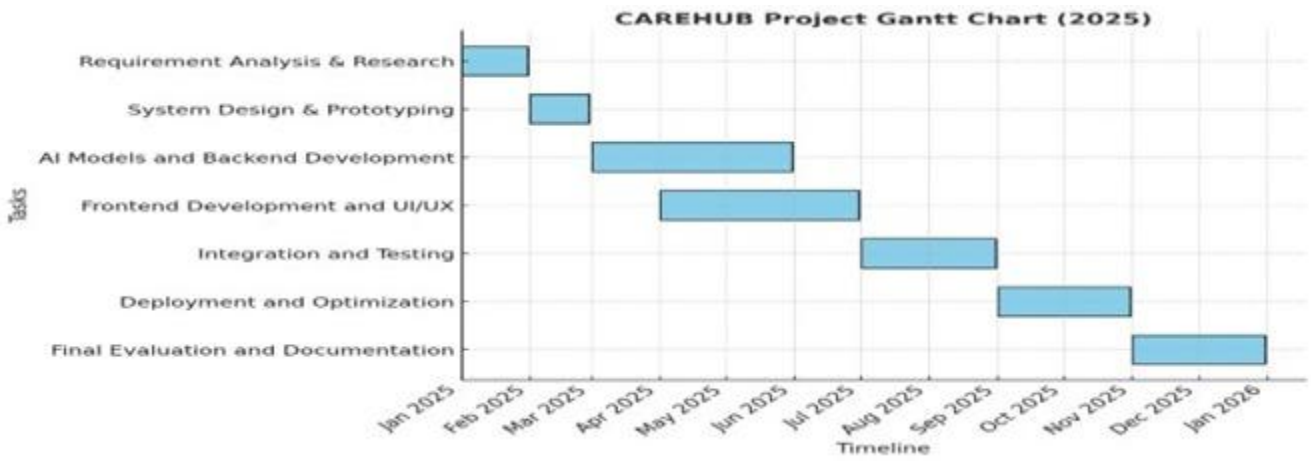
4.3 Additional Information

NA

5. Other Design Details

We will see in future according to market.

6. Revised Project Plan



7. References

[1] Practo. "Online Doctor Appointment Booking." [Online]. Available: https://www.practo.com/
[2] Healthwire. "Online Healthcare Solutions." [Online]. Available: https://www.healthwire.pk/
[3] Oladoc. "Online Doctor Appointment Booking Platform." [Online]. Available: https://oladoc.com/
[4] Microsoft HealthVault. (Discontinued).
[5] MyChart. "Patient Portal." [Online]. Available: https://www.mychart.com/
[6] Medscape. "Medical Information and Tools." [Online]. Available: https://www.medscape.com/
[7] Epocrates. "Medical Reference App." [Online]. Available: https://www.epocrates.com/
[8] Drugs.com. "Medication Information." [Online]. Available: https://www.drugs.com/
[9] Google Maps Platform. "Google Maps Platform Documentation." [Online]. Available: https://developers.google.com/maps/documentation
[10] SehatKahani. "Telemedicine Platform." [Online]. Available: https://www.sehatkahani.com/
[11] Marham. "Online Healthcare Platform." [Online]. Available: https://www.marham.pk/

Appendix A: Glossary

<Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRS.>

Appendix B: IV & V Report

(Independent verification & validation)
IV & V Resource

Name Signature

S#	Defect Description	Origin Stage	Status	Fix Time	
				Hours	Minutes
1					
2					
3					
…					

Table 1: List of non-trivial defects

This document has been adapted from the following:

1. Previous project templates at UCP
2. High-level Technical Design, Centers for Medicare & Medicaid Services. (www.cms.gov)

Semester wise SDP Meeting Report

Project Title: CareHub: UNIFIED PATIENT-CENTRIC PORTAL AND HOSPITAL OPERATIONS HUB Semester (e.g. S16): S25

Group ID	Student Roll Number	Student Name and Signatures	Advisor
S25BS024	L1S22BSCS0413	MUHAMMAD ARHAM AZAM	Asad Kamal
	L1S22BSCS0386	ALI HAMZA	
	L1S22BSCS0075	MUHAMMAD SHAHAB NASIR	
	L1S22BSCS0278	MUHAMMAD WALEED	

Sr	Date	Status (P/A/L)				Agenda Items	Notes
		Muhammad Arham Azam	Muhammad Shahab Nasir	Muhammad Waleed	Ali Hamza		
1	20/05/2025	P	P	P	P	Dataset Queries	
2	27/05/2025	P	P	P	P	Database Design	
3	03/06/2025	P	P	P	P	Prototyping Front End	
4	10/06/2025	P	P	P	P	Documentation	
5	17/06/2024	P	P	P	P	Review	

Date: Advisor's Signatures: _____