DocSpot – A Doctor Appointment Booking System

Team ID: LTVIP2025TMID54894

Team Members:

1. Vemula Vara Lakshmi
2. Vemuluri Chinni Tulasi
3. Veluri Rohit
4. Vemulapudi Abhiram Siva Prasad

2. Project Overview

- **Purpose:**
  DocSpot is a full-stack web application designed to connect patients with medical professionals. It simplifies the process of booking appointments, managing doctor profiles, and tracking medical visits.
- **Key Features:**
  - Patient and doctor registration/login
  - Admin approval for doctor accounts
  - Appointment booking and cancellation
  - Notifications and visit summaries
  - Doctor profile with specialization and timings
  - User and admin dashboards

3. Architecture

Frontend

- Built using React.js with React Router for navigation and Bootstrap for responsive design.

Backend

- Developed using Node.js and Express.js with RESTful API structure.

Database

- MongoDB (with Mongoose ODM) for managing user data, doctor profiles, appointments, and notifications.

4. Setup Instructions

Prerequisites

- Node.js
- MongoDB
- Git

Installation

1. Clone the repository

Bash:

```
git clone https://github.com/your-repo/docspot.git

cd docspot
```

2. Install server dependencies

Bash:

```
cd backend

npm install
```

3. Install client dependencies

Bash:

```
cd ../frontend
```

npm install

4. Create environment files
    - Create .env files in both /backend and /frontend with necessary variables like Mongo URI, JWT secret, etc.

5. Folder Structure

Client (Frontend - React)

pgsql

```
frontend/
 ├── public/
 ├── src/
|   ├── components/
|   ├── pages/
|   ├── App.js
|   └── index.js
```

Server (Backend - Node/Express)

pgsql

```
backend/
 ├── controllers/
 ├── models/
 ├── routes/
 ├── middleware/
 ├── uploads/
```

└── server.js

6. Running the Application

Frontend

Bash:

cd frontend

npm start

Backend

Bash:

cd backend

npm start

7. API Documentation

Users

- POST /register – Register user
- POST /login – Login user
- GET /user/notifications/:id – Get user notifications

Doctors

- POST /doctor/register – Register doctor
- GET /doctor/list – List all doctors
- GET /doctor/profile/:id – Get doctor profile
- PUT /doctor/update/:id – Update doctor profile

Admin

- GET /admin/doctors – Get list of doctors for approval

- PUT /admin/approve/:id – Approve doctor

Appointments

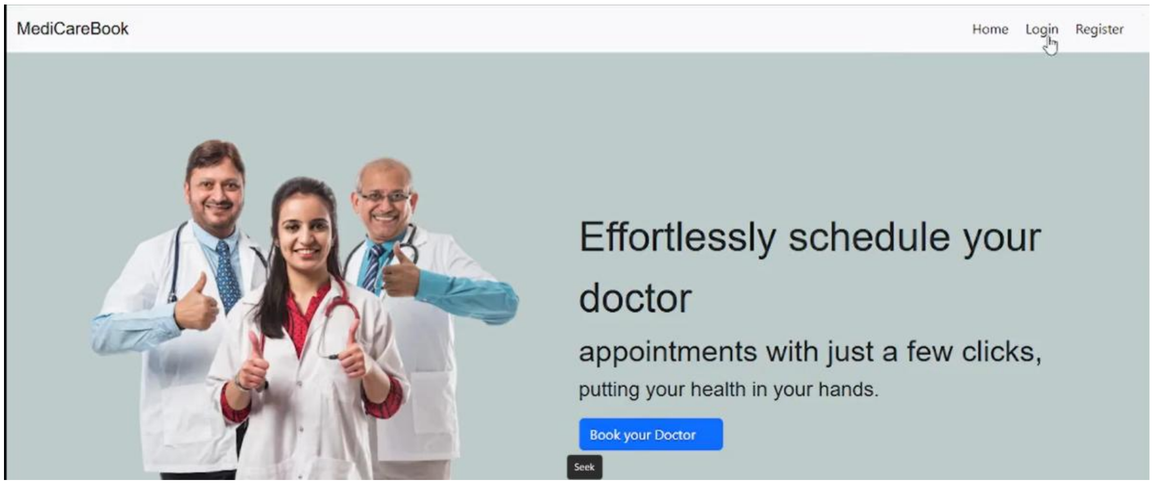
- POST /appointment/book – Book appointment
- GET /appointment/user/:id – Get user appointments
- DELETE /appointment/cancel/:id – Cancel appointment

8. Authentication

- JWT tokens are generated on successful login and stored in localStorage.
- Protected routes are handled using custom middlewares.
- Role-based access for admin, doctor, and user.

9. User Interface

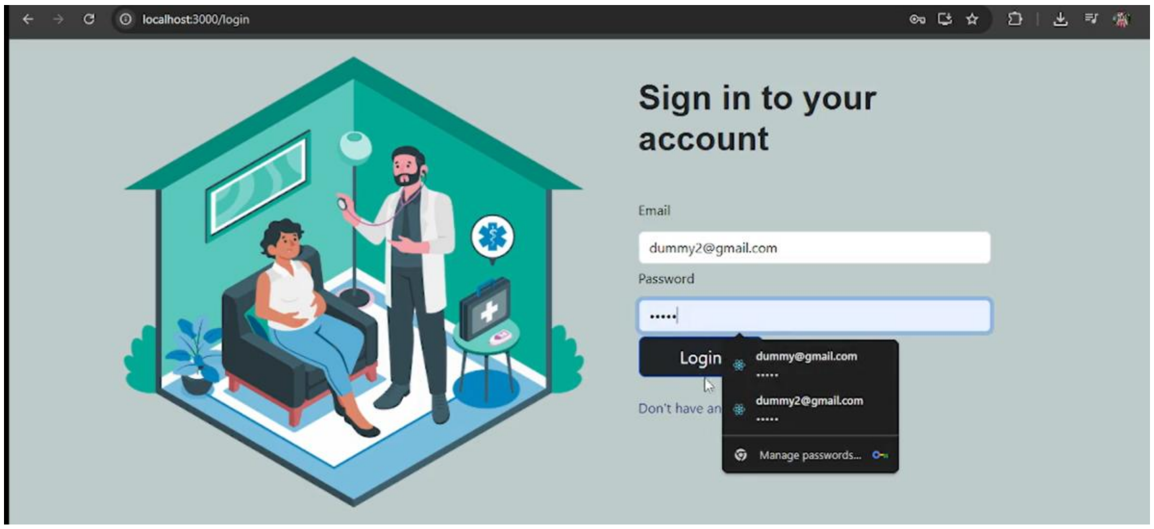
Includes Bootstrap-based responsive UI with user, doctor, and admin dashboards.



Effortlessly schedule your doctor

appointments with just a few clicks,

putting your health in your hands.



localhost:3000/login

Sign in to your account

Email

dummy2@gmail.com

Password

•••••

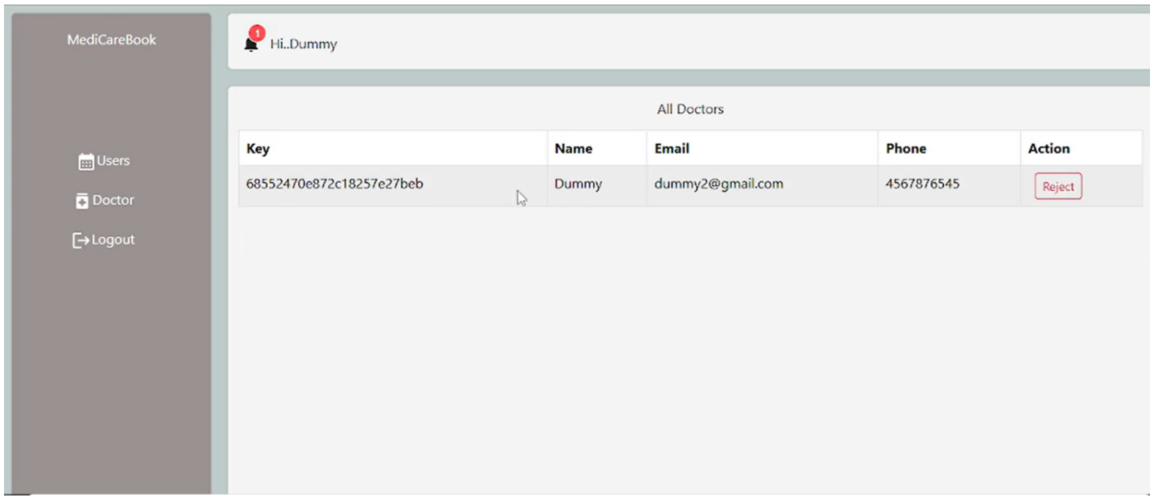
Login

dummy@gmail.com
•••••

dummy2@gmail.com
•••••

Manage passwords...

Don't have an



MediCareBook

Users

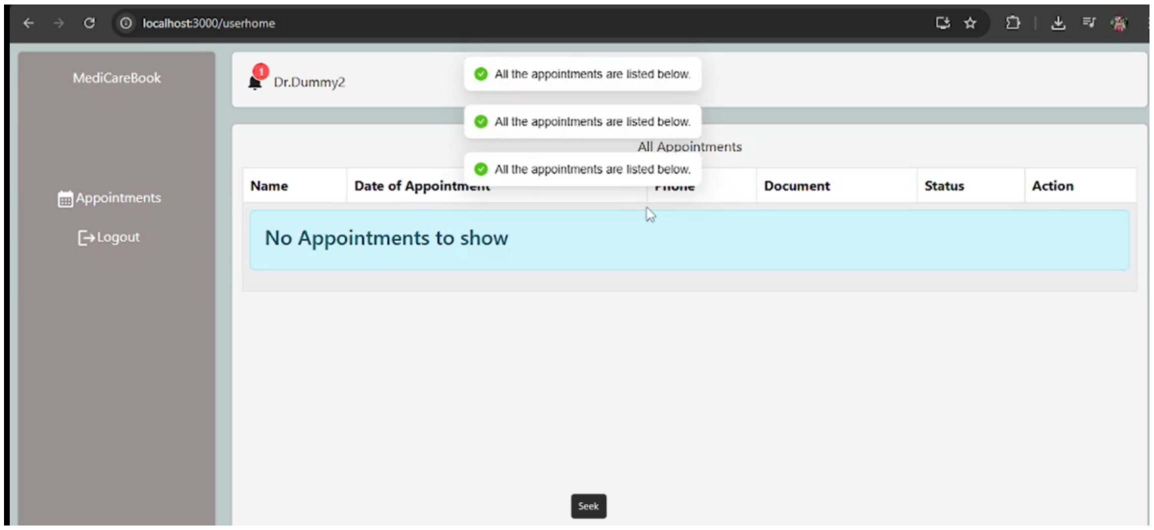
Doctor

Logout

Hi..Dummy

All Doctors

Key	Name	Email	Phone	Action
68552470e872c18257e27beb	Dummy	dummy2@gmail.com	4567876545	Reject


localhost:3000/userhome
MediCareBook
Appointments
Logout
Dr.Dummy2
All the appointments are listed below.
All the appointments are listed below.
All the appointments are listed below.
All Appointments
Seek

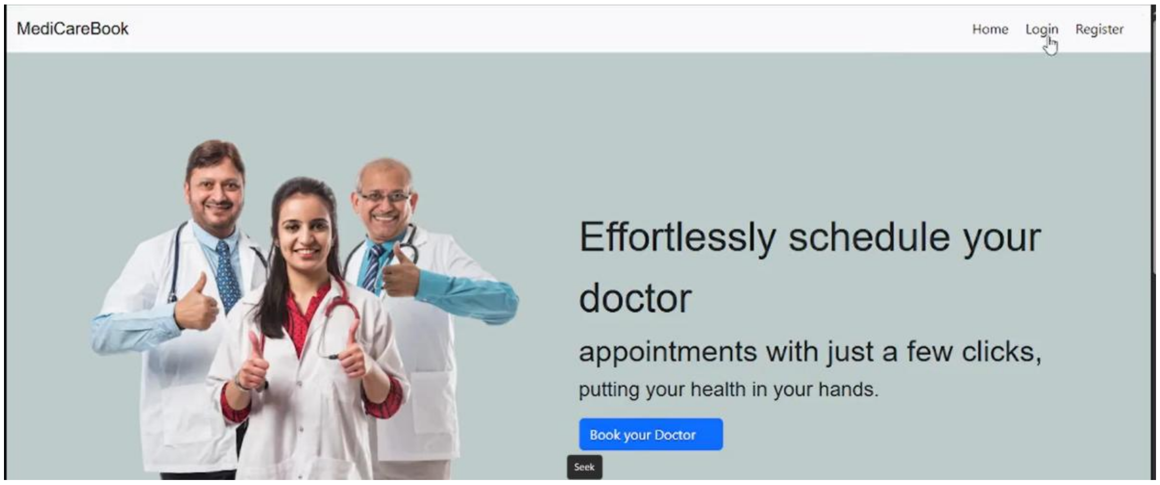
Name	Date of Appointment	Phone	Document	Status	Action

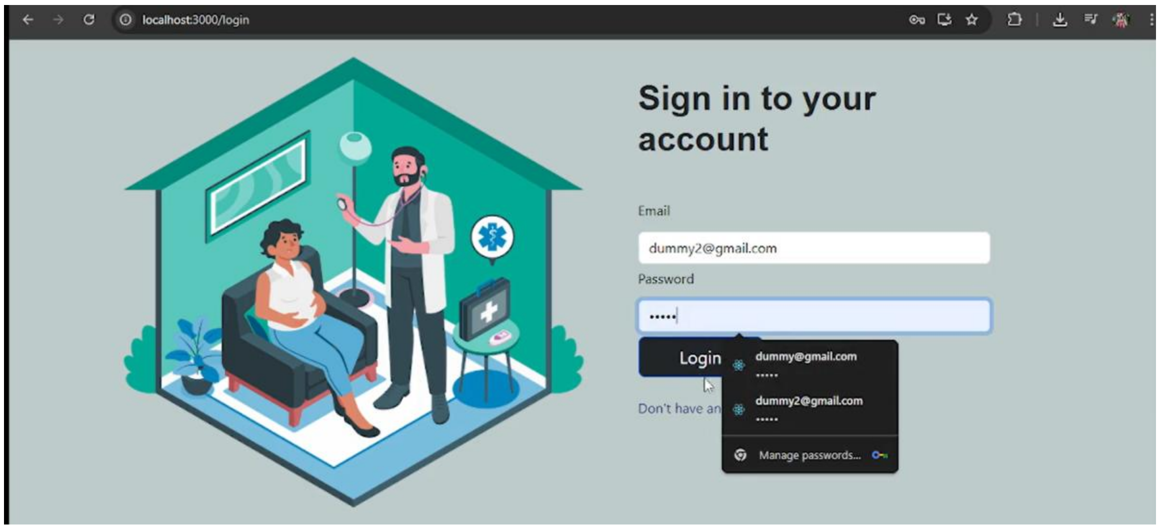
No Appointments to show

10. Testing

- Manual testing with Postman for APIs
- Basic form validation on frontend
- Future plans: Jest for unit tests, Cypress for integration testing

11. Screenshots or Demo


MediCareBook
Home
Login
Register
Effortlessly schedule your doctor
appointments with just a few clicks,
putting your health in your hands.
Book your Doctor
Seek

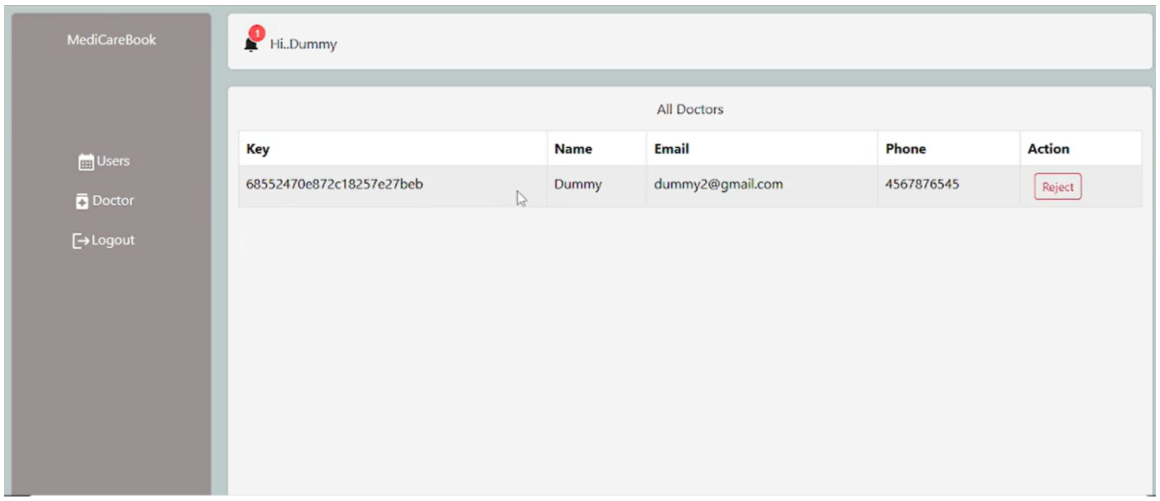


Sign in to your account

Email

dummy2@gmail.com

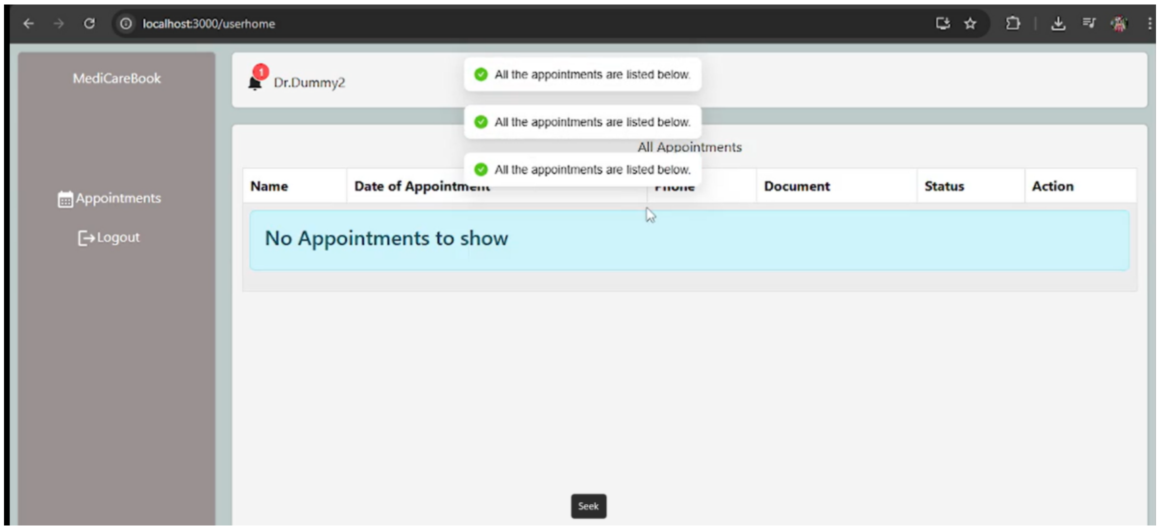
Password



Hi..Dummy

All Doctors

Key	Name	Email	Phone	Action
68552470e872c18257e27beb	Dummy	dummy2@gmail.com	4567876545	Reject



Dr.Dummy2

All the appointments are listed below.

All the appointments are listed below.

All the appointments are listed below.

All Appointments

Name	Date of Appointment	Phone	Document	Status	Action

No Appointments to show

12. Known Issues

- Image upload may fail on slow networks
- No pagination implemented for doctor listings
- Admin notifications are not real-time

13. Future Enhancements

- Email notifications and appointment reminders
- Doctor availability calendar
- Admin analytics dashboard
- Chat functionality between user and doctor