DocSpot: Seamless Appointment Booking for Health
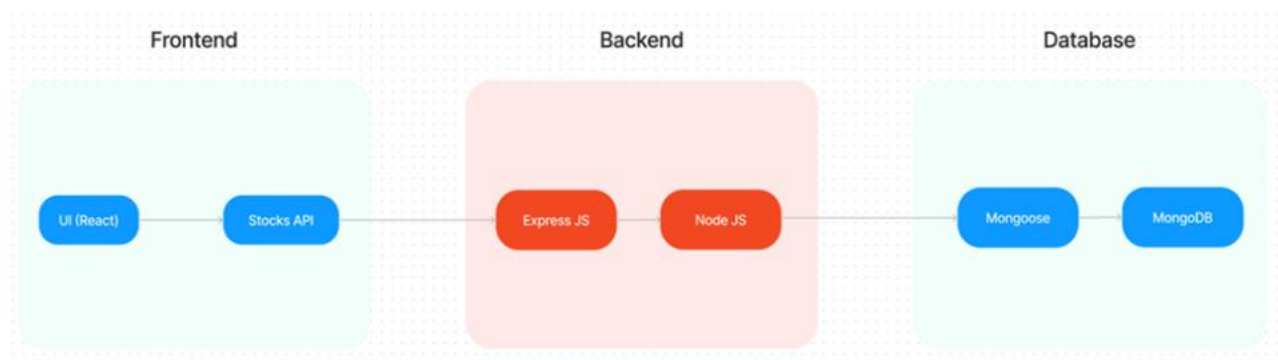
Project Overview

DocSpot is a modern, intuitive, and user-friendly online platform designed to simplify the process of booking medical appointments. It eliminates the need for phone calls and long waiting times, enabling users to schedule appointments effortlessly from the comfort of their homes. With real-time availability and advanced filtering options, users can find and book appointments that suit their schedule and preferences.
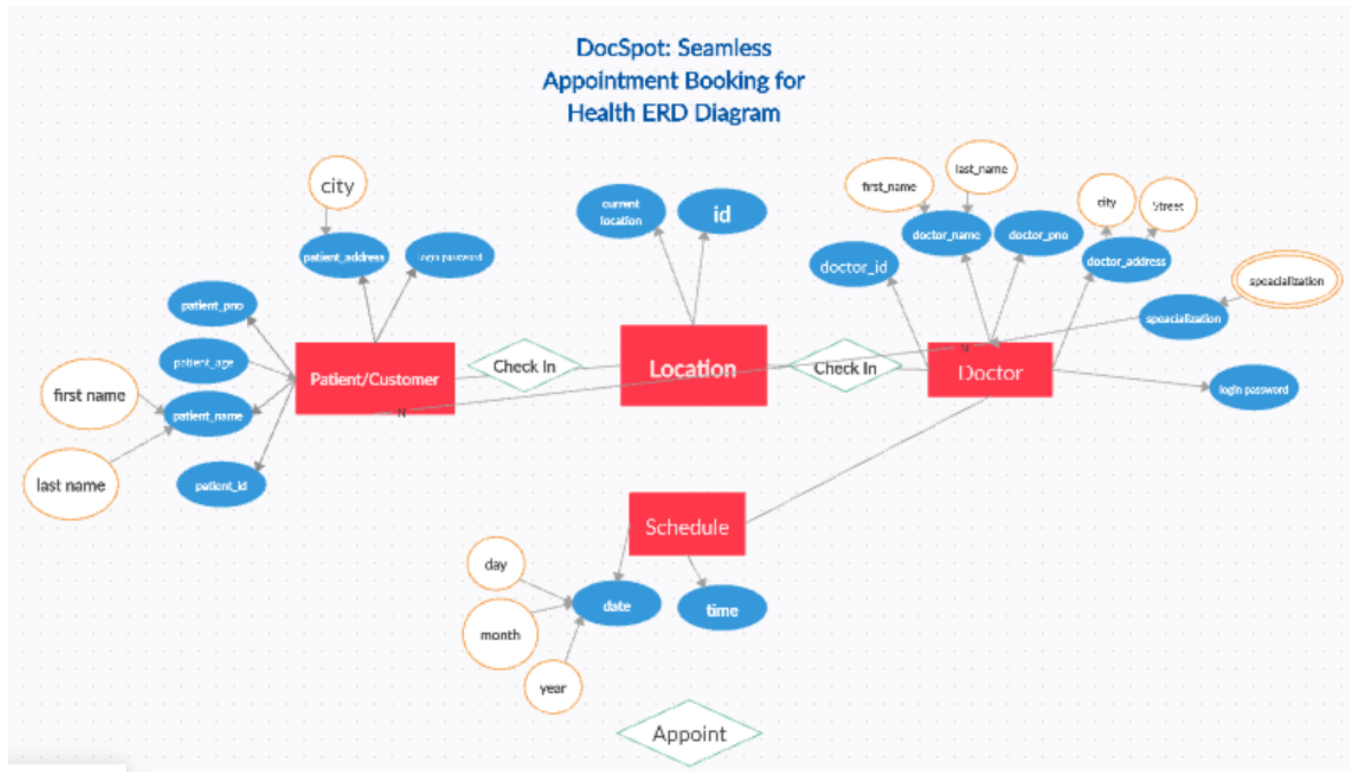
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1. ER Diagram

(Insert ER diagram here showing relationships between User, Doctor, Appointment, and Admin)

DocSpot: Seamless Appointment Booking for Health ERD Diagram

2. Pre-requisites

- MongoDB installed or access to MongoDB Atlas

- Code Editor (VS Code recommended)

- Git installed for version control

- Basic knowledge of JavaScript, HTML, CSS.

3. Project Structure

DocSpot/

├── backend/

│   ├── controllers/

│   ├── models/

│   ├── routes/

│   └── server.js

├── frontend/

```
|   ├── public/
|   ├── src/
|   |   ├── components/
|   |   ├── pages/
|   |   ├── App.js
|   |   └── index.js
├── config/
|   └── db.js
├── .env
├── package.json
└── README.md
```

4. Setup & Configuration

1. Clone the project repo

2. Run `npm install` in both `frontend` and `backend`

3. Setup `.env` with DB credentials and server port

4. Start backend with `npm run dev`

5. Start frontend with `npm start`

5. Backend Development

- Key Modules:

  - mongoose

- APIs:

  - /api/users – register/login

  - /api/doctors – manage profiles

  - /api/appointments – booking and tracking

6. Database

- Collections: Users, Doctors, Appointments, Admin

- Sample Doctor Schema:

```
const DoctorSchema = new mongoose.Schema({
  name: String,
  specialty: String,
  location: String,
  availableSlots: [String],
});
```

7. Frontend Development

- Framework: Js

- Libraries: Axios(API calls), Bootstrap(Styling)

- Components: Registration, Login, Doctor List, Booking Form, Dashboard

8. Project Implementation

Scenario: Booking an Appointment

- Customer register as User

- Searches doctor

- Books appointment

- Doctor confirms

- Admin manages profiles

- Consultation occurs

- Post-appointment summary sent

9. Project Flow Demo Video & Reference Code

- Demo video: [https://limewire.com/d/UrjfZ#hLZVMNrpfh]

- Code repository: [https://github.com/Health-Appointment-booking-app/SmartBridge-Project]

Conclusion

DocSpot revolutionizes the healthcare appointment process by combining the power of intelligent automation, a seamless user experience, and robust real-time capabilities. It empowers patients to book and manage medical consultations with ease, while enabling doctors and administrators to efficiently handle scheduling and communications. With a scalable full-stack architecture and intuitive design, DocSpot stands as a comprehensive solution for modern healthcare delivery—bridging the gap between technology and patient care. This project not only enhances accessibility and convenience but also lays the foundation for future innovations in digital health services.