Final Project Report - DocSpot

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Team ID: LTVIP2025TMID52473

Project Title: DocSpot - Seamless Appointment Booking System

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Maximum Marks: --

1. Problem Statement

Patients face difficulties while booking appointments with doctors due to:

- Lack of real-time availability
- Long wait times
- Manual scheduling errors
- No reminders or follow-ups

Clinics struggle with:

- Overbooking or double-booking
- Tracking patient schedules
- Maintaining manual records

2. Objective

To build a full-stack web application that enables:

- Patients to book, view, and manage appointments online
- Doctors to manage their schedules
- Admins to oversee and control user access and records
- Notifications/reminders for both parties

3. Target Users

- General patients seeking timely appointments
- Clinics or hospitals needing better scheduling systems
- Receptionists and admins managing appointments

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4. Modules of the Project

Patient Module:

- Register/Login
- View doctor availability
- Book/reschedule/cancel appointments
- Receive notifications

Doctor Module:

- Manage calendar/schedule
- Approve/reject appointments
- View patient queue

Admin Module:

- Add/edit/delete doctors
- Manage users
- Monitor system usage

5. Technology Stack

Frontend: HTML, CSS, JavaScript, React.js

Backend: Node.js / Express.js

Database: MongoDB / MySQL

Notifications: Twilio / EmailJS

Hosting: Render / Vercel / Netlify / Heroku

6. Empathy Map Summary

Thinks: "I don't want to wait for hours."

Sees: Overcrowded hospitals

Says: "Why can't I book online?"

Hears: Complaints about missed appointments

Feels: Frustrated, anxious

Needs: Real-time, digital booking system

7. Wireframes and UI Snapshots

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Include screenshots of Home Page, Doctor Dashboard, Appointment Form, and Admin Panel.

8. Implementation Plan

Phase 1: Requirement analysis & planning

Phase 2: Database schema & backend APIs

Phase 3: Frontend development (UI/UX)

Phase 4: Integration & Testing

Phase 5: Deployment & User Feedback

9. Testing & Validation

- Unit tests for APIs
- Manual UI/UX testing
- Feedback from real users (if applicable)

10. Expected Outcomes

- Reduced waiting time for patients
- Increased appointment accuracy
- Better doctor-patient communication
- Efficient clinic workflow

11. Conclusion

DocSpot aims to bridge the gap between doctors and patients through an intuitive, reliable appointment booking system. It minimizes human error, enhances communication, and ensures smoother healthcare access.

12. References

- https://miro.com/templates/empathy-map/
- https://www.mural.co/templates/brainstorm-and-idea-prioritization
- https://www.smartinternz.com/