

DocSpot: Seamless Doctor Appointment Booking
Platform Team ID :LTVIP2025TMID52741

Team Size : 5

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- Abstract

DocSpot is a seamless doctor appointment booking system aimed at simplifying patient access to healthcare providers. It connects patients with nearby doctors, allowing them to search by specialty, view real-time availability, and book appointments instantly. Built with Flutter and Firebase, it ensures a clean, efficient experience for both patients and doctors.

- Introduction

The healthcare industry faces challenges in managing appointments efficiently. Existing systems are often fragmented, leading to long wait times and patient dissatisfaction. DocSpot proposes a unified solution that streamlines the booking process and enhances doctor-patient interaction.

- Problem Statement

To develop an integrated, cross-platform system that:

- Reduces wait times for appointments
- Provides real-time doctor availability
- Allows seamless rescheduling/cancellation
- Improves patient-doctor communication

- Objectives

- Implement a Flutter-based frontend with Firebase backend
- Enable search by specialty and location

- Provide real-time booking and availability updates
- Collect user feedback for continual improvement

- Dataset / Backend

- Data stored in Cloud Firestore
- Doctors' profiles, specialties, schedules
- Patients' booking histories

- Methodology

- System Design

- Patient app: search, book, manage appointments
- Doctor app: manage availability, confirm/cancel appointments
- Backend: real-time updates via Firebase

- Architecture

- Flutter frontend
- State management via Cubit
- Dio/Retrofit for networking
- Firebase for authentication and data storage

- Results (Projected) Metric Value

User Satisfaction 95% Reduction in No-Shows 25% Doctors

Onboarded 1,000+

Patients Served 10,000+

- Feedback highlights intuitive UX and efficient scheduling

- Tools and Technologies

- Flutter, Dart

- Firebase (Firestore, Authentication)

- GitHub for version control

- Google Cloud for backend services

- Conclusion

DocSpot offers a scalable, efficient platform to streamline doctor appointment booking. It improves patient experience while providing doctors with effective schedule management tools.

- Future Work

- Telehealth integration

- Electronic medical record integration

- AI-based appointment prediction

- Advanced analytics dashboards

- References

- <https://github.com/Goud5211/DoctorAppointment/tree/master>