



Healing Hands

Structuring an Appointment System

Product Management Case Study

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Technologies Used



django



MySQL



**Google
Analytics**

Introduction :

Healthcare is evolving rapidly, yet many hospitals struggle with outdated, fragmented systems that hinder seamless patient care. From inefficient appointment scheduling to poor data visibility, these challenges result in longer wait times, uncoordinated workflows, and frustrated patients.

At Healing Hands Hospital, our **vision** is clear:

To bridge the gap between technology and healthcare operations through a centralized, intuitive hospital dashboard.

We believe that technology should simplify healthcare, not complicate it. Our goal is to enhance operational efficiency, streamline processes, and ultimately improve patient experience through an integrated digital-first approach.

Objective :

The goal is to optimize hospital workflows by providing an intuitive, real-time dashboard that simplifies appointment scheduling, patient tracking, and operational management.

01

Patients often face long wait times and poor communication when booking appointments. The Healing Hands Hospital Dashboard reduces friction by offering a seamless appointment booking system with automated reminders, ensuring a smoother patient journey and reduced no-show rates.

02

Hospital staff frequently deal with manual appointment handling and inefficient workflows. Our dashboard automates appointment approvals, patient tracking, and occupancy management, significantly reducing the administrative burden and allowing staff to focus on patient care.

03

Hospitals often struggle with resource allocation due to a lack of operational insights. Our system introduces basic analytics tracking for appointment trends and patient flow, laying the foundation for future data-driven optimizations.

Problem Statement :

Modern healthcare facilities often struggle with fragmented systems that hinder seamless, efficient, and patient-centered care. This lack of integration leads to disjointed information flow, operational inefficiencies, and a diminished patient experience.

Additionally, 40-50% of hospitals still rely on manual processes for appointment scheduling, using phone calls or in-person bookings. This results in long wait times, scheduling conflicts, and a higher no-show rate due to the absence of automated reminders. Without a digital system, hospital staff face increased administrative workload, and patients experience delays and poor communication.

Solution Overview :

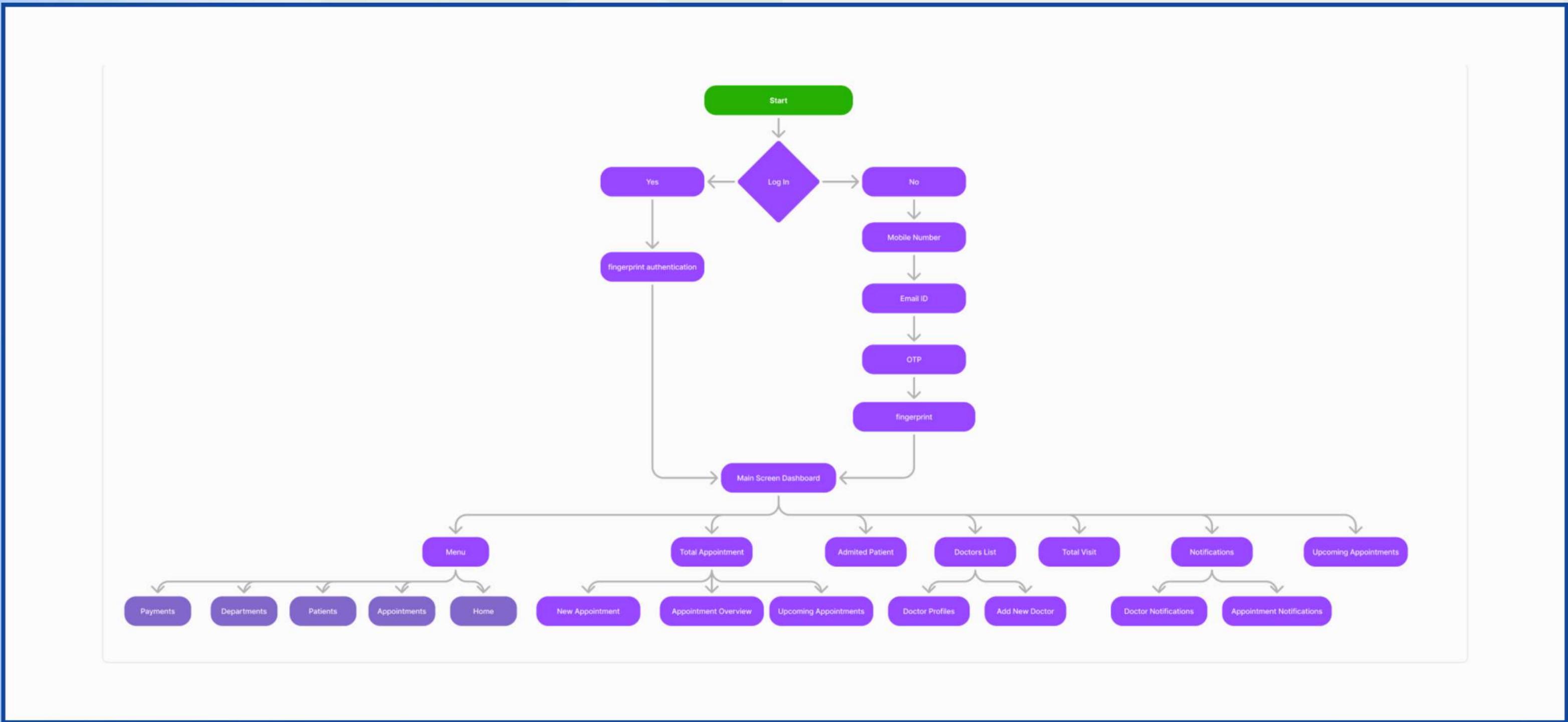
At Healing Hands Hospital, our goal is to address these challenges by leveraging an integrated hospital dashboard as well as a static website for appointment booking that:

- ✓ Enables seamless online appointment booking to replace manual scheduling.
- ✓ Centralizes patient and appointment data to improve hospital workflow.
- ✓ Enhances patient experience with automated confirmations and reminders.
- ✓ Reduces administrative burden by streamlining hospital processes.

User Flow :

Before designing the interface, we created a detailed flowchart to map out the entire patient journey, from appointment booking to doctor consultation. This helped identify bottlenecks and streamline the process.

- ✓ Patients can easily search for doctors and book appointments online.
- ✓ Automated email confirmations and reminders reduce no-shows.
- ✓ Admins monitor hospital occupancy and upcoming schedules efficiently.
- ✓ Doctors receive appointment requests in real-time and can accept or decline.



Mapping the Patient Journey

Low-Fidelity Wireframes :

Once the user flow was finalized, we designed low-fidelity wireframes in Figma to establish the basic layout and structure of the hospital dashboard and appointment booking system.

Simplified UI with clear navigation for patients, doctors, and admins.

Minimal steps for appointment booking to enhance user experience.

Consistent layout ensuring seamless interaction across all users.



Dr. Swati Joshi
Gynecology

Overview

Appointments

Patients

Doctors

Departments

Tasks

Payments

Settings

Logout

Welcome To HHP

Total Visit **112** 

Admited patient **42** 

Pending Request **18** 

Upcoming Appointments of Dr. Swati Joshi

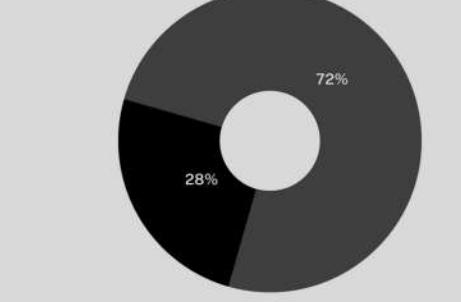
No	Name	ID	Gender	Report	Status	Action
01	Narayan Deshmukh	2832	Male		pending	<input checked="" type="checkbox"/> <input type="checkbox"/>
02	Pooja Nambiar	2836	Female		pending	<input checked="" type="checkbox"/> <input type="checkbox"/>
03	Rashmi Bapat	2342	Female		pending	<input checked="" type="checkbox"/> <input type="checkbox"/>
04	Sanjay Gaikwad	2782	Male		pending	<input checked="" type="checkbox"/> <input type="checkbox"/>
05	Yogesh Surve	4132	Male		pending	<input checked="" type="checkbox"/> <input type="checkbox"/>
06	Rohan Yadav	4832	Male		pending	<input checked="" type="checkbox"/> <input type="checkbox"/>

Appointment Metrics  Jan To jun



Month	Visits
Jan	80
Feb	150
Mar	100
Apr	60
May	40
Jun	120

Today's Statistics  Online Offline



Status	Percentage
Online	28%
Offline	72%

Select Doctor 

 Dr. Swati Joshi Gynecology <input checked="" type="checkbox"/>
 Dr. Sameer Deshmukh Dermatology <input type="checkbox"/>
 Dr. Maya Patel Endocrinology <input type="checkbox"/>
 Dr. Amit Gupta Oncology <input type="checkbox"/>
 Dr. Ritu Chawla Pulmonology <input type="checkbox"/>
 Dr. Neha Sharma Psychiatry <input type="checkbox"/>
 Dr. Rajesh Kumar Cardiologist <input type="checkbox"/>
 Dr. Vivek Nair Oncologist <input type="checkbox"/>
 Dr. Vivek Nair Oncologist <input type="checkbox"/>
 Dr. Vivek Nair Oncologist <input type="checkbox"/>
 Dr. Vivek Nair Oncologist <input type="checkbox"/>

Structure of Effective UI

MVP Key Features :

To validate our concept, we developed a static website with an appointment form, ensuring a smooth booking process before adding advanced features.

Static Website for Appointment Booking

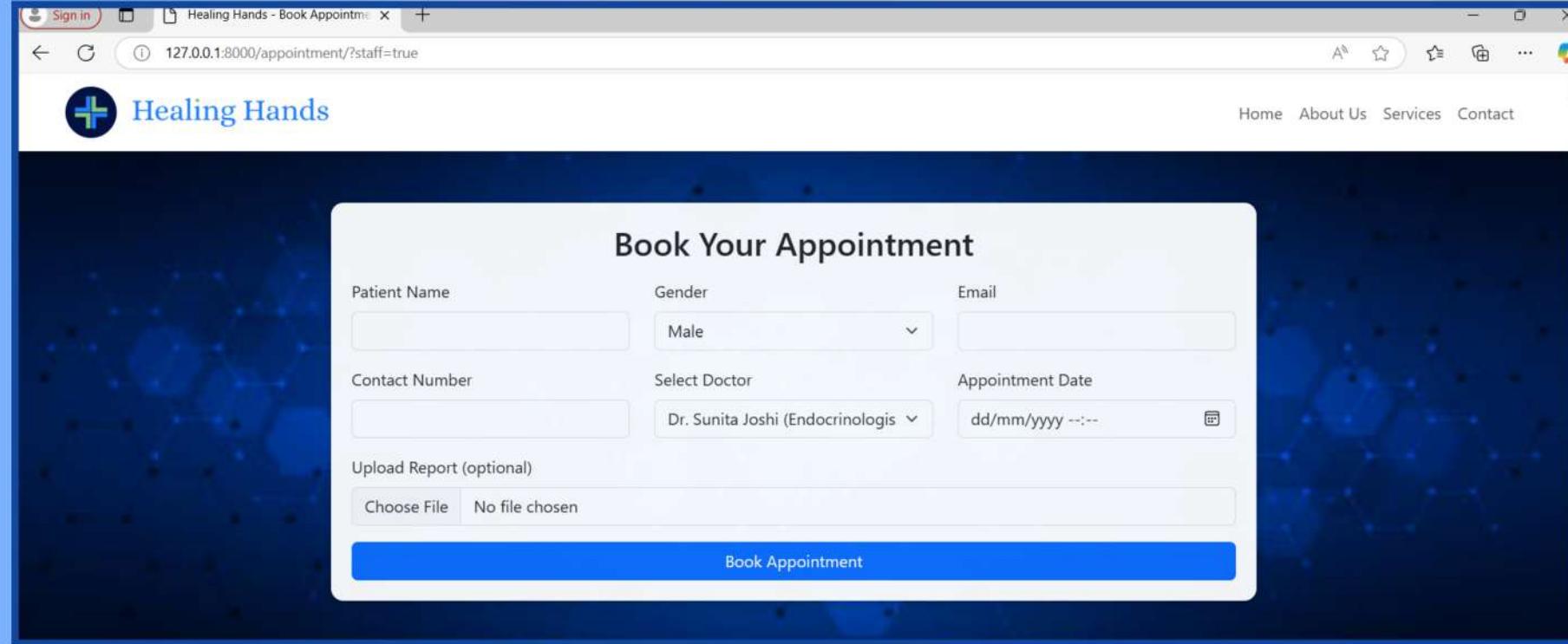
A simple form where patients enter their name, contact details, preferred doctor, and appointment date.

Once submitted, the request is recorded and sent to the admin dashboard for approval.

Admin Dashboard for Appointment Management

Admins or staff can accept or decline requests based on availability.

Patients receive confirmation emails once the appointment is scheduled.



The screenshot shows a web browser window with the URL 127.0.0.1:8000/appointment/?staff=true. The page title is "Healing Hands - Book Appointment". The main content is a "Book Your Appointment" form. It includes fields for Patient Name, Gender (Male), Email, Contact Number, Select Doctor (Dr. Sunita Joshi (Endocrinologist)), and Appointment Date (dd/mm/yyyy). There is also an "Upload Report (optional)" section with a "Choose File" button. A "Book Appointment" button is at the bottom. The background of the page features a dark blue gradient with a subtle network or data visualization pattern.

About Healing Hands

Healing Hands is committed to delivering **world-class healthcare services** with cutting-edge technology. Our experienced doctors, nurses, and staff are dedicated to ensuring that every patient receives **personalized, high-quality care** in a comfortable environment.

With a patient-centric approach, we focus on preventive care, early diagnosis, and the best possible treatments. Our team continuously upgrades their expertise to incorporate the latest medical advancements, ensuring top-tier healthcare for all.

[See More](#)



Development:

For the initial phase, we focused on a structured MVP that enables seamless appointment booking and request management. While the development approach differs from our UI/UX design, we ensured a solid foundation, balancing simplicity with functionality for future growth.

Sign in

Hospital Dashboard

127.0.0.1:8000

Healing Hands

Dashboard Menu

- home
- Appointment
- Patients
- Departments
- Doctors
- Appointment History
- Payment
- Settings

Total Visits: 120

Admitted Patients: 45

Pending Requests: 3

Upcoming Appointments

No	Patient Name	Appointment ID	Gender	Report	Status	Action
1	varad koppar	HHD1464	Male	📄	Pending	<button>Accept</button> <button>Decline</button>
2	neha dalvi	HHD4387	Female	📄	Pending	<button>Accept</button> <button>Decline</button>
3	akshay rathod	HHD4053	Male	📄	Pending	<button>Accept</button> <button>Decline</button>

Add Appointment

View All

Doctor Selection

	Dr. Sunita Joshi Endocrinologist
	Dr. Atul Thube Orthopedic Surgeon
	Dr. Anjali Mehta Gynecologist
	Dr. Karan Kapoor Psychiatrist
	Dr. Rohit Sharma Neurologist

Vision into Functionality

Key Metrics & Impact

- Based on industry observations and discussions with hospital administrators, an estimated 40-50% of hospitals still rely on manual processes like phone calls for scheduling, causing delays and inefficiencies.
- Manual appointment booking took 20-40 minutes, causing operational delays.
- Our digital system automates scheduling, approvals, and confirmations, reducing booking time to 6-12 minutes—a 70% improvement in efficiency.
- We track Feature Adoption Rate, targeting a 90%+ completion rate to ensure a seamless booking experience.
- This automation reduces hospital workload and enhances patient convenience by streamlining the entire process.

Data-Driven Insights :

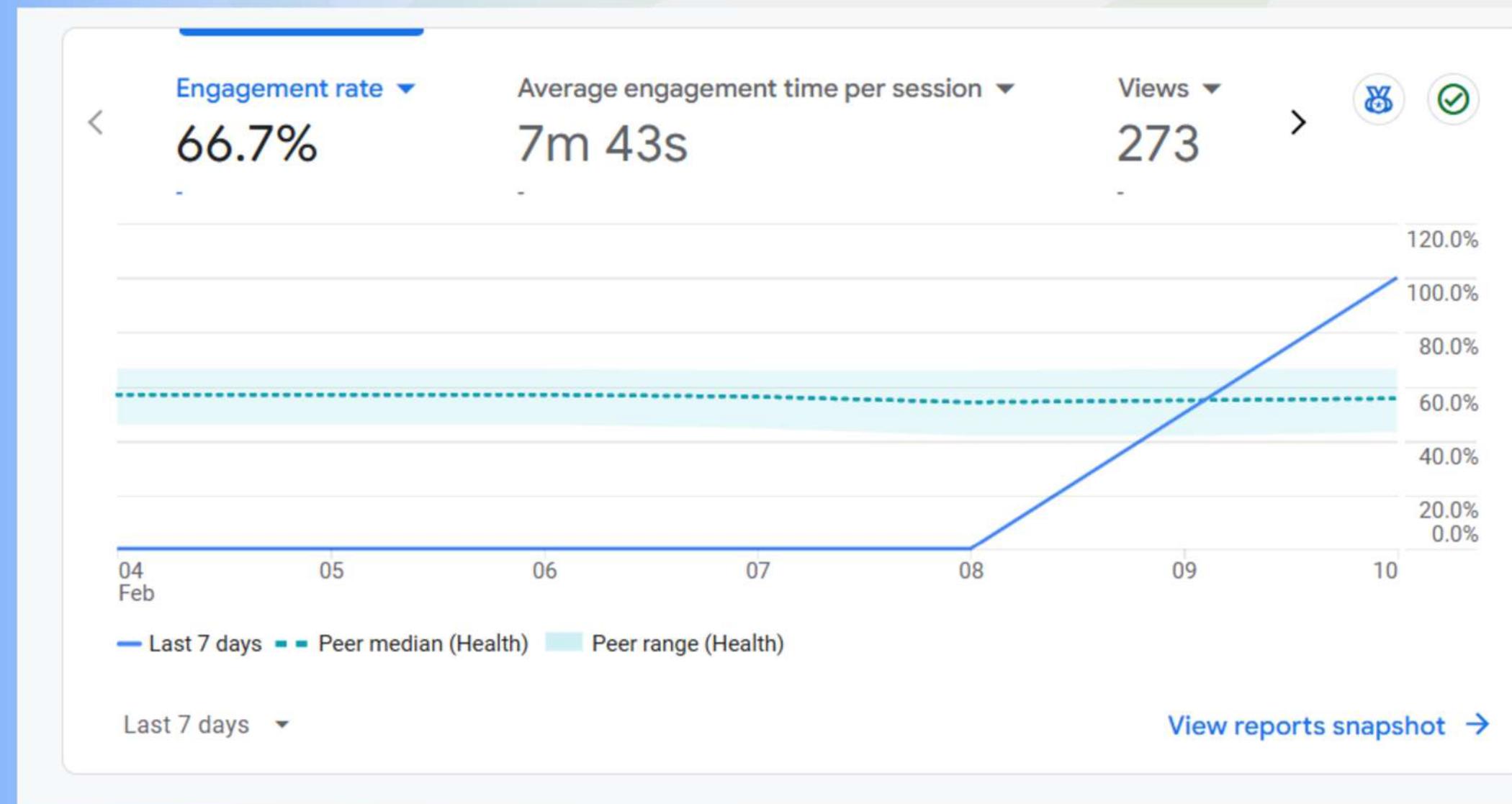
WHAT ARE YOUR TOP EVENTS?	
Event count by Event name	
EVENT NAME	EVENT COUNT
page_view	273
scroll	253
user_engagement	198
form_start	80
form_submit	57
session_start	4
first_visit	1

[View events →](#)

Analyzing user behavior helps in refining and optimizing the system. By exploring engagement patterns, we gained valuable insights into how users interact with the appointment booking process. While the data provides a starting point, deeper analysis will help validate trends and refine our approach.

We identified key interaction points, allowing us to observe how users navigate through the system. Event tracking helped monitor appointment requests and user drop-offs, offering a preliminary understanding of engagement levels. Additionally, appointment trends indicated peak booking times, providing insights into scheduling efficiency.

These observations set the stage for more advanced data-driven decisions, ensuring continuous improvements in usability and system performance.



WHICH PAGES AND SCREENS GET THE MOST VIEWS?

Views by Page title and screen class

PAGE TITLE AND SCREEN CLASS	VIEWS
Hospital Dashboard	169
Doctor Login	43
Verify OTP	31
User Login	26
Pay for Appointment	2
Register	2

[View pages and screens →](#)

Measuring User Engagement

Business Impact :

- Expected to reduce manual workload significantly, allowing staff to focus on patient care.
- Faster appointment scheduling ensures patients get medical care without long wait times.
- Patients now receive instant booking confirmations, reducing confusion and missed appointments.
- Higher Patient Retention: Satisfied patients are more likely to return, fostering long-term loyalty.
- Increased Revenue: Streamlined operations & better patient experience lead to more bookings.
- Optimized Resource Utilization: Staff manage time and resources more effectively, reducing costs.

Scalability & Future Growth :

- **Multi-Hospital Integration:** The system can scale to multiple hospital branches, improving coordination.
- **Mobile App Development:** Expanding to mobile platforms would increase accessibility for patients & healthcare providers.
- **Chatbot for Patient Assistance:** Provide 24/7 automated support for appointment scheduling, FAQs, and general hospital inquiries.
- **Automated Patient Follow-Ups:** AI-driven reminders and follow-ups for missed appointments, ensuring better engagement and reduced no-shows.

Conclusion :

This project brought together UI/UX design, full-stack development, and product thinking to create a structured hospital appointment system. As our first project as developers, it was a learning experience in translating design into a functional MVP while ensuring a seamless experience for both patients and hospital staff. While development had its constraints, the system remains well-structured and aligned with our vision.

As a product management case study, this highlights the balance between design, development, and leveraging data for insights—helping us better understand user interactions and system performance. 

Thank You

We appreciate your time in reviewing our case study. If you have any feedback or insights, we'd love to hear your thoughts!