Smart Wellness Tracker – Report

🩺 *A Centralized Healthcare Management System*

Developed by Group 3 – CS416: Service Oriented Systems

🔗 Live Application: https://sos-frontend-six.vercel.app

🧭 Table of Contents

---

1. About the System

Smart Wellness Tracker (SWT) is a centralized web-based platform designed to simplify and digitize healthcare services. The platform facilitates seamless communication between patients and doctors, allowing tasks such as booking appointments, maintaining medical records, processing online payments, and attending virtual consultations to be done in a few clicks.

Repository:

- Frontend Github Repository
- Backend Github Respository

Contribution:

Backend : Gourav Ahlawat (210001019), Mahendraker Gaurav (210001036)

Frontend: Gourav Ahlawat (210001019), Mahendraker Gaurav (210001036),

Sondarva Princy (210001068)

Documentation:

Gourav Ahlawat (210001019),

Mahendraker Gaurav (210001036),

Sondarva Princy (210001068), Kirtan Krishna (210001030), Antim Jain

Detailed contributions can be looked from the commit history and insights.

🔧 Technologies Used:

- **Frontend**: Built using *React.js* for a responsive and interactive user interface.
- **Backend**: Developed in *Node.js* + *Express*, providing RESTful APIs and handling business logic.
- **Database**: *MongoDB* stores all records including users, appointments, and uploaded medical data.
- **APIs Integrated**:

    - **Google Auth**: For secure and quick authentication
    - **Google Maps**: To locate clinics
    - **Stripe/PayPal**: To process payments
    - **Zoom/WebRTC**: For real-time teleconsultations

🩺 Key Features:

- **Secure Google Login** to ensure data privacy and one-click access.
- **Advanced Doctor Search** using filters like specialization and location.
- **Smart Appointment Booking** with calendar syncing.
- **Multiple Payment Options** with secure gateways.
- **EHR Management** including prescriptions and reports.
- **Real-Time Teleconsultation** support via video.
- **Medication Alerts** to ensure patients follow prescriptions correctly.

---

2. System Requirements

To use SWT effectively, users must meet the following system specifications:

Requirement	Details
OS	Windows, macOS, Linux, Android, iOS
Browser	Chrome (Recommended), Firefox, Safari, Edge
Internet	Stable connection required for real-time features
Hardware (Optional)	Webcam and Microphone for video consultations

---

3. Getting Started

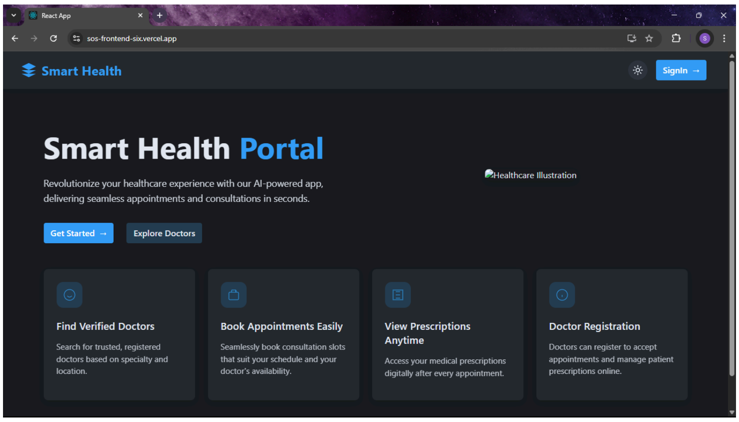
🔐 Step 1: Log In

1. Navigate to https://sos-frontend-six.vercel.app

2. Click on **"Login with Google"** for a seamless authentication process.

3. Choose your role: **Patient** or **Doctor**.

4. On first login, users are prompted to fill in profile details such as contact info, address, and medical history (for patients) or clinic details and availability (for doctors).

5. 

Smart Health Portal

Revolutionize your healthcare experience with our AI-powered app, delivering seamless appointments and consultations in seconds.

Find Verified Doctors

Search for trusted, registered doctors based on specialty and location.

Book Appointments Easily

Seamlessly book consultation slots that suit your schedule and your doctor's availability.

View Prescriptions Anytime

Access your medical prescriptions digitally after every appointment.

Doctor Registration

Doctors can register to accept appointments and manage patient prescriptions online.

This step is crucial as it determines user dashboard and permissions for further features.

---

4. Patient Module Guide

4.1 Search Doctors

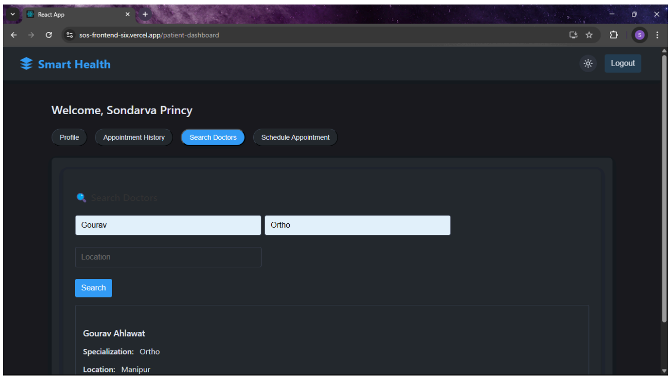
Patients can search for healthcare providers using a set of flexible filters:

- **Specialization**: Select from General Physician, Dermatologist, Cardiologist, etc.

- **Location**: Use Google Maps integration to find nearby doctors or search city-wise.

- **Availability**: Only shows slots that are open and match your calendar.

The system provides real-time filtering and displays doctor profiles with reviews, experience, and clinic info.



Welcome, Sondarva Princy

Gourav

Ortho

Location

Gourav Ahlawat

Specialization: Ortho

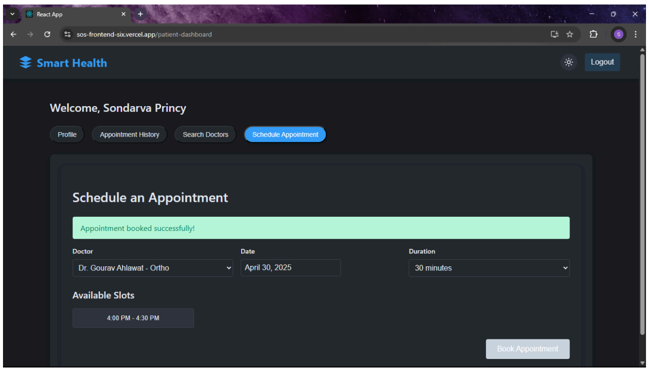
Location: Manipur

4.2 Book Appointments

Once a suitable doctor is found:

1. Select a time slot from the doctor's calendar.
2. Click **"Book Appointment"**.
3. A confirmation message and email are sent to both patient and doctor.
4. Patients can later view or reschedule/cancel the appointment under **"My Appointments"**.

Google Calendar sync ensures both parties are notified and reminded as the appointment nears.



Welcome, Sondarva Princy

Schedule an Appointment

Appointment booked successfully!

Doctor: Dr. Gourav Ahlawat - Ortho

Date: April 30, 2025

Duration: 30 minutes

Available Slots

4:00 PM - 4:30 PM

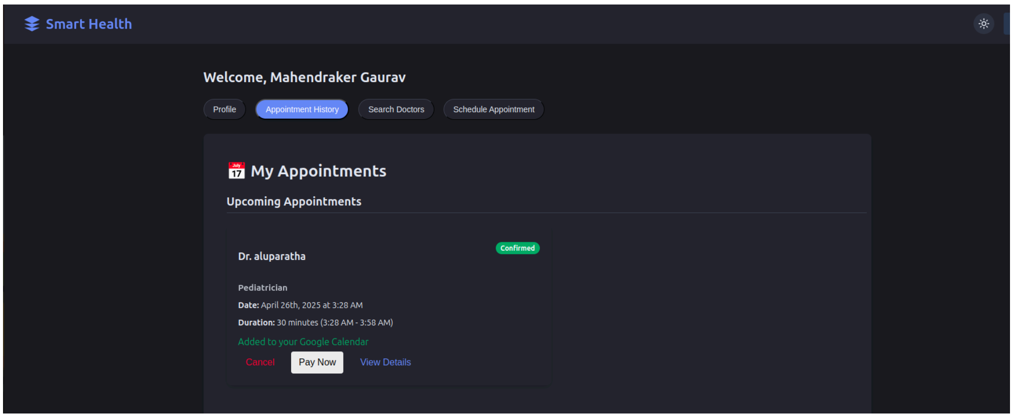
4.3 Health Record Management

The **Health History** module allows patients to:

- **Upload** files including prescriptions, scans, test reports (PDFs, images).

- **Store** them securely on the cloud using encrypted storage.
- **Access** anytime from any device by logging in.

This creates a complete digital vault for patients, reducing dependence on paper records.



Welcome, Mahendraker Gaurav

📅 My Appointments

Upcoming Appointments

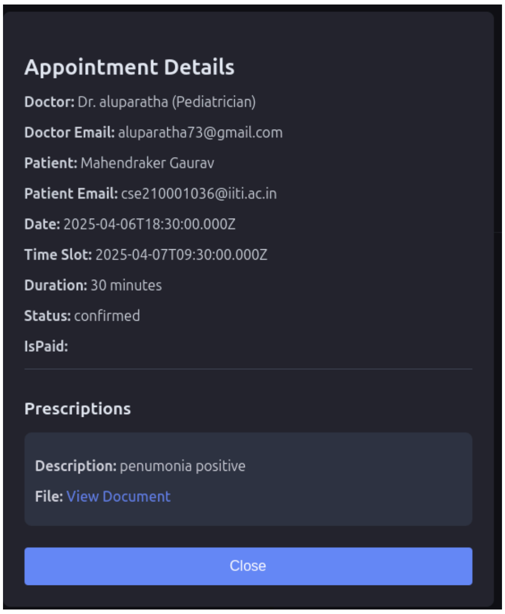
Dr. aluparatha

Pediatrician

Date: April 26th, 2025 at 3:28 AM

Duration: 30 minutes (3:28 AM - 3:58 AM)

Added to your Google Calendar



Appointment Details

Doctor: Dr. aluparatha (Pediatrician)

Doctor Email: aluparatha73@gmail.com

Patient: Mahendraker Gaurav

Patient Email: cse210001036@iiti.ac.in

Date: 2025-04-06T18:30:00.000Z

Time Slot: 2025-04-07T09:30:00.000Z

Duration: 30 minutes

Status: confirmed

IsPaid:

Prescriptions

Description: penumonia positive

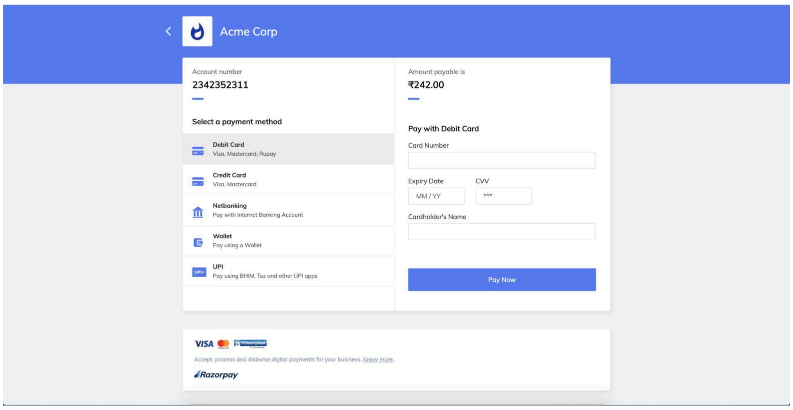
File: View Document

4.4 Razorpay Payment Gateway

To confirm bookings, patients are redirected to a secure payment interface:

- Click **"Pay Now"** on the appointment detail page.
- Choose between **Razorpay**, **Stripe**, or **PayPal** for completing the transaction.
- On successful payment, an invoice is generated.

Payment history is available in the patient's dashboard for easy tracking and claims.



Acme Corp

Account number
2342352311

Amount payable is
₹242.00

Select a payment method

- Debit Card — Visa, Mastercard, Rupay
- Credit Card — Visa, Mastercard
- Netbanking — Pay with Internet Banking Account
- Wallet — Pay using a Wallet
- UPI — Pay using BHIM, Tez and other UPI apps

Pay with Debit Card

Card Number

Expiry Date: MM / YY

CVV: ***

Cardholder's Name

Pay Now

Accept, process and disburse digital payments for your business. Know more.

Razorpay

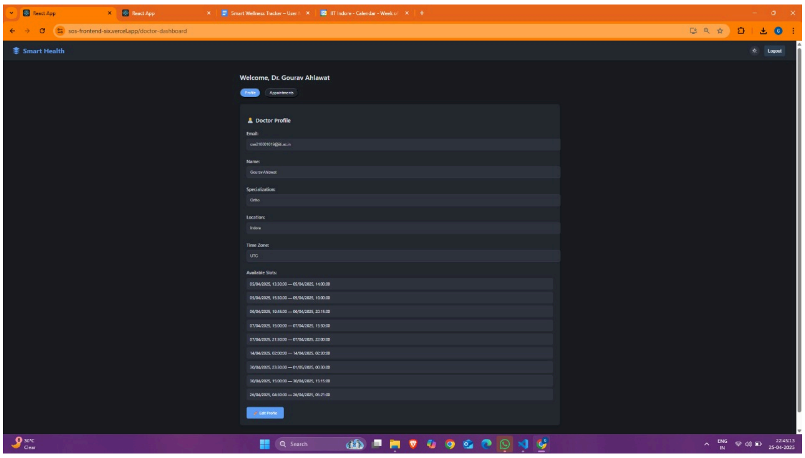
5. Doctor User Guide

5.1 Doctor Dashboard

On logging in, doctors are directed to their dashboard, where they can:

- View and **edit their profile**.
- Check **upcoming appointments** and **patient histories**.
- Set their **availability slots**, which sync with their Google Calendar.

The dashboard offers a clean interface for efficient time and patient management.



React App
React App
Smart Wellness Tracker – User M
IIT Indore - Calendar - Week of
sos-frontend-six.vercel.app/doctor-dashboard
Smart Health
Logout
Search

Welcome, Dr. Gourav Ahlawat

Profile | Appointments

Doctor Profile

Email: cse210001019@iiti.ac.in

Name: Gourav Ahlawat

Specialization: Ortho

Location: Indore

Time Zone: UTC

Available Slots:

- 05/04/2025, 13:30:00 — 05/04/2025, 14:00:00
- 05/04/2025, 15:30:00 — 05/04/2025, 16:00:00
- 06/04/2025, 19:45:00 — 06/04/2025, 20:15:00
- 07/04/2025, 15:00:00 — 07/04/2025, 15:30:00
- 07/04/2025, 21:30:00 — 07/04/2025, 22:00:00
- 14/04/2025, 02:00:00 — 14/04/2025, 02:30:00
- 30/04/2025, 23:30:00 — 01/05/2025, 00:30:00
- 30/04/2025, 15:00:00 — 30/04/2025, 15:15:00
- 26/04/2025, 04:30:00 — 26/04/2025, 05:21:00

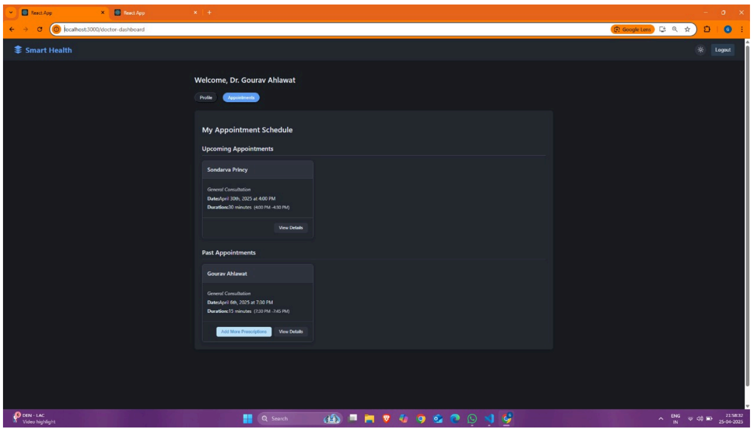
Edit Profile

5.2 Manage Appointments

Doctors can:

- **Accept**, **reschedule**, or **cancel** appointments directly.
- Sync changes automatically with the patient's dashboard and calendar.
- Add consultation notes or follow-up reminders.

Appointment statuses are color-coded and easily filterable for convenience.



Welcome, Dr. Gourav Ahlawat

My Appointment Schedule

Upcoming Appointments

Sondarva Princy

General Consultation

Date: April 30th, 2025 at 4:00 PM

Duration:30 minutes (4:00 PM - 4:30 PM)

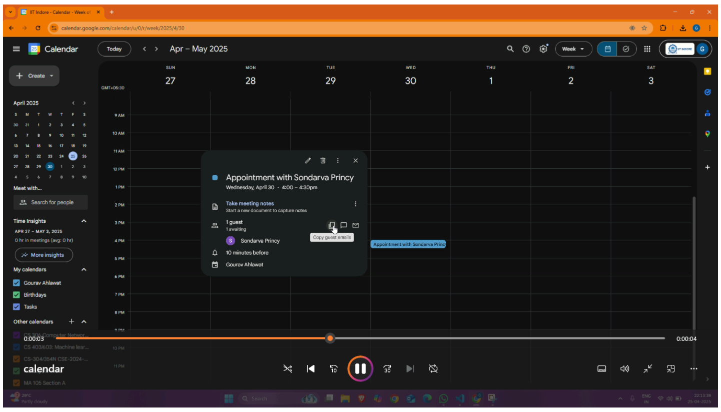
Past Appointments

Gourav Ahlawat

General Consultation

Date: April 6th, 2025 at 7:30 PM

Duration:15 minutes (7:30 PM - 7:45 PM)



Appointment with Sondarva Princy

Wednesday, April 30 · 4:00 – 4:30pm

Take meeting notes

Start a new document to capture notes

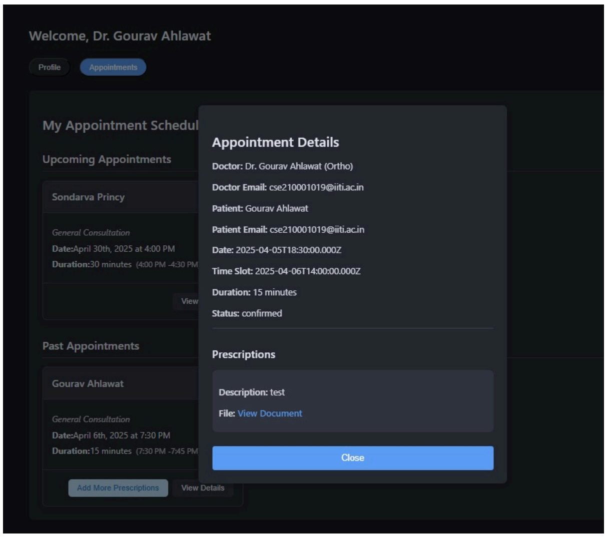
1 guest

1 awaiting

Sondarva Princy

10 minutes before

Gourav Ahlawat



Sondarva Princy

General Consultation

Date:April 30th, 2025 at 4:00 PM

Duration:30 minutes (4:00 PM -4:30 PM

Gourav Ahlawat

General Consultation

Date:April 6th, 2025 at 7:30 PM

Duration:15 minutes (7:30 PM -7:45 PM

Appointment Details

Doctor: Dr. Gourav Ahlawat (Ortho)

Doctor Email: cse210001019@iiti.ac.in

Patient: Gourav Ahlawat

Patient Email: cse210001019@iiti.ac.in

Date: 2025-04-05T18:30:00.000Z

Time Slot: 2025-04-06T14:00:00.000Z

Duration: 15 minutes

Status: confirmed

Prescriptions

Description: test

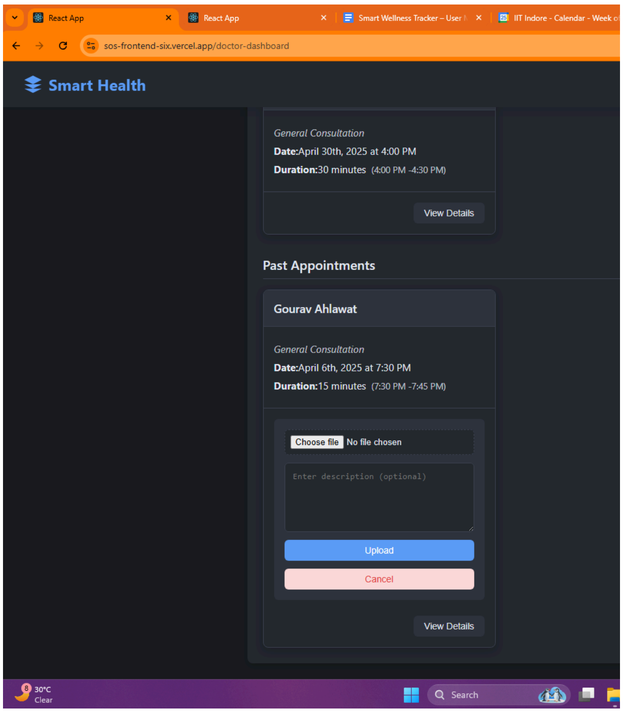
File: View Document

5.3 View/Add Prescriptions

Doctors can:

- Access **patient health records** if permission is granted.
- Write and upload **digital prescriptions** after the session.
- View previous diagnoses and treatment history to make better clinical decisions.

All prescriptions are timestamped and stored in both patient and doctor records for future reference.


React App
React App
Smart Wellness Tracker – User I
IIT Indore - Calendar - Week o
sos-frontend-six.vercel.app/doctor-dashboard
30°C
Clear
Search

Smart Health

General Consultation

Date: April 30th, 2025 at 4:00 PM

Duration:30 minutes (4:00 PM -4:30 PM)

View Details

Past Appointments

Gourav Ahlawat

General Consultation

Date: April 6th, 2025 at 7:30 PM

Duration:15 minutes (7:30 PM -7:45 PM)

Choose file No file chosen

Enter description (optional)

Upload

Cancel

View Details

-