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

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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),

Princy Sondarva(210001068)

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.

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2. System Requirements

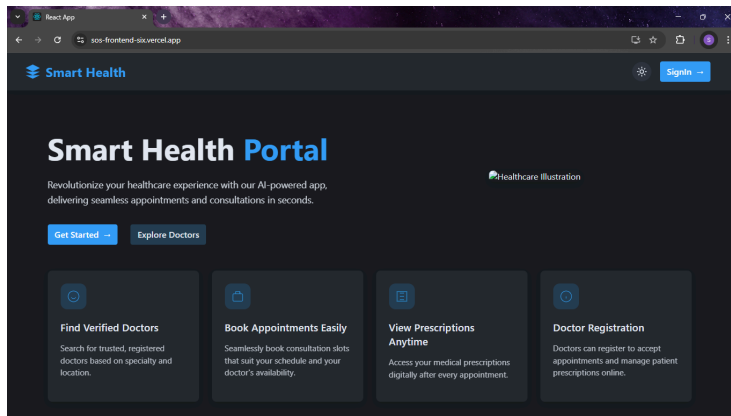To use SWT effectively, users must meet the following system specifications:

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

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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.

This step is crucial as it determines user dashboard and permissions for further features.
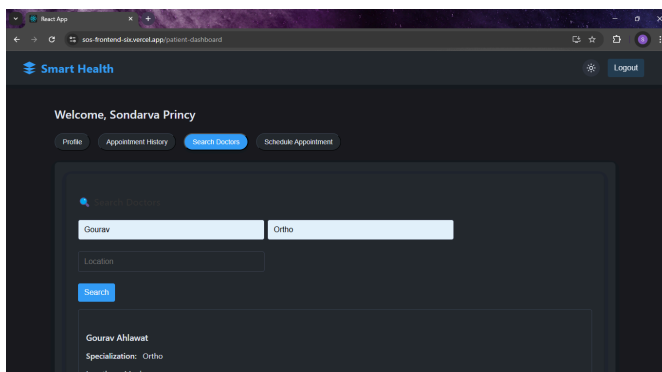
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4. Patient Module Guide

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.
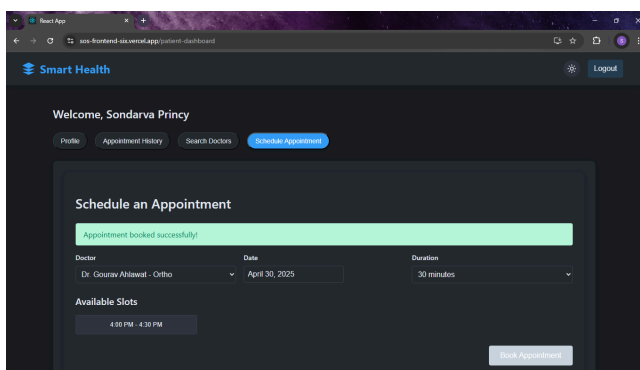

4.2 Book Appointments

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.
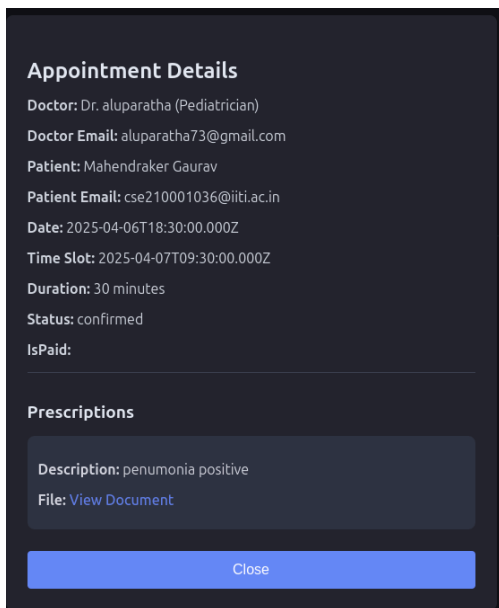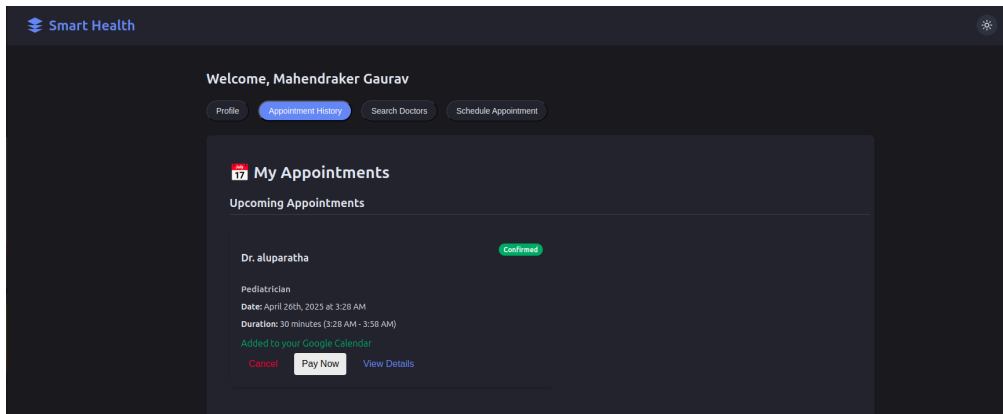

4.3 Health Record Management

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.
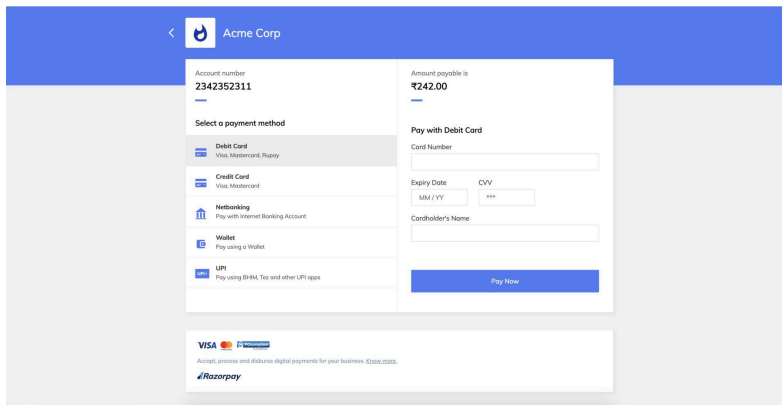
4.4 Razorpay Payment Gateway

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.
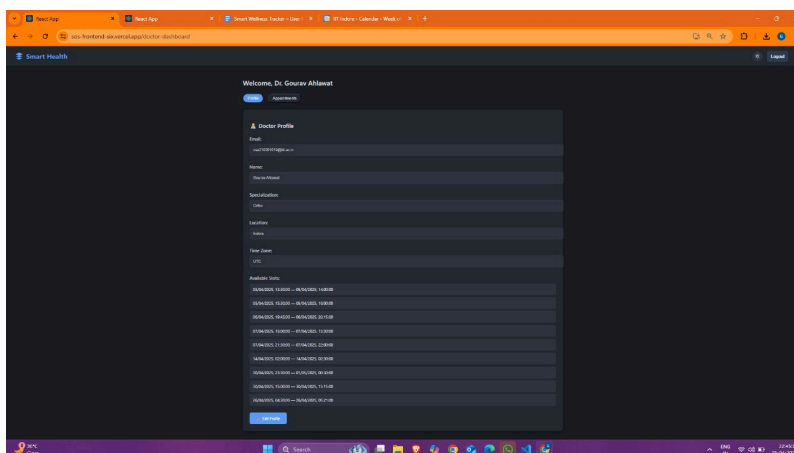
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5. Doctor User Guide

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.
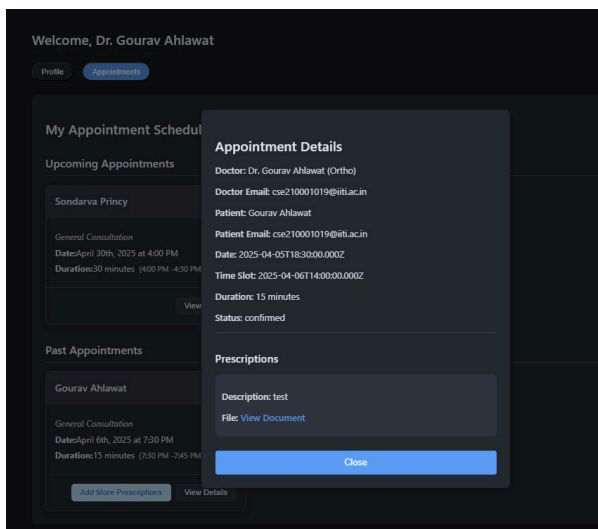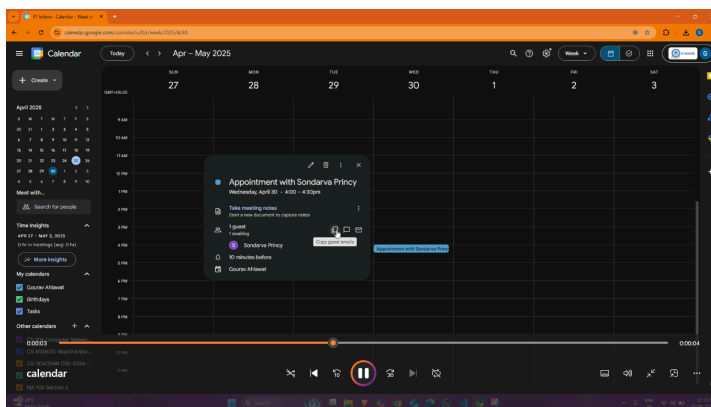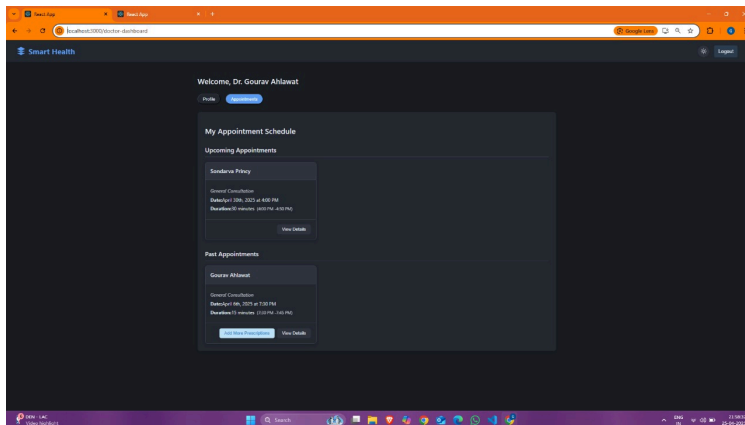

5.2 Manage Appointments

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.

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.

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