HealSync: Complete API Endpoint List

This document provides a comprehensive list of all necessary RESTful API endpoints for the HealSync application, categorized by user role and functionality.

1. Admin APIs (For the Admin Panel)

These endpoints are used by the system administrator to manage the core data of the platform.

- **Doctor Management:**
  - POST /api/admin/doctors: Add a new doctor to the system.
  - GET /api/admin/doctors: Get a list of all doctors.
  - GET /api/admin/doctors/{id}: Get details for a single doctor.
  - PUT /api/admin/doctors/{id}: Update a doctor's details.
  - DELETE /api/admin/doctors/{id}: Remove a doctor from the system.
- **Disease Management:**
  - POST /api/admin/diseases: Add a new disease.
  - GET /api/admin/diseases: Get a list of all diseases.
  - PUT /api/admin/diseases/{id}: Update a disease's details.
  - DELETE /api/admin/diseases/{id}: Remove a disease.
- **Medicine Management:**
  - POST /api/admin/medicines: Add a new medicine.
  - GET /api/admin/medicines: Get a list of all medicines.
  - PUT /api/admin/medicines/{id}: Update a medicine's details.
  - DELETE /api/admin/medicines/{id}: Remove a medicine.

2. Doctor APIs

These are the endpoints a doctor will use through their dedicated dashboard on the website.

- **Schedule & Availability Management:**
  - POST /api/doctors/{id}/schedule: Set or update the doctor's default weekly schedule, now supporting multiple shifts per day (e.g., shift_type: 'DAY', shift_type: 'NIGHT', shift_type: 'ON_CALL').
  - GET /api/doctors/{id}/schedule: View their own weekly schedule with all shifts.
  - POST /api/doctors/{id}/blocks: Create a block of unavailable time (for a break, out_of_office, etc.).
  - DELETE /api/doctors/{id}/blocks/{blockId}: Remove a previously set block of time.
- **Appointment Management:**
  - GET /api/doctors/{id}/appointments: Get a list of all upcoming and past

appointments.
    - PUT /api/appointments/{appointmentId}: Update an appointment (e.g., add clinical notes after a visit).
- **Treatment Plan Management:**
    - POST /api/patients/{patientId}/treatment-plans: Create a new treatment plan for a patient.
    - GET /api/patients/{patientId}/treatment-plans: View all treatment plans for a specific patient.
- **Patient Monitoring & Communication:**
    - GET /api/doctors/{id}/patients: Get a list of all patients associated with that doctor.
    - GET /api/conversations/{id}: Get a list of all message conversations.
    - POST /api/messages: Send a reply to a patient.

3. Patient APIs

These are the public-facing endpoints that the patient-side of the website will use.

- **User & Doctor Discovery:**
    - POST /api/patients: Register a new patient account.
    - GET /api/doctors: Get a public list of all doctors to browse.
    - GET /api/doctors/{id}: View the public profile of a specific doctor.
    - GET /api/emergency-services: A new endpoint to get information on which doctor is on-call for emergencies right now.
- **Booking & Scheduling:**
    - GET /api/doctors/{id}/available-slots?date={date}: The crucial endpoint to find open appointment times for a doctor on a specific date. The backend logic for this will now be more complex, checking against the doctor's specific shifts.
    - POST /api/appointments: Book a new appointment.
    - GET /api/patients/{id}/appointments: View their own appointment history.
    - PUT /api/appointments/{id}/cancel: Cancel an upcoming appointment.
- **Health & Treatment Management:**
    - GET /api/patients/{id}/treatment-plans: View their assigned treatment plans.
- **Communication & Notifications:**
    - GET /api/patients/{id}/notifications: Get a list of all notifications (appointment reminders, new plan alerts, etc.).
    - GET /api/conversations/{id}: View their message history with doctors.
    - POST /api/messages: Send a new message to a doctor.

This updated structure makes your scheduling system much more powerful and reflective of how a real clinic or hospital operates.