MediCare HMS — Step-by-Step Setup & Operations Manual

Project: Hospital Management System with Doctor Appointment, Slot Calendar, Pharmacy Alerts, GST Billing & Doctor Fee Splitting

Technology Stack: PHP 8.2+, Laravel 12, MySQL / MariaDB, Tailwind CSS, Blade, Alpine.js, DomPDF

1. System Prerequisites

- **PHP:** 8.2 or higher (with `pdo_mysql`, `mbstring`, `openssl`, `gd`, `xml` extensions enabled)
- **Database:** MySQL 8.0+ or MariaDB 10.4+ (XAMPP / Laragon / WAMP / Linux LAMP)
- **Composer:** v2.x dependency manager

2. Quick Installation Steps (Ready-to-Import SQL Method)

Step 1: Open the project folder in your terminal:

```
cd e:\HospitalManagement
```

Step 2: Create the MySQL database `hospital_management` and import the included SQL dump:

```
mysql -u root -e "CREATE DATABASE IF NOT EXISTS hospital_management CHARACTER SET utf8mb4 COLLATE utf8mb4_unicode_ci;"
mysql -u root hospital_management < database/hospital_management.sql
```

Step 3: Verify your `.env` database settings:

```
DB_CONNECTION=mysql
DB_HOST=127.0.0.1
DB_PORT=3306
DB_DATABASE=hospital_management
DB_USERNAME=root
DB_PASSWORD=
```

Step 4: Start the Laravel application server:

```
php artisan serve --port=8000
```

Open **http://localhost:8000** in your browser.

3. Alternative Installation (Fresh Migration & Seeder Method)

If you prefer to rebuild all tables and sample data dynamically via Laravel Artisan:

```
php artisan migrate:fresh --seed
```

4. Multi-Role Demo Login Credentials

All 5 roles can also be switched with a single click from the Login screen or Top Navigation Bar:

Role	Email Address	Password	Key Module Responsibilities
Super Admin	admin@medicarehms.com	password	Full Hospital ERP, Doctors, Slot Schedules, GST Ledger & Doctor Payouts
Doctor (Cardiology)	dr.arjun@medicarehms.com	password	OPD Queue, Patient EHR History, Digital Prescriptions (Rx) & Slot Calendar
Doctor (Orthopedics)	dr.priya@medicarehms.com	password	Orthopedic Consultations, Prescriptions & Fee Split Tracking
Receptionist	reception@medicarehms.com	password	Patient UHID Registration, Slot Booking, Vitals Triage & GST Billing
Pharmacist	pharmacy@medicarehms.com	password	Medicine Inventory, Low-Stock/Expiry Alerts & 1-Click Rx Dispensing
Patient Portal	rahul.verma@example.com	password	Self Slot Booking, View Digital UHID Card, Download Rx & GST Bills

5. Core Modules & Architectural Highlights

- **Appointment Booking & Live Slot Calendar:** Powered by Alpine.js + `/api/doctors/{doctor}/slots?date=YYYY-MM-DD`. Automatically generates 20-minute time slots, prevents double-booking, assigns daily OPD token numbers, and previews the Doctor/Hospital fee split.
- **Prescription & Longitudinal EHR:** Doctors select medicines directly from live Pharmacy stock, record ICD-10 diagnoses, vitals, and clinical notes, and generate downloadable PDF prescriptions.
- **Pharmacy Inventory & Stock Alerts:** Tracks batch numbers, HSN codes (3004), GST slabs (5%, 12%, 18%), expiry dates (90-day FEFO alert), and low-stock reorder thresholds.
- **Automated GST Invoicing & Doctor Fee Splitting:** Calculates HSN/SAC taxable values, splits intra-state tax into CGST + SGST, and automatically splits consultation fees between Doctor Commission (e.g. 70%) and Hospital Retention (30%), including u/s 194J TDS payout vouchers.