* **FINAL SEQUENCE** (no code, just flow) :--

| **Step** | **Action** | **Entity/Table** |
| --- | --- | --- |
| 1 | Create Admin | admin |
| 2 | Create Employee (Nurse) | employee |
| 3 | Create Room | room |
| 4 | Create Doctor | doctor |
| 5 | Create Patient | patient |
| 6 | Assign Room to Patient | room |
| 7 | Assign Nurse to Patient | assigned\_employee\_patient |
| 8 | Book Appointment | appointment |
| 9 | Doctor gives Prescription | prescription |
| 10 | Generate Invoice | invoice |
| 11 | Add Medical Record | medical\_record |
| 12 | Discharge, free up Room | room |

### 🚀 In simple API calling order:

1️⃣ POST /api/admins → Create Admin  
2️⃣ POST /api/employees → Create Employee/Nurse  
3️⃣ POST /api/rooms → Create Room  
4️⃣ POST /api/doctors → Create Doctor  
5️⃣ POST /api/patients → Create Patient  
6️⃣ PUT /api/patients/{id}/assign-room → Assign Room  
7️⃣ POST /api/assign-employee-patient → Assign Employee to Patient

PUT /api/doctors/{id}/assign-patient/{id} → Assign patient to doctor  
8️⃣ POST /api/appointments → Book Appointment  
9️⃣ POST /api/prescriptions → Add Prescription  
10️⃣ POST /api/invoices → Generate Invoice  
11️⃣ POST /api/medical-records → Add Medical Record  
12️⃣ PUT /api/patients/{id}/discharge → Discharge Patient, free room

### ⚠️ Why this order is important:

✅ If you skip Admin first → Employee, Doctor, Patient will fail (Admin FK)  
✅ If you skip Employee first → Assign to Patient will fail  
✅ If you skip Room first → Can’t assign Room  
✅ If you skip Patient/Doctor → Appointment, Prescription, Invoice will fail

**Always create or update flow-wise—**

**PHASE 1 :- (one time creation)**

**✅ Admin -- POST /api/admins**

1. POST /api/admins
2. PUT /api/admins/id
3. GET /api/admins/getall
4. DELETE /api/admins/id
5. GET /api/admins/exists/username/{username} //exist by username
6. GET /api/admins/exists/email/{email} //exist by email
7. GET /api/admins/username/{username} //get by username

**Request--**

{

"username": "adminuser01",

"password": "securePass123",

"email": "admin01@example.com",

"fullName": "Dr. Arvind Mehta",

"contactNumber": "9876543210"

}

**✅ Employee -- POST /api/employees**

1. POST /api/employees
2. PUT /api/ employees /id
3. GET /api/ employees /getall
4. DELETE /api/ employees /id
5. GET /api/ employees /fullname/{fullName}
6. GET /api/ employees /role/{role}

**Request--**

{

  "fullName": "Ritika Sharma",

  "role": "Accountant",

  "email": "ritika.sharma@example.com",

  "contactNumber": "8876543210",

  "address": "Block 4, Near Hospital Gate, Sector 15, New Delhi",

  "salary": 28000.0,

  "joiningDate": "2025-06-01",

"adminId": 1

}

✅ **Room -- POST /api/rooms**

1. POST /api/rooms
2. PUT /api/ rooms /id
3. GET /api/ rooms /getall
4. DELETE /api/ rooms /id

**Request--**

{

"roomNumber": "102A",

"roomType": "GENERAL",

"isAvailable": true

}

**✅ Doctor -- POST /api/doctors**

1. POST /api/doctors
2. PUT /api/ doctors /id
3. GET /api/ doctors /getall
4. DELETE /api/ doctors /id
5. PUT /api/ doctors /{doctorId}/assign-patient/{patientId}

//assign patient to doctor

1. GET /api/ doctors /{doctorId}/patients //get assigned patients
2. GET /api/ doctors / specialization //get by specialization
3. GET /api/ doctors /{doctorId}/appointments //get appointments for doctor

**Request--**

{

  "fullName": "Dr. Sneha Kapoor",

  "email": "sneha.kapoor@example.com",

  "contactNumber": "9876543210",

  "specialization": "CARDIOLOGIST",

  "qualification": "MBBS, MD (Cardiology)",

  "experienceInYears": 7,

  "consultationFee": 800.0,

  "adminId":1

}

Choose specialization--

***GENERAL\_PHYSICIAN***,

***CARDIOLOGIST***,

***NEUROLOGIST***,

***DERMATOLOGIST***,

***PEDIATRICIAN***,

***ORTHOPEDIC***,

***GYNECOLOGIST***

**✅ Patient -- POST /api/patients**

1. POST /api/patients
2. PUT /api/ patients /id
3. GET /api/ patients /getall
4. DELETE /api/ patients /id
5. GET /api/ patients / {id}/nurses //get nurses assigned to patient

**Request--**

{

  "firstName":"Rahul",

  "fullName": "Rahul Verma",

  "password": "securePass123",

  "gender": "MALE",

  "age": 28,

  "address": "221B Baker Street, London, UK",

  "contactNumber": "+919876543210",

  "email": "rahulverma@example.com",

  "room":{ “id”: 1},

  "roomNumber":"101"

}

**✅ Assign patients <--> doctor** (doctor + patient (both must exist first))

**POST /api/doctors/{doctorId}/assign-patients**

**✅ Nurse -- POST /api/nurses**

1. POST /api/ nurses
2. PUT /api/ nurses /id
3. GET /api/ nurses /getall
4. DELETE /api/ nurses /id
5. GET /api/nurses/{nurseId}/assign-patient/{patientId} //assign patient to nurse

**Request--**

{

"fullName": "Priya Deshmukh",

"email": "priya.deshmukh@example.com",

"contactNumber": "9876543210",

"qualification": "B.Sc Nursing",

"patientIds": [3, 6]

}

**✅ Assign room to patient (if admitted)**

PUT /api/rooms/{roomId}/assign-patient/{patientId}

**✅ Assign Nurse to Patient:**

PUT /api/employees/{employeeId}/assign-patient/{patientId}

assigned\_employee\_patient join table (Many to Many)

**PHASE 2 :- (daily use of HMS)**

**✅ Appointment -- POST /api/appointments**

**(book appointment)**

1. POST /api/appointments
2. PUT /api/ appointments /id
3. GET /api/ appointments /getall
4. DELETE /api/ appointments /id
5. GET /api/ appointments /{id}/nurses
6. GET /api/ appointments /patient/{patientId} //get appoimnt by patient id
7. GET /api/ appointments/doctor/{doctorId} //get appoimnt by doctr id
8. GET api/appointments/bydate/2025-06-20 //get appoimnt by date

**Request--**

{

  "appointmentDateTime": "2025-06-29T10:30:00",

  "status": "SCHEDULED",

  "remarks": "First consultation for fever and fatigue",

  "patientId": 2,

  "doctorId":  2

}

**(sms sent automatic to both)**

**✅ MedicalRecord -- POST /api/medicalrecords**

1. POST /api/medicalrecords //auto generate
2. PUT /api/ medicalrecords /id
3. GET /api/ medicalrecords /getall
4. DELETE /api/ medicalrecords /id
5. GET /api/ medicalrecords /patient/{patientId} //get medi-record of patient

**Request--**

{

"diagnosis": "Acute bronchitis with persistent cough",

"treatment": "Antibiotics and steam inhalation for 5 days",

"prescription": "Amoxicillin 500mg twice a day, Paracetamol 650mg if fever persists",

"recordDate": "2025-06-26",

"patientId”: 2,

"doctorId”: 2,

"prescriptions": "not yet created"

}

**✅ Prescription -- POST /api/prescriptions**

1. POST /api/prescriptions
2. PUT /api/ prescriptions /id
3. GET /api/ prescriptions /getall
4. DELETE /api/ prescriptions /id

**Request--**

{

  "medicineName": "Amoxicillin",

  "dosage": "500mg",

  "frequency": "Twice a day",

  "durationInDays": 7,

"prescriptionDateTime": "2025-06-26T10:38:00",

  "instructions": "Take after food",

  "medicalRecordId": 3,

  "doctorId":  2,

  "patientId": 2

}

**✅ Invoice -- POST /api/invoices**

1. POST /api/invoices/generate/{appointmentId} //auto generate
2. PUT /api/ invoices /id
3. GET /api/ invoices /getall
4. DELETE /api/ invoices /id
5. GET /api/ invoices /patient/{patientId} //get all invoices of patient

**Request--**

{

"invoiceDate": "2025-06-13T15:45:00",

"amount": 1200.50,

"paymentMethod": "UPI",

"status": "PAID",

"description": "Consultation + Lab test charges",

"patientId": 3,

"appointmentId": 1

}

**PHASE 3 :- (Discharge or follow-up)**

**Room :-**

Update Room as "Available" when Patient discharged:

PUT /api/rooms/{roomId}/status

**Request--**

{

"status": "AVAILABLE"

}