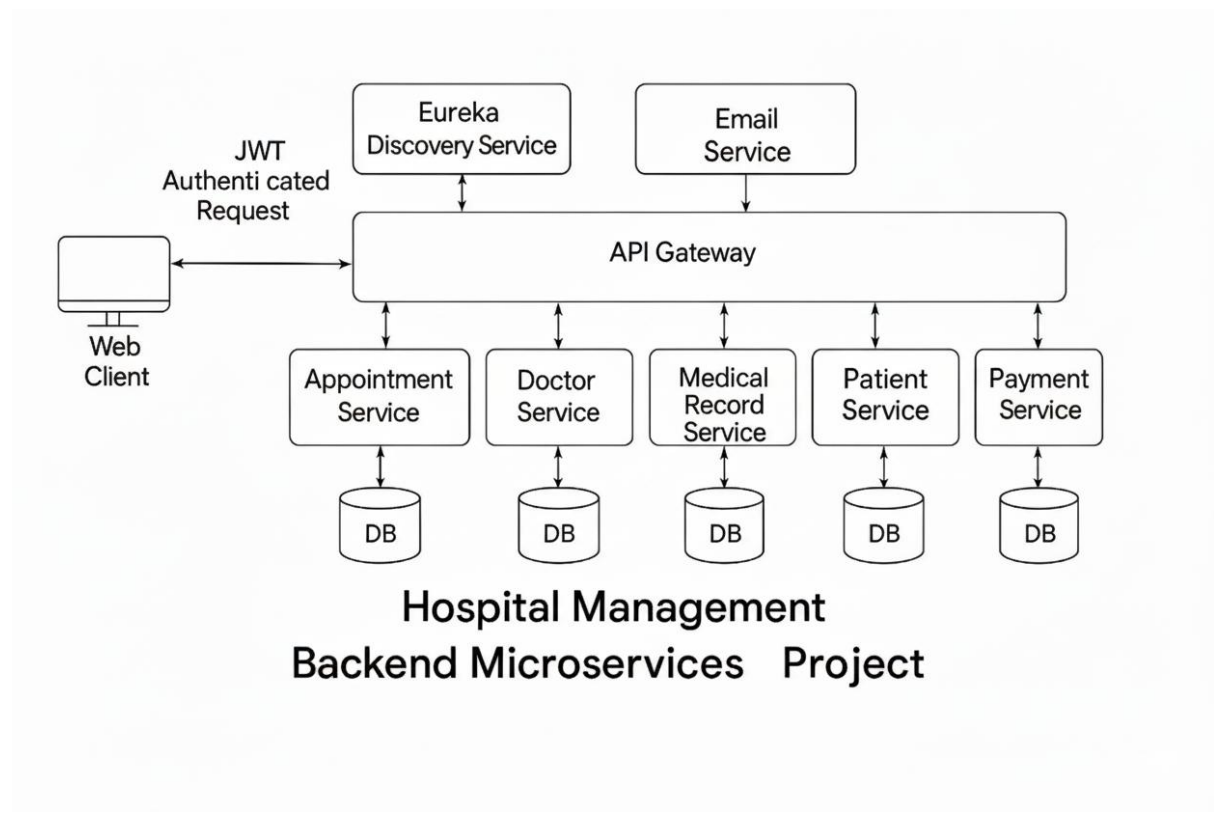


Name:- Komal Sudhakar Baviskar

Hospital Management System

Architecture:



Backend:

MiniProject1 - Spring Tools for Eclipse

File Edit Source Refactor Navigate Search Project

Package Explorer

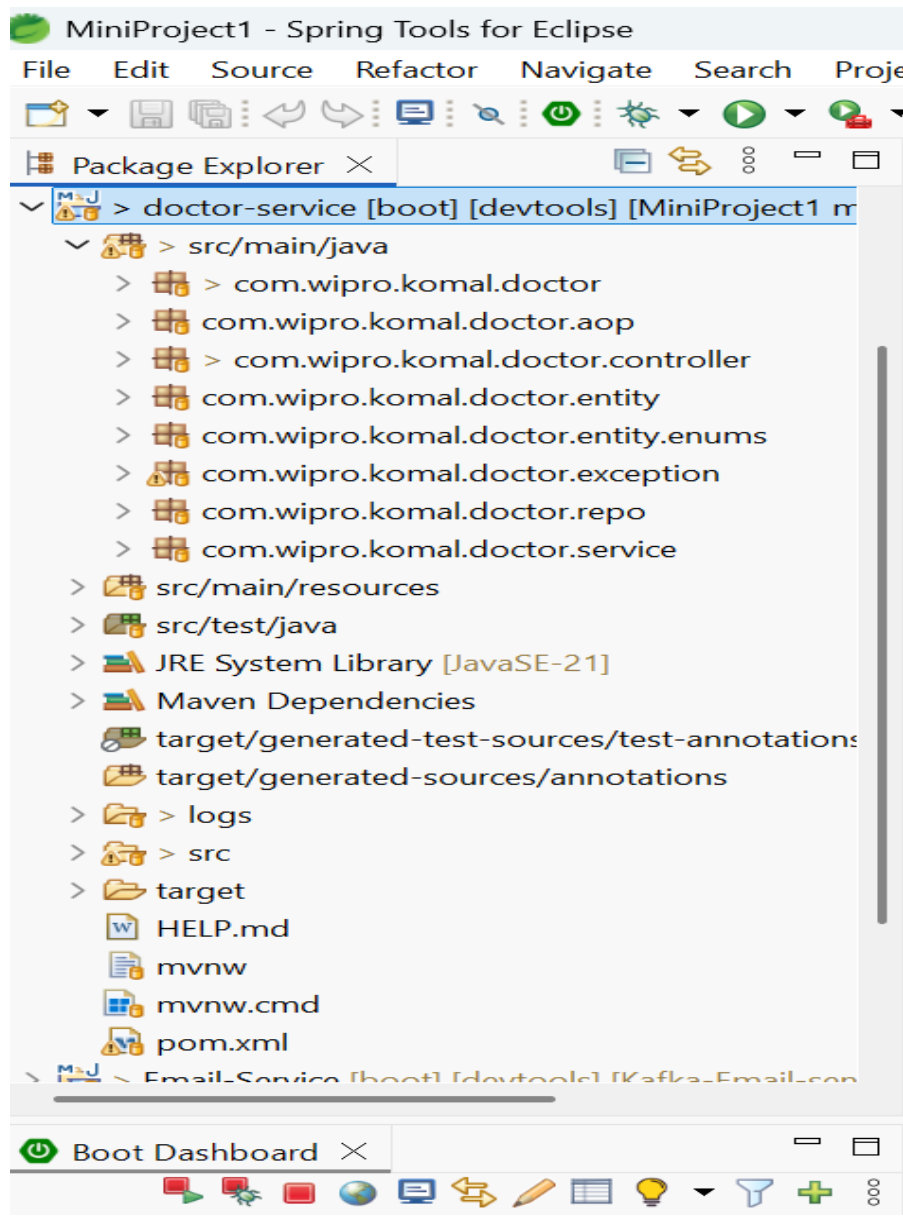
- > API-GateWay [boot] [Hospital-Management-App]
- > appointment-service [boot] [devtools] [MiniProject1 main]
- > billing-payment-service [boot] [devtools] [MiniProject1 main]
- > Config-Server [boot] [MiniProject1 main]
- > DiscoveryServices [boot] [MiniProject1 main]
- > doctor-service [boot] [devtools] [MiniProject1 main]
- > Email-Service [boot] [devtools] [Kafka-Email-sender]
- > medical-record-service [boot] [devtools] [MiniProject1 main]
- > patient-service [boot] [devtools] [MiniProject1 main]
- > Payment-Service [boot] [devtools] [Kafka-Email-sender]
- > UserAuth-Server [boot] [devtools] [Hospital-Management-App]

Boot Dashboard

Type tags, projects, or working set names to match (incl. ...)

local

- ↑ API-GateWay [:8080]
- ↑ appointment-service [devtools] [:8083]
- ↑ billing-payment-service [devtools] [:8085]
- ↑ Config-Server [:9094]
- ↑ DiscoveryServices [:8761]
- ↑ doctor-service [devtools] [:8082]
- ↑ Email-Service [devtools] [:8086]
- ↑ medical-record-service [devtools] [:8084]
- ↑ patient-service [devtools] [:8081]



API Access Documentation:

1. Authentication Service

- Base Path: /api/auth
- Endpoints:
 - POST /signup:
 - Description: Registers a new user.
 - Request Body: SignupRequest

- **Response:** UserDto on success, or an error message if the user already exists.
 - **POST /login:**
 - **Description:** Authenticates a user and returns a JWT token.
 - **Request Body:** AuthenticationRequest (with email and password)
 - **Response:** AuthenticationResponse (containing JWT token, user ID, and user role).
-

2. Doctor Service

- **Base Path:** /api/v1/doctors
- **Endpoints:**
 - **POST /add:**
 - **Description:** Adds a new doctor.
 - **Request Body:** Doctor
 - **GET /list:**
 - **Description:** Gets a paginated list of all doctors.
 - **Query Params:** page (default 0), size (default 5)
 - **GET /{id}:**
 - **Description:** Gets a single doctor by ID.
 - **Path Variable:** id
 - **GET /availability/{status}:**
 - **Description:** Finds doctors by their availability status.
 - **Path Variable:** status
 - **PUT /update/{id}:**
 - **Description:** Updates a doctor's information.
 - **Path Variable:** id
 - **Request Body:** Doctor
 - **DELETE /delete/{id}:**

- **Description:** Deletes a doctor by ID.
 - **Path Variable:** id
-

3. Medical Record Service

- **Base Path:** /api/v1/medical-records
 - **Endpoints:**
 - **POST /create:**
 - **Description:** Creates a new medical record.
 - **Request Body:** MedicalRecord
 - **GET /list:**
 - **Description:** Gets a list of all medical records.
 - **GET /{id}:**
 - **Description:** Gets a single medical record by ID.
 - **Path Variable:** id
 - **PUT /update/{id}:**
 - **Description:** Updates a medical record.
 - **Path Variable:** id
 - **Request Body:** MedicalRecord
 - **DELETE /delete/{id}:**
 - **Description:** Deletes a medical record by ID.
 - **Path Variable:** id
-

4. Appointment Service

- **Base Path:** /api/v1/appointments
- **Endpoints:**
 - **POST /add:**
 - **Description:** Adds a new appointment.

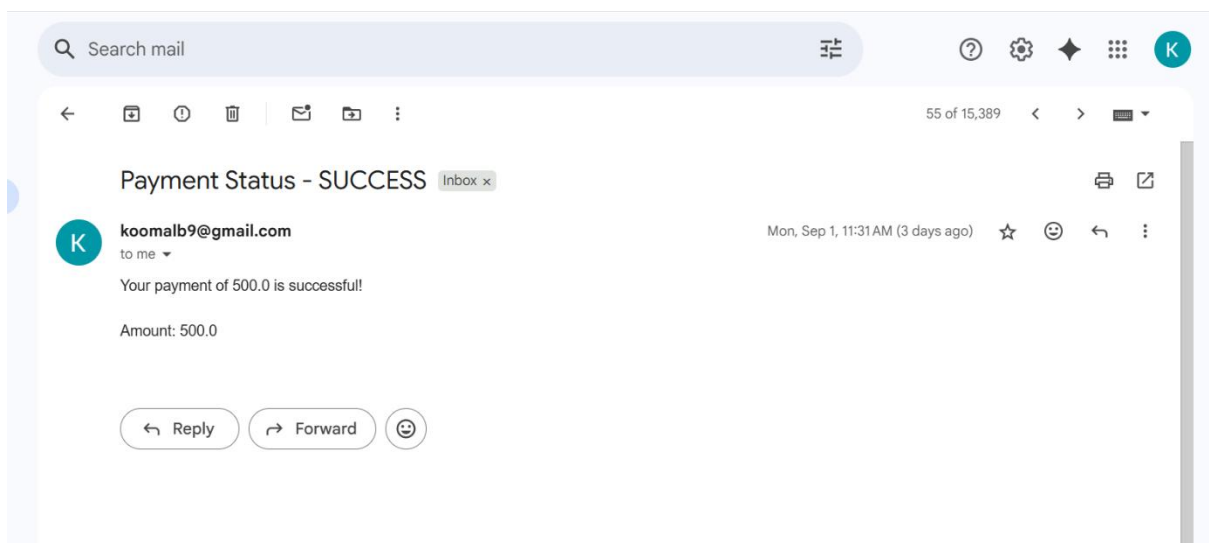
- **Request Body: Appointment**
 - **GET /list:**
 - **Description:** Gets a paginated list of all appointments.
 - **Query Params:** page (default 0), size (default 5)
 - **GET /{id}:**
 - **Description:** Gets a single appointment by ID.
 - **Path Variable:** id
 - **PUT /update/{id}:**
 - **Description:** Updates an appointment.
 - **Path Variable:** id
 - **Request Body:** Appointment
 - **DELETE /delete/{id}:**
 - **Description:** Deletes an appointment by ID.
 - **Path Variable:** id
 - **GET /{id}/details:**
 - **Description:** Gets detailed information for a specific appointment.
 - **Path Variable:** id
 - **GET /doctor/{doctorId}/list:**
 - **Description:** Gets all appointments for a specific doctor.
 - **Path Variable:** doctorId
 - **GET /patient/{patientId}/list:**
 - **Description:** Gets all appointments for a specific patient.
 - **Path Variable:** patientId
-

5. Payment Service

- **Base Path:** /payments
- **Endpoints:**

- POST /:
 - **Description:** Processes a payment and sends a message to a Kafka topic.
 - **Request Body:** Payment (with amount, status, and message properties).
 - **Response:** Returns the updated Payment object with its status.

Notification (Kafka):

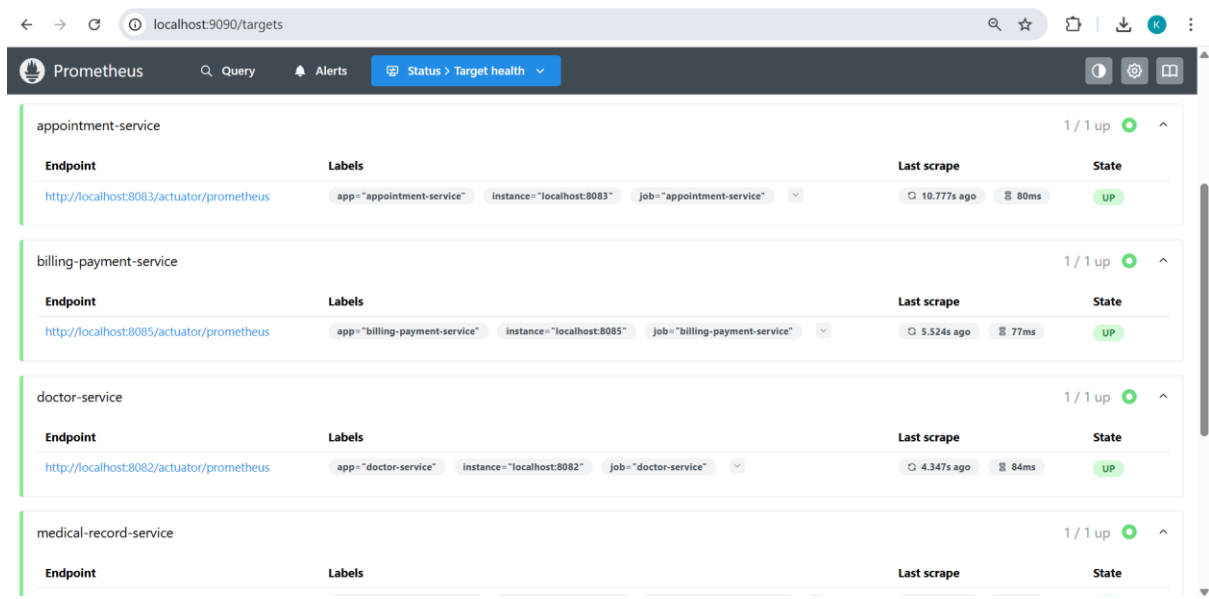


Zipkin:

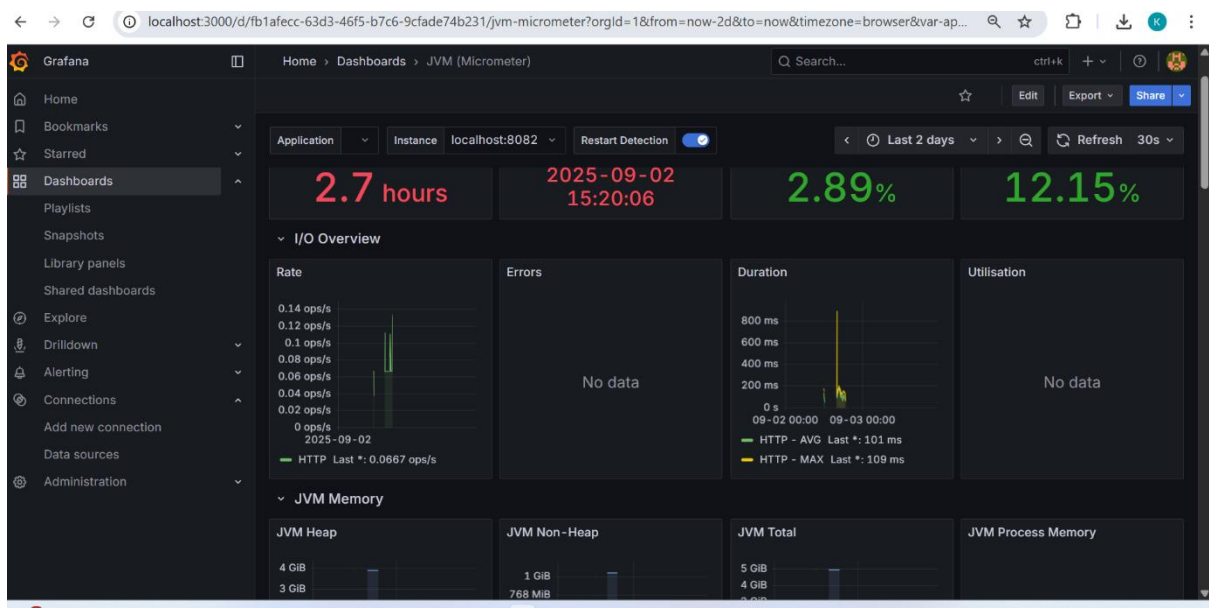
The screenshot shows the Zipkin web interface. The URL is 'localhost:9411/zipkin/?lookback=15m&endTs=1756920127900&limit=10'. The interface has a dark header with the Zipkin logo and search options. Below the header, there is a 'RUN QUERY' button and a 'Service filters' dropdown. The main content area displays a table of results with columns for service name, method, time, and a 'SHOW' button.

Service	Method	Time	Count	Latency	Action
appointment-service	http get	a few seconds ago (09/03 22:52:04:885)	1	53.187ms	SHOW
billing-payment-service	http get	a few seconds ago (09/03 22:51:45:412)	1	19.121ms	SHOW
patient-service	http get	a few seconds ago (09/03 22:52:02:310)	1	18.655ms	SHOW
patient-service	http put	a few seconds ago (09/03 22:52:02:311)	1	18.536ms	SHOW
doctor-service	http get	a few seconds ago (09/03 22:51:41:286)	1	18.111ms	SHOW
billing-payment-service	http put	a few seconds ago (09/03 22:51:45:381)	1	17.407ms	SHOW
medical-record-service	http get	a few seconds ago (09/03 22:51:51:881)	1	17.364ms	SHOW
doctor-service	http put	a few seconds ago (09/03 22:51:41:287)	1	17.273ms	SHOW
medical-record-service	http put	a few seconds ago (09/03 22:51:51:886)	1	17.045ms	SHOW
appointment-service	http put	a few seconds ago (09/03 22:52:04:822)	1	14.459ms	SHOW

Prometheus:



Grafana:



swagger ui of services:

localhost:8081/swagger-ui/index.html

Swagger Powered by SMARTBEAR /v3/api-docs Explore

OpenAPI definition v0 OAS 3.1

/v3/api-docs

Servers

http://localhost:8081 - Generated server url

patient-controller

- PUT /api/v1/patients/update/{id}
- POST /api/v1/patients/add
- GET /api/v1/patients/{id}
- GET /api/v1/patients/list
- DELETE /api/v1/patients/delete/{id}

localhost:8082/swagger-ui/index.html

Swagger Powered by SMARTBEAR /v3/api-docs Explore

OpenAPI definition v0 OAS 3.1

/v3/api-docs

Servers

http://localhost:8082 - Generated server url

doctor-controller

- PUT /api/v1/doctors/update/{id}
- POST /api/v1/doctors/add
- GET /api/v1/doctors/{id}
- GET /api/v1/doctors/list
- GET /api/v1/doctors/availability/{status}
- DELETE /api/v1/doctors/delete/{id}

localhost:8083/swagger-ui/index.html

Swagger Powered by SMARTBEAR /v3/api-docs Explore

OpenAPI definition v0 OAS 3.1

/v3/api-docs

Servers

http://localhost:8083 - Generated server url

appointment-controller

- PUT /api/v1/appointments/update/{id}
- POST /api/v1/appointments/add
- GET /api/v1/appointments/{id}
- GET /api/v1/appointments/{id}/details
- GET /api/v1/appointments/patient/{patientId}/list
- GET /api/v1/appointments/list
- GET /api/v1/appointments/doctor/{doctorId}/list
- DELETE /api/v1/appointments/delete/{id}

Swagger **v3/api-docs** Explore

OpenAPI definition v0 **OAS 3.1**

v3/api-docs

Servers
http://localhost:8084 - Generated server url

medical-record-controller

- PUT** /api/v1/medical-records/update/{id}
- POST** /api/v1/medical-records/create
- GET** /api/v1/medical-records/{id}
- GET** /api/v1/medical-records/list
- DELETE** /api/v1/medical-records/delete/{id}

Swagger **v3/api-docs** Explore

OpenAPI definition v0 **OAS 3.1**

v3/api-docs

Servers
http://localhost:8085 - Generated server url

billing-controller

- PUT** /api/v1/billing/update/{id}
- POST** /api/v1/billing/pay/{id}
- POST** /api/v1/billing/create
- GET** /api/v1/billing/{id}
- GET** /api/v1/billing/list
- DELETE** /api/v1/billing/delete/{id}

#API-Docs of services:

```
localhost:8081/v3/api-docs

pretty-print

{
  "openapi": "3.1.0",
  "info": {
    "title": "OpenAPI definition",
    "version": "v0"
  },
  "servers": [
    {
      "url": "http://localhost:8081",
      "description": "Generated server url"
    }
  ],
  "paths": {
    "/api/v1/patients/update/{id}": {
      "put": {
        "tags": [
          "patient-controller"
        ],
        "operationId": "update",
        "parameters": [
          {
            "name": "id",
            "in": "path",
            "required": true,
            "schema": {
              "type": "integer",
              "format": "int64"
            }
          }
        ],
        "requestBody": {
          "content": {
            "application/json": {
              "schema": {
                "$ref": "#/components/schemas/Patient"
              }
            }
          },
          "required": true
        },
        "responses": {
          "200": {
            "description": "OK"
          }
        }
      }
    }
  }
}
```

```
localhost:8082/v3/api-docs

pretty-print

{
  "openapi": "3.1.0",
  "info": {
    "title": "OpenAPI definition",
    "version": "v0"
  },
  "servers": [
    {
      "url": "http://localhost:8082",
      "description": "Generated server url"
    }
  ],
  "paths": {
    "/api/v1/doctors/update/{id}": {
      "put": {
        "tags": [
          "doctor-controller"
        ],
        "operationId": "update",
        "parameters": [
          {
            "name": "id",
            "in": "path",
            "required": true,
            "schema": {
              "type": "integer",
              "format": "int64"
            }
          }
        ],
        "requestBody": {
          "content": {
            "application/json": {
              "schema": {
                "$ref": "#/components/schemas/Doctor"
              }
            }
          },
          "required": true
        },
        "responses": {
          "200": {
            "description": "OK"
          }
        }
      }
    }
  }
}
```

```
localhost:8083/v3/api-docs

retty-print

{
  "openapi": "3.1.0",
  "info": {
    "title": "OpenAPI definition",
    "version": "v0"
  },
  "servers": [
    {
      "url": "http://localhost:8083",
      "description": "Generated server url"
    }
  ],
  "paths": {
    "/api/v1/appointments/update/{id}": {
      "put": {
        "tags": [
          "appointment-controller"
        ],
        "operationId": "update",
        "parameters": [
          {
            "name": "id",
            "in": "path",
            "required": true,
            "schema": {
              "type": "integer",
              "format": "int64"
            }
          }
        ],
        "requestBody": {
          "content": {
            "application/json": {
              "schema": {
                "$ref": "#/components/schemas/Appointment"
              }
            }
          },
          "required": true
        },
        "responses": {
          "200": {

```

```
localhost:8084/v3/api-docs

retty-print

{
  "openapi": "3.1.0",
  "info": {
    "title": "OpenAPI definition",
    "version": "v0"
  },
  "servers": [
    {
      "url": "http://localhost:8084",
      "description": "Generated server url"
    }
  ],
  "paths": {
    "/api/v1/medical-records/update/{id}": {
      "put": {
        "tags": [
          "medical-record-controller"
        ],
        "operationId": "updateRecord",
        "parameters": [
          {
            "name": "id",
            "in": "path",
            "required": true,
            "schema": {
              "type": "integer",
              "format": "int64"
            }
          }
        ],
        "requestBody": {
          "content": {
            "application/json": {
              "schema": {
                "$ref": "#/components/schemas/MedicalRecord"
              }
            }
          },
          "required": true
        },
        "responses": {

```


```
localhost:8085/v3/api-docs

retty-print

{
  "openapi": "3.1.0",
  "info": {
    "title": "OpenAPI definition",
    "version": "v0"
  },
  "servers": [
    {
      "url": "http://localhost:8085",
      "description": "Generated server url"
    }
  ],
  "paths": {
    "/api/v1/billing/update/{id}": {
      "put": {
        "tags": [
          "billing-controller"
        ],
        "operationId": "update",
        "parameters": [
          {
            "name": "id",
            "in": "path",
            "required": true,
            "schema": {
              "type": "integer",
              "format": "int64"
            }
          }
        ],
        "requestBody": {
          "content": {
            "application/json": {
              "schema": {
                "$ref": "#/components/schemas/BillingRecord"
              }
            }
          }
        },
        "required": true
      },
      "responses": {
        "200": {
          "description": "Successful response"
        }
      }
    }
  }
}
```

FrontEnd:


#Login and SignUp:

 **MediCore Hospital**

SIGN UP

SIGN UP

Have an account? [Login](#)

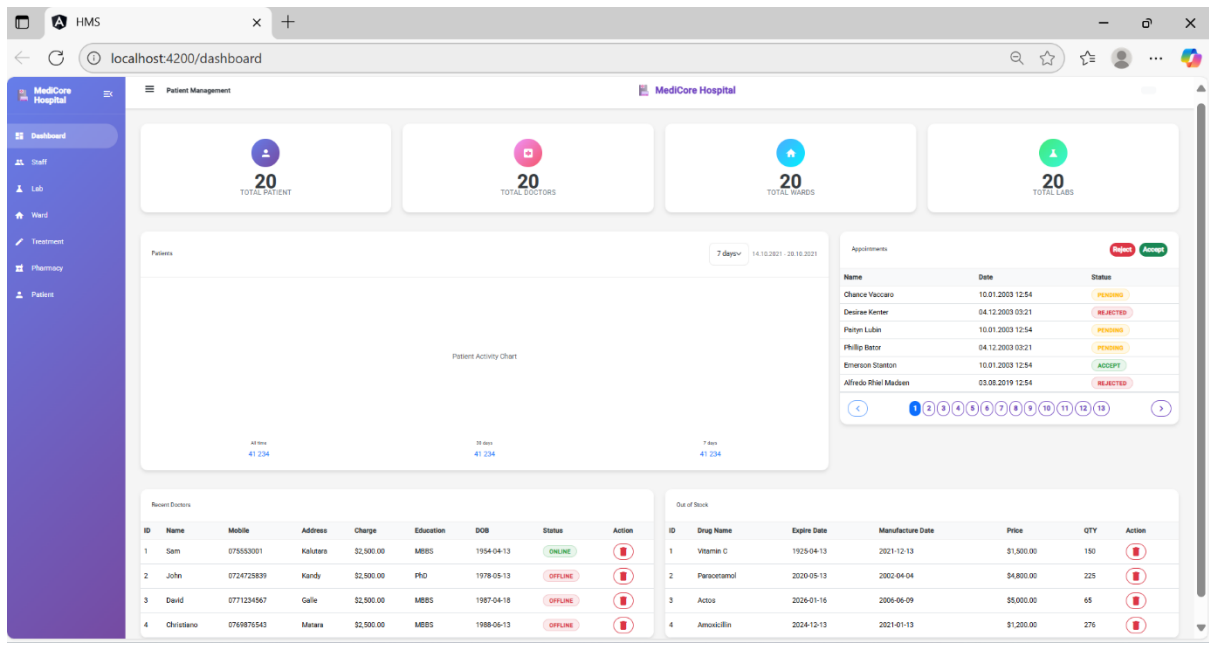
 **MediCore Hospital**

LOGIN

LOGIN

Don't have an account? [Sign up](#)

Dashboard:



Appointment:

The Appointment Management interface allows for creating and managing appointments. It includes input fields for Doctor ID, Patient ID, and Scheduled At, along with a Status dropdown menu. A 'Create' button is used to save new appointments. Below, the 'Appointments List' displays a table of existing appointments with 'Edit' and 'Delete' actions for each entry.

ID	Doctor ID	Patient ID	Scheduled At	Status	Actions
1	1	1	2025-08-25T11:00:00	SCHEDULED	Edit Delete
2	2	3	2025-08-26T14:30:00	SCHEDULED	Edit Delete
3	3	2	2025-08-20T09:00:00	COMPLETED	Edit Delete
4	1	4	2025-08-21T15:45:00	COMPLETED	Edit Delete
5	2	5	2025-08-22T10:15:00	CANCELLED	Edit Delete
7	2	3	2025-09-01T04:20:00	COMPLETED	Edit Delete

#Patient:

HMS

localhost:4200/patients

MediCore Hospital

Dashboard

Staff

Lab

Ward

Treatment

Pharmacy

Patient

Patient Management

Patient ID

Search

First Name

Last Name

Email

Mobile Number

Date of Birth

dd-mm-yyyy

Gender

Select Gender

Add

Reset

Recent patients

Patient ID	First Name	Last Name	Email	Mobile number	Date of birth	Gender	Action
2	Komru	Doe	john.doe@example.com	9876543210	1990-05-15	MALE	<div><div></div><div></div></div>
3	Raj	Kumar	raj.kumar@example.com	9001234567	1993-01-10	MALE	<div><div></div><div></div></div>
4	Sophia	Williams	sophia.williams@example.com	9988776655	1998-03-05	FEMALE	<div><div></div><div></div></div>
5	Arjun	Mehra	arjun.mehra@example.com	9876001234	1991-12-30	MALE	<div><div></div><div></div></div>

#Doctor:

HMS

localhost:4200/doctors

MediCore Hospital

Dashboard

Staff

Lab

Ward

Treatment

Pharmacy

Patient

Doctor Management

Enter Doctor ID

Search

Reset

Add Doctor

Name

Specialization

Experience (years)

0

Contact Number

Availability Status

Add

Recent Doctors

ID	Name	Specialization	Experience	Contact	Status	Actions
1	Dr. Alice Mathews	Cardiology	12	9876543210	AVAILABLE	<div><div>Edit</div><div>Delete</div></div>
2	Dr. Brian Lee	Orthopedics	8	9123456780	UNAVAILABLE	<div><div>Edit</div><div>Delete</div></div>
3	Dr. Catherine Roy	Dermatology	5	9988776655	AVAILABLE	<div><div>Edit</div><div>Delete</div></div>

#Medical Record:

HMS

localhost:4200/medical-records

MediCore Hospital

Dashboard

Staff

Lab

Ward

Treatment

Pharmacy

Patient

Medical Records Management

Create / Edit Medical Record

Patient ID

Doctor ID

Appointment ID

Diagnosis

Prescription

Record Date

dd-mm-yyyy

Create

Reset

Medical Records List

ID	Patient ID	Doctor ID	Appointment ID	Diagnosis	Prescription	Record Date	Actions
1	1	1	1	Flu	Rest	Aug 25, 2025	<div>EditDelete</div>
2	1	1	1	Flu	Rest	Aug 25, 2025	<div>EditDelete</div>

#Billing:

HMS

localhost:4200/billing

MediCore Hospital

Dashboard

Staff

Lab

Ward

Treatment

Pharmacy

Patient

Billing Management

Create Billing Record

Patient ID

Appointment ID

Amount

Status

PENDING

+ Create

Reset

Billing Records

ID	Patient ID	Appointment ID	Amount	Status	Payment Date	Action
1	1	1	\$500.00	PAID	2025-08-16T02:33.11.72053	<div><div></div><div></div></div>
2	2	3	\$750.00	PAID	2025-08-16T02:37.01.021298	<div><div></div><div></div></div>
3	3	4	\$1,750.00	PAID	2025-08-16T02:38.08.127753	<div><div></div><div></div></div>
4	4	5	\$900.00	PENDING	2025-08-16T02:39.35.057239	<div><div></div><div></div><div></div></div>
5	5	4	\$300.00	PENDING	2025-08-16T02:41.10.008008	<div><div></div><div></div><div></div></div>

Databases:

Result Grid							
	id	date_of_birth	email	first_name	gender	last_name	phone
▶	2	1990-05-15	john.doe@example.com	komu	MALE	Doe	9876543210
	3	1993-01-10	raj.kumar@example.com	Raj	MALE	Kumar	9001234567
	4	1998-03-05	sophia.williams@example.com	Sophia	FEMALE	Williams	9988776655
	5	1991-12-30	arjun.mehta@example.com	Arjun	MALE	Mehta	9876001234
	6	2000-01-01	komal@example.com	Komal	FEMALE	B	9999999999
	7	2000-05-15	komalbaviskar19@gmail.com	Komal	FEMALE	Baviskar	9876543210
	8	1998-08-31	komal_updated@example.com	Gayatri	FEMALE	Baviskar	9876543211

patients 1 × Apph

Result Grid						
	id	availability_status	contact_number	experience	name	specialization
▶	1	AVAILABLE	9876543210	12	Dr. Alice Mathews	Cardiology
	2	UNAVAILABLE	9123456780	8	Dr. Brian Lee	Orthopedics
	3	AVAILABLE	9988776655	5	Dr. Catherine Roy	Dermatology
	4	UNAVAILABLE	9001122334	15	Dr. Daniel Kumar	Neurology
	8	AVAILABLE	9876543210	10	Dr. Baviskar	Cardiology
	9	AVAILABLE	9876543210	10	Dr. Jadhav	Cardiology
	11	AVAILABLE	7895483978	4	sjdlskfl	ghdkmlkn
	12	UNAVAILABLE	7458505048	4	kommall	programmer

Result Grid					
	id	doctor_id	patient_id	scheduled_at	status
▶	1	1	1	2025-08-25 05:30:00.000000	SCHEDULED
	2	2	3	2025-08-26 09:00:00.000000	SCHEDULED
	3	3	2	2025-08-20 03:30:00.000000	COMPLETED
	4	1	4	2025-08-21 10:15:00.000000	COMPLETED
	5	2	5	2025-08-22 04:45:00.000000	CANCELLED
	7	2	3	2025-08-31 22:50:00.000000	COMPLETED

Result Grid							
	id	appointment_id	diagnosis	doctor_id	patient_id	prescription	record_date
▶	1	1	Flu	1	1	Rest	2025-08-25
	2	1	Flu	1	1	Rest	2025-08-25
	3	5	migraine	3	2	painkillers and avoid screen time	2025-08-25
	4	5	Hypertension	2	4	Low salt diet and regular exercise	2025-08-27
	5	4	Diabetes Type 2	4	5	metform and diet control	2025-08-28
	6	3	Asthma	3	3	Inhaler use and avoid allergens	2025-08-29
	7	1	Flu	1	1	Paracetamol 500mg	2025-09-01

