



# HEALTHCARE APPOINTMENT & PATIENT MANAGEMENT SYSTEM

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## ◆ 1 Authentication Flow

### ➤ User Opens App

User directly sees:

- Login Screen
  - Register Option
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## Register Flow

User enters:

- Name
- Email
- Password
- Phone Number
- Role Selection:
  - Patient
  - Doctor
  - Admin

On successful registration:

- Role is stored in database
  - Redirect to respective Role-Based Dashboard
- 



## Login Flow

User enters:

- Email
- Password

System:

- Validates credentials
  - Fetches role from database
  - Redirects to respective dashboard
- 



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## Role-Based Navigation Flow

After login:

- If role == Patient → Patient Dashboard
- If role == Doctor → Doctor Dashboard
- If role == Admin → Admin Dashboard

Role-based access control is applied throughout the app.

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## PATIENT FLOW



### Patient Dashboard Features

- View Doctors
  - Check Availability
  - Book Appointment
  - View Appointments
  - Medical Records
  - Notifications
  - Edit Profile
- 



## Appointment Booking Flow

1. Patient selects doctor

2. System shows available slots
3. Patient selects date & time
4. Adds reason for visit
5. Selects urgency level:
  - o ● Serious
  - o ● Infectious
  - o ● General
6. Confirms booking

System:

- Saves appointment
  - Notifies doctor
  - Notifies admin
- 



## Medical Records Flow

Patient can:

- Upload medical record files (PDF/Image)
  - View previous prescriptions
  - View consultation history
- 



## Notification Flow (Patient)

Patient receives notifications when:

- Appointment accepted
- Appointment declined
- Doctor sends reminder
- Admin updates

Patient can also:

- Send reminder to doctor before appointment
- 



## DOCTOR FLOW



## Doctor Dashboard Features

- View Today's Appointments
  - Manage Slots
  - Notifications
  - Start Consultation
  - Edit Profile
- 



## Slot Management Flow

Doctor can:

- Add available slots
  - Edit time slots
  - Delete slots
  - Mark unavailable days
- 



## Appointment Handling Flow

Doctor receives booking request with urgency indicator:

- ● Serious
- ● Infectious
- ● General

Doctor can:

- Accept appointment
- Decline appointment
- Start consultation
- Send reminder to patient

System:

- Updates appointment status
  - Notifies patient
  - Notifies admin
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## ADMIN FLOW

### Admin Dashboard Features

Admin has full system access:

- View all users
- Manage roles
- Approve/reject doctors
- Monitor all appointments
- Modify permissions
- Delete users
- View reports

Admin has complete control over system-level operations.

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### ROLE-BASED ACCESS CONTROL LOGIC

Patient:

- Can book appointments
- Can upload records
- Cannot create slots

Doctor:

- Can create/manage slots
- Can accept/decline appointments
- Cannot book appointments

Admin:

- Full access to all modules
- 



## FOLDER STRUCTURE (Flutter)

Healthcare-Appointment-And-Patient-Management-System/

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```
└── backend/
    ├── models/
    ├── routes/
    ├── controllers/
    ├── middleware/
    ├── server.js
    ├── package.json
    └── .env

    └── frontend/
        ├── lib/
        │   ├── screens/
        │   │   ├── auth/
        │   │   ├── patient/
        │   │   ├── doctor/
        │   │   └── admin/
        |
        ├── services/
        ├── models/
        ├── widgets/
        ├── utils/
        └── main.dart

        └── pubspec.yaml

    └── README.md
    └── Project.txt
```



## COMPLETE SYSTEM FLOW SUMMARY

Login / Register



Role Identification



Role-Based Dashboard



Role-Based Feature Access



Appointment Lifecycle:

Requested → Accepted/Declined → Consultation → Completed