

◇ PHASE 3: Data Modeling & Relationships

(Hospital Appointment and Bed Management CRM System)

Phase 3 Objective:

Design the **core data structure** of the hospital system by creating **custom objects, fields, and relationships**.

Think of this phase as **building the hospital database** inside Salesforce.



What We Will Build in Phase 3

- Patients
- Doctors
- Appointments
- Relationships between them
- Page layouts for usability

✓ STEP 3.1 — Identify Objects (Hospital Context)

◊ Standard Objects Used

| Object | Purpose |
|---------|----------|
| Contact | Patients |

💡 Salesforce already provides Contact → we reuse it as **Patient**

❖ Custom Objects to Create

| Custom Object | Purpose |
|---------------|------------------------|
| Doctor | Stores doctor details |
| Appointment | Links patient & doctor |

STEP 3.2 — Create Custom Object: Doctor

Navigation

Setup → Object Manager → Create → Custom Object

Object Details

| Field | Value |
|------------------|-------------------------------------|
| Label | Doctor |
| Plural Label | Doctors |
| Object Name | Doctor__c |
| Record Name | Doctor Name (Text) |
| Allow Reports | <input checked="" type="checkbox"/> |
| Allow Activities | <input checked="" type="checkbox"/> |

 Click Save

The screenshot shows the Salesforce Setup interface with the following details:

- Header:** Includes a cloud icon, a search bar labeled "Search Setup", and various navigation icons.
- Breadcrumbs:** SETUP > OBJECT MANAGER
- Object Name:** Doctor
- Left Sidebar (Details):** A list of configuration tabs:
 - Fields & Relationships
 - Page Layouts
 - Lightning Record Pages
 - Buttons, Links, and Actions
 - Compact Layouts
 - Field Sets
 - Object Limits
 - Record Types
 - Related Lookup Filters
 - Restriction Rules
- Right Panel (Details):** Displays configuration settings for the Doctor object:
 - Description: (empty)
 - API Name: Doctor_c
 - Custom: ✓
 - Singular Label: Doctor
 - Plural Label: Doctors
 - Enable Reports: ✓
 - Track Activities: ✓
 - Track Field History: (empty)
 - Deployment Status: Deployed
 - Help Settings: Standard salesforce.com Help Window
- Buttons:** Edit and Delete



STEP 3.3 — Create Fields for Doctor Object

Go to:

Doctor → Fields & Relationships → New

Create these fields **one by one**:

| Field Label | Type | Example |
|---------------------|-------------|----------------------|
| Specialization | Picklist | Cardiologist, ENT |
| Phone Number | Phone | |
| Email | Email | |
| Experience (Years) | Number | 10 |
| Availability Status | Picklist | Available / On Leave |
| Doctor ID | Auto Number | DOC-{0001} |
| Consultation Fee | Currency | INR |

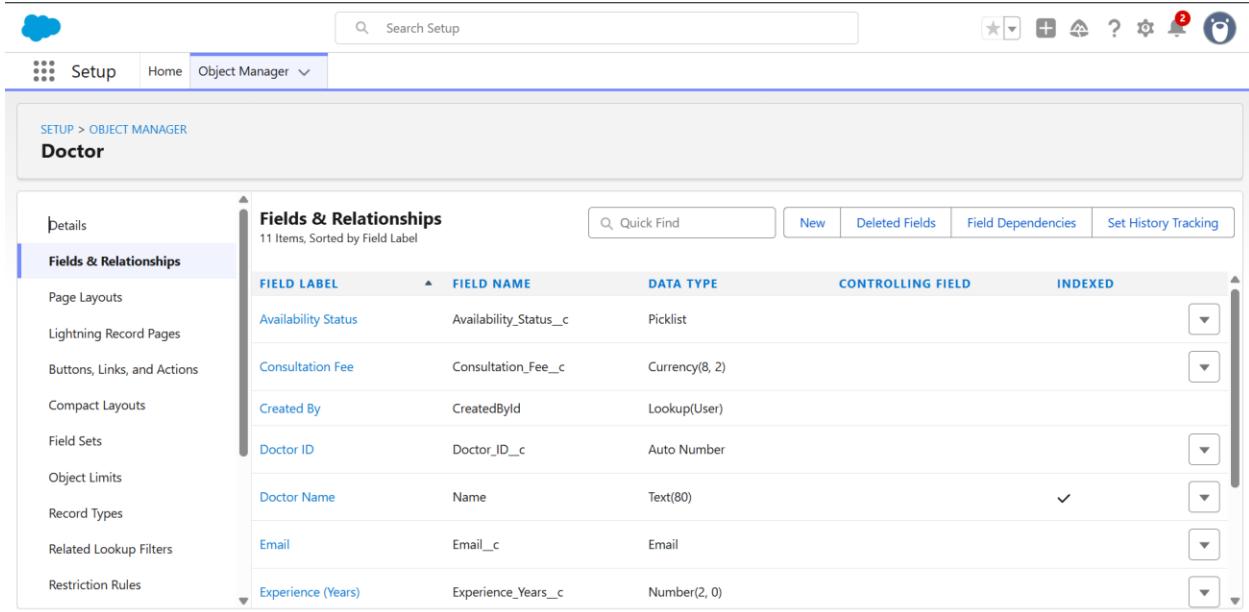
❖ Picklist Values

Specialization

Cardiologist
Orthopedic
Neurologist
ENT
General Physician

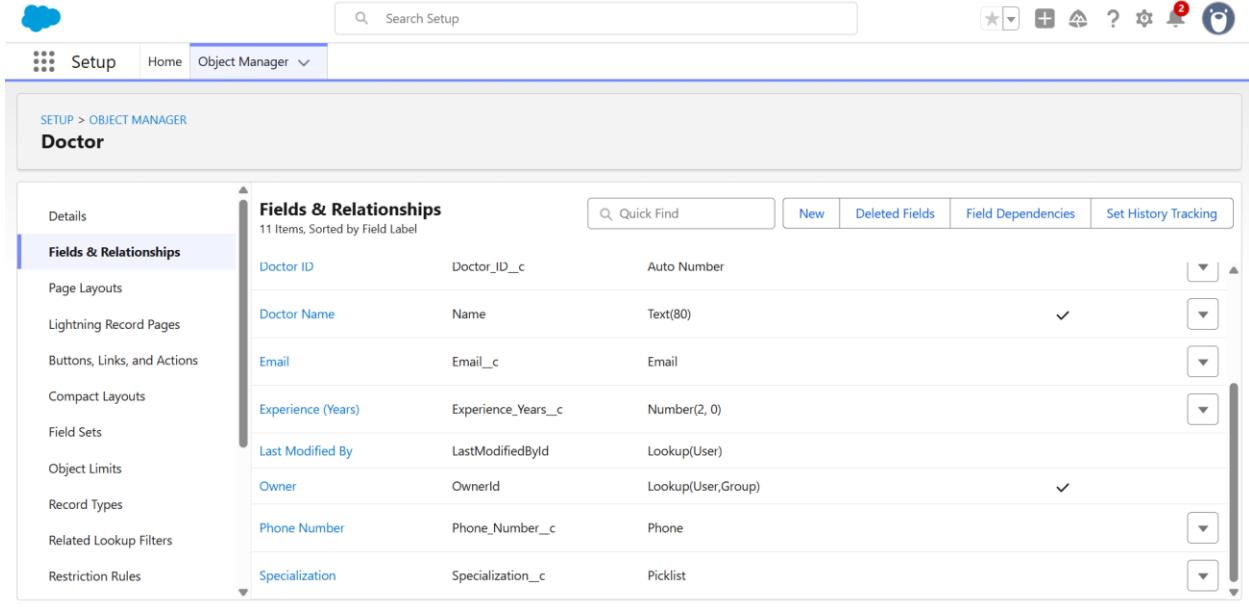
Availability Status

Available
On Leave
Unavailable



The screenshot shows the Salesforce Object Manager interface for the 'Doctor' custom object. The left sidebar lists various setup options like Details, Fields & Relationships, Page Layouts, etc. The main area displays the 'Fields & Relationships' section with 11 items. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are:

| FIELD LABEL | FIELD NAME | DATA TYPE | CONTROLLING FIELD | INDEXED |
|---------------------|------------------------|----------------|-------------------|---------|
| Availability Status | Availability_Status__c | Picklist | | |
| Consultation Fee | Consultation_Fee__c | Currency(8, 2) | | |
| Created By | CreatedBy | Lookup(User) | | |
| Doctor ID | Doctor_ID__c | Auto Number | | |
| Doctor Name | Name | Text(80) | | ✓ |
| Email | Email__c | Email | | |
| Experience (Years) | Experience_Years__c | Number(2, 0) | | |



The second screenshot shows the same 'Fields & Relationships' section for the 'Doctor' object, but with a different set of fields. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are:

| FIELD LABEL | FIELD NAME | DATA TYPE | CONTROLLING FIELD | INDEXED |
|--------------------|---------------------|--------------------|-------------------|---------|
| Doctor ID | Doctor_ID__c | Auto Number | | |
| Doctor Name | Name | Text(80) | | ✓ |
| Email | Email__c | Email | | |
| Experience (Years) | Experience_Years__c | Number(2, 0) | | |
| Last Modified By | LastModifiedBy | Lookup(User) | | |
| Owner | OwnerId | Lookup(User,Group) | | ✓ |
| Phone Number | Phone_Number__c | Phone | | |
| Specialization | Specialization__c | Picklist | | |

☑ STEP 3.4 — Create Custom Object: Appointment

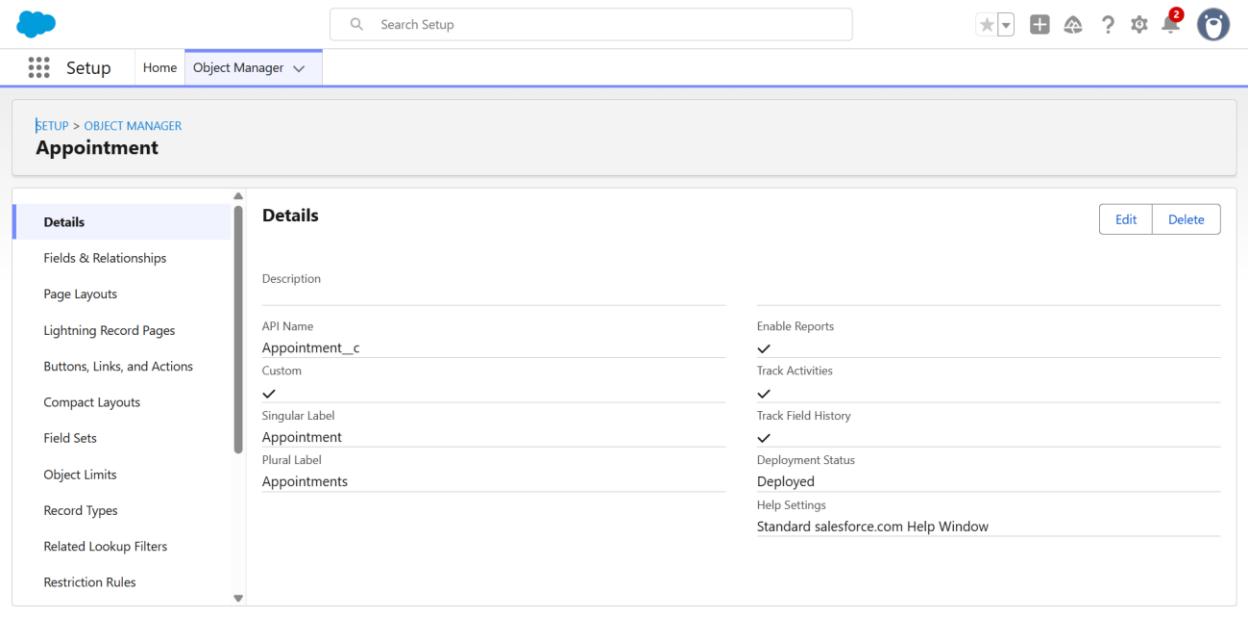
⌚ Navigation

Object Manager → Create → Custom Object

Object Details

| Field | Value |
|------------------|-------------------------------------|
| Label | Appointment |
| Plural Label | Appointments |
| Object Name | Appointment__c |
| Record Name | Appointment Number (Auto Number) |
| Format | AP-{0000} |
| Allow Reports | <input checked="" type="checkbox"/> |
| Allow Activities | <input checked="" type="checkbox"/> |

 Click Save



The screenshot shows the Salesforce Setup interface under the Object Manager. The left sidebar lists various configuration options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Restriction Rules. The main panel displays the 'Details' for the 'Appointment' object. It includes fields for Description, API Name (Appointment__c), Custom (✓), Singular Label (Appointment), Plural Label (Appointments), and several checkboxes for enabling Reports, Activities, and Field History. Deployment status is set to 'Deployed'. There are 'Edit' and 'Delete' buttons at the top right of the main panel.

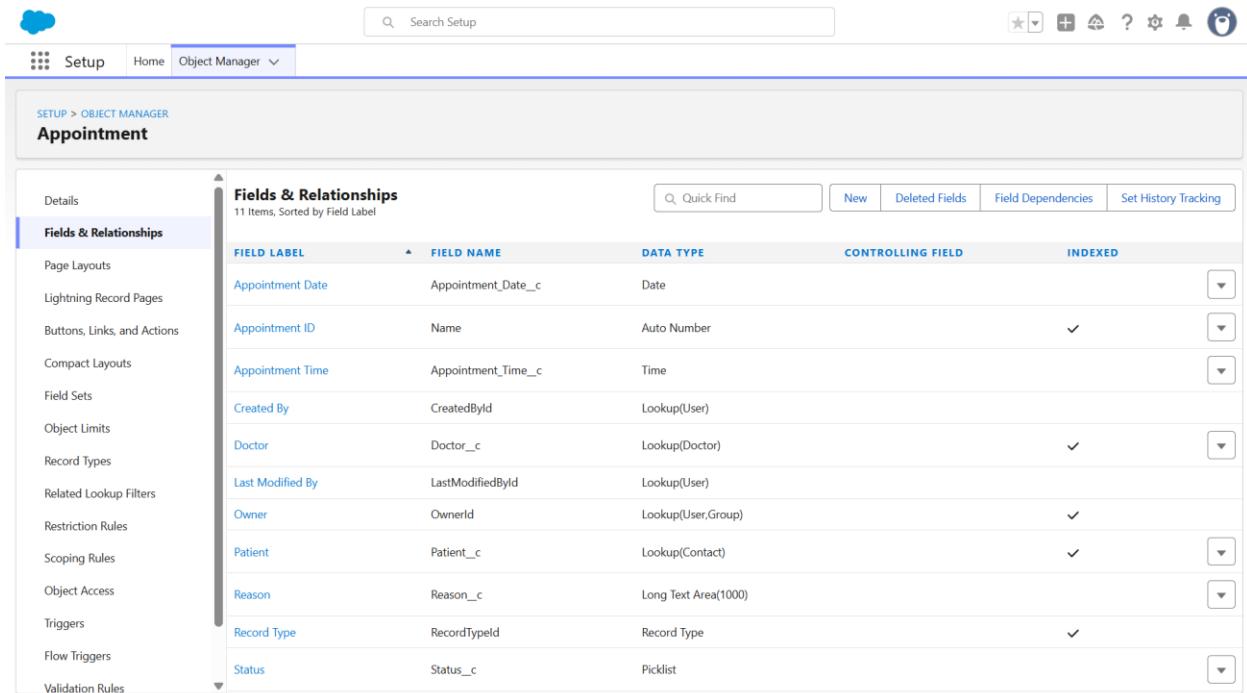
STEP 3.5 — Create Fields for Appointment

Create these fields:

| Field Label | Type | Purpose |
|------------------|----------------|----------------|
| Appointment Date | Date | Visit date |
| Appointment Time | Time | Visit time |
| Status | Picklist | Booking status |
| Reason | Long Text Area | Patient issue |

🔗 Status Picklist Values

Booked
Checked In
Completed
Cancelled



The screenshot shows the Salesforce Object Manager interface for the 'Appointment' object. The left sidebar has 'Fields & Relationships' selected. The main area displays the 'Fields & Relationships' section with 11 items. The table columns are: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The 'Status' field is highlighted.

| FIELD LABEL | FIELD NAME | DATA TYPE | CONTROLLING FIELD | INDEXED |
|------------------|--------------------|----------------------|-------------------|---------|
| Appointment Date | Appointment_Date_c | Date | | |
| Appointment ID | Name | Auto Number | | ✓ |
| Appointment Time | Appointment_Time_c | Time | | |
| Created By | CreatedBy | Lookup(User) | | |
| Doctor | Doctor_c | Lookup(Doctor) | | ✓ |
| Last Modified By | LastModifiedBy | Lookup(User) | | |
| Owner | OwnerId | Lookup(User,Group) | | ✓ |
| Patient | Patient_c | Lookup(Contact) | | ✓ |
| Reason | Reason_c | Long Text Area(1000) | | |
| Record Type | RecordTypeId | Record Type | | ✓ |
| Status | Status_c | Picklist | | |

✓ STEP 3.6 — Create Relationships (MOST IMPORTANT)

🔗 Relationship 1: Appointment → Patient

⌚ Path

Appointment → Fields → New → Lookup Relationship

| Setting | Value |
|-------------------------|--------------|
| Related To | Contact |
| Field Label | Patient |
| Child Relationship Name | Appointments |

✓ This connects Appointments to Patients

The screenshot shows the Salesforce Setup - Object Manager interface. In the center, a custom field named 'Patient' is being created for the 'Appointment' object. The field is defined as a Contact lookup type. The 'Fields & Relationships' tab is selected on the left. On the right, the 'Custom Field Definition Detail' page is displayed, showing the field's properties and relationships.

⌚ Relationship 2: Appointment → Doctor

⌚ Path

Appointment → Fields → New → Lookup Relationship

| Setting | Value |
|-------------------------|--------------|
| Related To | Doctor |
| Field Label | Doctor |
| Child Relationship Name | Appointments |

✓ This connects Appointments to Doctors

SETUP > OBJECT MANAGER
Appointment

Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Object Access
Triggers
Flow Triggers
Validation Rules
Conditional Field Formatting

Appointment Custom Field
Doctor
Back to Appointment

Custom Field Definition Detail

Field Information

| | | | |
|---------------------------|--|-------------|--------------------------------------|
| Field Label | Doctor | Object Name | Appointment |
| Field Name | Doctor | Data Type | Lookup |
| API Name | Doctor__c | | |
| Description | Doctor assigned to this appointment | | |
| Help Text | Select the doctor with whom the appointment is scheduled | | |
| Data Owner | | | |
| Field Usage | | | |
| Data Sensitivity Level | | | |
| Compliance Categorization | | | |
| Created By | Altamash Faruqi, 12/22/2025, 6:51 PM | Modified By | Altamash Faruqi, 12/22/2025, 6:51 PM |

Lookup Options

| | | | |
|--------------------|--------------|-------------------------|--------------|
| Related To | Doctor | Child Relationship Name | Appointments |
| Related List Label | Appointments | | |
| Required | ✓ | | |

What to do if the lookup record is deleted? Don't allow deletion of the lookup record that's part of a lookup relationship.

Lookup Filter

No lookup filters defined.

Validation Rules

New

Validation Rules Help

Always show me [more](#) records per related list

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✓ STEP 3.7 — Record Types (Appointments)

⌚ Navigation

Appointment → Record Types → New

Create **2 Record Types**:

| Record Type | Purpose |
|-----------------------|----------------------|
| OPD Appointment | Regular consultation |
| Emergency Appointment | Emergency cases |

✓ Assign both to:

- Hospital Manager
- Receptionist

Record Type
Emergency Appointment
[« Back to Custom Object: Appointment](#)

Use the Edit button to change the properties of this record type. Use the Edit links in the Picklist Values related list to choose the picklist values available for records with this record type.

| | |
|----------------------|---------------------------------------|
| Edit | Active ✓ |
| Record Type Label | Emergency Appointment |
| Record Type Name | Emergency_Appointment |
| Namespace Prefix | |
| Description | Used for emergency or critical cases |
| Created By | Altamash Farouqi, 12/22/2025, 7:57 PM |
| Modified By | Altamash Farouqi, 12/22/2025, 7:57 PM |

Picklists Available for Editing [Picklists Available for Editing Help](#)

| Action | Field | Modified Date |
|----------------------|--------|---------------------|
| Edit | Status | 12/22/2025, 7:57 PM |

Record Type
OPD Appointment
[« Back to Custom Object: Appointment](#)

Use the Edit button to change the properties of this record type. Use the Edit links in the Picklist Values related list to choose the picklist values available for records with this record type.

| | |
|----------------------|---|
| Edit | Active ✓ |
| Record Type Label | OPD Appointment |
| Record Type Name | OPD_Appointment |
| Namespace Prefix | |
| Description | Used for regular outpatient consultations |
| Created By | Altamash Farouqi, 12/22/2025, 7:54 PM |
| Modified By | Altamash Farouqi, 12/22/2025, 7:54 PM |

Picklists Available for Editing [Picklists Available for Editing Help](#)

| Action | Field | Modified Date |
|----------------------|--------|---------------------|
| Edit | Status | 12/22/2025, 7:54 PM |



STEP 3.8 — Page Layout Configuration

Doctor Page Layout

Add fields:

- Doctor Name
- Specialization
- Phone
- Email
- Availability Status

Add Related List:

- **Appointments**

The screenshot shows the Salesforce Setup interface with the following details:

- Setup > Object Manager**
- Doctor** object selected.
- Page Layouts** tab is active.
- Information** section displays fields: Doctor Name (Sample Text), Specialization (Sample Text), Doctor ID (GEN-2024-001234), Phone Number (1-415-555-1212), Email (sarah.sample@company.com), Consultation Fee (£123.45), Experience (Years) (22), and Availability Status (Sample Text).
- System Information** section displays Created By (Sample Text) and Last Modified By (Sample Text).
- Custom Links** section is empty.
- Mobile Cards (Salesforce mobile only)** section is empty.
- Related Lists** section shows two lists:
 - Open Activities**: Displays a table with columns Subject, Name, Task, Due Date, Status, Priority, and Assigned To. One row is shown: Sample Text, Sample Text, ✓, 12/24/2025, 8:29 PM, Sample Text, Sample Text, Sarah Sample.
 - Activity History**: Displays a table with columns Subject, Name, Task, Due Date, Assigned To, and Last Modified Date/Time. One row is shown: Sample Text, Sample Text, ✓, 12/24/2025, 8:29 PM, Sample Text, 12/24/2025, 8:29 PM.

📅 Appointment Page Layout

Add fields:

- Patient
- Doctor
- Appointment Date
- Appointment Time
- Status
- Reason

☑ STEP 3.9 — Compact Layouts (Optional but Professional)

Doctor Compact Layout

Show:

- Doctor Name
- Specialization
- Availability Status

📍 Path:

Doctor → Compact Layouts → New

The screenshot shows the Salesforce Object Manager interface. The left sidebar has a 'Compact Layouts' section selected under the 'Doctor' object. The main area displays the 'Doctor Compact Layout' detail page. The layout includes fields for Label (Doctor Compact Layout), API Name (Doctor_Compact_Layout), and Included Fields (Doctor Name, Doctor ID, Specialization, Availability Status). It also shows the creation details (Created By: Altamash Fauqul, 12/23/2025, 12:13 AM) and modification details (Modified By: Altamash Fauqul, 12/23/2025, 12:13 AM).

✅ STEP 3.10 — Schema Builder Verification

📍 Navigation

Setup → Schema Builder

✓ Ensure:

- Appointment → Lookup → Contact (Patient)
- Appointment → Lookup → Doctor

This is your **final data model proof**.

PHASE 3 COMPLETION CHECKLIST

- ✓ Doctor object created
- ✓ Appointment object created
- ✓ Patient handled via Contact
- ✓ Relationships correctly set
- ✓ Record types configured
- ✓ Page layouts clean & usable

 **PHASE 3 SUCCESSFULLY COMPLETED**

Next Phase

When you're ready, say:

"Proceed with Phase 4 — Validation Rules & Automation"

We'll build:

- Appointment date validation
- Doctor availability logic
- Auto-status updates
- Real hospital-style automation 