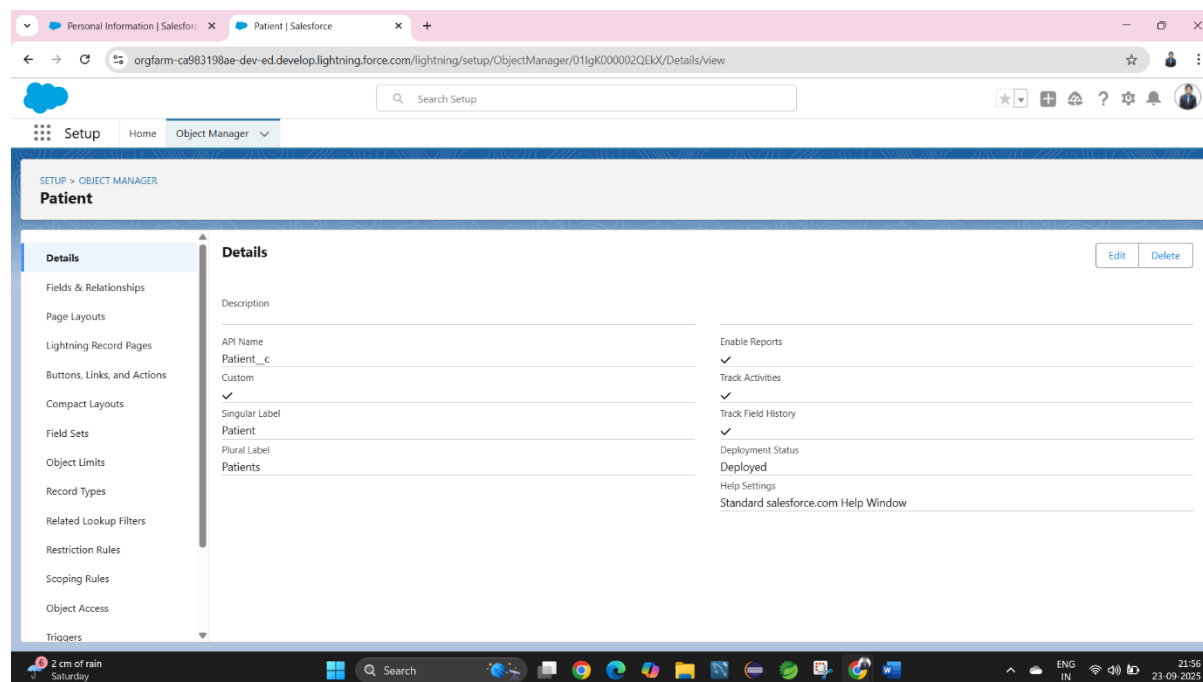


MediAid Healthcare Project-

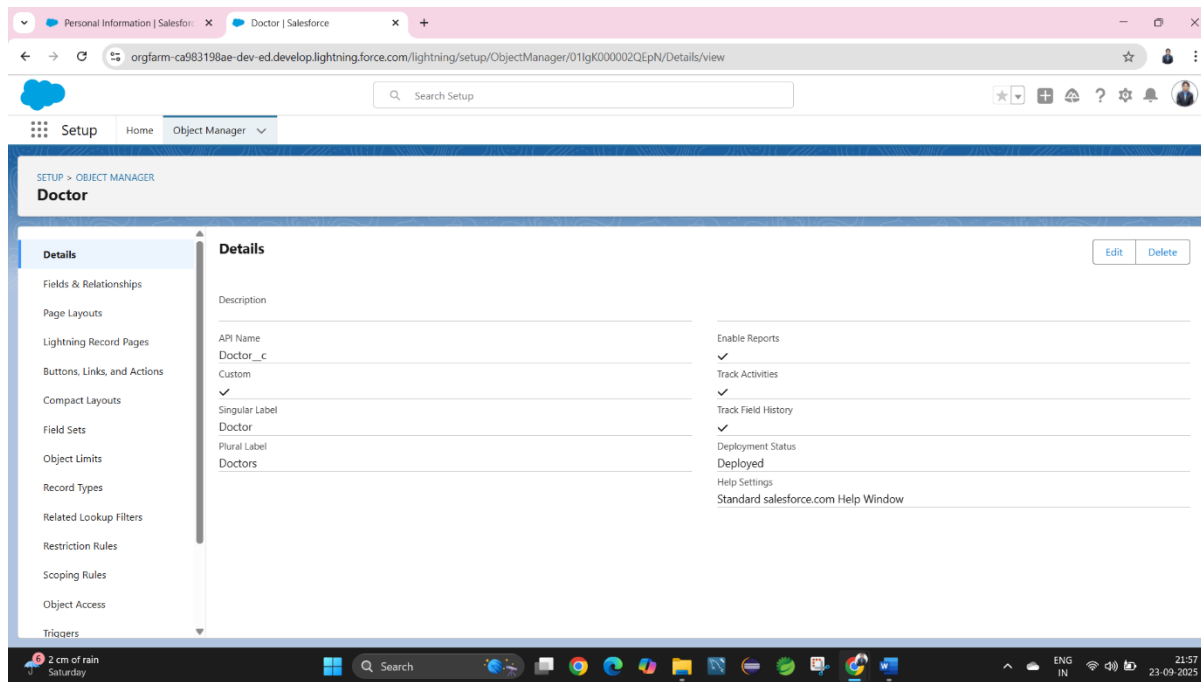
Phase 3: Data Modeling & Relationships

1. Standard & Custom Objects

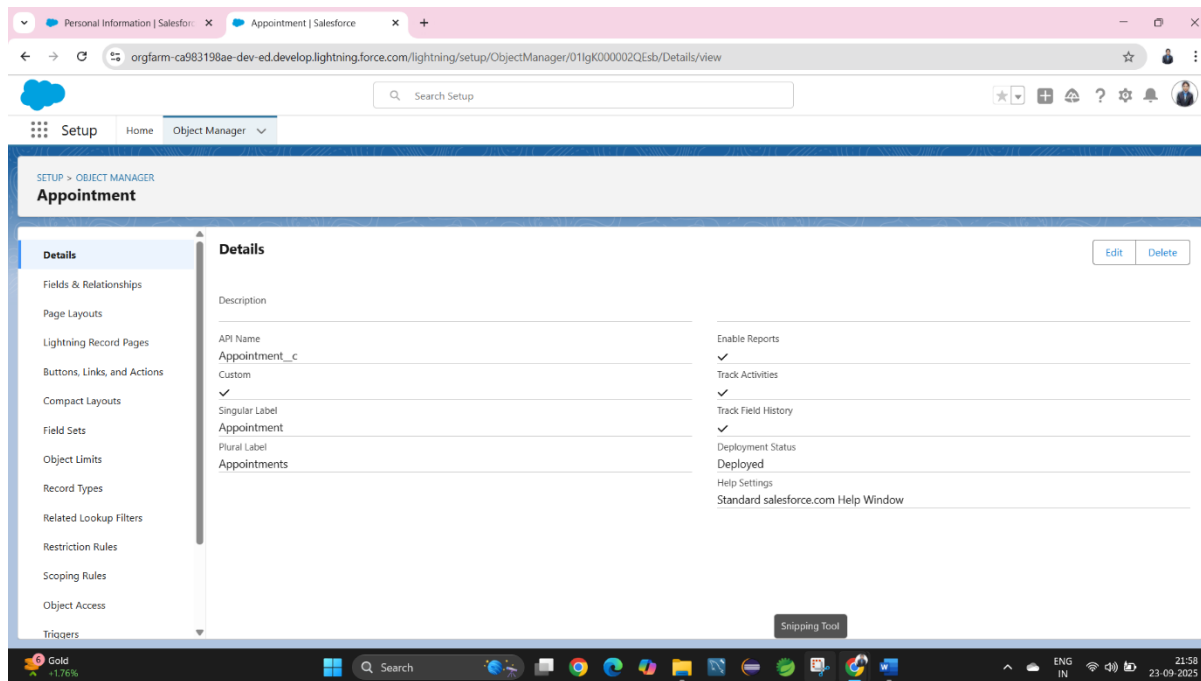
- **Standard Objects** (provided by Salesforce):
 - **User** → Doctors, Nurses, Patients, Admins.
 - **Account** → Hospitals or Clinics.
 - **Contact** → Individual patients or caregivers.
 - **Case** → Patient Issues, Complaints, or Medical Support tickets.
- **Custom Objects** (specific to MediAid):
 - **Patient__c** → Stores patient details (DOB, Gender, Contact , Blood Group).



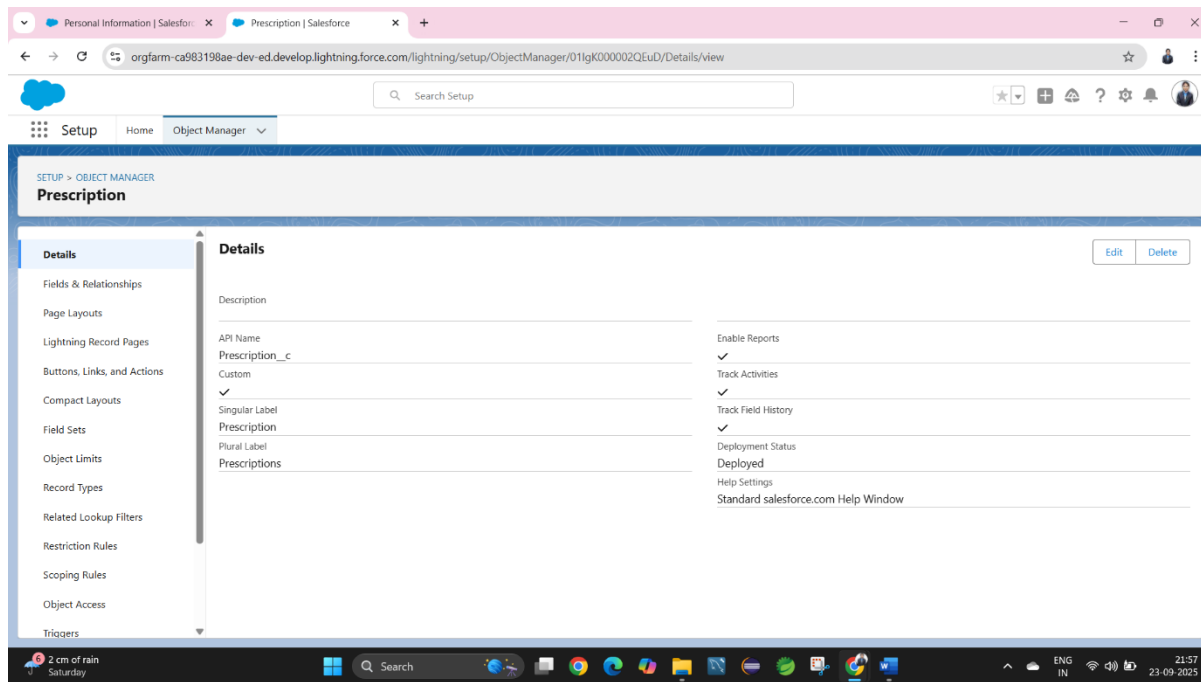
- **Doctor__c** → Stores doctor details (Specialization, Availability, Qualification).



- **Appointment__c** → Links Patients & Doctors, tracks date/time/status.



- **Prescription__c** → Stores prescribed medicines, dosage, and duration.

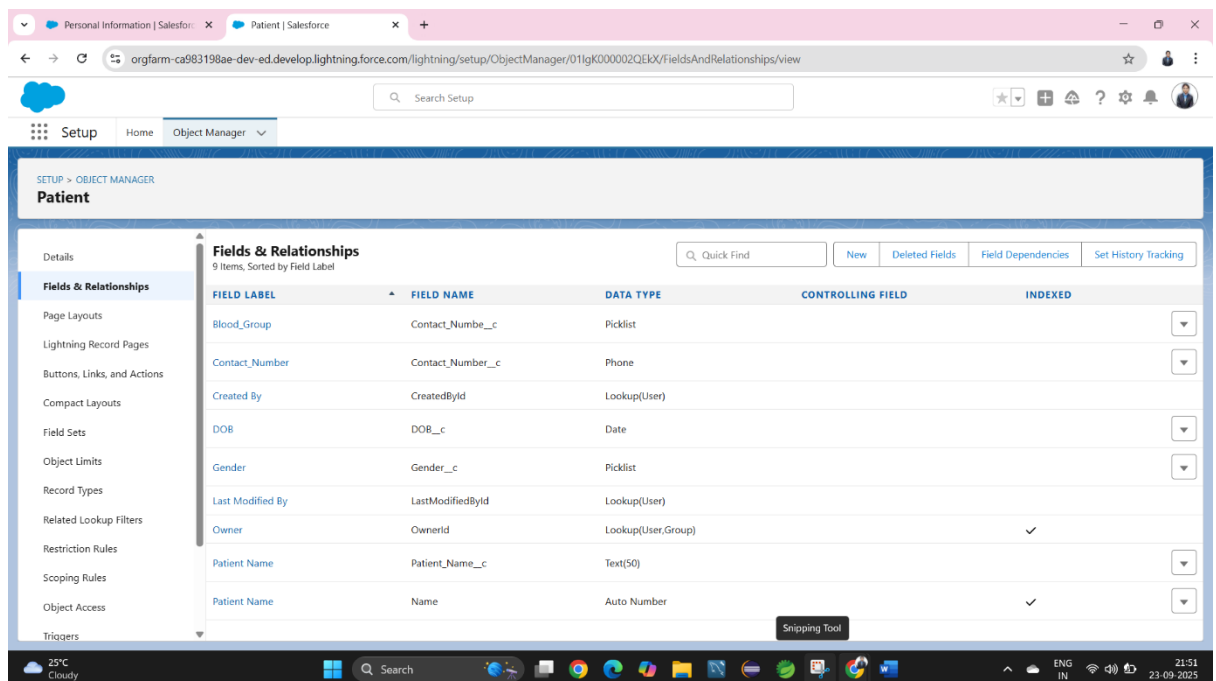


2. Fields

Each object will have **standard fields** (Name, CreatedDate, etc.) and **custom fields**.

Examples:

- **Patient__c** → DOB, Gender, Contact Number, Blood Group, etc



- **Doctor__c** → Availability, Specialization, Year_of_experience,etc

The screenshot shows the Salesforce Setup interface for the 'Doctor' object. The 'Fields & Relationships' section is active, displaying a table of 9 fields. The table has columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed. The fields listed are: Availability (Picklist), Contact Number (Phone), Created By (Lookup(User)), Doctor Name (Text(20)), Doctor Name (Auto Number), Last Modified By (Lookup(User)), Owner (Lookup(User,Group)), Specialization (Picklist), and Years_of_Experience (Number(18, 0)).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Availability	Availability__c	Picklist		
Contact Number	Contact_Number__c	Phone		
Created By	CreatedById	Lookup(User)		
Doctor Name	Doctor_Name__c	Text(20)		
Doctor Name	Name	Auto Number		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Specialization	Specialization__c	Picklist		
Years_of_Experience	Years_of_Experience__c	Number(18, 0)		

- **Appointment__c** → Appointment_Date, Status (Scheduled, Completed, Cancelled), Doctor, Patient, etc

The screenshot shows the Salesforce Setup interface for the 'Appointment' object. The 'Fields & Relationships' section is active, displaying a table of 9 fields. The table has columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed. The fields listed are: Appointment Date (Date/Time), Appointment Name (Auto Number), Created By (Lookup(User)), Doctor (Lookup(Doctor)), Last Modified By (Lookup(User)), Owner (Lookup(User,Group)), Patient (Lookup(Patient)), Reason (Text(20)), and Status (Picklist).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment Date	Appointment_Date__c	Date/Time		
Appointment Name	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Doctor	Doctor__c	Lookup(Doctor)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Patient	Patient__c	Lookup(Patient)		✓
Reason	Reason__c	Text(20)		
Status	Status__c	Picklist		

- **Prescription__c** → Medicine_Name__c, Dosage__c, Notes

Personal Information | Salesforce | Doctor | Salesforce | Prescription | Salesforce

orgfarm-ca983198ae-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/011gK000002QEuD/FieldsAndRelationships/view

Setup Home Object Manager

SETUP > OBJECT MANAGER
Prescription

Details
Fields & Relationships
10 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment	Appointment__c	Lookup(Appointment)		✓
Created By	CreatedById	Lookup(User)		
Dosage	Dosage__c	Text(50)		
Duration	Duration__c	Text(20)		
Last Modified By	LastModifiedById	Lookup(User)		
Medicine Name	Medicine_Name__c	Text(50)		
Owner	OwnerId	Lookup(User,Group)		✓
Prescription Name	Name	Auto Number		✓
Prescription Number	Prescription_Number__c	Auto Number		
Remember	Remember__c	Boolean		

24°C Cloudy

3. Record Types

Used when **different categories of the same object** need different layouts/workflows.

- **Appointment__c:**
 - In-person
 - Online/Telemedicine

Personal Information | Salesforce | Doctor | Salesforce | Appointment | Salesforce

orgfarm-ca983198ae-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/011gK000002QEs/RecordTypes/view

Setup Home Object Manager

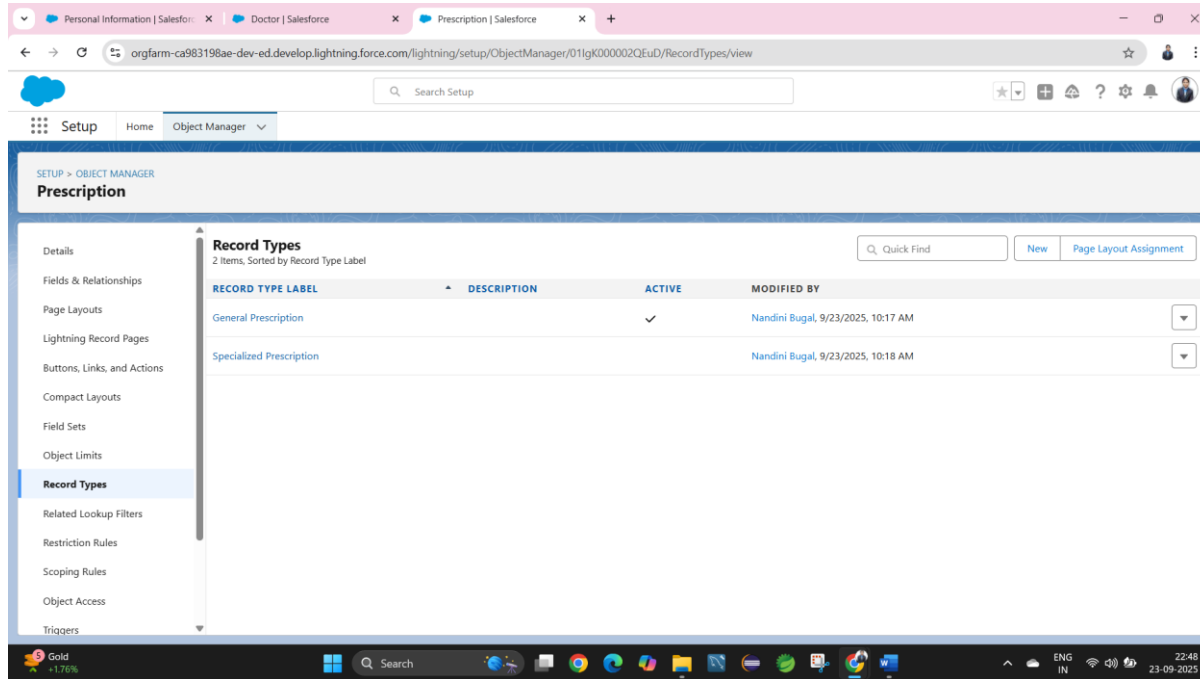
SETUP > OBJECT MANAGER
Appointment

Details
Record Types
2 Items, Sorted by Record Type Label

RECORD TYPE LABEL	DESCRIPTION	ACTIVE	MODIFIED BY
In-Person	For appointments where patient visits the clinic	✓	Nandini Bugal, 9/23/2025, 10:13 AM
Online/Telemedicine	For virtual consultations		Nandini Bugal, 9/23/2025, 10:14 AM

24°C Cloudy

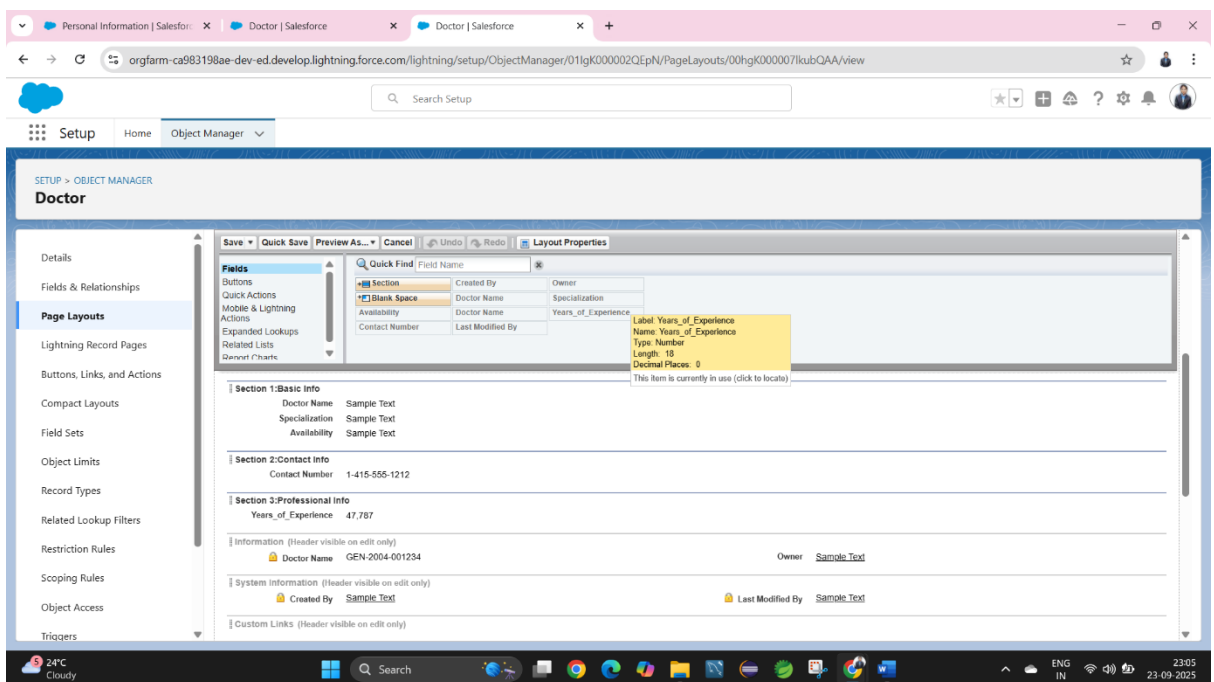
- **Prescription__c:**
 - **General Prescription**
 - **Specialized Prescription (e.g., for chronic diseases).**



4. Page Layouts

Define **which fields appear** for each record type.

- **Doctor Layout** → Basic Info ,Contact info, Professional Info



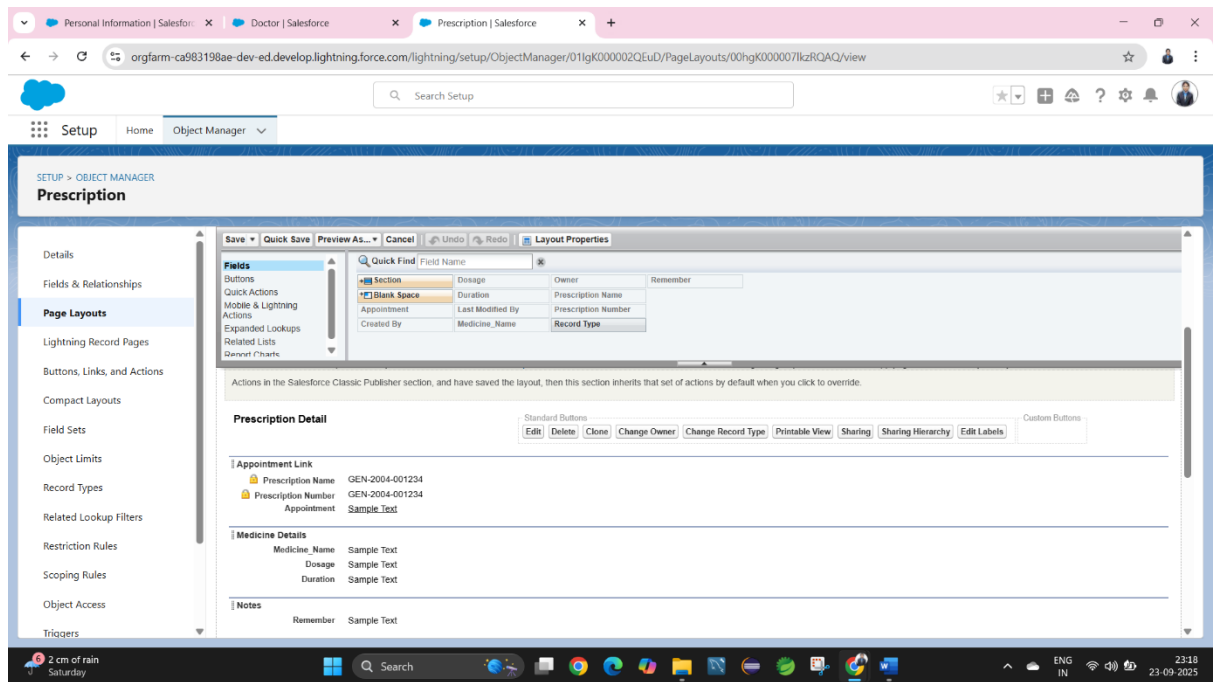
- **Patient Layout** → Basic ,Contact ,Medical.

The screenshot shows the Salesforce 'Patient' layout configuration page. The left sidebar lists various setup options, with 'Page Layouts' selected. The main area displays the 'Patient Detail' layout, which includes sections for 'Basic Info', 'Contact Info', and 'Medical Info'. The 'Fields' section on the right shows a list of fields and their relationships, including 'Created By', 'Owner', 'Patient Name', 'DOB', 'Gender', 'Last Modified By', and 'Contact Number'. The 'Standard Buttons' section includes 'Edit', 'Delete', 'Clone', 'Change Owner', 'Change Record Type', 'Printable View', 'Sharing', 'Sharing Hierarchy', and 'Edit Labels'. The 'Custom Buttons' section is empty.

- **Appointment Layout** → Appointment, Patient & Doctor, Details.

The screenshot shows the Salesforce 'Appointment' layout configuration page. The left sidebar lists various setup options, with 'Page Layouts' selected. The main area displays the 'Appointment Detail' layout, which includes sections for 'Appointment Info', 'Patient & Doctor', and 'Details'. The 'Fields' section on the right shows a list of fields and their relationships, including 'Created By', 'Owner', 'Reason', 'Appointment Date', 'Last Modified By', 'Record Type', and 'Appointment Name'. The 'Standard Buttons' section includes 'Edit', 'Delete', 'Clone', 'Change Owner', 'Change Record Type', 'Printable View', 'Sharing', 'Sharing Hierarchy', and 'Edit Labels'. The 'Custom Buttons' section is empty.

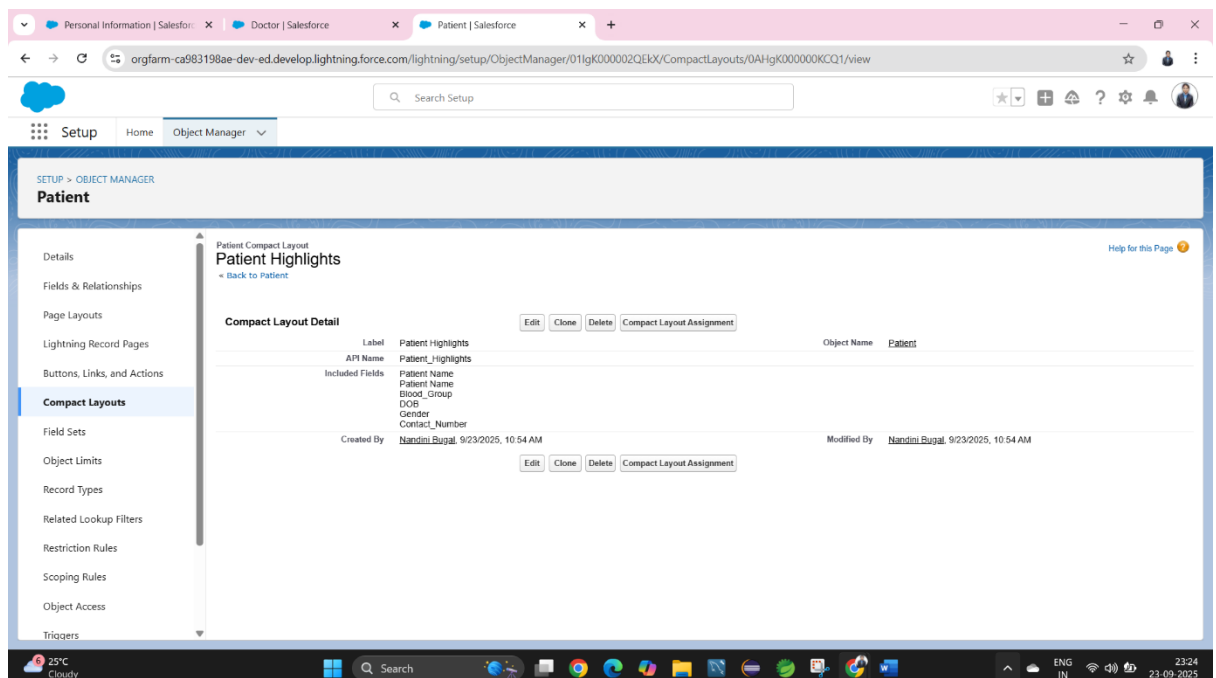
- **Prescription Layout** → Linked to Appointment, Medicine, Notes.



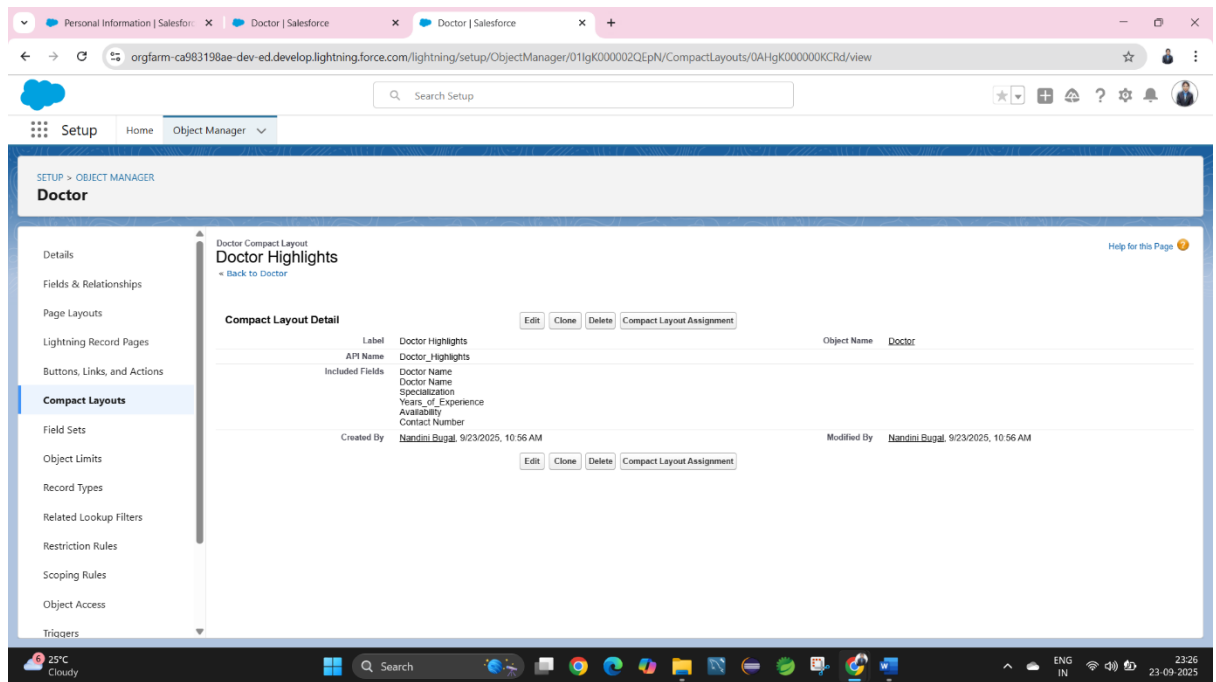
5. Compact Layouts

Show key fields in highlights panel (top of record page).

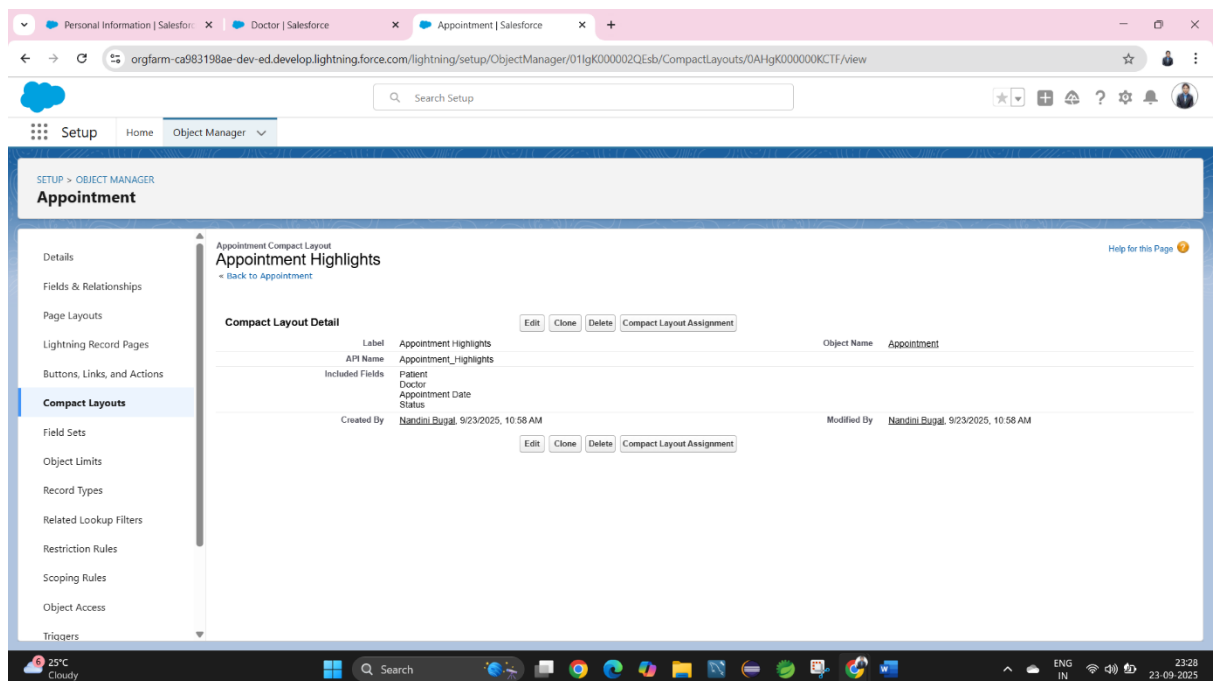
- **Patient__c** → Name, Age, Health ID, Blood Group.



- **Doctor__c** → Name, Specialization, Availability.



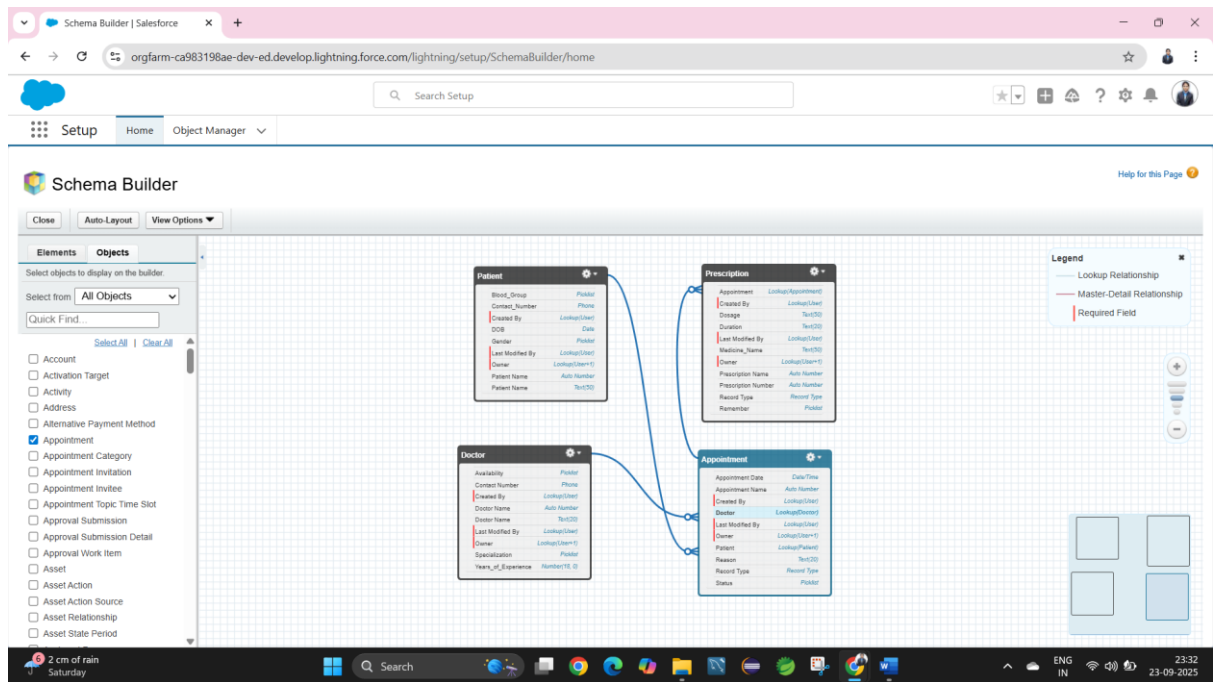
- **Appointment__c** → Patient Name, Doctor Name, Date, Status.



6. Schema Builder

Visual tool to design your **MediAid** data model:

- Drag and drop to show **relationships** between Patient, Doctor, Appointment, etc.
- Helps verify **lookup & master-detail connections**.



7. Lookup vs Master-Detail vs Hierarchical Relationships

- **Lookup** → Loose connection (can exist without parent).
 - Example: **Appointment** → **Doctor** (appointment can exist even if doctor changes).
- **Master-Detail** → Strong connection (child record depends on parent).
 - Example: **Prescription** → **Appointment** (if appointment is deleted, prescription is deleted).
- **Hierarchical** → Only for **User** object.
 - Example: **Doctor** → **Doctor (Supervisor)** One Doctor (senior) supervises another Doctor (junior).

8. Junction Objects

For **many-to-many** relationships.

- Example: **Doctor_Patient__c** (Junction Object).
 - One Patient can consult many Doctors.
 - One Doctor can treat many Patients.
- Junction object stores → Patient ID + Doctor ID + Additional info (First Visit Date, Consultation Type).

- **Doctor:**

The screenshot shows the Salesforce Setup interface for the 'Doctor_Patient' Custom Field. The left sidebar contains a navigation menu with options like 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, and Triggers. The main content area is titled 'Doctor_Patient Custom Field' and includes a 'Back to Doctor_Patient' link. Below this, there are tabs for 'Custom Field Definition Detail', 'Set Field-Level Security', 'View Field Accessibility', and 'Where is this used?'. The 'Custom Field Definition Detail' tab is active, showing 'Field Information' and 'Master-Detail Options'. The 'Field Information' section includes fields for Field Label (Doctor), Field Name (Doctor), API Name (Doctor__c), Description, Help Text, Data Owner, Field Usage, Data Sensitivity Level, Compliance Categorization, Created By (Nandini Bugal, 9/23/2025, 11:16 AM), and Modified By (Nandini Bugal, 9/23/2025, 11:16 AM). The 'Master-Detail Options' section includes fields for Related To (Doctor), Related List Label (Doctor_Patients), Sharing Setting (Read/Write: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records.), Reparentable Master Detail (unchecked), and Child Relationship Name (Doctor_Patients). A 'Lookup Filter' section is also visible at the bottom.

Patient:

The screenshot shows the Salesforce Setup interface for the 'Patient' Custom Field. The left sidebar contains a navigation menu with options like 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, and Triggers. The main content area is titled 'Patient Custom Field' and includes a 'Back to Doctor_Patient' link. Below this, there are tabs for 'Custom Field Definition Detail', 'Set Field-Level Security', 'View Field Accessibility', and 'Where is this used?'. The 'Custom Field Definition Detail' tab is active, showing 'Field Information' and 'Master-Detail Options'. The 'Field Information' section includes fields for Field Label (Patient), Field Name (Patient), API Name (Patient__c), Description, Help Text, Data Owner, Field Usage, Data Sensitivity Level, Compliance Categorization, Created By (Nandini Bugal, 9/23/2025, 11:27 AM), and Modified By (Nandini Bugal, 9/23/2025, 11:27 AM). The 'Master-Detail Options' section includes fields for Related To (Patient), Related List Label (Doctor_Patients), Sharing Setting (Read/Write: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records.), Reparentable Master Detail (unchecked), and Child Relationship Name (Doctor_Patients). A 'Lookup Filter' section is also visible at the bottom.

9. External Objects

Used to **connect with external healthcare systems/databases** without storing data in Salesforce.

- Example: Lab Reports stored in an external **Hospital Management System (HMS)** → can be accessed in Salesforce as **External Object: Lab_Report__x**.
- Use **Salesforce Connect** to fetch external patient insurance or diagnostic data.

The screenshot shows the Salesforce Setup interface for External Data Sources. The left sidebar contains navigation links for Email, Apps, External Client Apps, OAuth Usage, Settings, Integrations, External Data Sources, External Objects, and External Services. The main content area is titled 'External Data Sources' and shows the configuration for an External Data Source named 'Lab_HMS'. The configuration includes a table with columns for External Data Source, Name, and Type. Below the table, there are fields for URL, Connection Timeout (Seconds), Writable External Objects, High Data Volume, Server Driven Pagination, Request Row Counts, Compress Requests, Enable Search, and Use Free-Text Search Expressions.

External Data Source	Name	Type
Lab_HMS	Lab_HMS	Salesforce Connect: OData 4.0

Parameters

- URL: <https://services.odata.org/V4/Northwind/Northwind.svc/>
- Connection Timeout (Seconds): 120
- Writable External Objects: ☐
- High Data Volume: ☐
- Server Driven Pagination: ☐
- Request Row Counts: ☒
- Compress Requests: ☐
- Enable Search: ☒
- Use Free-Text Search Expressions: ☐