SALESFORCE PROJECT IMPLEMENTATION PHASES

MediSmart CRM – AI-Powered Healthcare Appointment & Patient Follow-up CRM
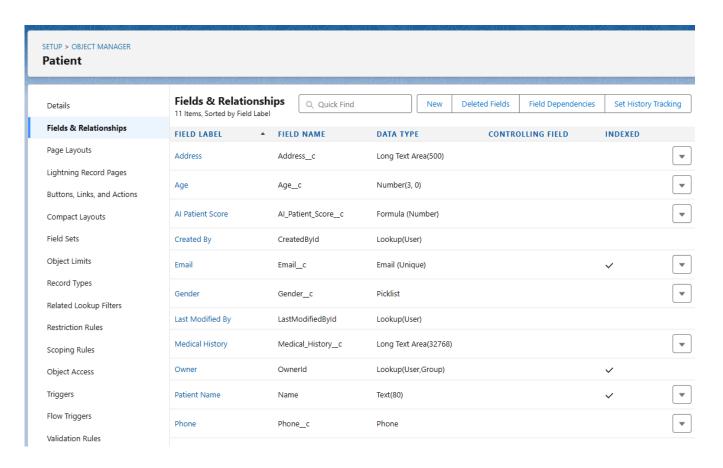
Phase 3: Data Modeling & Relationships

Motive of Phase 3:- lay the foundation for how your data will be stored, structured, and connected
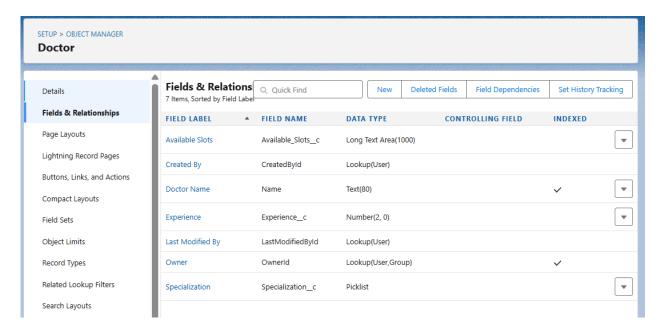
Create Custom Objects

1. Patient

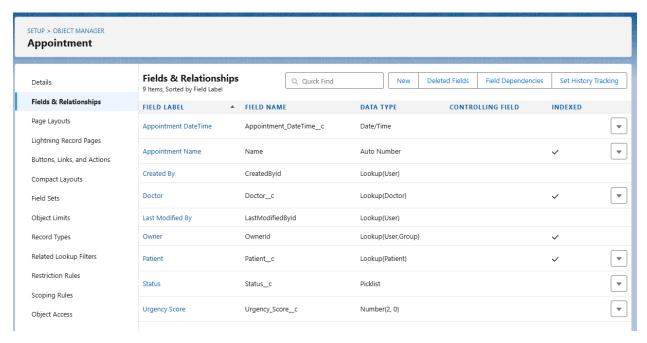- Fields: Name, Age, Gender, Phone, Email, Address, Medical_History__c (Long Text), AI_Patient_Score__c (Formula).

SETUP > OBJECT MANAGER
Patient

Details	**Fields & Relationships** 11 Items, Sorted by Field Label	Quick Find	New	Deleted Fields	Field Dependencies	Set History Tracking

FIELD LABEL ▲	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED	
Address	Address__c	Long Text Area(500)			▼
Age	Age__c	Number(3, 0)			▼
AI Patient Score	AI_Patient_Score__c	Formula (Number)			▼
Created By	CreatedById	Lookup(User)			
Email	Email__c	Email (Unique)		✓	▼
Gender	Gender__c	Picklist			▼
Last Modified By	LastModifiedById	Lookup(User)			
Medical History	Medical_History__c	Long Text Area(32768)			▼
Owner	OwnerId	Lookup(User,Group)		✓	
Patient Name	Name	Text(80)		✓	▼
Phone	Phone__c	Phone			▼

2. Doctor

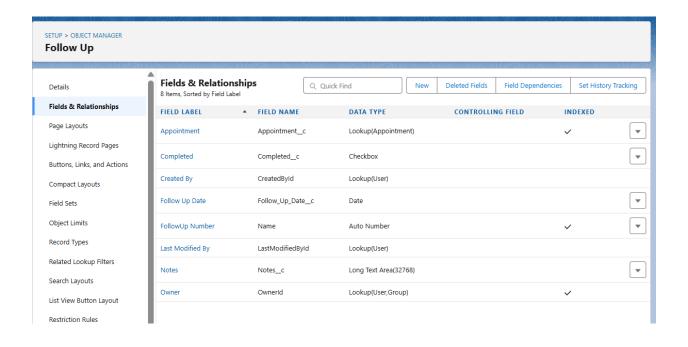- Fields: Name, Specialization, Available_Slots__c (Text/JSON), Experience_Years__c,

3. Appointment

- Fields: DateTime, Status (Picklist: Scheduled, Completed, Cancelled, No-Show), Patient (Lookup to Patient__c), Doctor (Lookup to Doctor__c), Urgency_Score__c (Number).
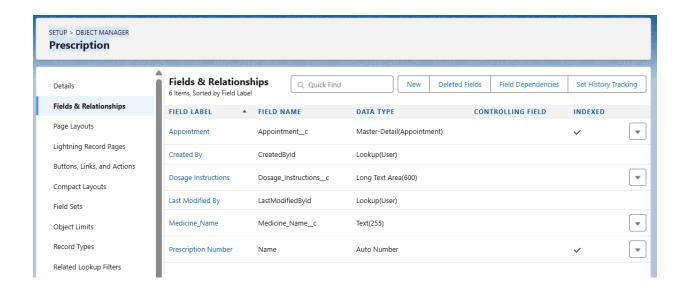
4. FollowUp__c

- Fields: Appointment (Lookup), Follow_Up_Date__c, Notes__c, Completed__c (Checkbox).

5. Prescription

- Fields: Appointment (Master-Detail), Medicine_Name__c, Dosage__c, Duration__c.

3. **Relationships**

Properly defining relationships ensures data integrity, enables automation, reporting, and analytics.

- Patient → Appointment: One patient can have multiple appointments.
- Doctor → Appointment: One doctor can see many patients.
- Appointment → FollowUp: Each appointment may have multiple follow-ups.
- Appointment → Prescription: Master-Detail ensures prescriptions are deleted if an appointment is removed.
- Patient ↔ Doctor (via Appointment): Many-to-Many relationship allows tracking which patients see which doctors.

4. Record Types

Record Types allow customization of page layouts, picklist values, and business processes for different types of records.

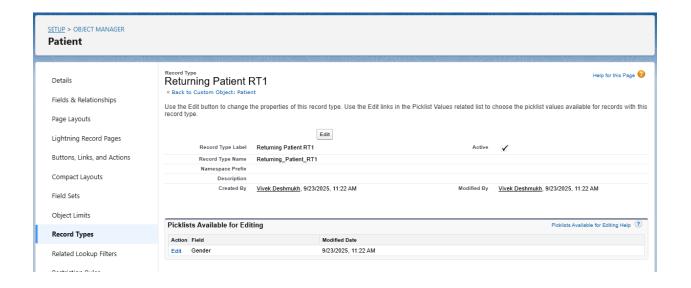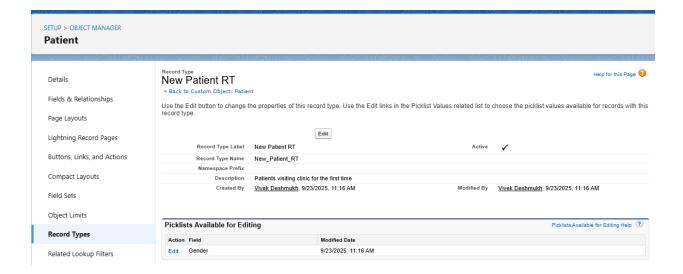Appointment: one record types In-Person Consultation

Patient: Two record type for New Patient and Returning Patient

Details		
Fields & Relationships		
Page Layouts		
Lightning Record Pages		
Buttons, Links, and Actions		
Compact Layouts		
Field Sets		
Object Limits		
Record Types		
Related Lookup Filters		

Record Type
New Patient RT
« Back to Custom Object: Patient

Help for this Page ❓

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.

<div align="center">Edit</div>

Record Type Label	New Patient RT		Active	✓
Record Type Name	New_Patient_RT			
Namespace Prefix				
Description	Patients visiting clinic for the first time			
Created By	Vivek Deshmukh, 9/23/2025, 11:16 AM		Modified By	Vivek Deshmukh, 9/23/2025, 11:16 AM

Picklists Available for Editing   Picklists Available for Editing Help ❓

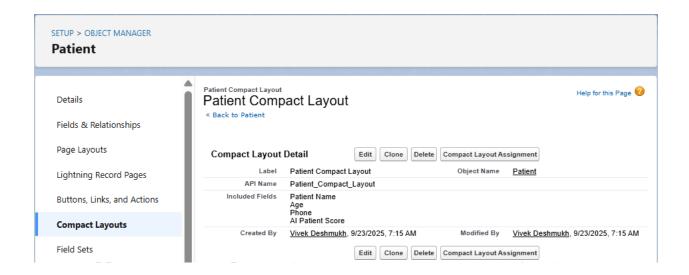| Action	Field	Modified Date
Edit	Gender	9/23/2025, 11:16 AM

5. Page Layouts

- Patient Layout: Quick view → demographics + recent appointments.

- Doctor Layout: Specialization + appointments list

- Appointment Layout: Appointment details + predicted no-show + prescription + follow-up section.

6. Compact Layouts

- Patient Compact Layout: Name, Age, Phone, Engagement Score.

Details		
Fields & Relationships		
Page Layouts		
Lightning Record Pages		
Buttons, Links, and Actions		
Compact Layouts		
Field Sets		

Patient Compact Layout
Patient Compact Layout
« Back to Patient

Help for this Page ❓

Compact Layout Detail   Edit | Clone | Delete | Compact Layout Assignment

Label	Patient Compact Layout	Object Name	Patient
API Name	Patient_Compact_Layout		
Included Fields	Patient Name Age Phone AI Patient Score		
Created By	Vivek Deshmukh, 9/23/2025, 7:15 AM	Modified By	Vivek Deshmukh, 9/23/2025, 7:15 AM

Edit | Clone | Delete | Compact Layout Assignment

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Appointment Compact Layout
Appointment Compact Layout
« Back to Appointment

Help for this Page

Compact Layout Detail   Edit | Clone | Delete | Compact Layout Assignment

Label	Appointment Compact Layout	Object Name	Appointment
API Name	Appointment_Compact_Layout		
Included Fields	Appointment DateTime		
	Status		
	Doctor		
	Urgency Score		
Created By	Vivek Deshmukh, 9/23/2025, 7:17 AM	Modified By	Vivek Deshmukh, 9/23/2025, 7:17 AM

Edit | Clone | Delete | Compact Layout Assignment

7. Schema Builder

- Setup → Schema Builder to visually connect objects.

8. Lookup vs Master-Detail

- Lookup:

  - Appointment → Patient

  - Appointment → Doctor

  - Follow_Up → Appointment

- Master-Detail:

  - Prescription → Appointment

9. Juction Objects

Appointment acts as a junction between Patient and Doctor.

10. External Objects

- If we want AI/ML integration later (like predictive models running outside Salesforce in AWS/Heroku), we can create an External Object linked via Salesforce Connect to store AI predictions.