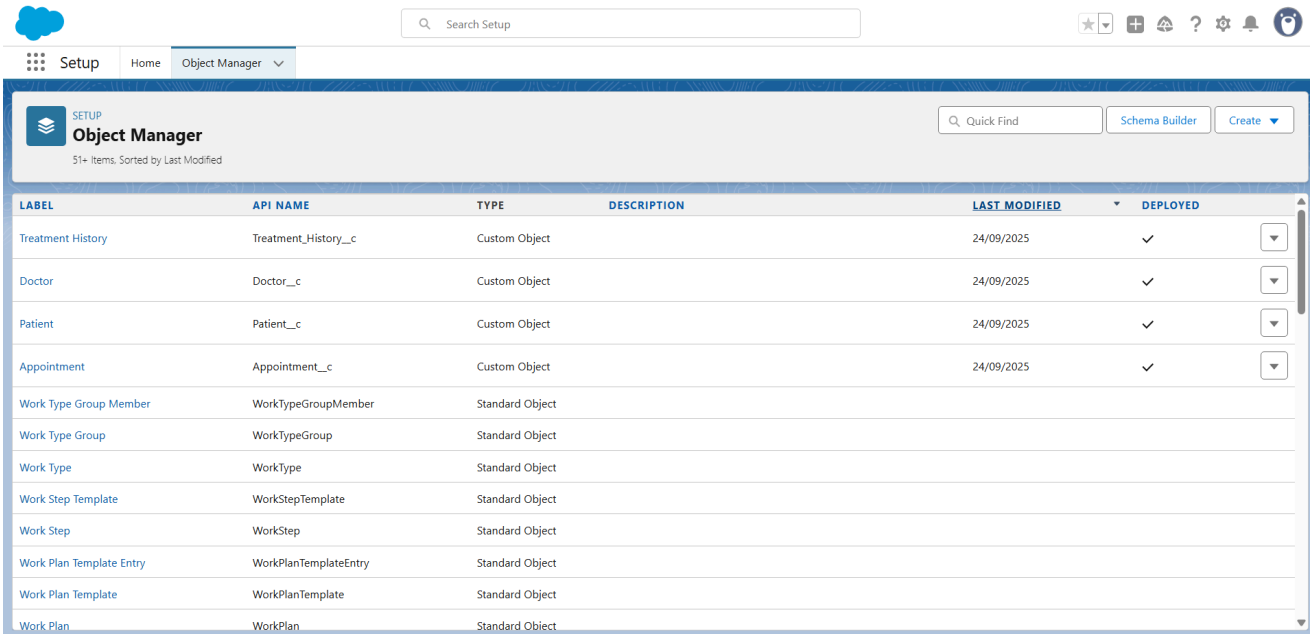
Phase 3 — Data Modeling & Relationships

1) Standard & Custom Objects

Standard Objects: User (for logins and ownership) and Task/Event (for reminders).

Custom Objects: Patient__c, Doctor__c, Appointment__c, and Treatment_History__c. These custom objects are the core building blocks of the hospital management system.



LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Treatment History	Treatment_History__c	Custom Object		24/09/2025	✓
Doctor	Doctor__c	Custom Object		24/09/2025	✓
Patient	Patient__c	Custom Object		24/09/2025	✓
Appointment	Appointment__c	Custom Object		24/09/2025	✓
Work Type Group Member	WorkTypeGroupMember	Standard Object			
Work Type Group	WorkTypeGroup	Standard Object			
Work Type	WorkType	Standard Object			
Work Step Template	WorkStepTemplate	Standard Object			
Work Step	WorkStep	Standard Object			
Work Plan Template Entry	WorkPlanTemplateEntry	Standard Object			
Work Plan Template	WorkPlanTemplate	Standard Object			
Work Plan	WorkPlan	Standard Object			

2) Fields

We've created a set of essential fields for each custom object to capture key information:

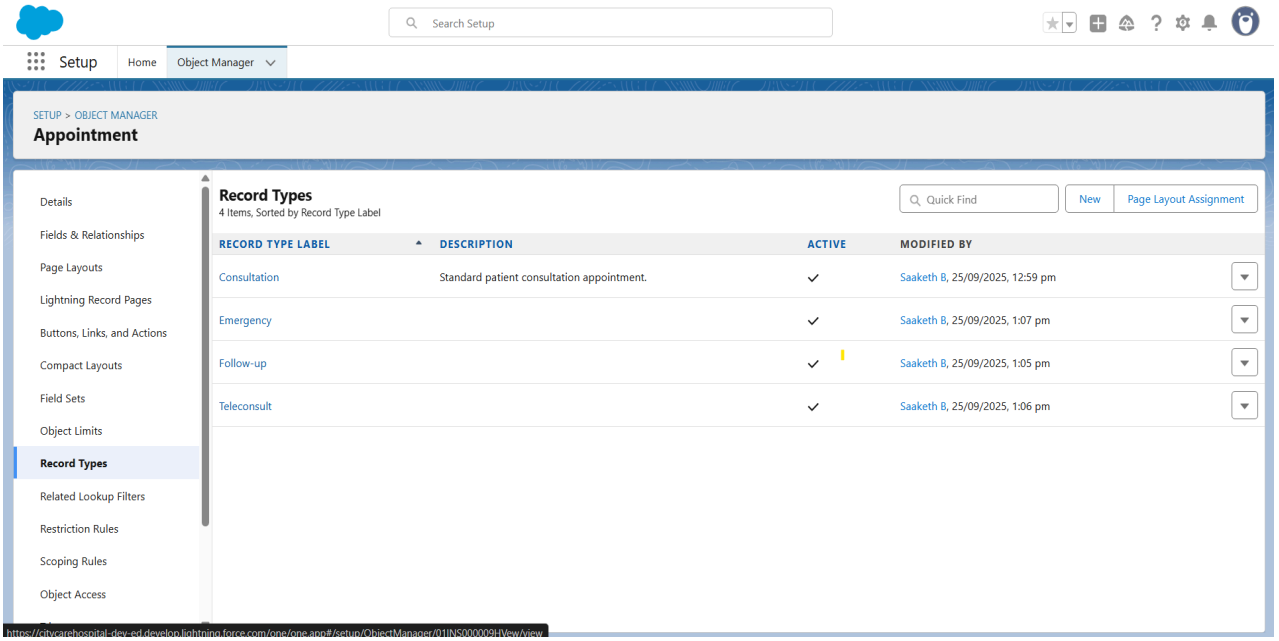
- **Patient:** Name, Age, Gender, Phone, Email, Address, and Medical History.
- **Doctor:** Name, Specialization, Department, Phone, Email, and Experience.
- **Appointment & Treatment History:** Date/Time, Status, Diagnosis, Prescription, and Follow-up.

3) Record Types

Record types were implemented on the **Appointment__c** object to categorize different types of appointments and enable distinct business processes.

- **Record Types:** Consultation, Follow-up, Teleconsult, and Emergency.

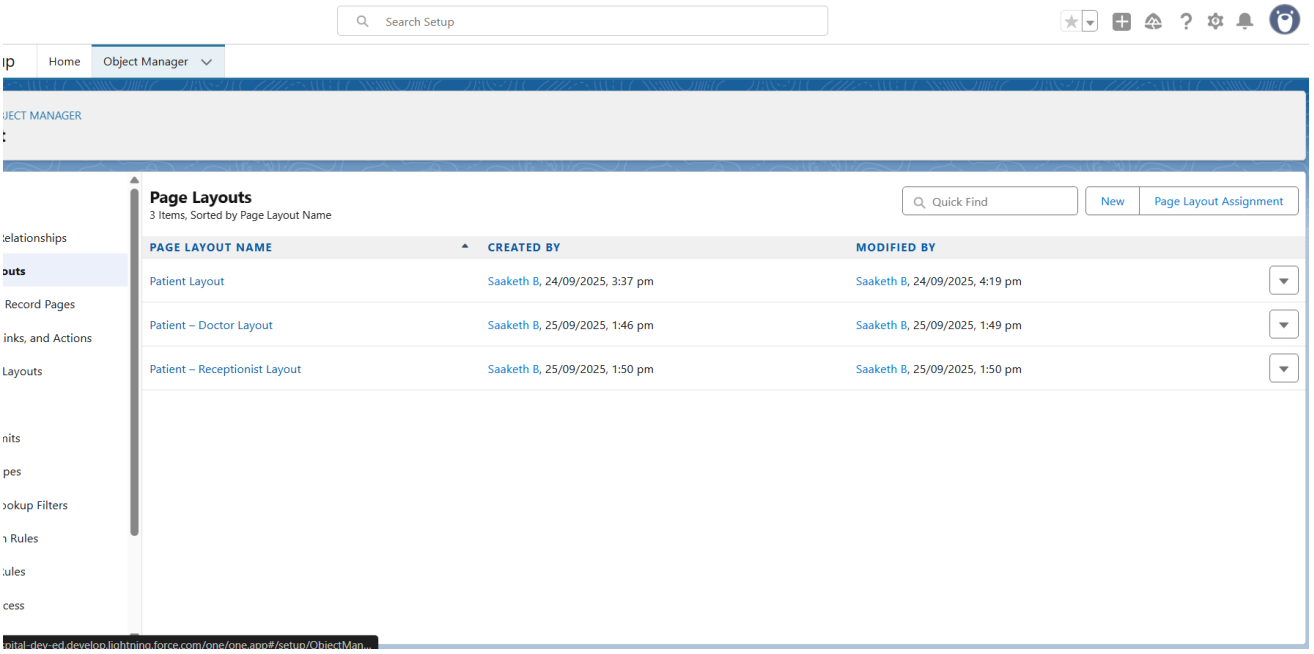
- **Purpose:** These record types help separate appointment categories and business flows, with each one assigned to the correct user profiles.

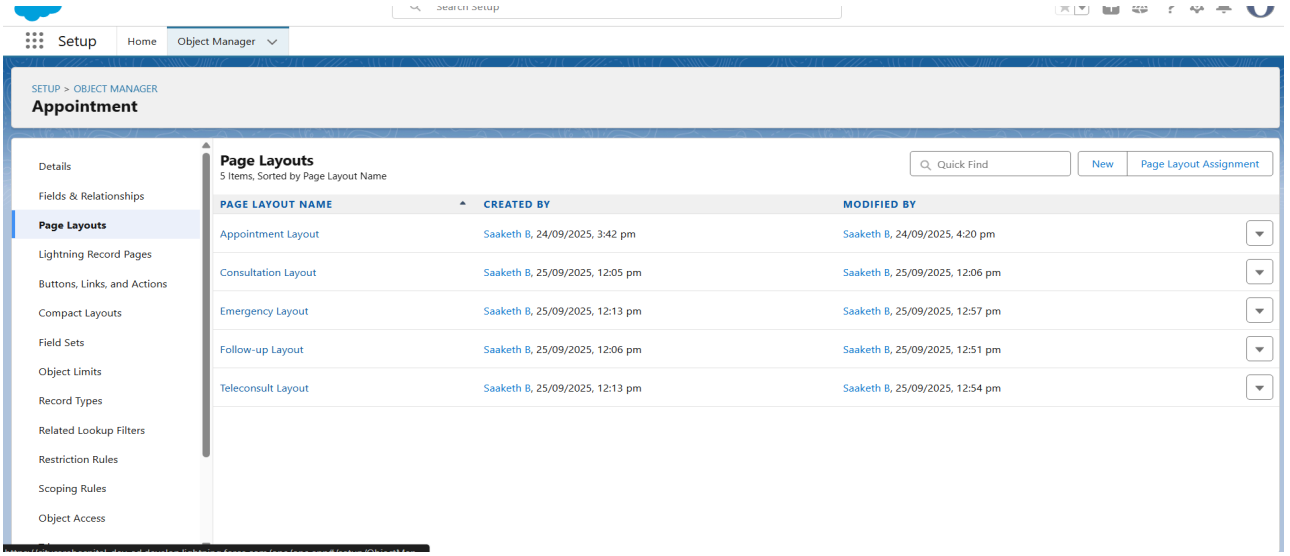


4) Page Layouts

We've designed specific page layouts to control the user's view and interaction with records.

- **Patient__c:** A **Doctor Layout** (includes Medical History) and a **Receptionist Layout** (excludes Medical History).
- **Appointment__c:** Dedicated layouts for Consultation, Follow-up, Teleconsult, and Emergency.
- **Doctor__c & Treatment_History__c:** A single layout for each, with security handled by field-level settings.

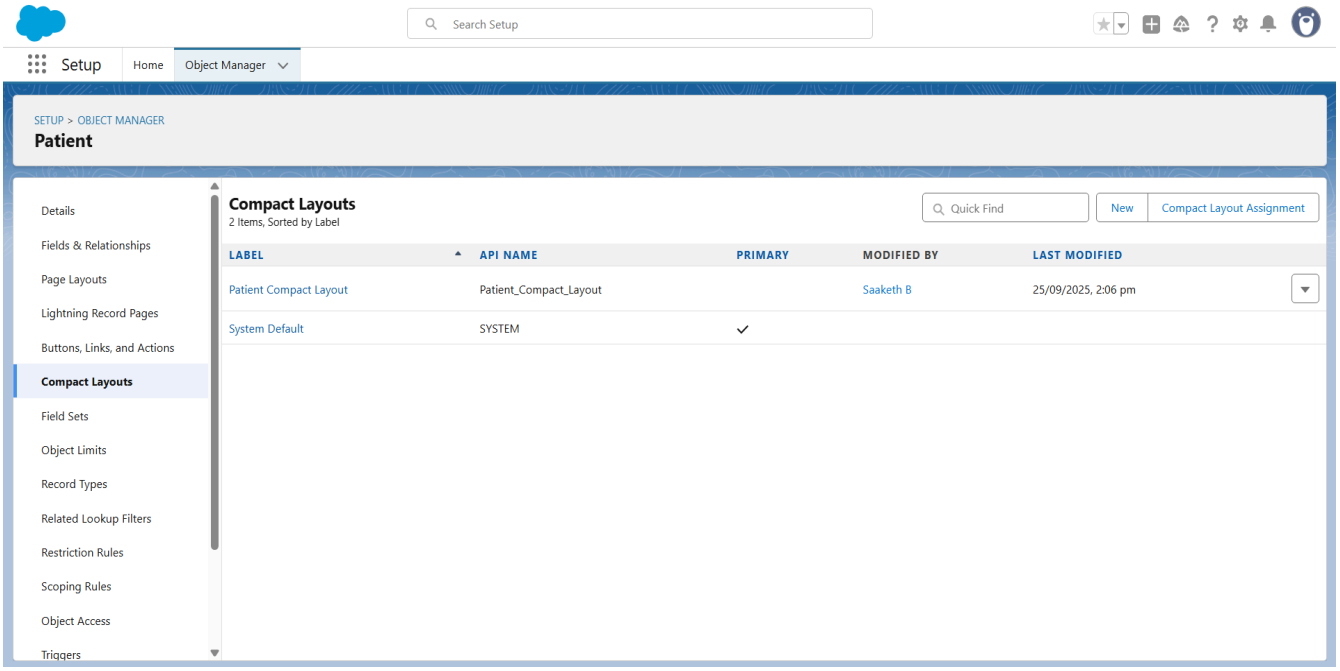


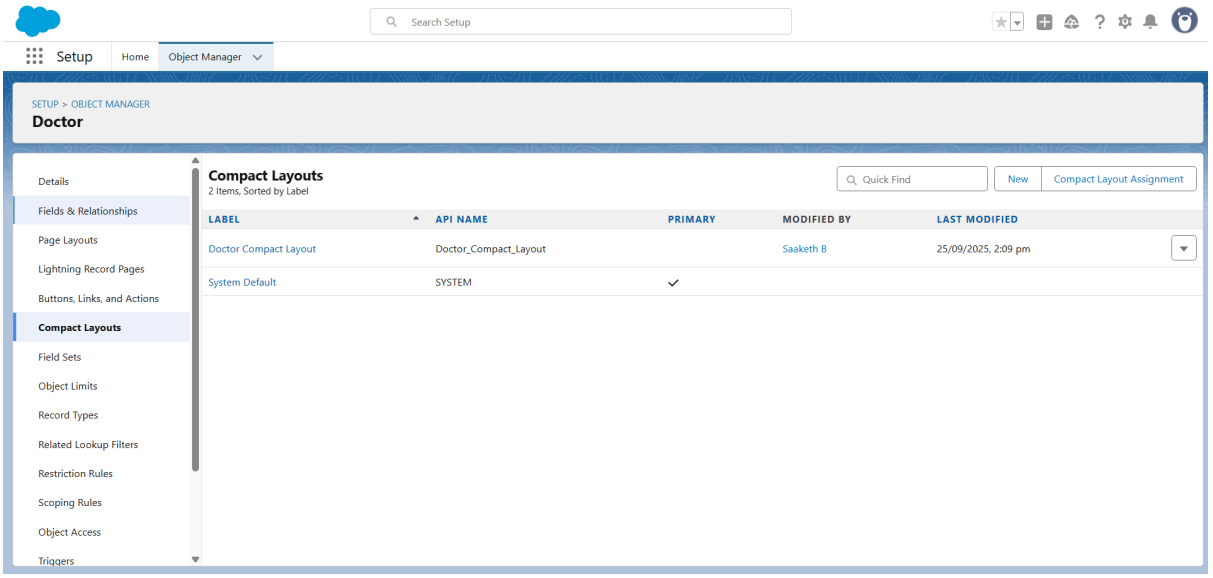


5) Compact Layouts

Compact layouts were configured to display the most critical information at a glance in the highlight panel of a record.

- **Patient__c:** Full Name, Age, Phone, and Email.
- **Doctor__c:** Full Name, Specialization, Department, and Phone.

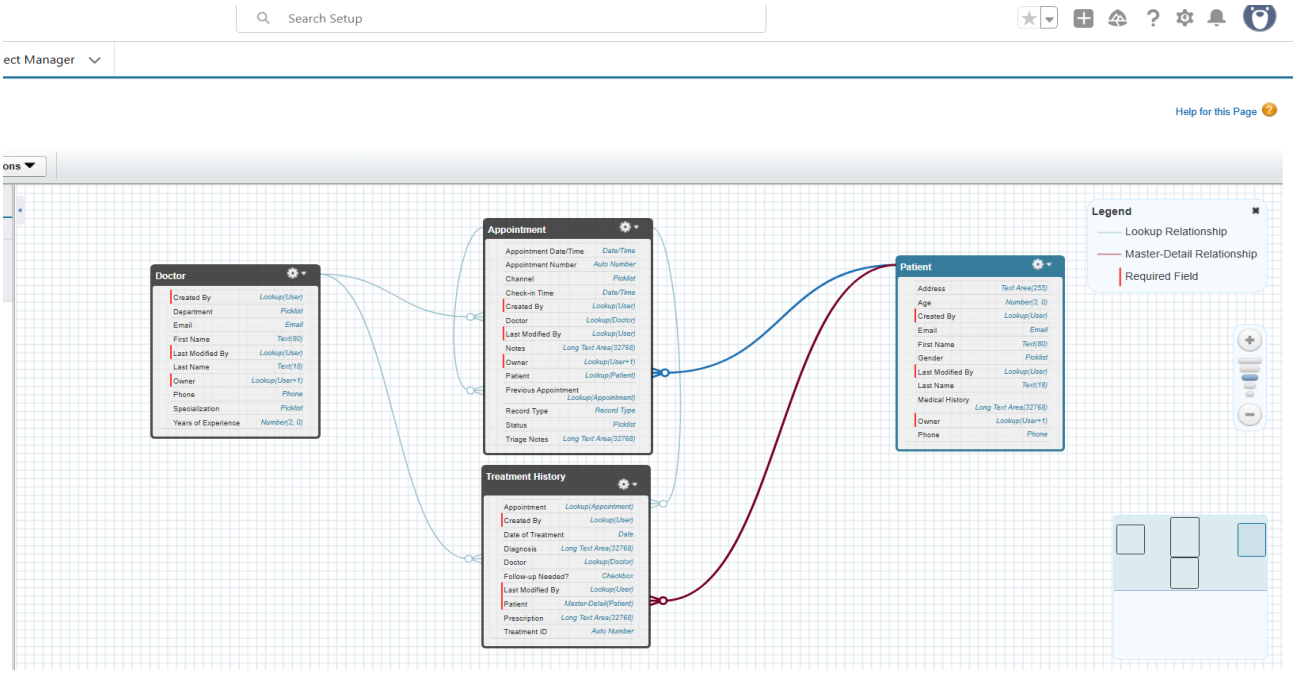




6) Schema Builder

The Schema Builder was used to design and visualize the relationships between our custom objects, creating an Entity-Relationship Diagram (ERD).

- **ERD:** Designed for Patient, Doctor, Appointment, and Treatment History.
- **Purpose:** Clearly shows the Lookups and Master-Detail relationships, which is a key part of our documentation.



7) Lookup vs. Master-Detail Relationships

Relationships are critical for linking our data together.

- **Lookup:**

    - **Appointment** → **Patient** & **Doctor** (An appointment is related to, but not dependent on, a patient or a doctor).
    - **Treatment History** → **Appointment** & **Doctor**.
- **Master-Detail:**
    - **Treatment History** → **Patient** (A treatment history record is a detail of a patient and cannot exist without a patient).

8) Junction Objects

A junction object is used to create a many-to-many relationship.

- **Appointment__c** acts as a **junction object** between **Patient__c** and **Doctor__c**, allowing for a many-to-many relationship where multiple patients can have appointments with multiple doctors.
- No other junction objects were required for this system's initial design.

9) External Objects

External objects are not currently used in this system as all data is stored directly in Salesforce. They are noted as a future consideration for integrations with external systems like Electronic Health Records (EHR) or insurance platforms.