

## Phase 3: Data Modeling & Relationships

### Goal:

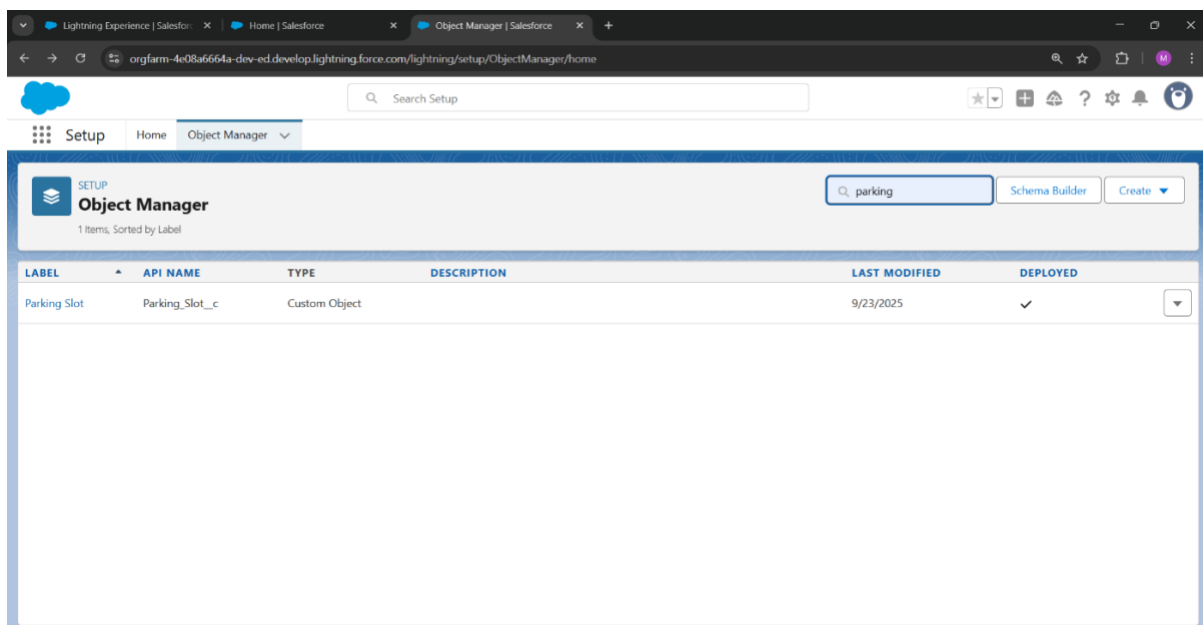
The goal of this phase is to design the **data structure** of the Parking Slot Reservation System in Salesforce.

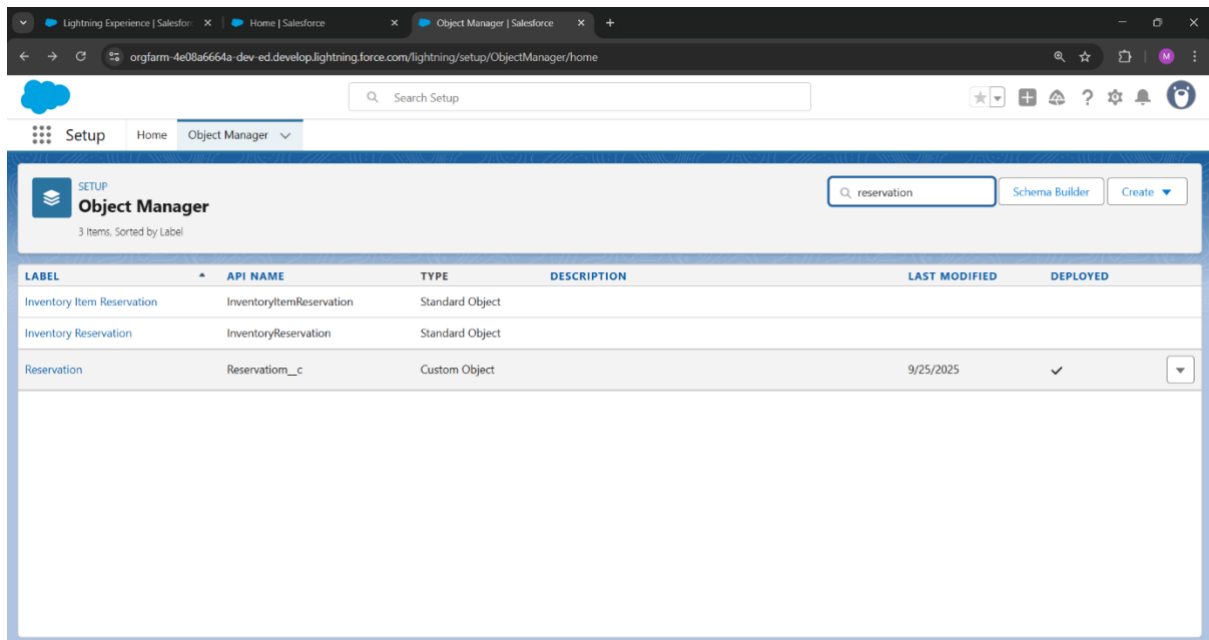
We create objects, fields, and relationships to connect **Employees (Contacts)**, **Parking Slots**, and **Reservations**.

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### ◆ Step 1: Create Custom Objects

1. Go to **Setup** → **Object Manager** → **Create** → **Custom Object**.
2. Create the following objects:
  - **Parking Slot**
    - Record Name: Auto Number (e.g., SLOT-{000})
  - **Reservation**
    - Record Name: Auto Number (e.g., RES-{000})

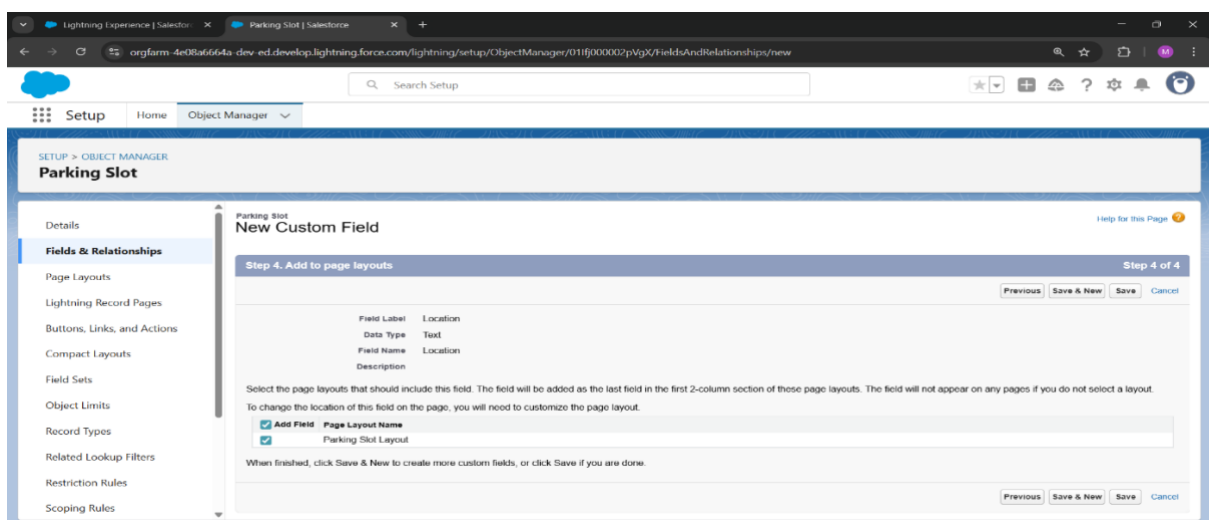




Screenshots: Object Manager showing Parking Slot and Reservation objects.

## ◆ Step 2: Fields in Parking Slot Object

1. Open **Parking Slot** → **Fields & Relationships** → **New**.
2. Create the following fields:
  - Slot Number → Text
  - Location → Text
  - Status → Picklist (Available, Occupied, Blocked, Maintenance)
  - Type → Picklist (VIP, Guest, Employee).



Screenshot: Parking Slot fields list page.

### ◆ Step 3: Fields in Reservation Object

1. Open **Reservation** → **Fields & Relationships** → **New**.
2. Create the following fields:
  - Start Time → Date/Time
  - End Time → Date/Time
  - Status → Picklist (Pending, Confirmed, Cancelled, Completed)
  - Total Duration → Formula (End Time – Start Time)
  - Employee → Lookup to **Contact**
  - Parking Slot → Lookup to **Parking Slot**

The image displays two screenshots of the Salesforce Setup interface, specifically the 'Fields & Relationships' page for the 'Parking Slot' and 'Reservation' objects.

**Top Screenshot: Parking Slot Object**

The 'Fields & Relationships' page for the 'Parking Slot' object shows 8 items, sorted by Field Label. The table lists the following fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Location	Location__c	Text(20)		
Owner	OwnerId	Lookup(User,Group)		✓
Slot Number	Slot_Number__c	Text(4)		
Slot Number	Name	Text(80)		✓
Status	Status__c	Picklist		
Type	Type__c	Picklist		

**Bottom Screenshot: Reservation Object**

The 'Fields & Relationships' page for the 'Reservation' object shows 11 items, sorted by Field Label. The table lists the following fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Employee	Employee__c	Lookup(Contact)		✓
End Time	End_Time__c	Date/Time		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Parking Slot	Parking_Slot__c	Lookup(Parking Slot)		✓
Record Type	RecordTypeId	Record Type		✓
Reservation ID	Name	Auto Number		✓
Start Time	Start_Time__c	Date/Time		
Status	Status__c	Picklist		
Total Duration	Total_Duration__c	Formula (Number)		

*Screenshot:* Reservation fields list page.

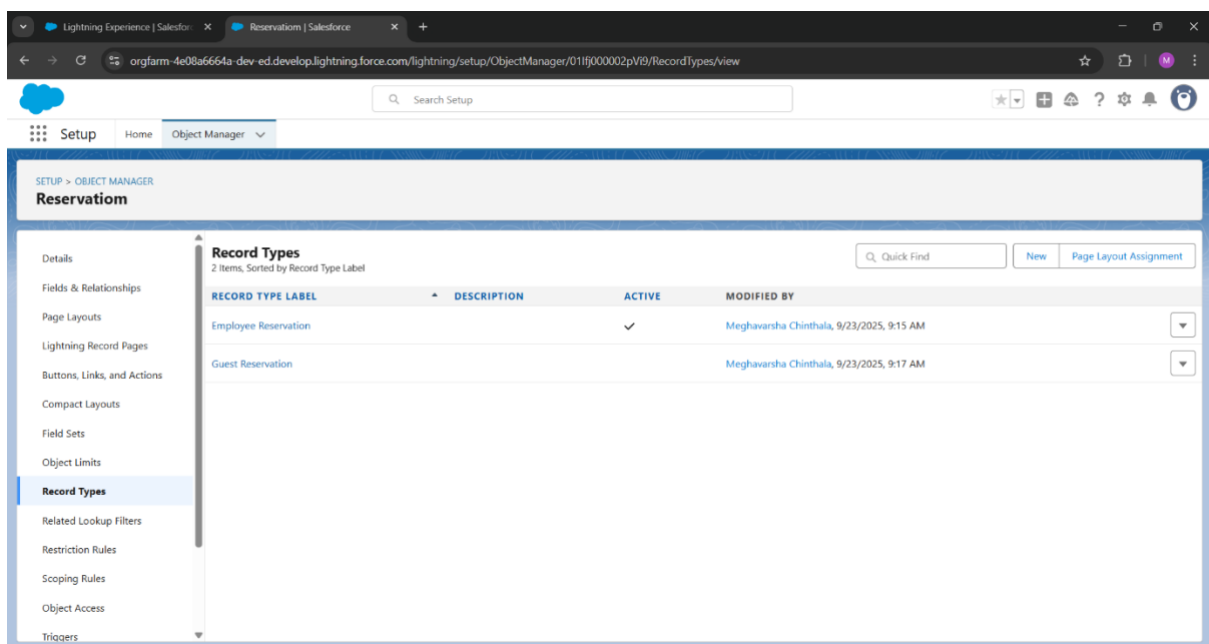
#### ◆ Step 4: Define Relationships

- **Reservation → Parking Slot** = Lookup Relationship
- **Reservation → Employee (Contact)** = Lookup Relationship

This ensures each reservation is linked to one employee and one parking slot.

#### ◆ Step 5: Record Types

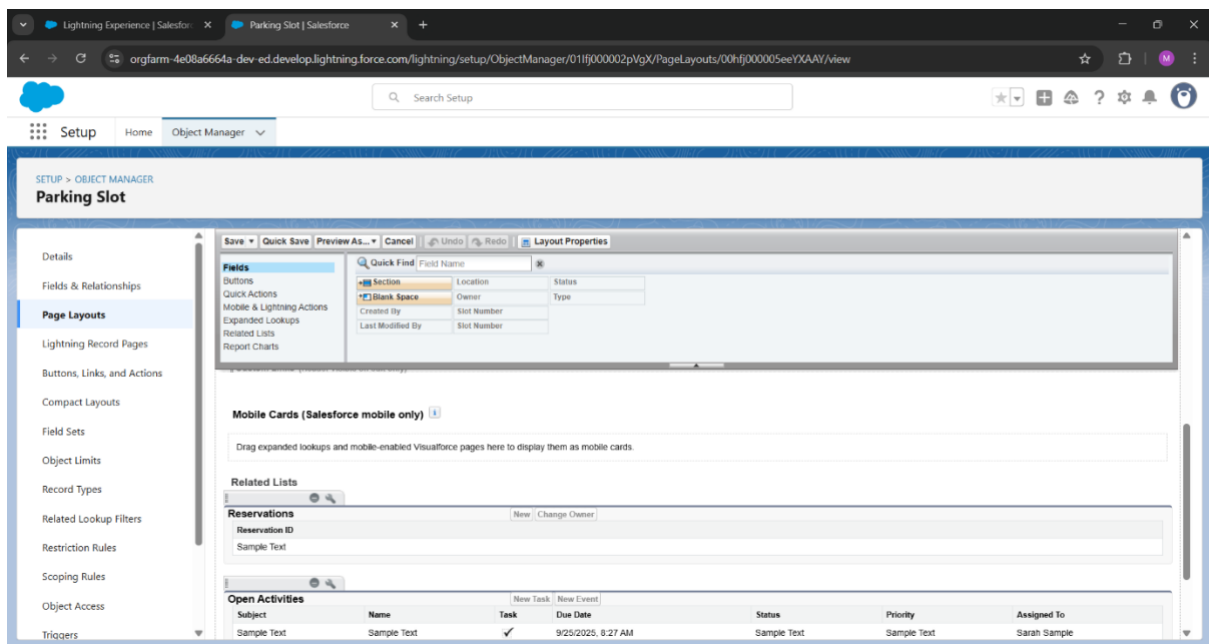
1. Go to **Reservation → Record Types → New**.
2. Create two record types:
  - Employee Reservation
  - Guest Reservation
3. Assign them to proper profiles.



*Screenshot:* Record types list for Reservation.

#### ◆ Step 6: Page Layouts

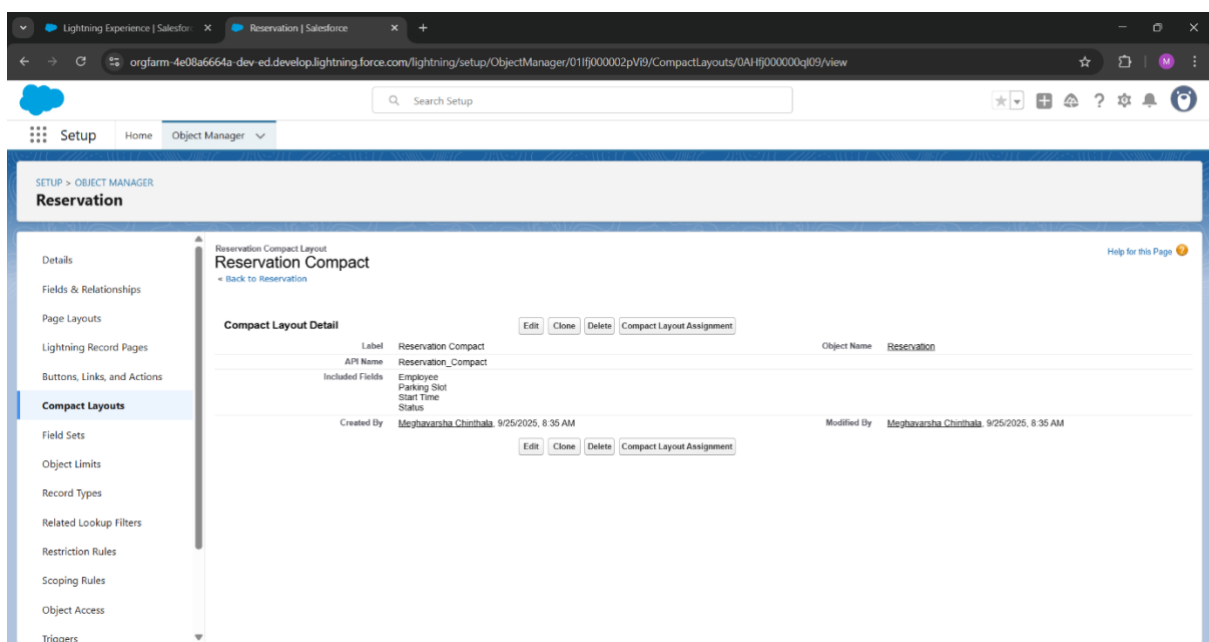
1. **Parking Slot Layout:** Add fields (Slot No, Location, Status, Type) and Related List → Reservations.
2. **Reservation Layout:** Add fields (Employee, Parking Slot, Start Time, End Time, Status, Duration).



Screenshot: Page Layout editor with Reservations related list.

## ◆ Step 7: Compact Layouts

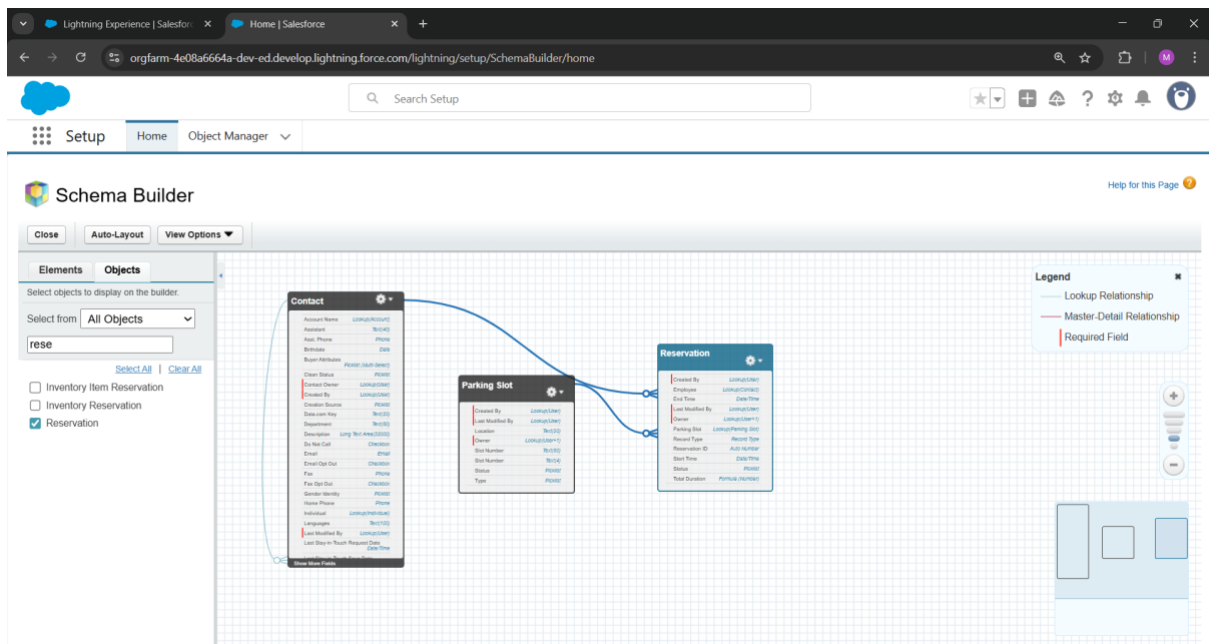
1. **Parking Slot Compact Layout:** Slot Number, Location, Status, Type.
2. **Reservation Compact Layout:** Employee, Parking Slot, Start Time, Status.



Screenshot : Compact Layouts list with active layout.

## ◆ Step 8: Schema Builder

1. Go to **Setup** → **Schema Builder**.
2. Drag **Contact**, **Parking Slot**, **Reservation** objects.
3. Show Lookup Relationships visually.



*Screenshot: Schema Builder diagram.*

## Outcome of Phase 3

- **Data Model is ready** with Parking Slots, Reservations, and Employees linked.
- Every reservation connects to an employee and a slot.
- Managers can view reservation history for each slot.
- Foundation is set for automation (Phase 4).