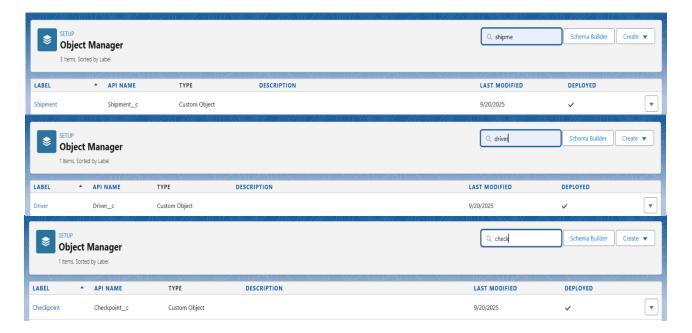# Phase 3: Data Modeling & Relationships
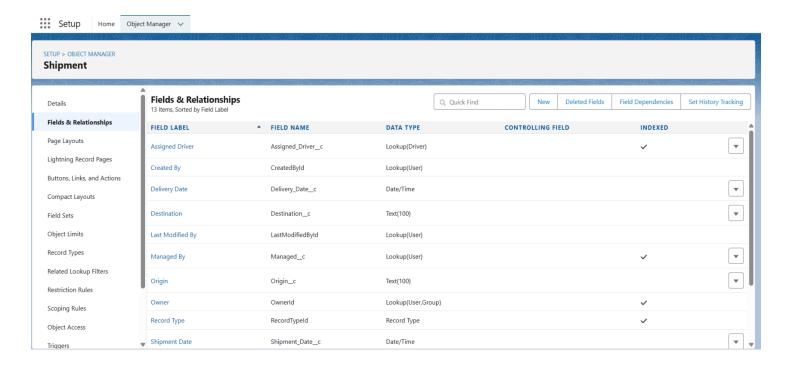
Project: Logistics & Shipment Tracking System

1. Objects Implemented

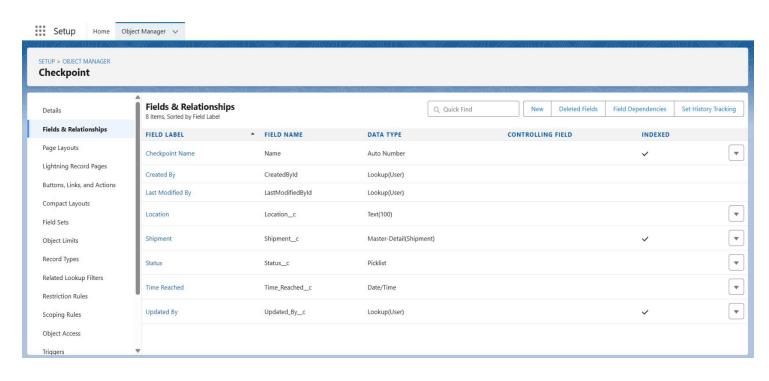- Standard Objects Reused: User (Admin, Manager, Agent, Driver), Account & Contact (future customer linkage).
- Custom Objects Created:
- 1. Shipment__c → Core object for booking and tracking shipments.
- 2. Driver__c → Represents individual drivers assigned to shipments.
- 3. Checkpoint__c → Tracks shipment progress across checkpoints.
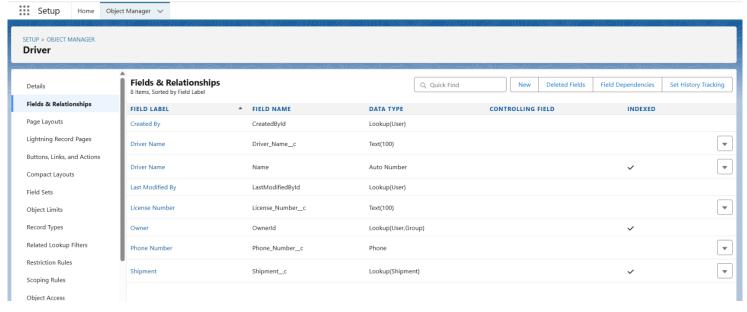

2. Fields Defined

- Shipment__c Fields: Auto Number, Name, Origin, Destination, Date, Status (Picklist), Assigned Driver (Lookup), Customer (Lookup to Account), Notes.
- Driver__c Fields: Auto Number, Driver Name, License Number, Phone Number, Status (Picklist).
- Checkpoint__c Fields: Auto Number, Shipment (Master-Detail), Location, Arrival Time, Status (Picklist), Notes.

SETUP > OBJECT MANAGER
Shipment

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						

Fields & Relationships
13 Items, Sorted by Field Label

Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

FIELD LABEL ▲	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED	
Assigned Driver	Assigned_Driver__c	Lookup(Driver)		✓	▼
Created By	CreatedById	Lookup(User)			
Delivery Date	Delivery_Date__c	Date/Time			▼
Destination	Destination__c	Text(100)			▼
Last Modified By	LastModifiedById	Lookup(User)			
Managed By	Managed__c	Lookup(User)		✓	▼
Origin	Origin__c	Text(100)			▼
Owner	OwnerId	Lookup(User,Group)		✓	
Record Type	RecordTypeId	Record Type		✓	
Shipment Date	Shipment_Date__c	Date/Time			▼

SETUP > OBJECT MANAGER
Checkpoint

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						

Fields & Relationships
8 Items, Sorted by Field Label

Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

FIELD LABEL ▲	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED	
Checkpoint Name	Name	Auto Number		✓	▼
Created By	CreatedById	Lookup(User)			
Last Modified By	LastModifiedById	Lookup(User)			
Location	Location__c	Text(100)			▼
Shipment	Shipment__c	Master-Detail(Shipment)		✓	▼
Status	Status__c	Picklist			▼
Time Reached	Time_Reached__c	Date/Time			▼
Updated By	Updated_By__c	Lookup(User)		✓	▼

SETUP > OBJECT MANAGER
Driver

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						

Fields & Relationships
8 Items, Sorted by Field Label

Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

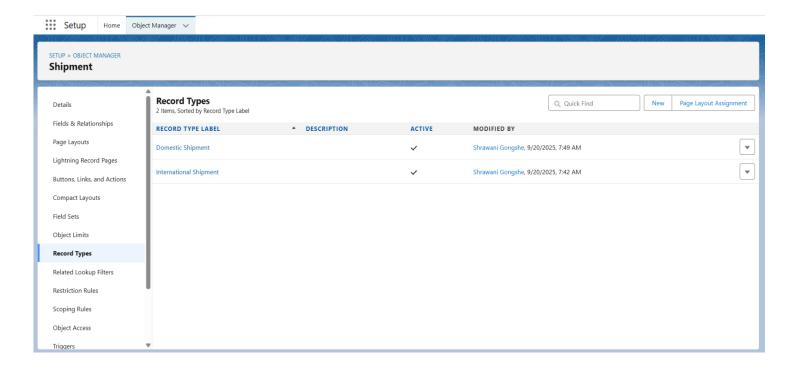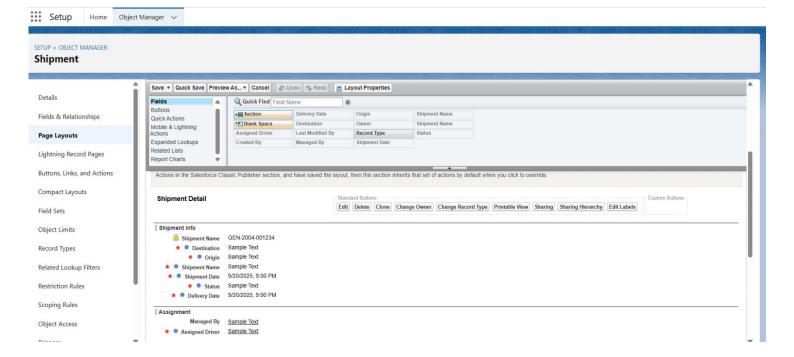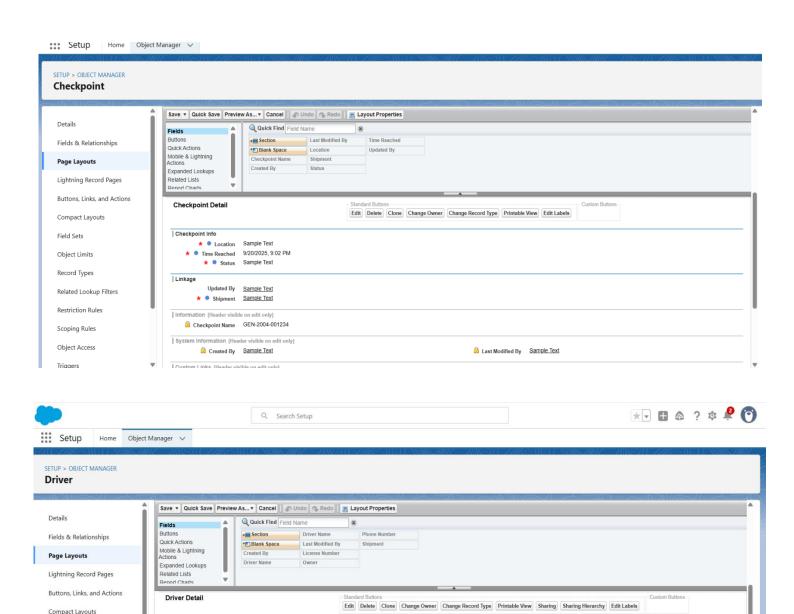| FIELD LABEL ▲	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED	
Created By	CreatedById	Lookup(User)			
Driver Name	Driver_Name__c	Text(100)			▼
Driver Name	Name	Auto Number		✓	▼
Last Modified By	LastModifiedById	Lookup(User)			
License Number	License_Number__c	Text(100)			▼
Owner	OwnerId	Lookup(User,Group)		✓	
Phone Number	Phone_Number__c	Phone			▼
Shipment	Shipment__c	Lookup(Shipment)		✓	▼

3. Record Types

- Not required at this stage (all shipments share the same process).
- Future scope: Record types for Domestic, International, Express shipments.

4. Page Layouts

- Shipment Layout: Info (ID, Name, Origin, Destination, Date, Status), Assignment (Driver, Customer), Progress Tracking (Checkpoints), Notes.
- Driver Layout: Driver Info (Name, License, Phone, Status), Related Shipments.
- Checkpoint Layout: Checkpoint Info (Location, Arrival Time, Status), Related Shipment.

SETUP > OBJECT MANAGER
Checkpoint

Save ▼ | Quick Save | Preview As... ▼ | Cancel | ⟲ Undo | ⟳ Redo | 🔲 Layout Properties

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			

Fields
Buttons
Quick Actions
Mobile & Lightning Actions
Expanded Lookups
Related Lists
Report Charts

🔍 Quick Find | Field Name | ✖

+▦ Section	Last Modified By	Time Reached
+▢ Blank Space	Location	Updated By
Checkpoint Name	Shipment	
Created By	Status	

Checkpoint Detail

Standard Buttons
Edit | Delete | Clone | Change Owner | Change Record Type | Printable View | Edit Labels

Custom Buttons

‖ Checkpoint Info
- ★ ● Location   Sample Text
- ★ ● Time Reached   9/20/2025, 9:02 PM
- ★ ● Status   Sample Text

‖ Linkage
- Updated By   Sample Text
- ★ ● Shipment   Sample Text

‖ Information (Header visible on edit only)
- 🔒 Checkpoint Name   GEN-2004-001234

‖ System Information (Header visible on edit only)
- 🔒 Created By   Sample Text   🔒 Last Modified By   Sample Text

‖ Custom Links (Header visible on edit only)

Q   Search Setup

★ ▾ | ➕ | ☁ | ? | ⚙ | 🔔² | 😊

SETUP > OBJECT MANAGER
Driver

Save ▼ | Quick Save | Preview As... ▼ | Cancel | ⟲ Undo | ⟳ Redo | 🔲 Layout Properties

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			

Fields
Buttons
Quick Actions
Mobile & Lightning Actions
Expanded Lookups
Related Lists
Report Charts

🔍 Quick Find | Field Name | ✖

+▦ Section	Driver Name	Phone Number
+▢ Blank Space	Last Modified By	Shipment
Created By	License Number	
Driver Name	Owner	

Driver Detail

Standard Buttons
Edit | Delete | Clone | Change Owner | Change Record Type | Printable View | Sharing | Sharing Hierarchy | Edit Labels

Custom Buttons

‖ Driver Info
- ★ ● Driver Name   Sample Text
- 🔒 Driver Name   GEN-2004-001234
- ★ ● Phone Number   1-415-555-1212
- ★ ● License Number   Sample Text

‖ Assignments
- ★ ● Shipment   Sample Text

‖ Information (Header visible on edit only)
- Owner   Sample Text

‖ System Information (Header visible on edit only)
- 🔒 Created By   Sample Text   🔒 Last Modified By   Sample Text

‖ Custom Links (Header visible on edit only)
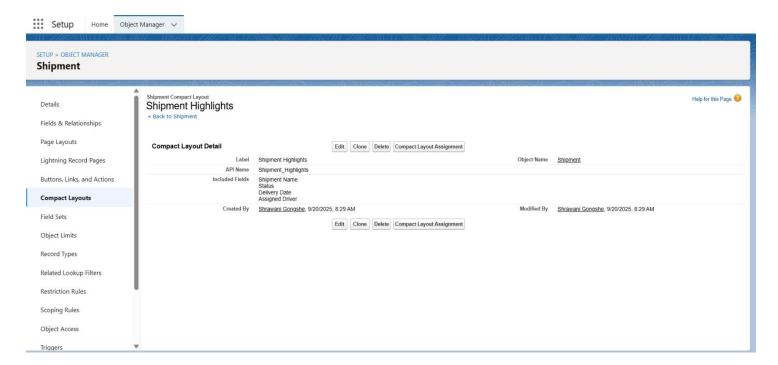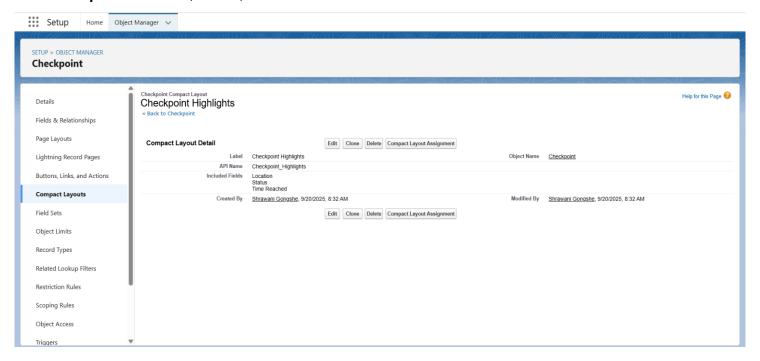
5. Compact Layouts

- **Driver__c:** Driver Name, License Number, Phone Number

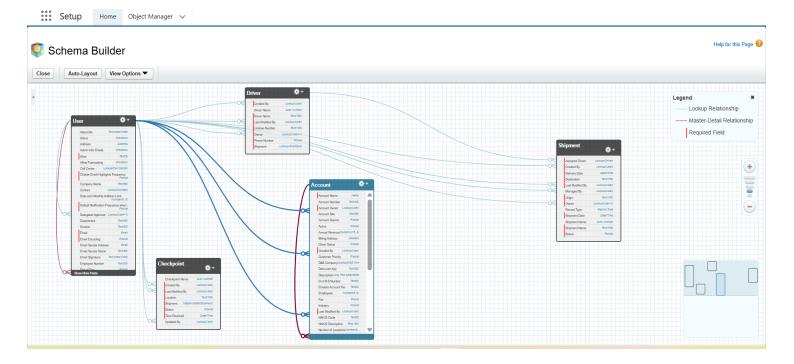- **Shipment__c:** Shipment Name, Status, Delivery Date, Assigned Driver.

- **Checkpoint:** Location, Status, Time Reached

6. Schema Builder

Used Schema Builder to visualize relationships:
a. Shipment__c ← Master-Detail → Checkpoint__c
b. Shipment__c ← Lookup → Driver__c
c. Shipment__c ← Lookup → Account

7. External Objects (Future Scope)

a.   GPS Tracking Services integration for real-time checkpoints.
b.   External Customer Portal integration for shipment visibility.

■ *This is optional for project*

■ Phase 3 Schema Overview

Shipment_c	Driver c	Checkpoint c
ID, Name, Origin, Destination, Status, Driver, Customer	ID, Location, Arrival Time, Status, Notes	ID, Location, Arrival Time, Status, Notes
Relationships:		
- Lookup → Driver		- Master-Detail → Shipment
- Lookup → Account		

■ *Phase 3 Deliverables Achieved*

- Created custom objects: Shipment, Driver, Checkpoint.
- Defined fields for all logistics data points.
- Designed Page Layouts and Compact Layouts.
- Established Master-Detail & Lookup relationships.
- Visualized schema in Schema Builder.
- Planned external system integrations (GPS, Customer Portal).