

Phase 3: Data Modeling & Relationships

◆ 1. Standard & Custom Objects

In this project, we use both **standard** (already provided by Salesforce) and **custom objects** (created for our groundnut oil business).

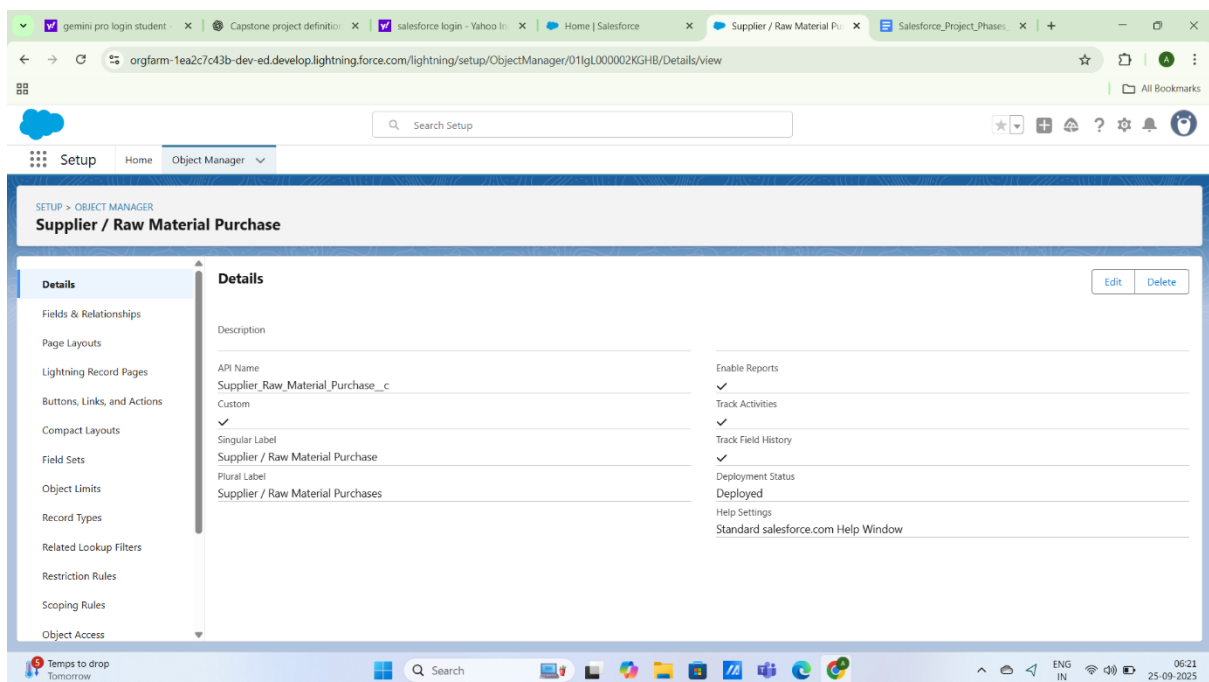
Standard Objects Used:

- **User** → Represents system users (Owner, Supervisor, Worker, Sales Clerk).
- **Account/Contact (optional)** → Can be used if we need customer hierarchy.

Custom Objects Created:

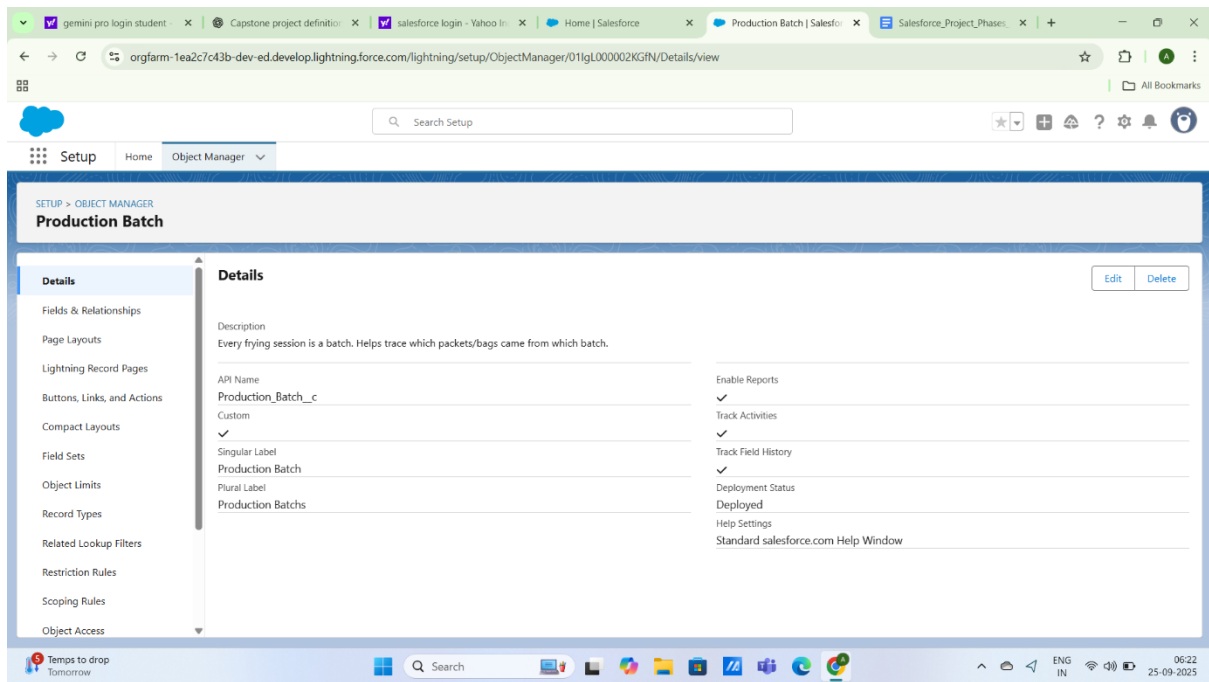
1. Supplier / Raw Material Purchase

- To track groundnut sourcing (quantity, cost, supplier details).



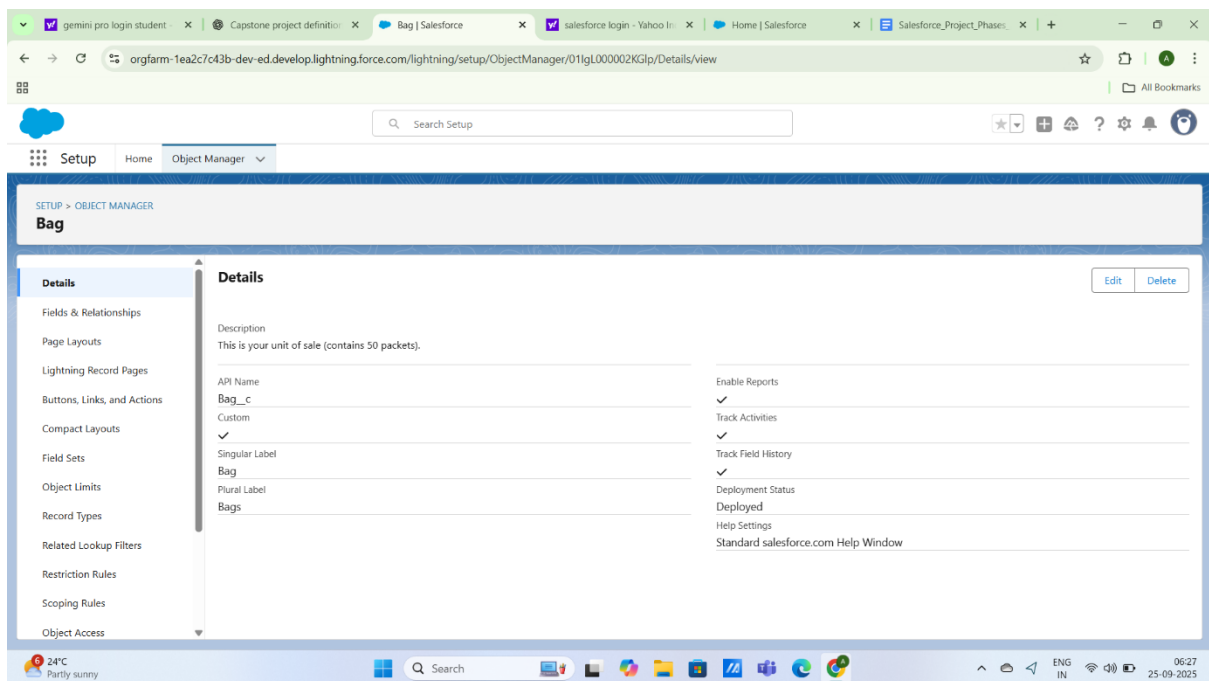
2. Production Batch

- Each frying session is a batch. Helps trace which packets/bags came from which batch.



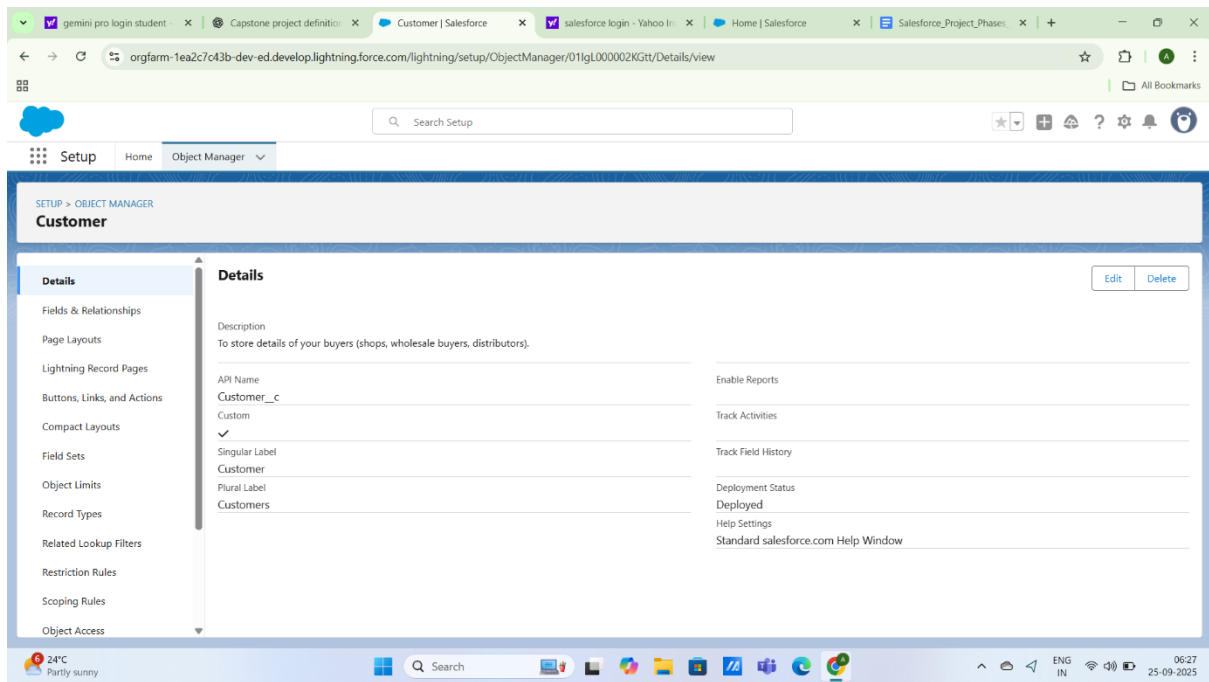
3. Bag

- Represents the unit of sale (contains 50 packets).



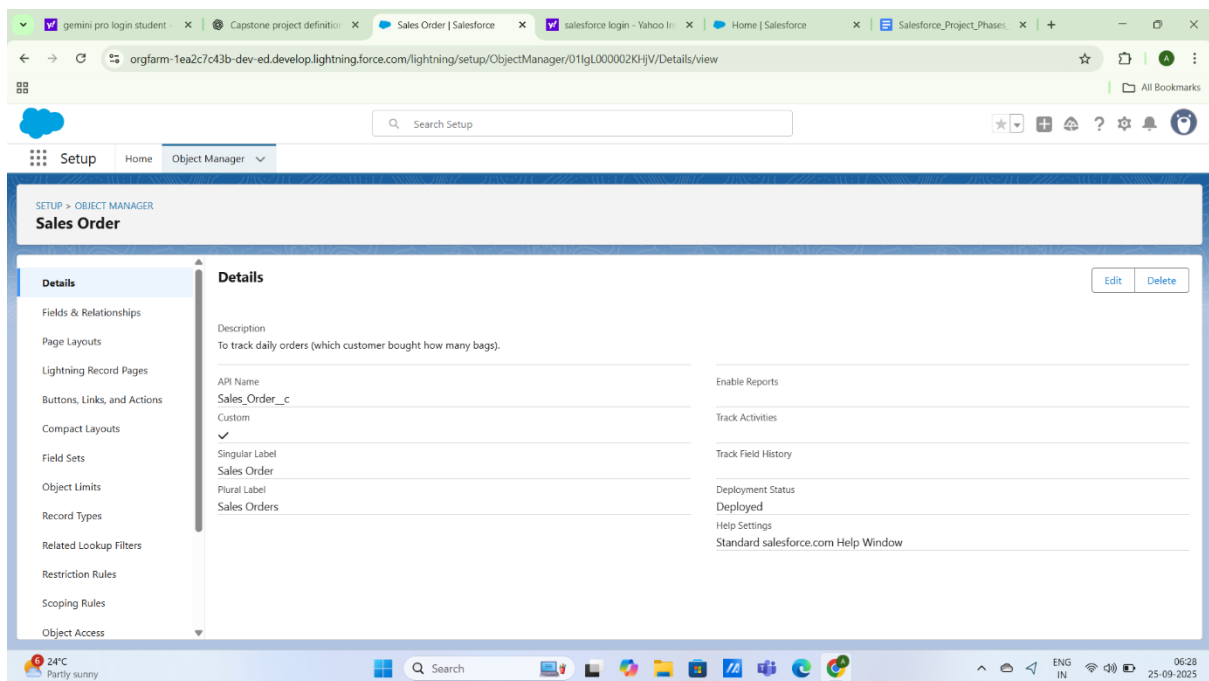
4. Customer

- Stores details of buyers (shops, wholesale buyers, distributors).



5. Sales Order

- To track daily sales orders placed by customers.



2. Fields

Each custom object has specific fields:

- **Supplier** → Supplier Name, Purchase Date, Quantity, Cost, Sales Order Number.

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Setup Home Object Manager

SETUP > OBJECT MANAGER

Supplier / Raw Material Purchase

Details

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
Cost (₹)	Cost__c	Currency(18, 0)		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User, Group)		✓
Purchase Date	Purchase_Date__c	Date		
Quantity (kg)	Quantity_kg__c	Number(18, 0)		
Sales Order Number	Name	Text(80)		✓
Supplier Name	Supplier_Name__c	Text(10)		

Temp to drop Tomorrow

Search

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- **Production Batch** → Batch ID, Production Date, Quantity, Supervisor.

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Setup Home Object Manager

SETUP > OBJECT MANAGER

Production Batch

Details

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
Batch ID	Batch_ID__c	Text(10)		
Created By	CreatedById	Lookup(User)		
Date	Date__c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User, Group)		✓
Production Batch Name	Name	Text(80)		✓
Quantity (kg)	Quantity_kg__c	Number(18, 0)		
Supervisor	Supervisor__c	Text(10)		

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- **Bag** → Bag ID, Packet Count, Batch (Lookup), Production Date.

Setup > OBJECT MANAGER

Bag

Details

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
Bag id	Bag_id__c	Text(10)		
Bag Name	Name	Text(80)		✓
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Packet Count	Packet_Count__c	Number(18, 0)		
Production Batch	Production_Batch__c	Lookup(Production Batch)		✓
Production Date	Production_Date__c	Date		

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- **Customer** → Customer Name, Contact Person.

Setup > OBJECT MANAGER

Customer

Details

Fields & Relationships
6 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)		
Customer Name	Customer_Name__c	Text(10)		
Customer Name	Name	Text(80)		✓
Customer Phone Number	Customer_Phone_Number__c	Phone		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓

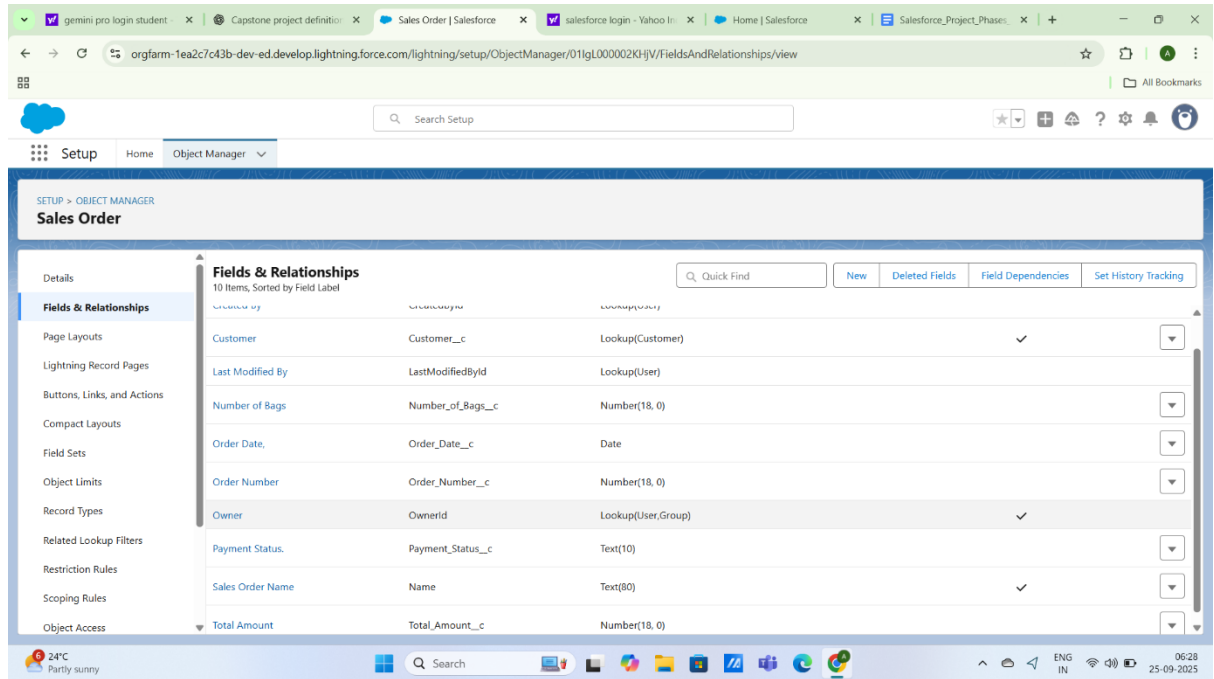
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- **Sales Order** → Order Number, Customer (Lookup), Order Date, Number of Bags, Total Amount, Payment Status.



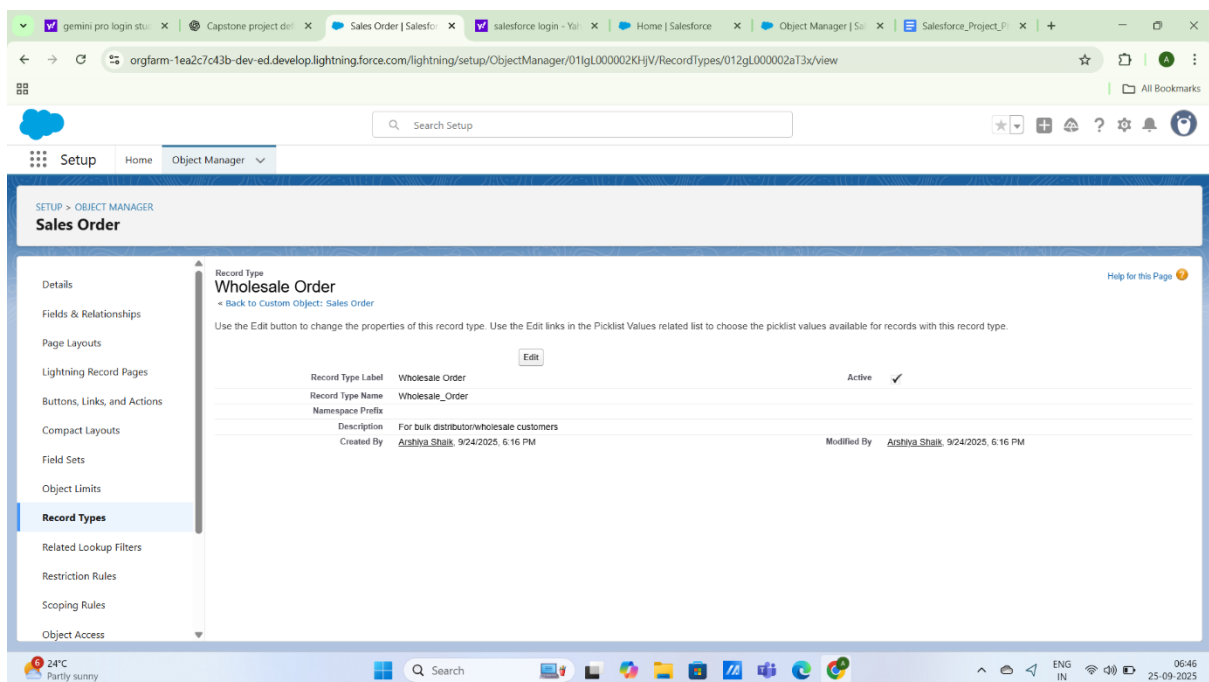
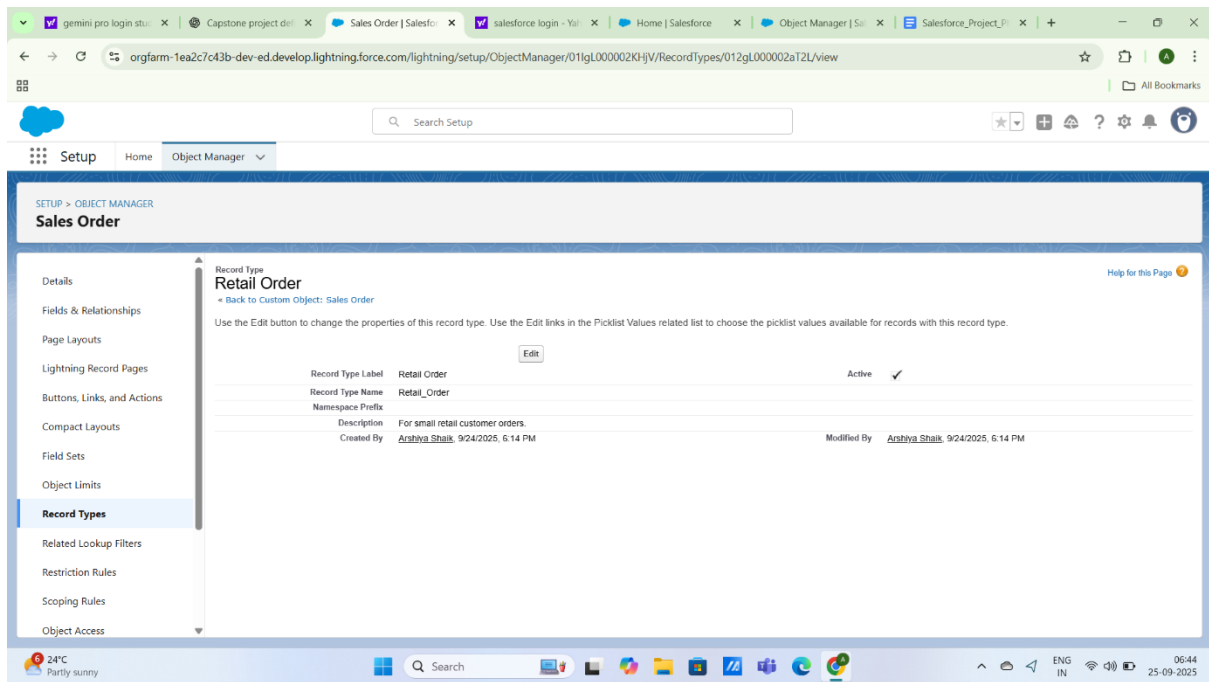
◆ 3. Record Types

Why? To manage different kinds of records in the same object.

Example in this project:

- **Sales Order Object** →
 - Record Type 1: **Retail Sales Order** (small orders, direct customers).
 - Record Type 2: **Wholesale Sales Order** (large orders from distributors).

Each record type can have its own **page layout**.



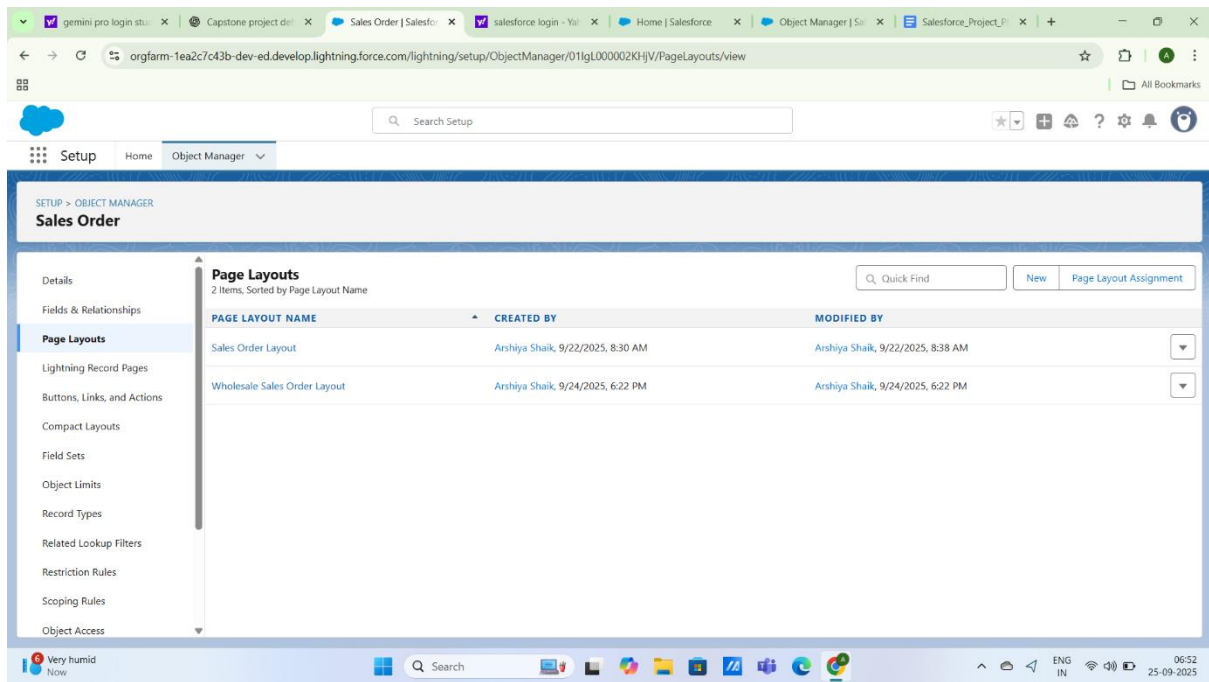
◆ 4. Page Layouts

Page Layouts control what fields, related lists, and sections appear on the record page.

Example:

- **Retail Sales Order Layout** → Show fields like Order Number, Customer, Order Date, Payment Status.

- **Wholesale Sales Order Layout** → Add fields like Discount %, Delivery Date, Special Notes.



◆ 5. Compact Layouts

Compact Layouts are used in the **Highlights Panel** (top of record page).

Example:

- **Sales Order Compact Layout** → Order Number, Customer, Order Date, Number of Bags, Payment Status.
- **Customer Compact Layout** → Customer Name, Phone, Address.

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Search Setup

Setup Home Object Manager

SETUP > OBJECT MANAGER

Sales Order

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

Compact Layouts

2 Items, Sorted by Label

Q, Quick Find New Compact Layout Assignment

LABEL	API NAME	PRIMARY	MODIFIED BY	LAST MODIFIED
Sales Order Compact Layout	Sales_Order_Compact_Layout		Arshiya Shaik	9/24/2025, 6:25 PM
System Default	SYSTEM	✓		

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Search

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Search Setup

Setup Home Object Manager

SETUP > OBJECT MANAGER

Customer

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

Customer Compact Layout

Customer Compact Layout

Help for this Page

Back to Customer

Compact Layout Detail

Edit Clone Delete Compact Layout Assignment

Label	API Name	Included Fields	Object Name
Customer Compact Layout	Customer_Compact_Layout	Customer Name Customer Phone Number	Customer

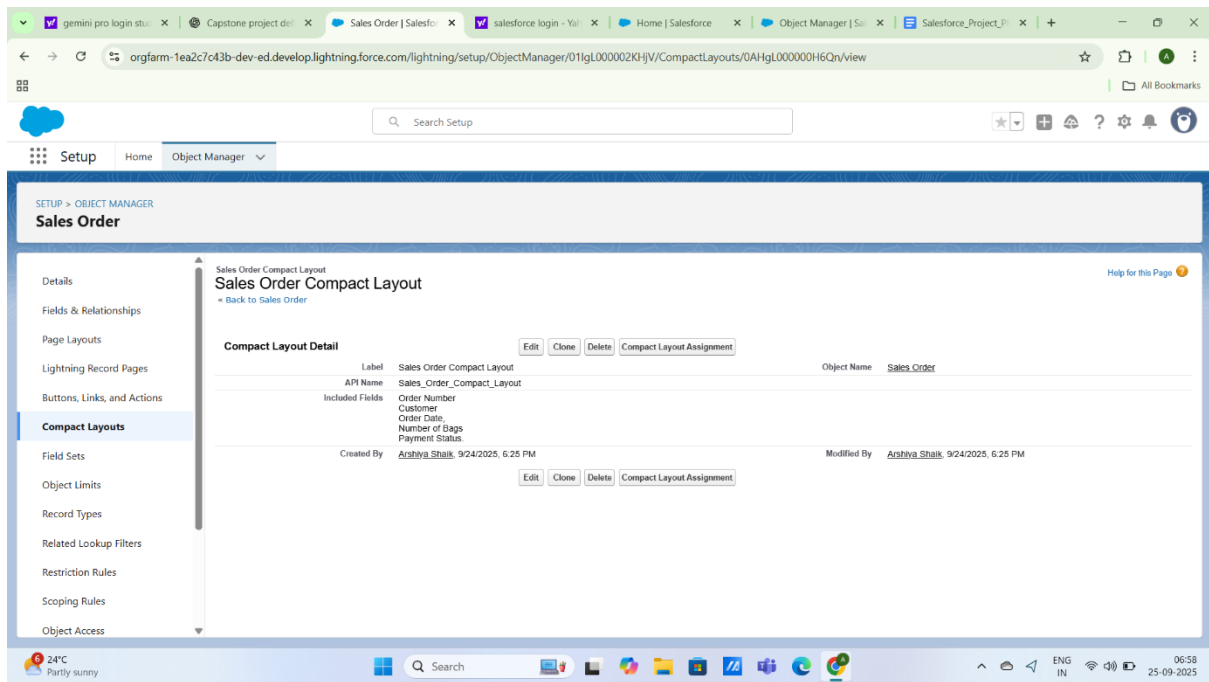
Created By Arshiya Shaik, 9/24/2025, 6:27 PM Modified By Arshiya Shaik, 9/24/2025, 6:27 PM

Edit Clone Delete Compact Layout Assignment

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Search

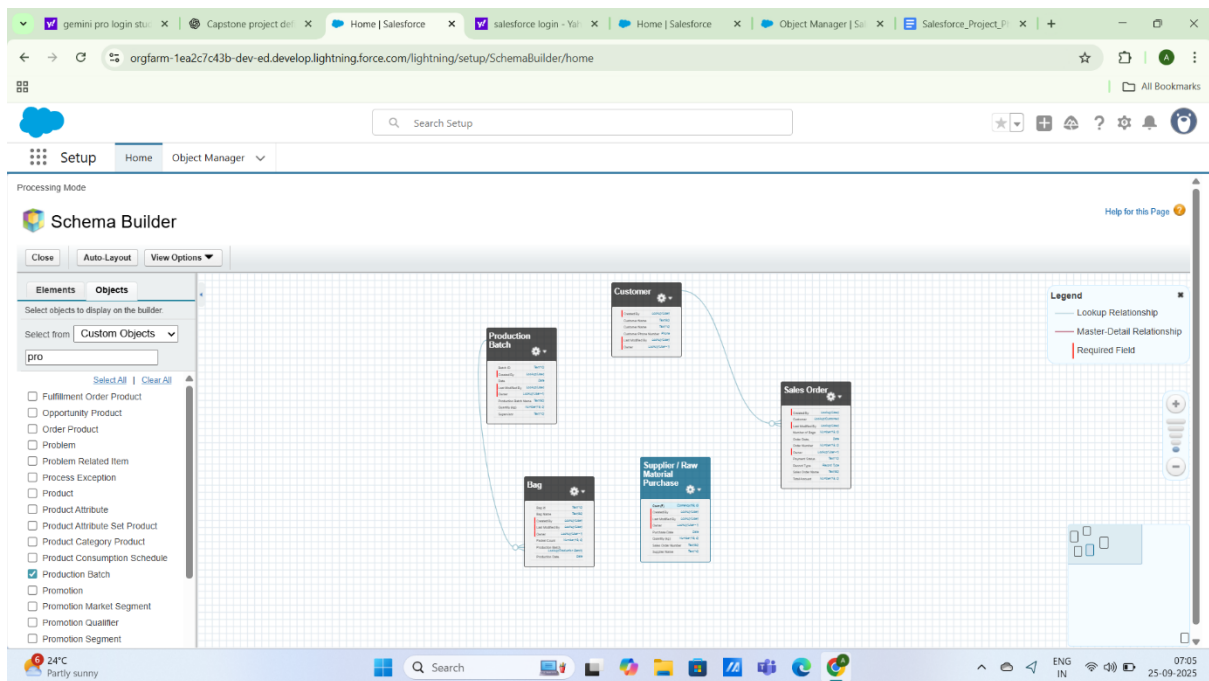
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6. Schema Builder

Schema Builder provides a **visual diagram** of all objects and their relationships.

- Shows **Production Batch** linked with **Bag**.
- Shows **Sales Order** linked with **Customer**.
- Shows **BatchSupplier** junction object linking **Supplier** ↔ **Production Batch**.



7. Relationships

There are 3 main relationship types in Salesforce:

1. Lookup Relationship

- A loose link, records are independent.
- Example: Sales Order → Customer.

2. Master-Detail Relationship

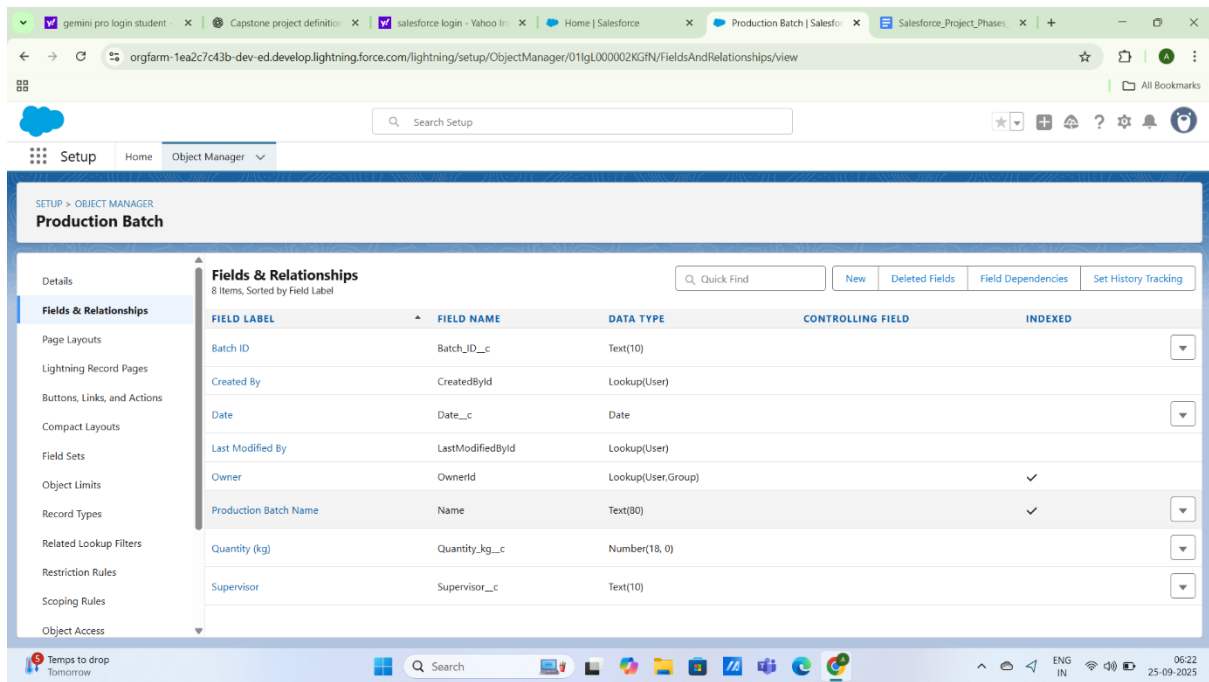
- Strong dependency, child cannot exist without parent.
- Example: Bag → Production Batch.

3. Hierarchical Relationship

- Special lookup only available for the **User object**.
- Example: Supervisor managing Worker.

The screenshot shows the Salesforce Setup interface. 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, and Object Access. The main content area is titled 'Supplier / Raw Material Purchase' and displays the 'Fields & Relationships' section. It shows a table with 8 items, sorted by Field Label. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: Cost (€), Created By, Last Modified By, Owner, Purchase Date, Quantity (kg), Sales Order Number, and Supplier Name.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Cost (€)	Cost__c	Currency(18, 0)		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User, Group)		✓
Purchase Date	Purchase_Date__c	Date		
Quantity (kg)	Quantity_kg__c	Number(18, 0)		
Sales Order Number	Name	Text(80)		✓
Supplier Name	Supplier_Name__c	Text(10)		

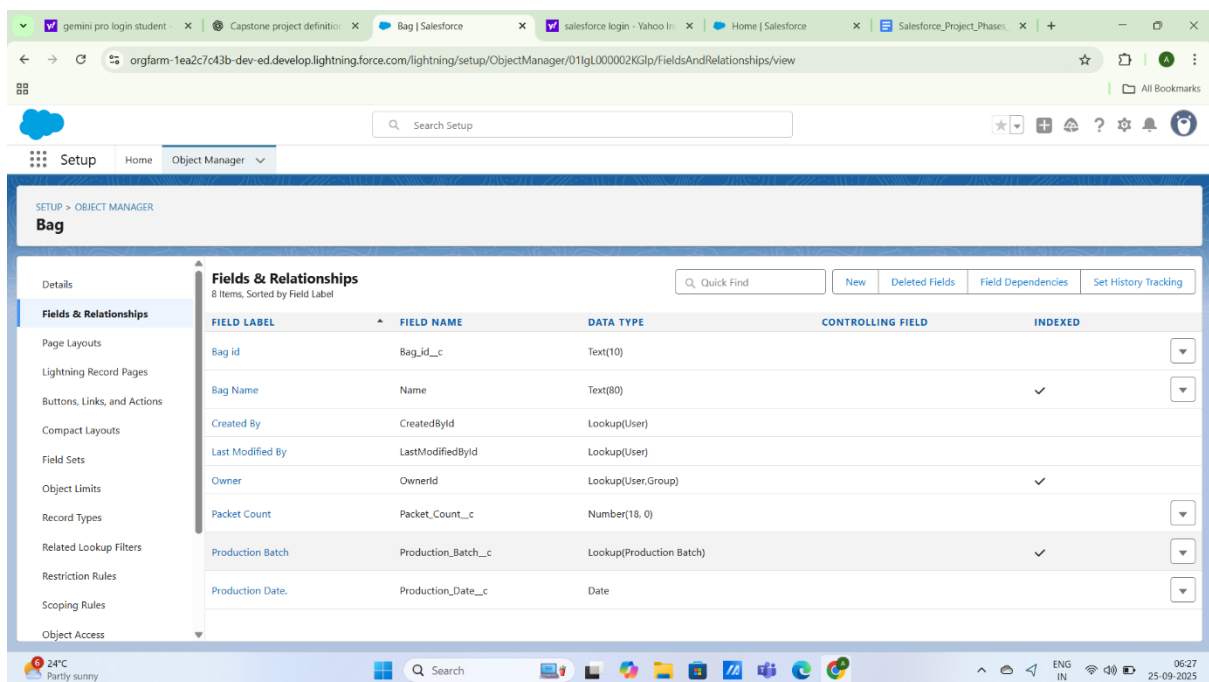


SETUP > OBJECT MANAGER
Production Batch

Details

Fields & Relationships
8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Batch ID	Batch_ID__c	Text(10)		
Created By	CreatedById	Lookup(User)		
Date	Date__c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User, Group)		✓
Production Batch Name	Name	Text(80)		✓
Quantity (kg)	Quantity_kg__c	Number(18, 0)		
Supervisor	Supervisor__c	Text(10)		



SETUP > OBJECT MANAGER
Bag

Details

Fields & Relationships
8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Bag id	Bag_id__c	Text(10)		
Bag Name	Name	Text(80)		✓
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User, Group)		✓
Packet Count	Packet_Count__c	Number(18, 0)		
Production Batch	Production_Batch__c	Lookup(Production Batch)		✓
Production Date	Production_Date__c	Date		

8. Junction Objects

Junction Objects are used for **many-to-many relationships**.

Example in this project:

- One Supplier can provide raw material for many Production Batches.
- One Production Batch can use raw material from many Suppliers.

✓ **Solution** → Create a junction object: **BatchSupplier**.

- Fields: Lookup to Production Batch, Lookup to Supplier.
-

◆ 9. External Objects

External Objects represent data stored outside Salesforce (via Salesforce Connect).

- Example: If raw material invoices are stored in an ERP system or Google Sheets, they can be linked to Salesforce as **External Objects**.
 - Data is not stored inside Salesforce but displayed as if it's native.
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