

## Phase 3: Data Modeling & Relationships

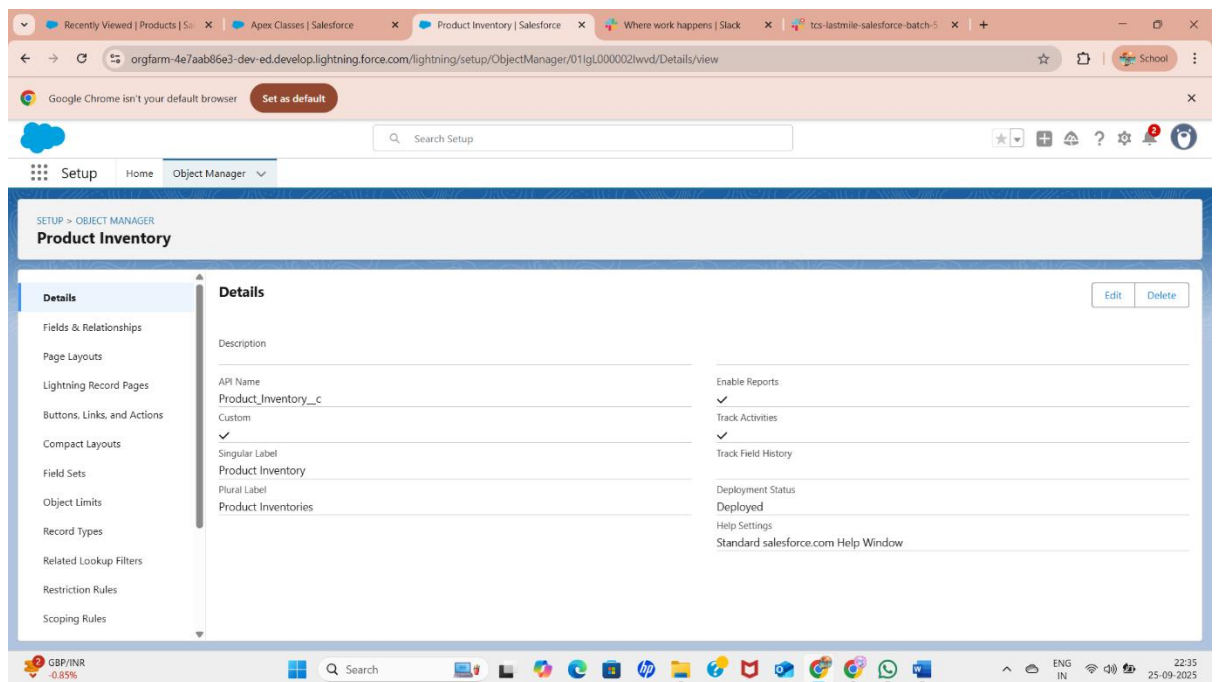
### 1. Standard & Custom Objects

#### Standard Objects

- Pre-built by Salesforce.
- Examples: Account, Contact, Opportunity, Lead, Order, Product2.
- Used to manage core business data.

#### Custom Objects

- Created to store **specific business data** not covered by standard objects.
- Naming convention: CustomObject\_\_c
- Example: Product\_Inventory\_\_c, Order\_\_c.



### 2. Fields

#### Field Types

- **Standard Fields:** Provided by Salesforce (Name, Created Date, Owner).
- **Custom Fields:** Created to store additional info (Quantity\_\_c, Minimum\_Stock\_\_c).

#### Common Field Types

- Text, Number, Date, Picklist, Checkbox, Formula, Lookup, Master-Detail.

SETUP > OBJECT MANAGER  
**Product Inventory**

Details

**Fields & Relationships**  
11 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Last Reorder Date	Last_Reorder_Date__c	Date		
Minimum Stock	Minimum_Stock__c	Number(18, 0)		
Owner	OwnerId	Lookup(User,Group)		✓
Product	Product__c	Lookup(Product Inventory)		✓
Product Inventory Name	Name	Text(80)		✓
Quantity	Quantity__c	Number(18, 0)		
Record Type	RecordTypeId	Record Type		✓

### 3. Record Types

- Allow creating **different business processes, page layouts, and picklist values** for the same object.
- Example: Retail Order vs Wholesale Order for the Order object.
- **Use Cases:**
  - Different page layouts for different departments.
  - Different picklist values per business process.

SETUP > OBJECT MANAGER  
**Product Inventory**

Details

**Record Types**  
2 Items, Sorted by Record Type Label

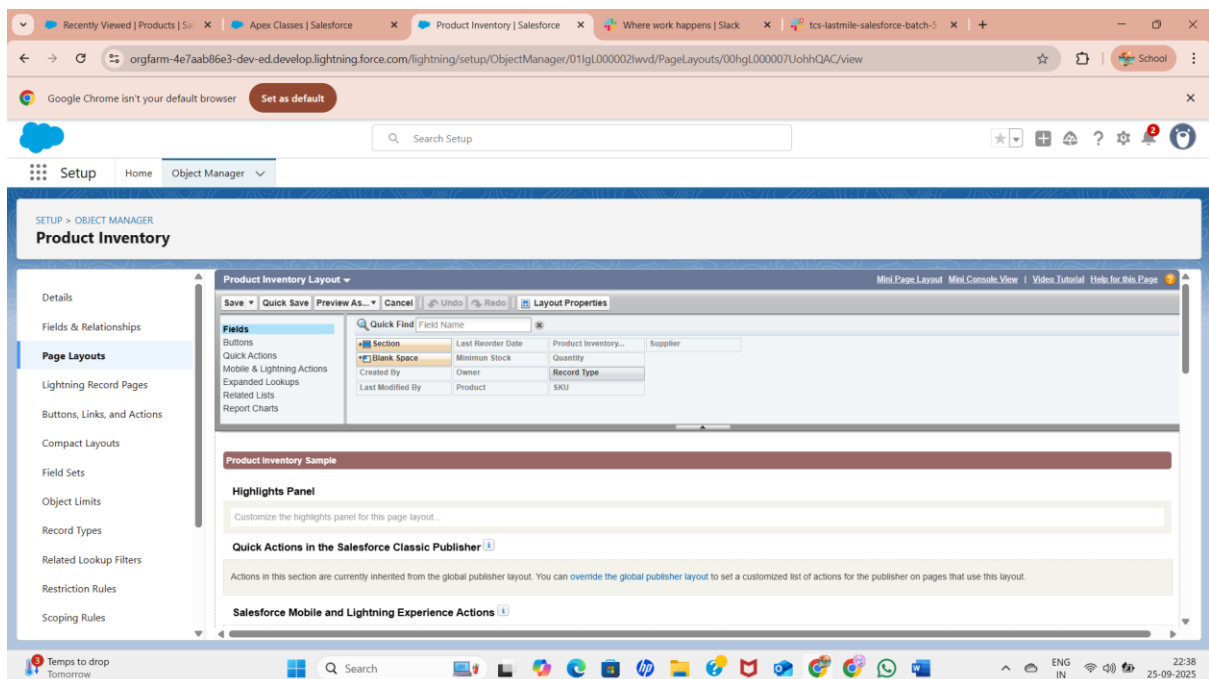
RECORD TYPE LABEL	DESCRIPTION	ACTIVE	MODIFIED BY
Clothing	For Clothing products	✓	Vedhitha Dodda, 9/24/2025, 6:56 AM
Electronics	For electronic products	✓	Vedhitha Dodda, 9/24/2025, 6:54 AM

## 4. Page Layouts

- Control **which fields, sections, related lists, and buttons** appear on a record detail page.
- You can assign **different layouts** to different profiles or record types.

### Steps to Configure:

1. Object Manager → Object → Page Layouts
2. Create/Edit layout → drag & drop fields and sections
3. Assign layout to profiles or record types

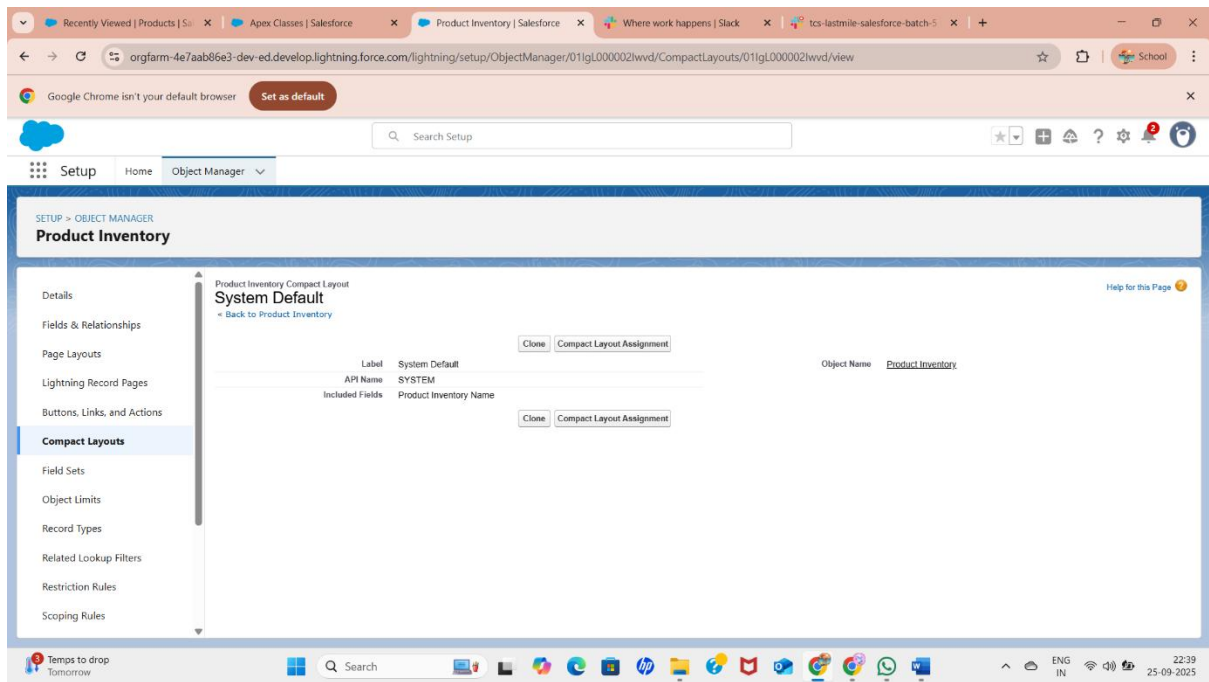


## 5. Compact Layouts

- Show **key fields at the top of a record page** (Lightning record highlights panel).
- Used on mobile and desktop views for quick reference.

### Steps to Configure:

1. Object Manager → Object → Compact Layouts
2. Create new → select key fields → assign to page layout

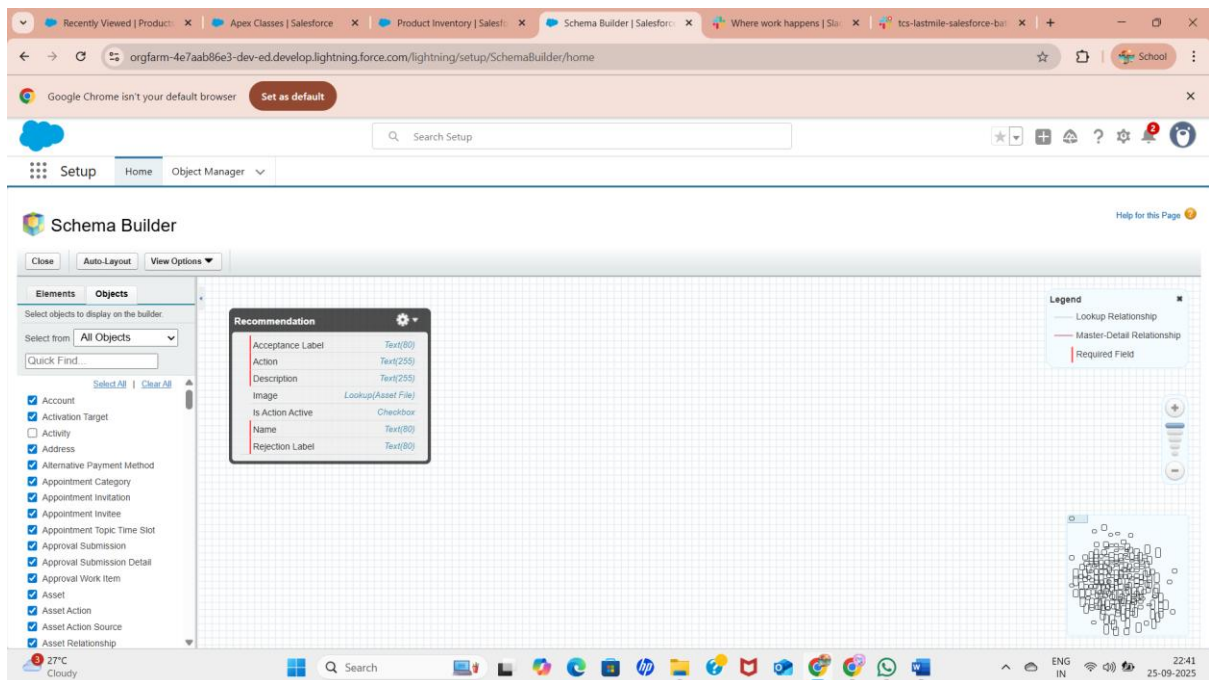


## 6. Schema Builder

- Visual tool to **see and manage objects, fields, and relationships**.
- Drag objects, create fields, and define relationships visually.

### Benefits:

- Easy to understand complex relationships.
- Quickly add fields and relationships without leaving the tool.

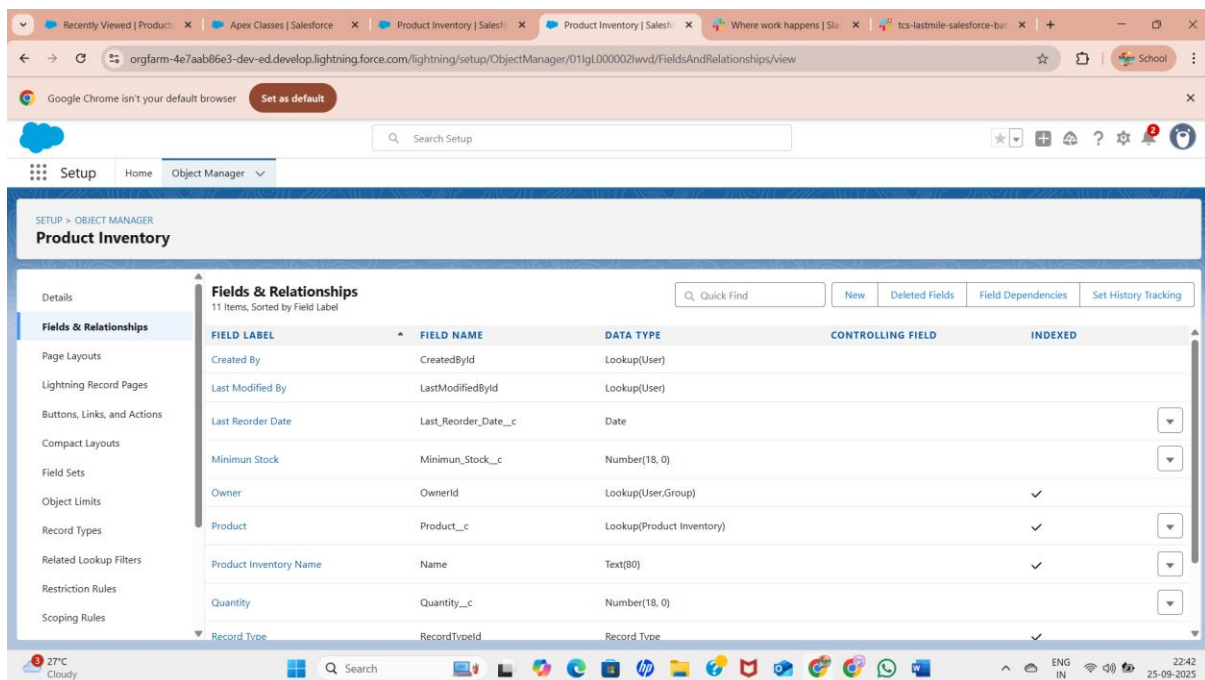


## 7. Lookup vs Master-Detail vs Hierarchical Relationships

Relationship Type	Key Points	Use Case
Lookup	Loose coupling, optional, can link records across objects	Account → Contact, Product → Product Inventory
Master-Detail	Strong coupling, child record inherits owner & sharing from parent	Invoice Items → Invoice
Hierarchical	Special lookup on User object to reference another User	Manager → Employee relationships

### Notes:

- Master-Detail: deletion of parent deletes child.
- Lookup: child can exist independently.



## 8. Junction Objects

- Used to create **many-to-many relationships** between objects.
- Example: Project\_Assignment\_\_c linking Employee\_\_c and Project\_\_c.
- Must have **two master-detail relationships** pointing to the objects being linked.

### Summary

- **Objects & Fields:** Foundation for storing Salesforce data.
- **Record Types & Layouts:** Control user experience and processes.

- **Relationships:** Define how objects are connected.
- **Schema Builder:** Visualize the data model.
- **Junction Objects:** Implement many-to-many relationships.