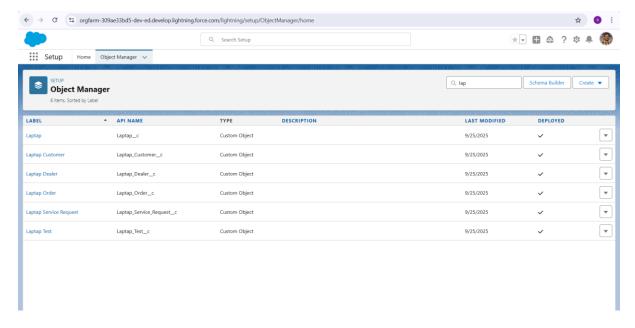
Phase 3: Data Modeling & Relationships (Online Laptop Ordering)

1. Custom Objects and Key Fields

You created six main **custom objects** to represent your business entities:

Object	Key Fields	Relationships	Explanation
Laptop	Name, Model, Brand, Price, Stock	Lookup: Dealer	Stores information about each laptop available for sale. Lookup to Dealer allows you to track which dealer provides which laptops.
Laptop Dealer	Name, Contact, Location	Master-detail: Laptop Orders	Represents the dealers supplying laptops. Master-detail ensures that if a dealer is deleted, their orders are deleted too.
Laptop Customer	Name, Email, Contact, Address	Lookup: Laptop Orders	Represents customers placing orders. Lookup allows a customer to be optional or shared among multiple orders.
Laptop Order	Order Number, Status, Quantity, Order Date	Master-detail: Laptop Customer; Lookup: Laptop Dealer	Captures each order, linking to the customer (master-detail for ownership and roll-up summary) and dealer (lookup).
Laptop Testing	Test Type, Test Date, Result	Lookup: Laptop Order	Tracks testing performed on laptops before delivery. Lookup allows it to be associated with a specific order.
Laptop Service Testing	Service Type, Request Date, Completion Date, Status	Lookup: Laptop Order	Tracks after-sales service/testing. Lookup links it to the order for historical and reporting purposes.



2. Record Types

- Purpose: Differentiate between Retail and Wholesale orders.
- Implementation:
 - o **Retail Orders:** Single-customer orders, standard pricing, simple workflows.
 - o **Wholesale Orders:** Multi-item, bulk discounts, additional approval workflows.
- Impact: Allows you to customize page layouts, picklist values, and automation for different order types.

3. Page Layouts & Compact Layouts

- Page Layouts:
 - Custom layouts created for Order, Customer, Dealer, Testing, Service.
 - Example: Order layout shows customer info, dealer info, order status, testing status in one view.
- Compact Layouts:
 - Used in mobile view and record highlights.
 - Example: Quick glance at order number, status, quantity.
- Impact: Improves user experience and ensures relevant information is visible without scrolling.

4. Schema Builder

• Purpose: Visual tool in Salesforce to see and design object relationships.

- Usage in Project:
 - Mapped Laptop → Dealer, Laptop Order → Customer/Dealer, Laptop Testing → Order, etc.
 - o Allowed you to quickly identify missing relationships or redundant links.
- Impact: Simplifies data structure validation before implementation.

5. Lookup vs Master-Detail Relationships

Understanding when to use **lookup** or **master-detail** is crucial:

- Master-Detail: Strong ownership; child record is dependent on parent.
 - o Example: Laptop Order → Dealer / Customer
 - If a Dealer or Customer is deleted, associated Orders are deleted.
 - Allows roll-up summary fields, e.g., total orders per dealer.
- Lookup: Flexible link; child can exist independently of parent.
 - o Example: Laptop Testing → Laptop Order
 - Testing records exist only for reference; if the order is deleted, testing can be retained (optional depending on settings).

Summary of Phase 3

- 1. Defined **custom objects** and their **key fields** to capture all laptop ordering and service data.
- 2. Established **record types** for Retail and Wholesale orders.
- 3. Designed **custom page layouts and compact layouts** for user-friendly interfaces.
- 4. Used **Schema Builder** to visualize and validate relationships.
- 5. Applied Master-Detail vs Lookup relationships to enforce ownership and flexibility.