

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.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Laptap	Laptap__c	Custom Object		9/25/2025	✓
Laptap Customer	Laptap_Customer__c	Custom Object		9/25/2025	✓
Laptap Dealer	Laptap_Dealer__c	Custom Object		9/25/2025	✓
Laptap Order	Laptap_Order__c	Custom Object		9/25/2025	✓
Laptap Service Request	Laptap_Service_Request__c	Custom Object		9/25/2025	✓
Laptap Test	Laptap_Test__c	Custom Object		9/25/2025	✓

2. Record Types

- **Purpose:** Differentiate between **Retail and Wholesale orders**.
- **Implementation:**
 - **Retail Orders:** Single-customer orders, standard pricing, simple workflows.
 - **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.
 - 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.
 - 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.
 - 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.