

## PHASE 3:

### DATA MODELING AND RELATIONSHIPS

Goal: To build the core data structure of the "Bookmarked" CRM application and design the user interface for an efficient user experience. This involves creating custom objects to store unique bookstore-related information, establishing relationships between them, and controlling how that data is displayed to staff and managers.

#### 1. Standard & Custom Objects

- Use Case for "Bookmarked": To build our CRM, we leveraged powerful standard Salesforce objects and created our own custom objects.
  - Standard Objects: We are using Contact to store all our reader information and Account to group them by family or organization.
  - Custom Objects: To capture data unique to a bookstore, we built three custom objects: Book for our inventory, Loyalty Membership for our rewards program, and Purchase History to link customers to the books they buy.
- Implementation Evidence: The screenshot below from the Object Manager shows the three new custom objects created for this project.

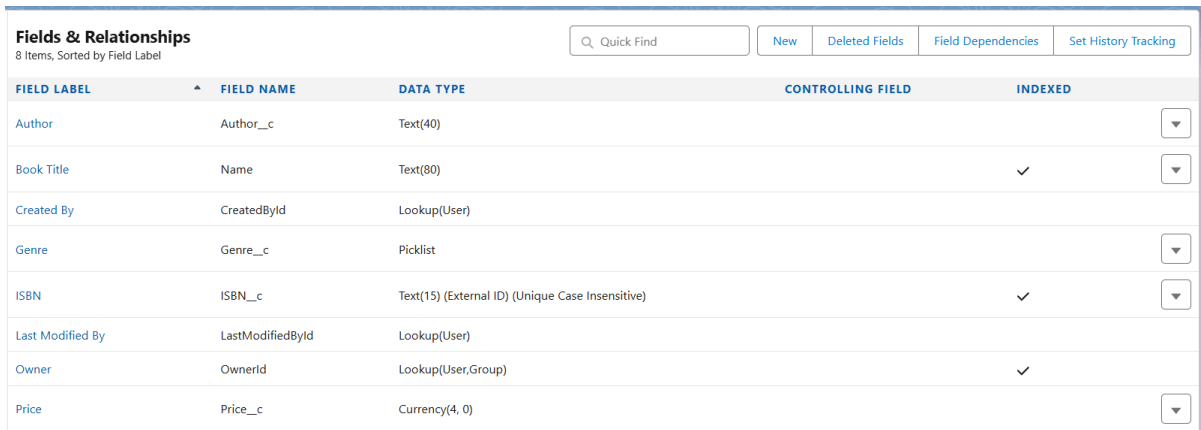
Authorization Form Text	AuthorizationFormText	Standard Object			
Book	Book_c	Custom Object	9/25/2025	✓	▼
Location Shipping Carrier Method	LocationShippingCarrierMethod	Standard Object			
Loyalty Membership	Loyalty_Membership_c	Custom Object	9/25/2025	✓	▼
purchase history	purchase_history_c	Custom Object	9/25/2025	✓	

#### 2. Fields & Data Types

- Use Case for "Bookmarked": Each object needs fields to hold specific data. For our Book object, it's crucial to store its title, author, price, and a

unique ISBN. We created a Condition picklist field to differentiate "New" from "Used" books, ensuring data quality and enabling specific business processes.

- **Implementation Evidence:** The screenshot below shows the custom fields created for the Book object, such as ISBN, Genre, and Condition, each with its appropriate data type.



FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Author	Author__c	Text(40)		
Book Title	Name	Text(80)		✓
Created By	CreatedById	Lookup(User)		
Genre	Genre__c	Picklist		
ISBN	ISBN__c	Text(15) (External ID) (Unique Case Insensitive)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Price	Price__c	Currency(4, 0)		

### 3. Relationships (Master-Detail & Lookup)

- **Use Case for "Bookmarked":** Relationships are what connect our data. We used a Master-Detail relationship to create a strong, required link between a Purchase History record and both the Contact (customer) and the Book that was purchased. This ensures that a purchase record can never be orphaned from its parent records. This is the foundation of our many-to-many relationship.
- **Implementation Evidence:** The screenshot below from the Purchase History object's fields list clearly shows the two Master-Detail relationship fields, linking it to the Contact and Book objects.

### 4. Junction Objects

- **Use Case for "Bookmarked":** Our Purchase History object serves as a perfect Junction Object. It sits between the Contact and Book objects, creating a many-to-many relationship. This allows the system to track that one customer can buy many different books, and one specific book can be purchased by many different customers.

## 5. Record Types & Page Layouts

- Use Case for "Bookmarked": Bookmarked sells both "New Books" and "Used Books." We created two Record Types on the Book object to handle this. We then created a unique Page Layout for each. The Used Book Layout includes the "Condition" field, while the New Book Layout does not. This provides a tailored user experience for the staff.

## 6. Compact Layouts

- Use Case for "Bookmarked": To help staff quickly understand a customer's profile, we customized the Compact Layout for the Contact object. This puts the most important information—like their Loyalty Level and Favorite Genre—in the highlights panel at the very top of the record page for instant visibility.

## 7. Schema Builder

- Use Case for "Bookmarked": The Schema Builder provides a visual blueprint of our entire CRM's architecture. It allows us to see how the Contact, Book, Purchase History, and Loyalty Membership objects are all interconnected, giving a clear, high-level overview of our data model.

