

# Phase 3: Data Modeling & Relationships

In this phase, the **AlumniConnect data model** was designed using both **standard** and **custom objects** to support alumni management, event tracking, mentorship programs, and donation management.

---

## Standard Objects

I leveraged Salesforce standard CRM objects to maintain consistency and extend functionality:

- **Accounts & Contacts** → For managing organizational and personal details where needed
  - **Users** → For defining system users (staff/admin) who manage alumni relations
- 

## Custom Objects

We created four key custom objects to extend Salesforce for the alumni domain:

- **Alumni\_\_c** → To store alumni details  
(fields: *Email, Contact Number, Graduation Year, Profession*)
  - **Event\_\_c** → To manage alumni events  
(fields: *Event Name, Event Date, Description, Lookup to Alumni via Event Participation junction*)
  - **Donation\_\_c** → To capture alumni contributions  
(fields: *Donor [Alumni lookup], Amount, Date, Purpose*)
  - **Event\_Participant\_\_c (Junction Object)** → To handle many-to-many relationships between Alumni and Events
- 

## Fields

We utilized multiple Salesforce field types to capture required data:

- **Email, Phone, Text** → For alumni personal details
  - **Date** → For event dates and mentorship start/end dates
  - **Currency** → For donation amounts
  - **Picklists** → For Mentorship Status (Active, Completed, Pending)
  - **Lookup Fields** → To establish relationships between Alumni, Events, Mentorship, and Donations
  - **Long Text Area** → For event descriptions and mentorship notes
-

## Page Layouts

Page layouts were customized for each object to organize fields clearly. For example:

- **Alumni Layout:** Name, Email, Contact Number, Graduation Year, Related Lists for Events, Mentorships, Donations
  - **Event Layout:** Event Name, Event Date, Description, Related List of Participants
  - **Mentorship Layout:** Mentor, Mentee, Status
  - **Donation Layout:** Donor, Amount, Purpose, Date
- 

## Compact Layouts

Compact layouts were defined for quick visibility of key fields in record headers. Examples:

- Alumni → Name, Email, Contact Number
  - Event → Event Name, Date
  - Donation → Amount, Date
- 

## Schema Builder

Salesforce Schema Builder was used to visualize and validate relationships:

- Alumni ↔ Event (via Event Participants junction)
  - Alumni ↔ Donation
- 

## Lookup vs Master-Detail vs Hierarchical Relationships

- **Lookup relationships** were used in most cases (e.g., Donation → Alumni, Mentorship → Alumni).
  - **Master-Detail** was not required, since alumni and events should remain independent and records require separate ownership.
  - **Hierarchical relationship** applies only to the User object and was not required.
- 

## Junction Objects

A **junction object (Event Participant)** was created to handle the many-to-many relationship between Alumni and Events, enabling multiple alumni to attend multiple events.

---



