

# Phase 3: Data Modeling & Relationships

## 1. Standard & Custom Objects

### Standard Objects

Salesforce provides built-in objects like:

- Account (Organization/Institution)
- Contact (Person: Student, Faculty, Parent)
- Opportunity (e.g., Admission Opportunity)

### Custom Objects

For EduConnect, create objects:

- Admission\_\_c (Admission Applications)
- Course\_\_c (Courses offered)
- Attendance\_\_c (Attendance records)
- Faculty\_\_c (Faculty details)
- Enrollment\_\_c (Junction between Student & Course)

How to Create: Setup → Object Manager → Create → Custom Object

## 2. Fields

Objects have fields.

**Standard Fields:** Always present (Name, Created Date)

**Custom Fields:** Add as needed (Status, Grade, Application Date)

How to Add: Object Manager → [Object] → Fields & Relationships → New Field

## 3. Record Types

Different processes/layouts per object.

**Example:** For Course\_\_c: Undergraduate, Postgraduate.

How to Add: Object Manager → [Object] → Record Types → New Record Type

## 4. Page Layouts

Controls field/section arrangement.

**Example:** Admission Officer sees applicant info; Faculty sees course info.

How to Edit: Object Manager → [Object] → Page Layouts → Edit

## 5. Compact Layouts

Shows key fields in highlights panel.

**Example:** Student\_\_c: Name, Email, Phone, Enrollment Status.

How to Set: Object Manager → [Object] → Compact Layouts → New

## 6. Schema Builder

Visual tool to view/create objects, fields, and relationships.

Setup → Schema Builder → Drag objects, add fields, draw relationships.

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

**Lookup:** Loosely links two objects.

Example: Student\_\_c → Faculty\_\_c.

**Master-Detail:** Tight link (child needs parent).

Example: Attendance\_\_c → Student\_\_c.

**Hierarchical:** Only for User object.

Example: Faculty reporting lines.

## 8. Junction Objects

Many-to-many relationships.

**Example:** Enrollment\_\_c links Student\_\_c and Course\_\_c.

How to Create: Object Manager → Enrollment\_\_c → Fields → New → Master-Detail

## 9. External Objects

Used for external data (e.g., other database).

Setup → External Data Sources → New → Connect & Sync.

## Summary Table

Feature	Example in EduConnect	Purpose
Standard Object	Account, Contact	Built-in data
Custom Object	Course__c, Admission__c	Project-specific data
Field	Application Status, Grade	Info about an object
Record Type	UG/PG Course	Different processes/layouts
Page Layout	Admission/Fee Layouts	Custom UI per user/process
Compact Layout	Student Highlights	Important fields at a glance
Relationship	Student ↔ Course	Data linkage
Junction Object	Enrollment__c	Many-to-many linking
External Object	External Exam Results	Connect outside data

## Best Practices

- Plan your data model before building.
- Use clear naming (`\_\_c`).

- Use Schema Builder for clarity.
- Test with sample records.
- Take screenshots for documentation.

**You have now completed Phase 3: Data Modeling & Relationships!**

Next: Phase 4 – Business Logic and Automation.