
Institute Management System

PHASE 3: Data Modeling & Relationships

1. Standard & Custom Objects:

- Contact is used as the standard object.

Creation of the custom objects:

(Setup → Object Manager → **Create** → **Custom Object**)

Create these objects with these settings (recommended API names shown):

1. **Student** (Student__c)

- Record Name: *Student ID* — **Auto Number** → Display format STU-{0000}; Starting Number 1001.
- Check: Allow Reports, Allow Activities, Track Field History (optional).

The screenshot shows the Salesforce Object Manager interface for the 'Student' object. The left sidebar contains a list of configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, Triggers, Flow Triggers, and Validation Rules. The 'Details' section is selected and expanded, showing the following configuration:

Field	Value
Description	
API Name	Student__c
Custom	<input checked="" type="checkbox"/>
Singular Label	Student
Plural Label	Students
Enable Reports	<input checked="" type="checkbox"/>
Track Activities	<input checked="" type="checkbox"/>
Track Field History	<input checked="" type="checkbox"/>
Deployment Status	Deployed
Help Settings	Standard Salesforce.com Help Window

2. **Faculty** (Faculty__c)

- Record Name: *Faculty ID* — Auto Number FAC-{0000}, start 1001.

The screenshot shows the Salesforce Object Manager interface for the 'Faculty' object. The left sidebar contains a list of configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, Triggers, Flow Triggers, and Validation Rules. The 'Details' section is selected and expanded, showing the following configuration:

Field	Value
Description	
API Name	Faculty__c
Custom	<input checked="" type="checkbox"/>
Singular Label	Faculty
Plural Label	Faculties
Enable Reports	<input checked="" type="checkbox"/>
Track Activities	<input checked="" type="checkbox"/>
Track Field History	<input checked="" type="checkbox"/>
Deployment Status	Deployed
Help Settings	Standard Salesforce.com Help Window

3. Course (Course__c)

- Record Name: *Course Code* — Text (e.g., CSE101).

The screenshot shows the Salesforce Setup page for the 'Course' object. The left sidebar contains a list of configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Object Access, Triggers, Flow Triggers, and Validation Rules. The 'Details' section is selected, showing the following configuration:

Field	Value
Description	
API Name	Course__c
Custom	<input checked="" type="checkbox"/>
Singular Label	Course
Plural Label	Courses
Record Types	
Related Lookup Filters	
Restriction Rules	
Scoping Rules	
Object Access	
Triggers	
Flow Triggers	
Validation Rules	

On the right side, there are additional settings:

Field	Value
Enable Reports	<input checked="" type="checkbox"/>
Track Activities	<input checked="" type="checkbox"/>
Track Field History	<input checked="" type="checkbox"/>
Deployment Status	Deployed
Help Settings	Standard Salesforce.com Help Window

4. Enrollment (Enrollment__c) — Junction object between Student & Course

- Record Name: *Enrollment Number* — Auto Number ENR-{0000}.

The screenshot shows the Salesforce Setup page for the 'Enrollment' object. The left sidebar contains a list of configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Object Access, Triggers, Flow Triggers, and Validation Rules. The 'Details' section is selected, showing the following configuration:

Field	Value
Description	
API Name	Enrollment__c
Custom	<input checked="" type="checkbox"/>
Singular Label	Enrollment
Plural Label	Enrollments
Record Types	
Related Lookup Filters	
Restriction Rules	
Scoping Rules	
Object Access	
Triggers	
Flow Triggers	
Validation Rules	

On the right side, there are additional settings:

Field	Value
Enable Reports	<input checked="" type="checkbox"/>
Track Activities	<input checked="" type="checkbox"/>
Track Field History	<input checked="" type="checkbox"/>
Deployment Status	Deployed
Help Settings	Standard Salesforce.com Help Window

5. Fee Payment (Fee_Payment__c)

- Record Name: *Payment Number* — Auto Number PAY-{0000}.

The screenshot shows the Salesforce Setup page for the 'Fee Payment' object. The left sidebar contains a list of configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Object Access, Triggers, Flow Triggers, and Validation Rules. The 'Details' section is selected, showing the following configuration:

Field	Value
Description	
API Name	Fee_Payment__c
Custom	<input checked="" type="checkbox"/>
Singular Label	Fee Payment
Plural Label	Fee Payments
Record Types	
Related Lookup Filters	
Restriction Rules	
Scoping Rules	
Object Access	
Triggers	
Flow Triggers	
Validation Rules	

On the right side, there are additional settings:

Field	Value
Enable Reports	<input checked="" type="checkbox"/>
Track Activities	<input checked="" type="checkbox"/>
Track Field History	<input checked="" type="checkbox"/>
Deployment Status	Deployed
Help Settings	Standard Salesforce.com Help Window

After creating each object, **create a custom tab** for it (Setup → Tabs → New → Custom Object Tab).

2 — Add custom fields (Object Manager → [Object] → Fields & Relationships → New)

Create these fields (pick types exactly):

Student (Student__c)

- Full_Name__c — Text (255) or use standard Name field.
- Email__c — Email.
- Phone__c — Phone.
- DOB__c — Date.
- Enrollment_Status__c — Picklist: *Admitted, Active, Completed, Dropped*.
- Primary_Course__c — Lookup (Course__c) — optional quick link.

The screenshot shows the 'Fields & Relationships' tab for the 'Student' object. The table lists the following fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Course	Course__c	Lookup(Course)		✓
Created By	CreatedById	Lookup(User)		
DOB	DOB__c	Date		
Email	Email__c	Email (Unique)		✓
Enrollment Status	Enrollment_Status__c	Picklist		
Last Modified By	LastModifiedById	Lookup(User)		
Name	Name__c	Text(40)		
Owner	OwnerId	Lookup(User/Group)		✓
Phone	Phone__c	Phone		
Student ID	Name	Auto Number		✓

Faculty (Faculty__c)

- Full_Name__c — Text (or standard Name).
- Email__c — Email.
- Phone__c — Phone.
- Department__c — Picklist: *Science, Commerce, Arts, Tech, Other*.

The screenshot shows the 'Fields & Relationships' tab for the 'Faculty' object. The table lists the following fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Department	Department__c	Picklist		
Email	Email__c	Email (Unique)		✓
Faculty ID	Name	Auto Number		✓
Faculty Name	Faculty_Name__c	Text(40)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User/Group)		✓
Phone	Phone__c	Phone		

Course (Course__c)

- Course_Name__c — Text.
- Duration_Months__c — Number (0, no decimals).
- Credits__c — Number.
- Fees__c — Currency.
- Faculty__c — Lookup (Faculty__c).

SETUP > OBJECT MANAGER
Course

Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Object Access
Triggers
Flow Triggers
Validation Rules

Fields & Relationships
9 items, sorted by Field Label

Q, Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Course Code	Name	Text(80)		✓
Course Name	Course_Name__c	Text(20)		
Created By	CreatedById	Lookup(User)		
Credits	Credits__c	Number(18, 0)		
Duration	Duration__c	Number(18, 0)		
Faculty	Faculty__c	Lookup(Faculty)		✓
Fees	Fees__c	Currency(18, 0)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User:Group)		✓

Enrollment (Enrollment__c) — junction fields

- Student__c — **Master-Detail (Student__c)** or Lookup (see Relationship section).
- Course__c — **Master-Detail (Course__c)** or Lookup.
- Enrollment_Date__c — Date.
- Status__c — Picklist: *Active, Completed, Dropped*.
- Grade__c — Picklist: *A, B, C, D, F*.

SETUP > OBJECT MANAGER
Enrollment

Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Object Access
Triggers
Flow Triggers
Validation Rules

Fields & Relationships
9 items, sorted by Field Label

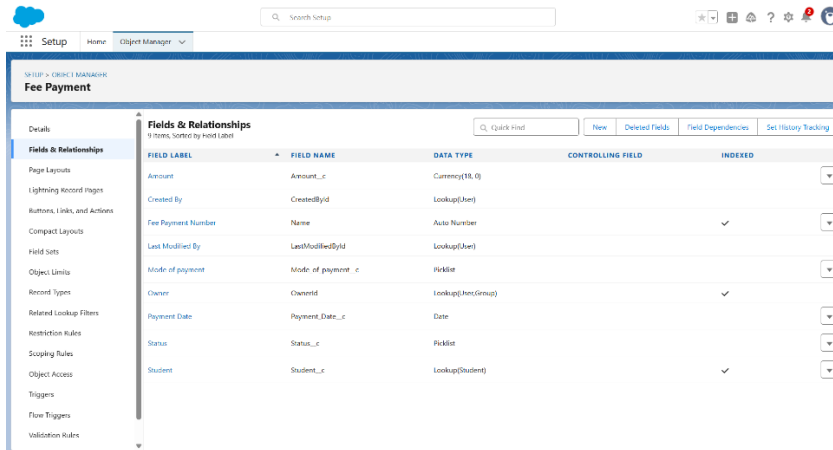
Q, Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Course	Course__c	Lookup(Course)		✓
Created By	CreatedById	Lookup(User)		
Enrollment Date	Enrollment_Date__c	Date		
Enrollment Number	Name	Auto Number		✓
Grade	Grade__c	Picklist		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User:Group)		✓
Picklist	Picklist__c	Picklist		
Student	Student__c	Lookup(Student)		✓

Fee Payment (Fee_Payment__c)

- Student__c — Lookup (Student__c).
- Payment_Date__c — Date.

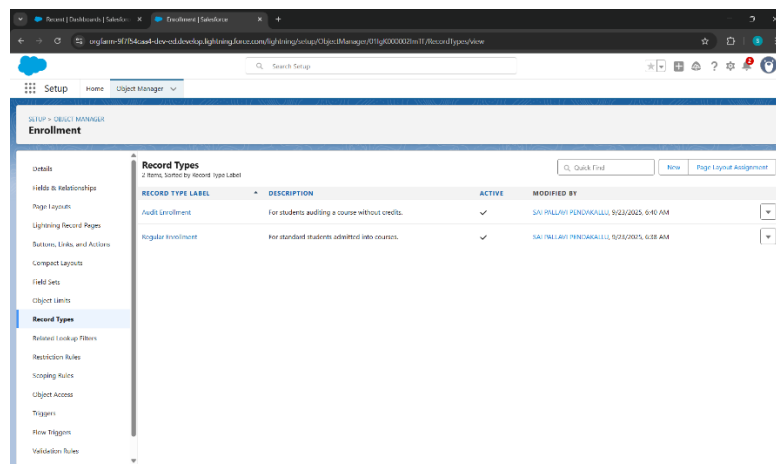
- Amount__c — Currency.
- Payment_Mode__c — Picklist: *Cash, Card, Online*.
- Status__c — Picklist: *Paid, Pending*.



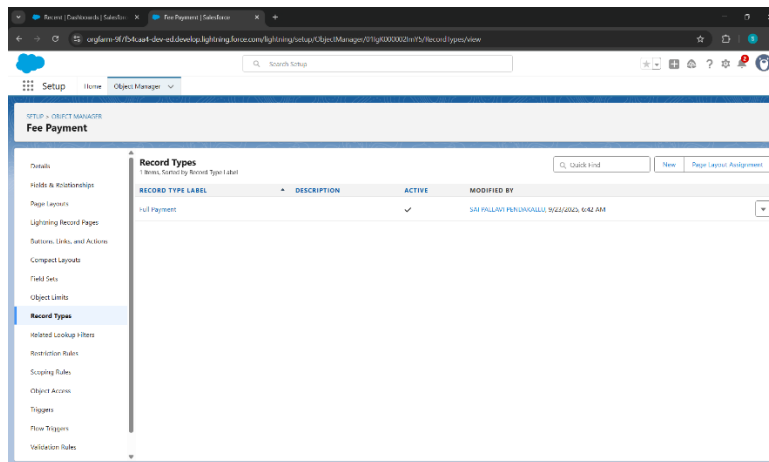
3 — Create Record Types (Setup → Object Manager → [Object] → Record Types → New)

Create record types where behavior differs:

- **Enrollment:**
 - Regular Enrollment — default page layout.
 - Audit Enrollment — different required fields or layouts.



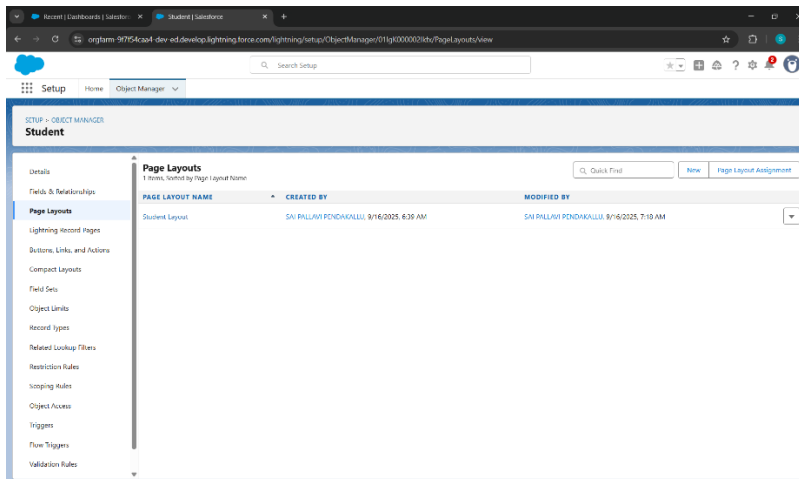
- **Fee Payment:**
 - Full Payment



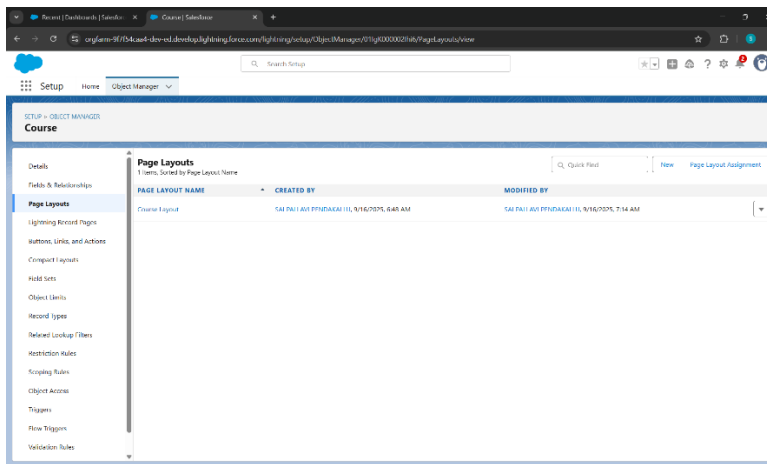
4— Page Layouts & Related Lists (Object Manager → Page Layouts)

Design UX for each object:

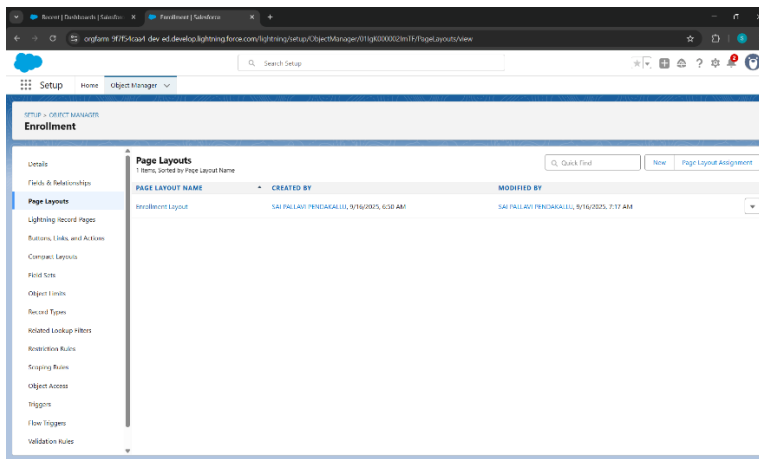
- **Student Page Layout:** put key fields top (Full Name, Email, DOB, Enrollment Status). Add related lists: **Enrollments**, **Fee Payments**. Place Student 360 components (if Lightning) — related records, quick actions.



- **Course Page Layout:** Course fields + related list **Enrollments** (show Students). Show Lookup to Faculty.



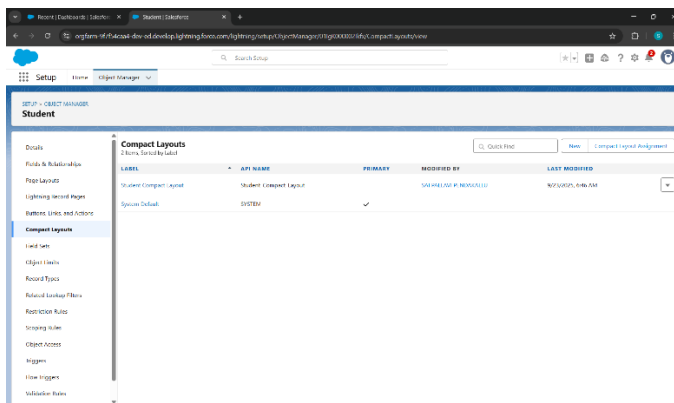
- **Enrollment Page Layout:** show Student & Course in top; Status, Enrollment Date, Grade.



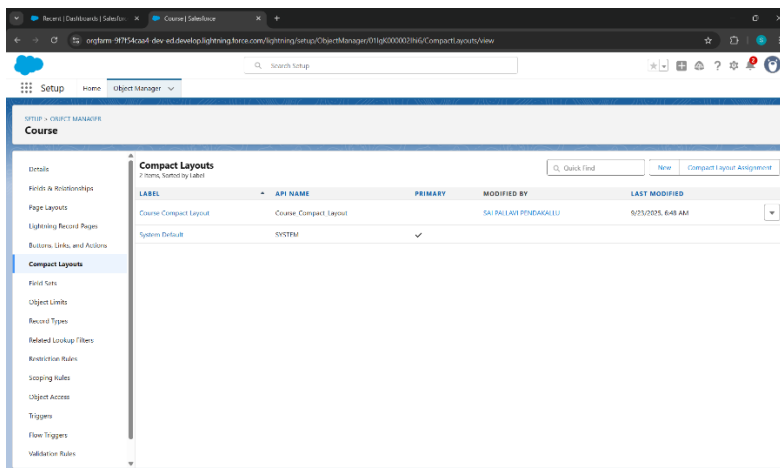
5— Compact Layouts (for mobile) (Object Manager → Compact Layouts)

Create small summaries for mobile:

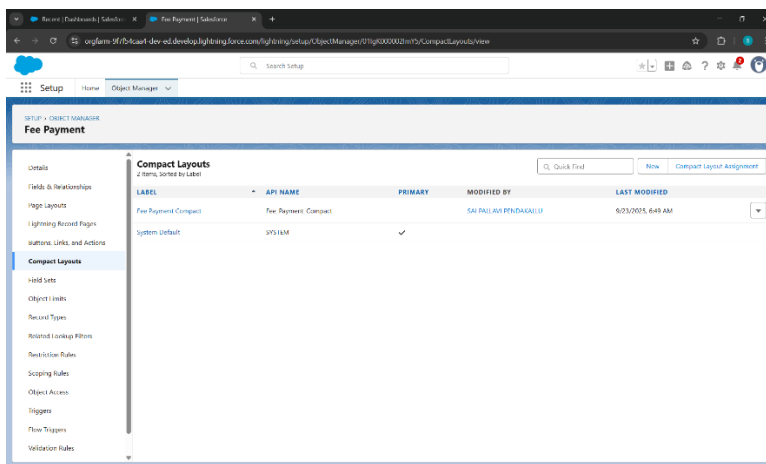
- **Student Compact Layout:** Full_Name__c, Email__c, Enrollment_Status__c.



- **Course Compact Layout:** Course_Name__c, Duration_Months__c, Fees__c.

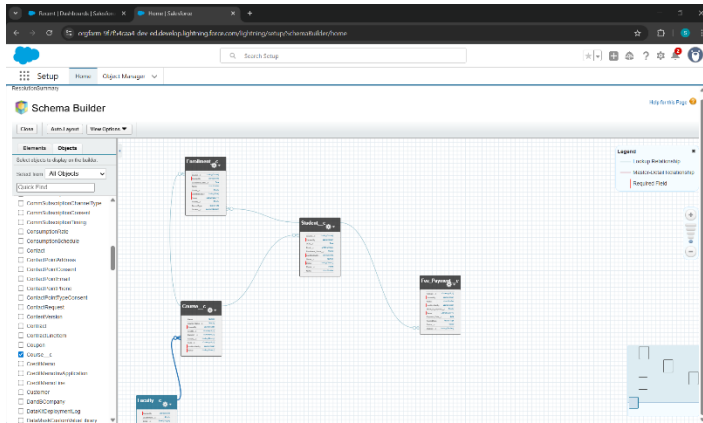


- **Fee Payment Compact:** Payment_Date__c, Amount__c, Status__c.



6— Schema Builder (Setup → Schema Builder)

1. Open **Schema Builder**.
2. From left pane, tick your custom objects to show them on canvas.
3. Drag fields or relationships if needed, or simply **visualize** Student ↔ Enrollment ↔ Course and Course ↔ Faculty, Student ↔ Fee Payment.
4. You can create new fields/relationships here by dragging, but I usually use Object Manager for precise control.



7— Tabs & Lightning App (Setup → App Manager → New Lightning App)

Tabs: (Setup → Tabs) create custom tabs for Students, Faculty, Courses, Enrollments, Fee Payments.

Lightning App:

1. Setup → App Manager → New Lightning App.
2. Name: *Institute Management System*.
3. Branding: choose color/logo.
4. Navigation Items: add the tabs you created + Reports, Dashboards.
5. Utility Bar: add **Notes**, **History**, **Chatter**, **Recent Items** (useful for IMS).
6. Assign to Profiles (Admin, Faculty, Accounts, Student). Save.

