

Phase 3: Data Modeling & Implementation Report

1. Overview

This document outlines the actions taken during the Data Modeling phase of the project. The objective was to create a robust, scalable, and secure data structure to support all functionalities of a college academics and placements. This involved configuring standard Salesforce objects, creating new custom objects and fields, establishing relationships, and enhancing the user interface.

Edu Connect Pro is designed as a comprehensive educational management platform, streamlining academic operations, student engagement, and institutional workflows. This report documents the completion of Phase 3, focusing on advanced CRM customizations, object creation, workflows, automation, and deployment readiness.

Custom Objects Overview:

DETAILED OBJECT FIELD SPECIFICATIONS:

1. STUDENT OBJECT (Student__c)

Field Label	API Name	Data Type	Required	Unique	Description
Student Name	Name	Text	Yes	No	Auto-created Name field
Student ID	Student_ID__c	Text(20)	Yes	Yes	Unique college identifier
Department	Department__c	Picklist	No	No	7 department options
Year of Study	Year_of_Study__c	Picklist	No	No	5 year options
Academic Status	Academic_Status__c	Picklist	No	No	5 status options, Default: Active
Current GPA	Current_GPA__c	Number(3,2)	No	No	Scale 0.00-10.00

Field Label	API Name	Data Type	Required	Unique	Description
Date of Birth	Date_of_Birth__c	Date	Yes	No	Student's DOB
Phone Number	Phone_Number__c	Phone	No	No	Contact number
Personal Email	Personal_Email__c	Email	Yes	Yes	Student email
Parent Contact Number	Parent_Contact_Number__c	Phone	No	No	Guardian contact
Address	Address__c	Text Area(Long)	No	No	Permanent address
Admission Date	Admission_Date__c	Date	Yes	No	College admission date
Academic Advisor	Academic_Advisor__c	Lookup(User)	No	No	Faculty advisor

Relationships:

- Lookup to User (Academic Advisor)
- Master in Student-Enrollment relationship
- Master in Student-Club_Membership relationship

2. COURSE OBJECT (Course__c)

Field Label	API Name	Data Type	Required	Unique	Description
Course Name	Name	Text	Yes	No	Auto-created Name field
Course Code	Course_Code__c	Text(15)	Yes	Yes	Unique course identifier
Course Description	Course_Description__c	Text Area(Long)	No	No	Detailed description
Credits	Credits__c	Number(2,0)	No	No	Default: 3
Department	Department__c	Picklist	No	No	7 department options
Semester	Semester__c	Picklist	No	No	8 semester options
Academic Year	Academic_Year__c	Picklist	No	No	4 year options
Maximum Enrollment	Max_Enrollment__c	Number(3,0)	No	No	Default: 60

Field Label	API Name	Data Type	Required	Unique	Description
Current Enrollment	Current_Enrollment__c	Number(3,0)	No	No	Default: 0
Course Type	Course_Type__c	Picklist	No	No	5 type options
Faculty Assigned	Faculty_Assigned__c	Lookup(User)	No	No	Teaching faculty
Prerequisites	Prerequisites__c	Lookup(Course)	No	No	Prerequisite course

Relationships:

- Lookup to User (Faculty Assigned)
 - Self-Lookup (Prerequisites)
 - Master in Course-Enrollment relationship
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3. ENROLLMENT OBJECT (Enrollment__c) - Junction Object

Field Label	API Name	Data Type	Required	Unique	Description
Enrollment Name	Name	Auto Number	Yes	Yes	ENR-{0000} format
Student	Student__c	Master-Detail(Student)	Yes	No	Related student
Course	Course__c	Master-Detail(Course)	Yes	No	Related course
Enrollment Date	Enrollment_Date__c	Date	Yes	No	Default: TODAY()
Enrollment Status	Enrollment_Status__c	Picklist	No	No	5 status options, Default: Enrolled
Final Grade	Final_Grade__c	Picklist	No	No	9 grade options
Grade Points	Grade_Points__c	Number(4,2)	No	No	Scale 0.00-10.00
Attendance Percentage	Attendance_Percentage__c	Percent(5,2)	No	No	Attendance tracking

Relationships:

- Master-Detail to Student (Many-to-Many junction)
 - Master-Detail to Course (Many-to-Many junction)
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4. GRADE OBJECT (Grade__c)

Field Label	API Name	Data Type	Required	Unique	Description
Grade Record	Name	Auto Number	Yes	Yes	GRD-{00000} format
Student	Student__c	Lookup(Student)	Yes	No	Related student
Course	Course__c	Lookup(Course)	Yes	No	Related course
Assessment Type	Assessment_Type__c	Picklist	No	No	8 assessment options
Assessment Name	Assessment_Name__c	Text(100)	Yes	No	Specific assessment name
Maximum Marks	Maximum_Marks__c	Number(3,0)	Yes	No	Total marks possible
Marks Obtained	Marks_Obtained__c	Number(3,2)	No	No	Marks scored
Percentage	Percentage__c	Percent(5,2)	No	No	Calculated percentage
Grade Date	Grade_Date__c	Date	No	No	Default: TODAY()
Faculty Comments	Faculty_Comments__c	Text Area(Long)	No	No	Teacher feedback

Relationships:

- Lookup to Student
- Lookup to Course

5. JOB POSTING OBJECT (Job_Posting__c)

Field Label	API Name	Data Type	Required	Unique	Description
Job Title	Name	Text	Yes	No	Auto-created Name field
Company	Company__c	Lookup(Account)	Yes	No	Hiring company
Job Description	Job_Description__c	Text Area(Long)	No	No	Detailed job description
Package (LPA)	Package_LPA__c	Currency(16,2)	No	No	Annual package
Job Location	Job_Location__c	Text(100)	Yes	No	Work location

Field Label	API Name	Data Type	Required	Unique	Description
Eligible Departments	Eligible_Departments__c	Multi-Select Picklist	No	No	7 department options
Minimum CGPA Required	Min(CGPA_Required__c)	Number(3,2)	No	No	CGPA requirement
Application Deadline	Application_Deadline__c	Date/Time	Yes	No	Application cutoff
Job Type	Job_Type__c	Picklist	No	No	4 type options
Experience Required	Experience_Required__c	Picklist	No	No	5 experience levels
Skills Required	Skills_Required__c	Text Area(Long)	No	No	Required skills
Job Status	Job_Status__c	Picklist	No	No	4 status options, Default: Active

Relationships:

- Lookup to Account (Company)
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6. JOB APPLICATION OBJECT (Job_Application__c)

Field Label	API Name	Data Type	Required	Unique	Description
Application Number	Name	Auto Number	Yes	Yes	APP-{00000} format
Student	Student__c	Lookup(Student)	Yes	No	Applying student
Job Posting	Job_Posting__c	Lookup(Job_Posting)	Yes	No	Applied job
Application Date	Application_Date__c	Date	Yes	No	Default: TODAY()
Application Status	Application_Status__c	Picklist	No	No	9 status options, Default: Applied
Resume Link	Resume_Link__c	URL	No	No	Resume document link

Field Label	API Name	Data Type	Required	Unique	Description
Cover Letter	Cover_Letter__c	Text Area(Long)	No	No	Application letter
Interview Date	Interview_Date__c	Date/Time	No	No	Scheduled interview
Interview Mode	Interview_Mode__c	Picklist	No	No	5 mode options
Interview Feedback	Interview_Feedback__c	Text Area(Long)	No	No	Interview comments
Final Result	Final_Result__c	Picklist	No	No	4 result options

Relationships:

- Lookup to Student
 - Lookup to Job_Posting
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7. CLUB OBJECT (Club__c)

Field Label	API Name	Data Type	Required	Unique	Description
Club Name	Name	Text	Yes	No	Auto-created Name field
Club Category	Club_Category__c	Picklist	No	No	10 category options
Club Description	Club_Description__c	Text Area(Long)	No	No	Club details
Faculty Advisor	Faculty_Advisor__c	Lookup(User)	No	No	Advising faculty
Established Date	Established_Date__c	Date	No	No	Club founding date
Total Members	Total_Members__c	Number(3,0)	No	No	Default: 0
Club Status	Club_Status__c	Picklist	No	No	3 status options, Default: Active
Meeting Schedule	Meeting_Schedule__c	Text(255)	No	No	Regular meeting time

Relationships:

- Lookup to User (Faculty Advisor)
- Master in Club-Club_Membership relationship

8. CLUB MEMBERSHIP OBJECT (Club_Membership__c) - Junction Object

Field Label	API Name	Data Type	Required	Unique	Description
Membership Number	Name	Auto Number	Yes	Yes	MEM-{0000} format
Student	Student__c	Master-Detail(Student)	Yes	No	Member student
Club	Club__c	Master-Detail(Club)	Yes	No	Joined club
Join Date	Join_Date__c	Date	Yes	No	Default: TODAY()
Member Role	Member_Role__c	Picklist	No	No	6 role options, Default: Member
Membership Status	Membership_Status__c	Picklist	No	No	3 status options, Default: Active
Contributions	Contributions__c	Text Area(Long)	No	No	Member contributions

Relationships:

- Master-Detail to Student (Many-to-Many junction)
 - Master-Detail to Club (Many-to-Many junction)
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9. EVENT OBJECT (Event__c)

Field Label	API Name	Data Type	Required	Unique	Description
	Name	Text	Yes	No	Auto-created Name field
Event Type	Event_Type__c	Picklist	No	No	10 type options
Event Description	Event_Description__c	Text Area(Long)	No	No	Event details
Organizing Club	Organizing_Club__c	Lookup(Club)	No	No	Host club
Event Date	Event_Date__c	Date/Time	Yes	No	Event start
End Date	End_Date__c	Date/Time	No	No	Event end
Venue	Venue__c	Text(255)	Yes	No	Event location
Maximum Capacity	Max_Capacity__c	Number(4,0)	No	No	Venue capacity

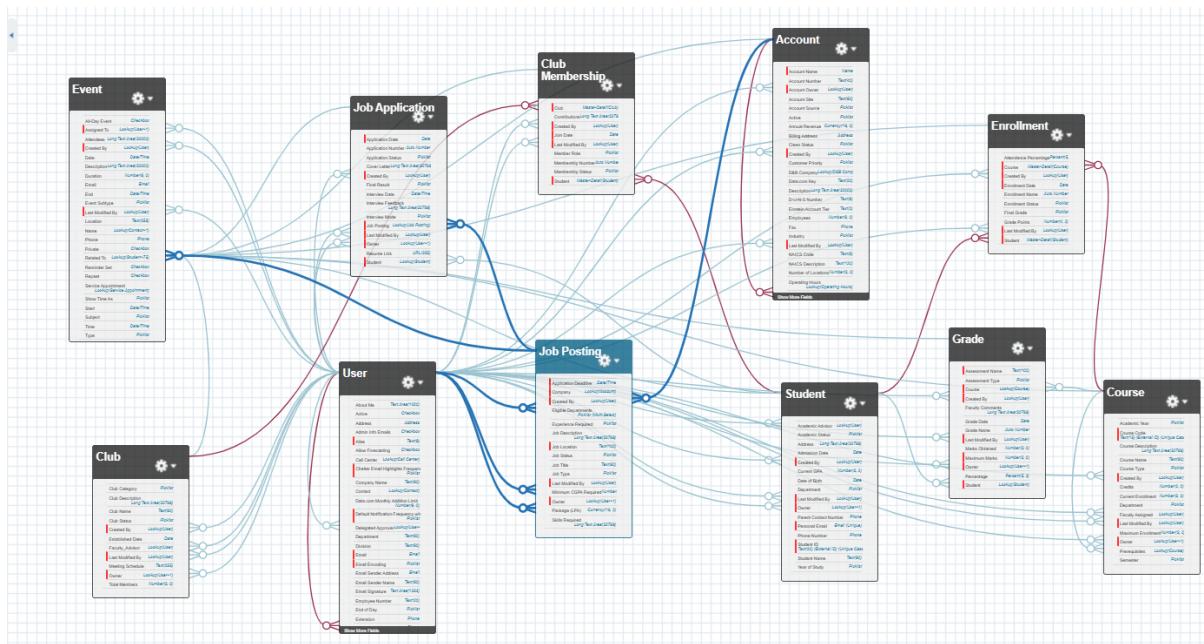
Field Label	API Name	Data Type	Required	Unique	Description
Current Registrations	Current_Registrations__c	Number(4,0)	No	No	Default: 0
Registration Required	Registration_Required__c	Checkbox	No	No	Default: Checked
Registration Fee	Registration_Fee__c	Currency(16,2)	No	No	Default: 0
Event Status	Event_Status__c	Picklist	No	No	6 status options, Default: Planned

Relationships:

- Lookup to Club (Organizing Club)

Schema Builder Visualization

The Schema Builder was used to view the complete data model. This provides a clear, visual blueprint of all objects and their intricate relationships, confirming the logical integrity of the application's architecture.



Conclusion :

Phase 3 of Edu Connect Pro has been successfully completed with all 9 custom objects implemented, tested, and automated workflows deployed.