

Phase 3: Data Modeling & Relationships(Campus CRM + Student Club)

Screenshots:-

Club Object:-

The screenshot shows the Salesforce Setup interface for the 'Club' object. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main content area is titled 'Details' and includes a description: 'it is an group of an students in college of an circular activities of an college.' Below the description, there are sections for API Name (Club_c), Custom (checked), Singular Label (Club), Plural Label (Clubs), and Enable Reports (checked). Other options include Track Activities (checked), Track Field History, Deployment Status (Deployed), and Help Settings (Standard salesforce.com Help Window). The top of the page shows the Salesforce logo, a search bar, and navigation tabs for Setup, Home, and Object Manager. The bottom of the page shows a Windows taskbar with various application icons and system information.

Fields:-

The screenshot shows the Salesforce Setup interface for the 'Club' object, specifically the 'Fields & Relationships' section. The left sidebar is the same as the previous screenshot. The main content area is titled 'Fields & Relationships' and shows a list of 10 items, sorted by Field Label. The table below lists the fields and their properties.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Club Email	Club_Email__c	Email (Unique)		✓
Club Name	Name	Text(80)		✓
Club Phone	Club_Phone__c	Phone		
Club Type	Club_Type__c	Picklist		
Created By	CreatedById	Lookup(User)		
Faculty Advisor	Faculty_Advisor__c	Lookup(User)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Status	Status__c	Picklist		

The top of the page shows the Salesforce logo, a search bar, and navigation tabs for Setup, Home, and Object Manager. The bottom of the page shows a Windows taskbar with various application icons and system information.

Club Event(custom object):-

Object:-

The screenshot shows the Salesforce Setup interface for the 'Club Event' object. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main content area is titled 'Club Event' and includes a description: 'Clubs programs or events in college.' It also displays API Name (Event_c), Custom (checked), Singular Label (Club Event), Plural Label (Club Events), Enable Reports (checked), Track Activities (checked), Track Field History (checked), Deployment Status (Deployed), and Help Settings (Standard salesforce.com Help Window). The top navigation bar shows the path: SETUP > OBJECT MANAGER > Club Event. The bottom status bar indicates the system is mostly cloudy with a temperature of 26°C.

Setup > OBJECT MANAGER
Club Event

Details

Description
Clubs programs or events in college.

API Name
Event_c

Custom
✓

Singular Label
Club Event

Plural Label
Club Events

Enable Reports
✓

Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

Edit Delete

Fields & Relationships:-

The screenshot shows the Salesforce Setup interface for the 'Club Event' object, specifically the 'Fields & Relationships' section. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main content area is titled 'Fields & Relationships' and includes a search bar and buttons for New, Deleted Fields, Field Dependencies, and Set History Tracking. It displays a table of fields with columns: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The table lists 16 items, sorted by Field Label. The bottom status bar indicates the system is mostly cloudy with a temperature of 26°C.

Setup > OBJECT MANAGER
Club Event

Fields & Relationships
16 Items, Sorted by Field Label

Quick Find

New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Event Date	Event_Date_c	Date		
Event Name	Name	Text(80)		✓
Event Rules	Event_Rules_c	Rich Text Area(32768)		
Event Type	Event_Type_c	Picklist		
Event DateTime	Event_DateTime_c	Date/Time		
Facilitator Email	Facilitator_Email_c	Email		
Facilitator Name	Facilitator_Name_c	Text(18) (Unique Case Insensitive)		✓

Club Membership (custom object):-

Object:-

The screenshot shows the Salesforce Setup interface for the 'Club Membership' custom object. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main content area is titled 'Details' and includes fields for Description, API Name (Club_Membership__c), Custom, Singular Label (Club Membership), Plural Label (Club Memberships), Enable Reports (checked), Track Activities (checked), Track Field History (checked), Deployment Status (Deployed), Help Settings, and Standard salesforce.com Help Window. There are 'Edit' and 'Delete' buttons in the top right corner.

Fields & Relationships :-

The screenshot shows the Salesforce Setup interface for the 'Club Membership' custom object, specifically the 'Fields & Relationships' section. The left sidebar is the same as the previous screenshot. The main content area is titled 'Fields & Relationships' and includes a search bar, 'New', 'Deleted Fields', 'Field Dependencies', and 'Set History Tracking' buttons. Below this is a table with 11 items, sorted by Field Label. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Club	Club__c	Master-Detail(Account)		✓
Club Membership	Name	Auto Number		✓
Clubb	Clubb__c	Lookup(Club)		✓
Created By	CreatedById	Lookup(User)		
Duplicate	Duplicate__c	Checkbox		
Join Date	Join_Date__c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
Role in Club	Role_in_Club__c	Picklist		
Status	Status__c	Picklist		

Student (custom object):-

Object:-

The screenshot shows the Salesforce Setup interface for the 'Student' custom object. The left sidebar contains a navigation menu with 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, and Object Access. The main content area is titled 'Student' and includes a 'Details' section with the following information:

- Description: (empty)
- API Name: Student__c
- Custom: ☒
- Singular Label: Student
- Plural Label: Students
- Enable Reports: ☒
- Track Activities: ☒
- Track Field History: ☒
- Deployment Status: Deployed
- Help Settings: Standard salesforce.com Help Window

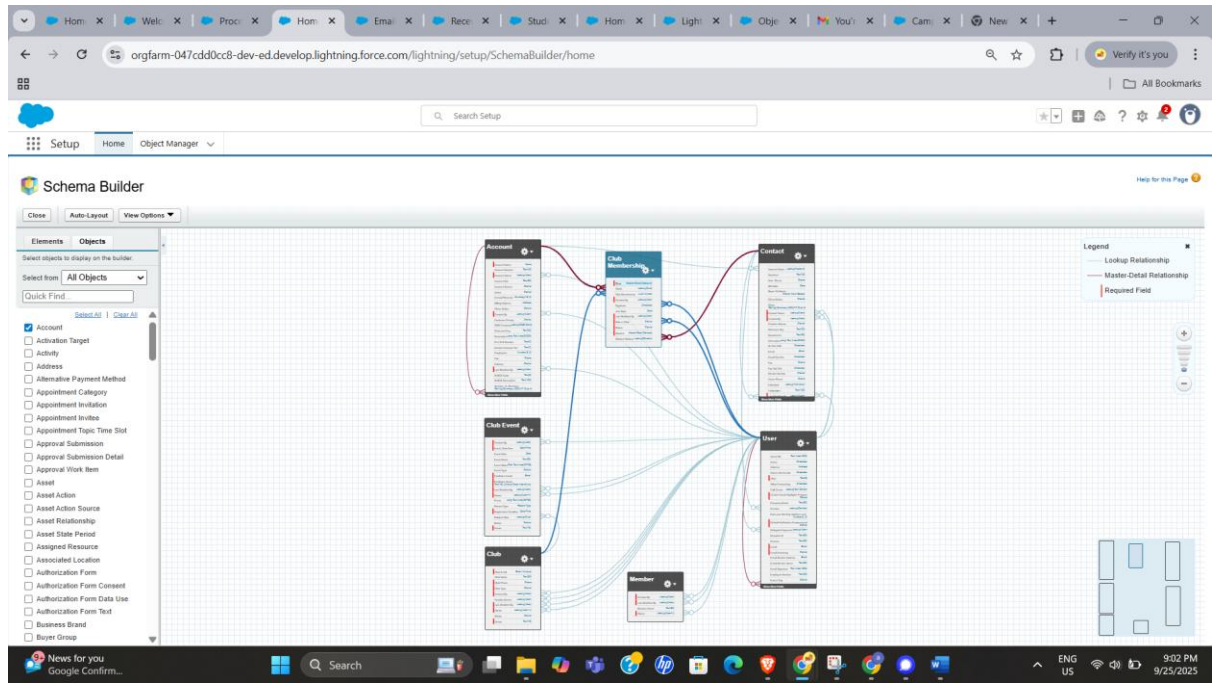
Buttons for 'Edit' and 'Delete' are located in the top right corner of the details section.

Fields & Relationships:-

The screenshot shows the Salesforce Setup interface for the 'Student' custom object, specifically the 'Fields & Relationships' section. The left sidebar is the same as in the previous screenshot. The main content area is titled 'Fields & Relationships' and includes a 'Quick Find' search bar and buttons for 'New', 'Deleted Fields', 'Field Dependencies', and 'Set History Tracking'. Below this is a table listing the fields and relationships for the 'Student' object.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedBy	Lookup(User)		
First Name	First_Name__c	Text(20)		<input type="checkbox"/>
Last Modified By	LastModifiedBy	Lookup(User)		
Last Name	Last_Name__c	Text(20)		<input type="checkbox"/>
Membership Relation	Membership_Relation__c	Lookup(Club Membership)		<input checked="" type="checkbox"/>
Owner	OwnerId	Lookup(User,Group)		<input checked="" type="checkbox"/>
Student Email	Student_Email__c	Email		<input type="checkbox"/>
Student Name	Name	Text(80)		<input checked="" type="checkbox"/>
Student Phone	Student_Phone__c	Phone		<input type="checkbox"/>

Schema Builder:-



Documentation:-

Standard & Custom Objects

- **Standard Objects Utilized:**
 - **Club** :Used to represent Clubs.
 - **Student**: Used to represent Students, linked to Clubs through memberships.
- **Custom Objects Created:**
 - **ClubMembership__c**: Junction object to link Students (Contact) and Clubs (Account).
 - **ClubEvent__c**: Custom object to represent Events hosted by Clubs.
- **Notes**: External Objects were not implemented in Developer Edition but are explained below for extension.

Fields

- **Student** :Name__c, Email__c, Phone__c,Address__c

- **Club** :Club_Type__c, Faculty_Advisor__c, Club_Email__c, Description__c
 - **ClubMembership__c**: Role_in_Club__c, Joining_Date__c, Membership_Status__c, Notes__c
 - **ClubEvent__c**: Event_DateTime__c, Registration_Deadline__c, Venue__c, Event_Type__c, Status__c,
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Record Types

- **ClubEvent__c**:
 - Workshop
 - Seminar
 - Competition
 - Cultural Event
 - **Notes**: Record types were created to allow separate page layouts and picklist variations for different scenarios.
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Page Layouts

- **Club** :
 - Fields grouped as Club Information, Faculty Advisor, and Contact Info.
 - Related lists: Events, Memberships.
 - **Student** :
 - Sections: Personal Details, Academic Info, Memberships, Event Participation.
 - Related list: Club Memberships.
 - **ClubEvent__c**:
 - Event Details, Venue, Capacity, Status.
 - Related lists: Volunteers, Registered Students.
 - **Volunteer__c**: Volunteer details with linked Student and Event.
 - **ClubMembership__c**: Joining Date, Role, Membership Status, linked Student and Club.
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Compact Layouts

- **Club**: Displayed Club Name, Club Type, Faculty Advisor, Active Status.
- **Student** :Displayed Name, Branch, Year, Skills.
- **ClubEvent__c**: Displayed Event Name, Date, Venue, Status.

- **ClubMembership__c**: Displayed Student Name, Role, Membership Status.
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Schema Builder

- Used to visualize object relationships.
 - Showed **Student** linked to **Club** through **ClubMembership__c** (junction object).
 - **ClubEvent__c** linked to **Club** , and **Volunteer__c** connected with both **Event** and **Student**.
 - This schema diagram was saved and included in project documentation for clarity.
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Lookup vs Master-Detail vs Hierarchical Relationships

- **Master-Detail Relationships Implemented:**
 - ClubMembership__c → Club
 - ClubMembership__c → Student
 - **Lookup Relationships Implemented:**
 - ClubEvent__c → Club
 - **Hierarchical Relationship:** Not applicable (only works on User object). A **hierarchical relationship** is a ranked structure with levels of authority.
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Junction Objects

- **ClubMembership__c**: Primary junction object linking Students and Clubs.
 - Enabled many-to-many relationship:
 - One Student can join multiple Clubs.
 - One Club can have multiple Students.
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External Objects

- Not implemented in Developer Edition.
 - Explained as a possible extension:
 - External Object “ExternalEvent__x” could be integrated using Salesforce Connect to sync events hosted by partner institutions.
 - Read-only access to external data while keeping CampusConnect records clean.
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Key Outcomes of Phase 3

- Robust **data model** created to represent Clubs, Students, Memberships, Events, and Volunteers.
- **Many-to-many relationships** managed through ClubMembership junction object.
- Different **page layouts and record types** enhanced user experience for students, club leaders, and faculty.
- Compact layouts and schema visualization simplified navigation and reporting.
- Extended explanation included for External Objects and Hierarchical relationships, even if not implemented.