

Phase 3: Data Modeling & Relationships

Step 1: Goal of Phase 3

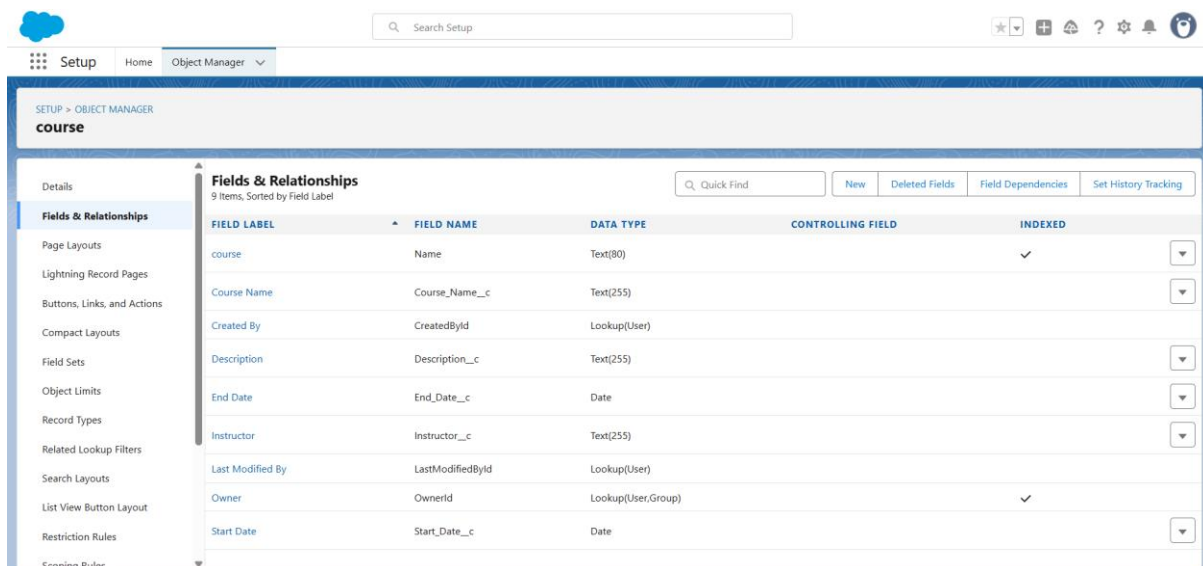
- Build a data model for the CRM to manage institutional services.
- Define standard & custom objects, fields, relationships, and layouts.
- Expected Outcome: Ready for automation, reporting, and UI configuration in Phase 4.

Step 2: Standard & Custom Objects

>>

Create Course Object

1. Go to your **object manager** and click on **create object from spreadsheet**.
2. Click on the **link** to get the spreadsheet, **Course**.
3. After downloading, **upload the file, map the fields** and upload to create an object.



The screenshot shows the Salesforce Object Manager interface for the 'course' 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, Restriction Rules, and Scoping Rules. The main area is titled 'Fields & Relationships' and shows a table of fields for the 'course' object. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: course (Name, Text(80), Indexed), Course Name (Course_Name__c, Text(255)), Created By (CreatedBy, Lookup(User)), Description (Description__c, Text(255)), End Date (End_Date__c, Date), Instructor (Instructor__c, Text(255)), Last Modified By (LastModifiedBy, Lookup(User)), Owner (OwnerId, Lookup(User,Group), Indexed), and Start Date (Start_Date__c, Date).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
course	Name	Text(80)		✓
Course Name	Course_Name__c	Text(255)		
Created By	CreatedBy	Lookup(User)		
Description	Description__c	Text(255)		
End Date	End_Date__c	Date		
Instructor	Instructor__c	Text(255)		
Last Modified By	LastModifiedBy	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Start Date	Start_Date__c	Date		

Custom Objects:

Create Remaining Objects

1. Follow the steps which we have followed for course object creation.
2. Use the following sheets for remaining objects.
 - a. Consultant

- b. Student
- c. Appointment

Create a custom object from a spreadsheet

Define object and fields

Choose the data source, map fields and their types, and import field data.

Worksheet Details

Field Label Source

Enter manually

Detect from row

Field Labels Row

1

Import 5 rows of Data?

No, skip import

Yes, import data

Record Name Field

Let Salesforce Create a Default R

Fields 6 of 6 to import

Hide mapped fields

IMPORT FILE FIELD NAME	SALESFORCE FIELD NAME	SALESFORCE FIELD TYPE	ADD TO LAYOUTS	FIELD PREVIEW
Student Name	Student Name	Text	<input checked="" type="checkbox"/>	Rahul Mehta
Email	Email	Email	<input checked="" type="checkbox"/>	rahul@gmail.com
Phone Number	Phone Number	Integer	<input checked="" type="checkbox"/>	9876543210
Enrollment Date	Enrollment Date	Date	<input checked="" type="checkbox"/>	3/1/26
Course Enrolled	Course Enrolled	Text	<input checked="" type="checkbox"/>	IELTS
Consultant	Consultant	Text	<input checked="" type="checkbox"/>	Sandeep

Back

Next

Setup

Home

Object Manager

Object Manager

2 Items, Sorted by Label

stu

stud

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Credential Stuffing Event Store	CredentialStuffingEventStore	Standard Object			
Student	Student_c	Custom Object		22/09/2025	<input checked="" type="checkbox"/>

Consultant:

Setup

Home

Object Manager

Consultant

11 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

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

Restriction Rules

Scoping Rules

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address_c	Text(255)		<input type="checkbox"/>
Consultant	Consultant_c	Text(255)		<input type="checkbox"/>
Consultant	Name	Text(80)		<input checked="" type="checkbox"/>
Created By	CreatedById	Lookup(User)		
Email	Email_c	Email		<input type="checkbox"/>
Expertise	Expertise_c	Text(255)		<input type="checkbox"/>
First Name	First_Name_c	Text(255)		<input type="checkbox"/>
Last Modified By	LastModifiedById	Lookup(User)		
Last Name	Last_Name_c	Text(255)		<input type="checkbox"/>

Appointment

The screenshot shows the Salesforce Object Manager interface for the 'Appointment' object. The breadcrumb trail at the top reads 'SETUP > OBJECT MANAGER'. The main header is 'Appointment'. On the left, a sidebar lists various configuration options under the 'Details' section: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The main content area is titled 'Details' and contains a table of object properties. The table has two columns: the property name and its value. The properties listed are: Description (empty), API Name (Appointment__c), Custom (checked), Singular Label (Appointment), Plural Label (Appointment), Enable Reports (checked), Track Activities (checked), Track Field History (checked), Deployment Status (Deployed), Help Settings (empty), and Standard salesforce.com Help Window (empty).

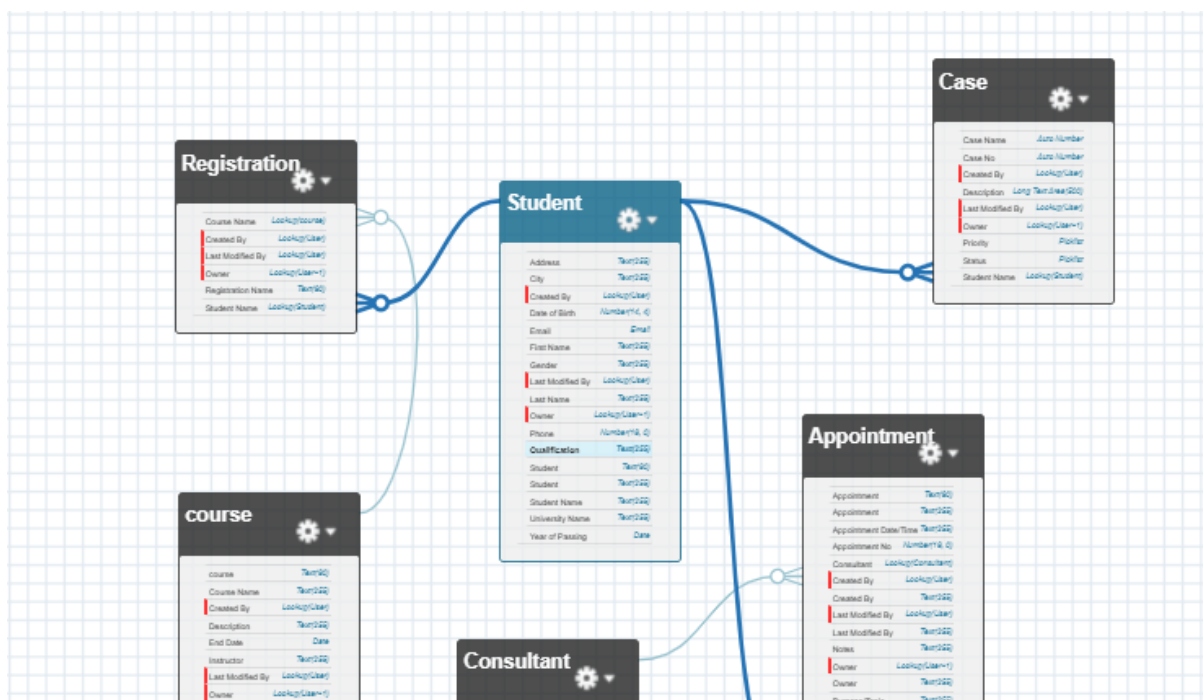
Details	
Description	
API Name	Appointment__c
Custom	✓
Singular Label	Appointment
Plural Label	Appointment
Enable Reports	✓
Track Activities	✓
Track Field History	✓
Deployment Status	Deployed
Help Settings	
Standard salesforce.com Help Window	

Steps to create custom object:

- **Setup → Object Manager → Create → Custom Object from Spreadsheet**
- **Upload Spreadsheet:** Browse and select your prepared file.
- **Map Fields:** Verify Salesforce mapped columns correctly.
- **Verify & Edit:**
- **Go to Fields & Relationships.**
- Check all fields, adjust data types or picklists if needed.
- **Configure Layouts & Relationships:**
- **Page Layouts:** Arrange fields into sections.
- **Lightning Record Pages:** Configure UI.
- **Relationships:** Add Lookup or Master-Detail links (e.g., Student → Course).

Create Relationship Among the Objects

1. Create lookup between appointment and student, appointment and consultant.
2. Create an object to store the information student and course details with the name Registration.
3. Also create a lookup between student and case to store the student queries for immigration or visa application.
4. The data model should be similar to the below Data Model with fields & relationships:



Configure The Case Object

1. Go to object manager, edit case object.
2. Select the **"Type"** field and add the values in it.
 - Immigration
 - Visa Application
3. Now Select the **"Status"** field and add the values in it.
 - Open
 - In-progress

Case

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

New

Deleted Fields

Field Depe

to items, Sorted by Field Label

Created By	CreatedById	Lookup(User)
Description	Description__c	Long Text Area(500)
Last Modified By	LastModifiedById	Lookup(User)
Owner	OwnerId	Lookup(User,Group)
Priority	Priority__c	Picklist
Status	StatusStatus__c	Picklist
Student Name	Student__c	Lookup(Student)
Type	Type__c	Picklist

Create A Lightning App

1. Go to **Setup**, search for the **App Manager** in quick find.
2. Click on **New Lightning App**.
3. Give app name as "**EduConsultPro**", click Next, Next, Next.
4. Add **Home, Students, Courses, Consultants, Appointments, Registrations, and Cases** from the Available Items to Selected Items.
5. Add "**System Administrator**" profile from Available Profiles to Selected Profiles, click **Save & Finish**.

Steps to Create Record Types for Cases

Step 1: Go to Object Manager

1. Go to **Setup** → **Object Manager** → **Case**.

Step 2: Create a New Record Type

1. Click **Record Types** → **New Record Type**.
2. Enter:
 - **Record Type Label:** Immigration Case
 - **Record Type Name (API Name):** Immigration_Case
 - **Description:** For tracking immigration-related requests
 - **Enable for Profiles:** Select **System Administrator** (you can select other profiles later)
3. Click **Next**.

Step 3: Repeat for Visa Application

1. Click **New Record Type** again.
2. Enter:
 - **Label:** Visa Application
 - **API Name:** Visa_Application
 - **Description:** For tracking student visa applications
3. Assign a page layout with fields like **Case Details, Student Lookup, Status, Visa Type (if any)**
4. Click **Save**.

[SETUP > OBJECT MANAGER](#)
Case

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

Record Type

Immigration Case

[« Back to Custom Object: Case](#)

Use the Edit button to change the properties of this record type. Use the Edit links in the Picklist Values related list to choose the picklist values available for records with this record type.

Edit

Record Type Label	Immigration Case	Active	✓
Record Type Name	Immigration_Case		
Namespace Prefix			
Description	For tracking immigration-related requests		
Created By	Jagarapu y. 25/09/2025, 2:52 pm	Modified By	Jagarapu y. 25/09/2025, 2:52 pm

Picklists Available for Editing

[Picklists Available for Editing Help](#)

Action	Field	Modified Date
Edit	Priority	25/09/2025, 2:52 pm
Edit	Status	25/09/2025, 2:52 pm
Edit	Type	25/09/2025, 2:52 pm

Step 5: Page Layouts

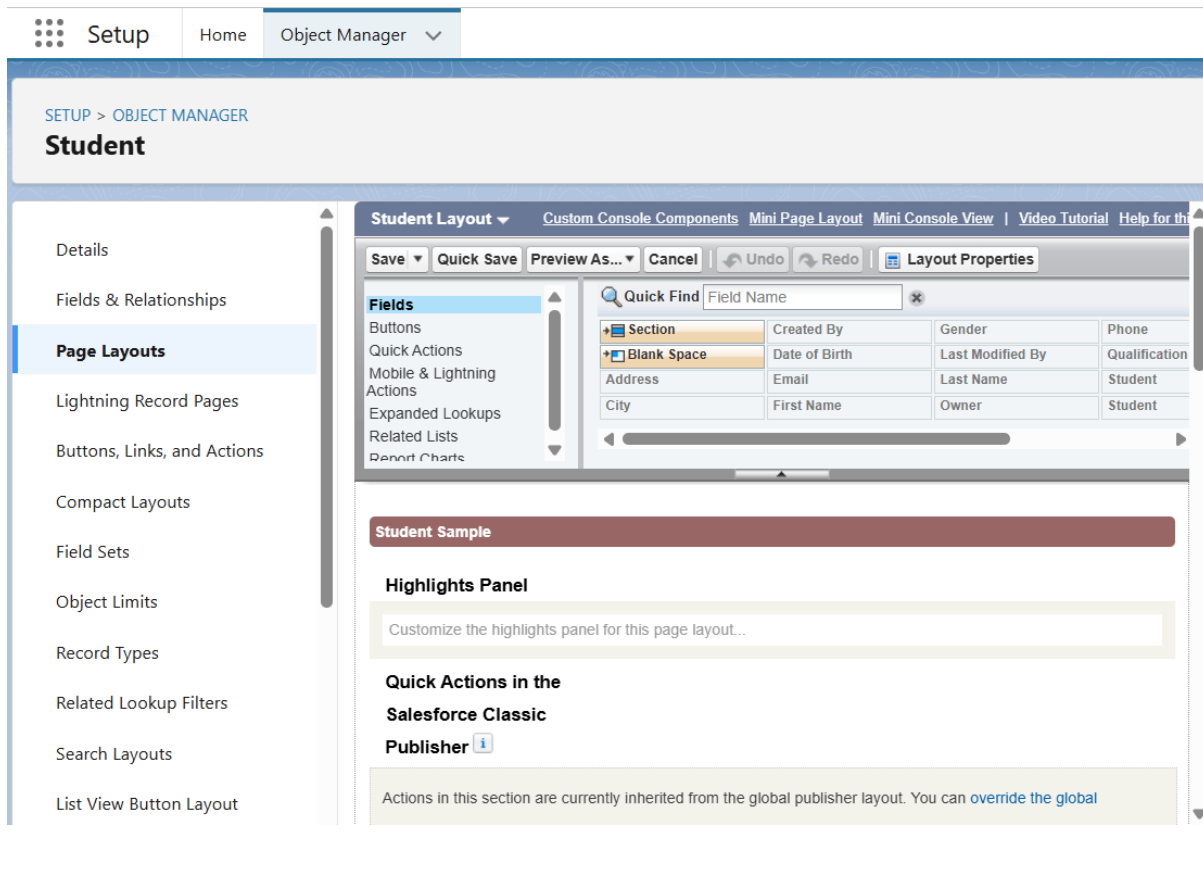
Steps to Create/Edit Page Layouts

Step 1: Go to Object Manager

1. **Setup** → **Object Manager** → **Select Object** (e.g., Student, Course, Appointment, Case).

Step 2: Open Page Layouts

1. In the object, click **Page Layouts** in the sidebar.
2. Click **New** or select an existing layout to edit.



Step 6: Compact Layouts

Steps to Create a Compact Layout:

1. Go to **Setup** → **Object Manager** → **Student (or any object)** → **Compact Layouts**
2. Click **New**
3. Enter **Layout Name**, e.g., Student_Compact_Layout
4. Drag **key fields** to the layout:
 1. Example for Student: Name, Email, Phone, Qualification
5. Click **Save**
6. Set as **Primary** to make it the default compact layout for the object

Step 8: Relationships

. Lookup Relationship

1. Click on “Relationship” → Lookup Relationship in the left panel.
2. Drag from the child object to the parent object.
 - Example: Appointment → Student
3. Define the relationship name and field properties.
4. Save.

B. Master-Detail Relationship

1. Click on “Relationship” → Master-Detail Relationship.
2. Drag from child object to parent object.
 - Example: Registration → Student and Registration → Course
3. Define the relationship (e.g., roll-up summary fields if needed).
4. Save.

SETUP > OBJECT MANAGER

Appointment

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

Step 1. Choose the field type Step 1

Next Cancel

Specify the type of information that the custom field will contain.

Data Type

☐ None Selected Select one of the data types below.

☐ Auto Number A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

☐ Formula A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

☐ Roll-Up Summary ⓘ A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.

☒ **Lookup Relationship** Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of the values in the list.

☐ Master-Detail Relationship Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent, or "master") where:

Step 9: External Objects

- Represent data stored outside Salesforce.

- Example: ERP student records, library database.
- Access via Salesforce Connect (OData, REST/SOAP)

Steps:

1. Setup → External Data Sources → New
2. Configure connection → Validate → Sync objects
3. Map external objects and fields

The screenshot shows the Salesforce Setup interface. On the left is a navigation menu with 'Setup' at the top, followed by 'Home' and 'Object Manager'. Below these is a search bar with 'exter' entered. The menu items include 'Email', 'Apps', 'Integrations', and 'External Data Sources', 'External Objects', and 'External Services'. The 'External Objects' item is highlighted. The main content area is titled 'New External Object' and contains a warning message about permissions. Below the warning is the 'External Object Definition' section, which includes 'External Object Information' and a 'Description' field.

Setup Home Object Manager

Q exter

▼ Email
Send through External Email Services

▼ Apps
▼ External Client Apps
External Client App Manager
OAuth Usage
Settings

▼ Integrations
External Data Sources
External Objects
External Services

Didn't find what you're looking for?
Try using Global Search.

SETUP
External Objects

New External Object [Help for this Page](#)

Permissions for this object are disabled for all profiles by default. You can enable object permissions in permission sets or by editing custom profiles. [Don't show this message again](#)

External Object Definition
Edit Save Save & New Cancel

External Object Information ⓘ Required Information

The singular and plural labels are used in tabs, page layouts, and reports.

Label External Student Record **Example: Account**

Plural Label External_Student_Record_ **Example: Accounts**

Starts with vowel sound ☒

The Object Name is used when referencing the object via the API.

Object Name External_Student_Record **Example: Account**

Description

Student

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

Student Validation Rule

[Help for this Page](#)

Define a validation rule by specifying an error condition and a corresponding error message. The error condition is written as a Boolean formula expression that returns true or false. When the formula expression returns true, the save will be aborted and the error message will be displayed. The user can correct the error and try again.

Validation Rule Edit

Save

Save & New

Cancel

Rule Name

Active



Description

Quick Tips

- [Operators & Functions](#)

Error Condition Formula

I = Required Information

Example: `Discount_Percent__c > 0.30`

[More Examples...](#)

Display an error if Discount is more than 30%

If this formula expression is **true**, display the text defined in the Error Message area

Insert Field

Insert Operator ▼

Functions

-- All Function C

ABS

ACOS

ADDMONTHS

AND

ASCII

ASIN