

Phase 3: Data Modelling & Relationships

PROJECT TITLE:-

Expense On a Page: An expense approval & insight system.

Industry: Finance / Corporate Expense Management.

Target User: Employees, Managers, and Finance Teams.

STANDARD & CUSTOM OBJECTS :-

Standard Object:

The Project will be working mainly on the custom objects only, so the standard objects that are used are-

- User: Employees will be submitting the expense report.
Managers will be approving the expense report if it is above 5000 rupees.
Finance Team will be overlooking the all the reports and dashboard.
- Task: Auto-create a submit Receipts reminder if they are not submitted.
- Report/Dashboard: To overview the spending of the particular month.

Custom Object:

To represent a single expense report two Custom Objects are made-

- Expense (Parent Object)- It will be representing a single report (Eg – A trip to Mumbai)
 - *Label:* Expense
 - *Plural Label:* Expenses
 - *Object Name:* Expense
 - *Description:* Will be the one representing a single expense report
 - *Record Name:* Expense ID
 - *Record Type:* Auto Number
 - *Record Format:* E-{00000000}
 - *Starting Name:* 1
 - *Optional Features:* Allow Reports, Allow Activities, Track Field History enabled
 - *Search Status:* Allow Search enabled
 - *Object Creation Options:* Launch New Custom Tab Wizard after saving this custom object enabled.

Setup Home Object Manager Expense

SETUP > OBJECT MANAGER

Expense

The singular and plural labels are used in tabs, page layouts, and reports.
Be careful when changing the name or label as it may affect existing integrations and merge templates.

Label Example: Account

Plural Label Example: Accounts

Starts with vowel sound ☐

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

Description

Context-Sensitive Help Setting ☒ Open the standard Salesforce.com Help & Training window
☐ Open a window using a Visualforce page

Content Name

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name Example: Account Name

Data Type Warning: If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.

Display Format Example: A-{0000} What Is This?

- Expense_Line (Child Object)- It will be representing the breakdown of the expense in a particular Expense Report (Eg- Taxi Fare, Hotel Bills).
 - **Label:** Expense_Line
 - **Plural Label:** Expense_Lines
 - **Object Name:** Expense_Line
 - **Description:** Will have the particular type of expense in an Expense Record.
 - **Record Name:** Expense_Line ID
 - **Record Type:** Auto Number
 - **Record Format:** EL-{00000000}
 - **Starting Name:** 1
 - **Optional Features:** Allow Reports, Allow Activities, Track Field History enabled
 - **Search Status:** Allow Search enabled
 - **Object Creation Options:** Launch New Custom Tab Wizard after saving this custom object enabled.

SETUP > OBJECT MANAGER Expense_Line

SETUP > OBJECT MANAGER

Expense_Line

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Display Format Example: A-{0000} What Is This?

FIELDS:-

- Fields for **Expense** Custom Object:

FIELD	TYPE	USE
<i>Status</i>	Picklist	Tracks the life cycle of Expense.
<i>Total Amount</i>	Currency	The amount of money spent.
<i>Submission Date</i>	Date	The date on which the report is submitted.
<i>Expense Detail</i>	Text	Stores the reason for the expense.
<i>Employee</i>	Lookup(user)	To store whose report is that.

New Expense

* = Required Information

Information

Expense ID

Owner
Anisha Lamba

* Status
--None--

* Total Amount

* Submission Date

User
Search People...

* Expense Detail

Cancel Save & New Save

- Fields for **Expense Line** Custom Object:

FIELD	TYPE	USE
<i>Category</i>	Picklist	Shows the type of Expense.
<i>Amount</i>	Currency	The amount of money spent.
<i>Receipt URL</i>	URL	The link of the receipt of the spending
<i>Receipt ID</i>	Text	The ID of the receipt.
<i>Expense(parent)</i>	MDR(Expense)	To know from which expense report it is from

New Expense_Line

* = Required Information

Information

Expense_Line ID

* Category
--None--

* Amount

* Receipt URL

* Receipt ID










* Expense
Search Expenses...

Cancel Save & New Save

PAGE LAYOUT:-


- Making the Page Layout for the ***Expense__c*** object-
 - Adding the top section of the record in the following pattern:

Expense ID	Owner
Expense Detail	Total Amount
Status	User
Submission Date	

Information (Header visible on edit only)			
	Expense ID	GEN-2004-001234	Owner <u>Sample Text</u>
	 Expense Detail	Sample Text	  Total Amount ₹123.45
		 Status	User <u>Sample Text</u>
	 Submission Date	9/14/2025	

- Adding the Related Lists in the following pattern:
Expense_Lines
Approval History
Activity History

Related Lists




Expense Lines

[New](#) [Change Owner](#)


Expense_Line ID

Sample Text



Approval History

Date	Status	Assigned To	Actual Approver	Comments
9/14/2025, 3:39 AM	Sample Text	Sarah Sample	Sarah Sample	Sample Text



Activity History

[Log a Call](#) [Mail Merge](#) [Send an Email](#) [View All](#)

Subject	Name	Task	Due Date	Assigned To	Last Modified Date/Time
Sample Text	Sample Text	✓	9/14/2025, 3:39 AM	Sarah Sample	9/14/2025, 3:39 AM

- Adding the page layout for the ***Expense_Line__c*** object:
 - Adding the top section of the record in the following pattern:

Expense_Line ID	Receipt URL
Category	Receipt ID
Amount	Expense

Information (Header visible on edit only)			
	Expense_Line ID	GEN-2004-001234	Receipt URL www.salesforce.com
	 Category	Sample Text	  Receipt ID Sample Text
	 Amount	₹123.45	  Expense <u>Sample Text</u>

RECORD TYPES:-

- *Expense__c Record Types:*
 - Employee Expense -> For regular staff.
Existing Record Type: Master
Record Type Label: Employee Expense
Record Type Name: Employee_Expense
Description: For the regular staff
Activated
Make it available for every one
Layout: Expense Layout

New Record Type
Expense

Step 1: Enter the details

Enter a name and description for the new record type. The new record type will include all the picklist values from the existing record type selected below. After saving the new record type, you will be able to customize the picklist values.

Record Type

Existing Record Type: Master

Record Type Label: Employee Expense

Record Type Name: Employee_Expense

Description: For the regular staff

Active: ☒

Select Make Available to give users assigned to this profile the ability to create and clone records of this record type, or assign this record type to existing records. To make the new record type the default for a profile, select Make Default. Users assigned to this record type can still view and edit records associated with record types not available for their profiles.

Profile Name	Record Types Currently Available	Make Available	Make Default
Analytics Cloud Integration User		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Analytics Cloud Security User		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Will add few more in future if needed

COMPACT LAYOUT:-

Making a compact layout for the Expense and Expense_Line custom objects so they are easily available for the employee working with a phone

- For the *Expense__c object* -> Expense Detail, Status, Total Amount, User

Expense Compact Layout
Expense Phone

« Back to Expense

Compact Layout Detail

Label: Expense Phone

API Name: Expense_Phone

Included Fields: Expense Detail, Status, Total Amount, User

Created By: Anisha Lamba, 9/14/2025, 4:34 AM

Modified By: Anisha Lamba, 9/14/2025, 4:34 AM

Object Name: Expense

Edit Clone Delete

Compact Layout Assignment

- For the **Expense_Line__c** object -> Category, Amount, Receipt_ID.

Expense_Line
Compact Layout

[Help for this Page](#)

Expense Line Phone

« [Back to Expense_Line](#)

Compact Layout Detail

Edit
Clone
Delete

Compact Layout Assignment

Label	Expense Line Phone	Object Name	<u>Expense_Line</u>
API Name	Expense_Line_Phone		
Included Fields	Category Amount Receipt ID		
Created By	<u>Anisha Lamba</u> , 9/14/2025, 4:39 AM	Modified By	<u>Anisha Lamba</u> , 9/14/2025, 4:39 AM

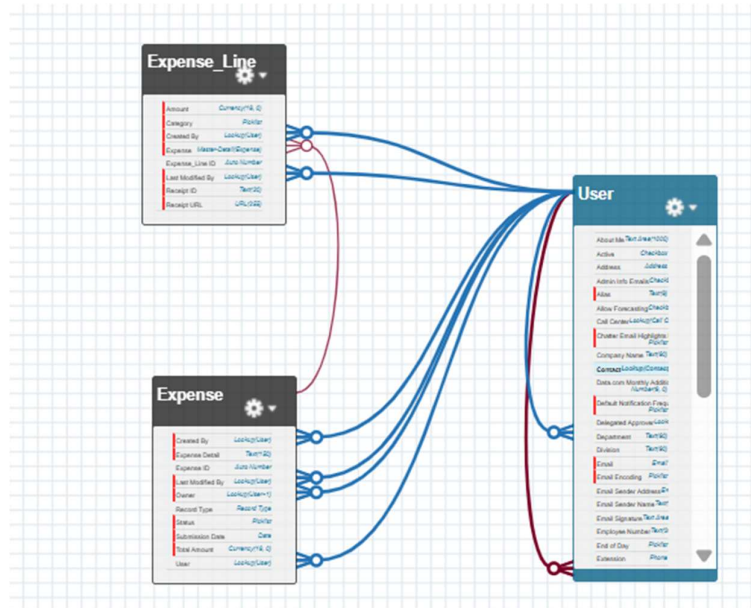
Edit
Clone
Delete

Compact Layout Assignment

SCHEMA BUILDER:

Using the Schema Builder to

- Show the relationship between objects
- Know what type of relationship between the different objects.



LOOKUP VS MASTER-DETAIL VS HIERARCHICAL RELATIONSHIPS

Master-Detail Relationship: *Expense__c* → *Expense_Line__c*

- If Expense is deleted, all related Expense Lines are deleted.
- Allows roll-up of Amount to Expense.

Lookup Relationship: *Expense__c* → *User*

- Flexible, because deleting a User shouldn't delete Expenses.

Hierarchal Relationship:



- Not needed

(Pending from Phase 2)


PROFILES:-

Expense User Profile-

- Setting the object permission for the following object:
 - *Expense custom Object*- Read, Create, Edit (no Delete or change owner if desired).
 - *Expense_Line custom Object*- Read, Create, Edit.

Custom Object Permissions							
	Basic Access				Data Administration		
	Read	Create	Edit	Delete	View All Records 	Modify All Records 	View All Fields
Expenses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expense_Lines	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Ensuring that the Field Level Security Exposes Category, Amount, Receipt URL, Status.

Expense_Line Field-Level Security for profile [Help for this Page](#) 

Expense User Profile.

Field Name	Field Type	Read Access	Edit Access
Amount	Currency	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Category	Picklist	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Created By	Lookup	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Expense	Lookup	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Expense_Line ID	Auto Number	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Last Modified By	Lookup	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Receipt ID	Text	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Receipt URL	URL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

PERMISSION SETS:-

Expense Approver-

- Setting the Object Setting for the *Expense Custom Object*:
 - Giving Read, Edit, View All permission as required.

Object Permissions

Permission Name	Enabled
Read	<input checked="" type="checkbox"/>
Create	<input type="checkbox"/>
Edit	<input checked="" type="checkbox"/>
Delete	<input type="checkbox"/>
View All Records	<input checked="" type="checkbox"/>
Modify All Records	<input type="checkbox"/>
View All Fields	<input type="checkbox"/>

OWD (ORGANIZATION WIDE DEFAULT):-

Changing the Sharing Setting of the Custom Objects-

- *Expense*: Private

Expense	Private	Private
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