

Smart Leave Tracker – Employee Leave Management System

Phase 3: Data Modeling & Relationships

In Phase 3 of the Leave Tracker project, the focus was on designing the data model and defining relationships between various objects in Salesforce. This ensures that all leave-related information is stored efficiently and is easily accessible.

1. Standard & Custom Objects

Go to **Setup → Object Manager → Create → Custom Object**.

Enter:

- Label: Leave Request
- Plural Label: Leave Requests
- Object Name: Leave_Request
- Save.

The screenshot shows the Salesforce Object Manager interface for a custom object named 'Leave Requests'. The breadcrumb trail at the top reads 'SETUP > OBJECT MANAGER'. 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, and Search Layouts. The 'Details' tab is selected. The main content area is titled 'Details' and includes 'Edit' and 'Delete' buttons. The configuration fields are as follows:

Field	Value
Description	Tracks employee leave requests
API Name	Leave_Requests__c
Custom	✓
Singular Label	Leave Requests
Plural Label	Leave Requests
Enable Reports	✓
Track Activities	✓
Track Field History	✓
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

2. Fields

Fields store information inside objects (like columns in a table).

Step to create fields in Leave Request object:

1. Go to **Object Manager** → **Leave Request** → **Fields & Relationships** → **New**.
2. Choose field type:
 - Text → for Reason/Purpose
 - Date → for Start Date, End Date
 - Picklist → for Status (Pending, Approved, Rejected)
 - Lookup → for Employee Name (link to User)
 - Lookup → for Leave Type (link to Leave Type object)
 - Picklist → for Department (HR, IT, Sales...)
3. Fill details and save.

SETUP > OBJECT MANAGER

Leave Requests

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

Fields & Relationships

12 Items, Sorted by Field Label

Q Quick Find

NewDeleted FieldsField DependenciesSet History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Comments / Reason	Comments_Reason__c	Long Text Area(32768)		
Created By	CreatedById	Lookup(User)		
Department	Department__c	Picklist		
End Date	End_Date__c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
Leave Request Number	Leave_Request_Number__c	Auto Number		
Leave Requests Name	Name	Text(80)		✓
Number of Days	Number_of_Days__c	Formula (Number)		

3. Record Types

Record Types let you **show different fields or picklist values** to different users.

Example: Full-Time vs Contract Employees.

Steps:

1. Go to **Object Manager** → **Leave Request** → **Record Types** → **New**.
2. Enter Name: Full-Time Leave Request
3. Choose **Existing Profile** (assign who can see it).
4. Set picklist values (e.g., for Status: Pending, Approved, Rejected).
5. Save.

The screenshot shows the Salesforce Record Type configuration page for 'Full-Time Leave Request' under the 'Leave Requests' object. The left sidebar contains navigation links: 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, and List View Button Layout. The main content area displays the record type details, including an 'Edit' button, the record type label 'Full-Time Leave Request', the name 'Full_Time_Leave_Request', and a description 'Record type for full-time employees' leave requests'. It also shows the creator 'Gurjit Jahnawi' and the creation/modification date '9/25/2025, 10:24 AM'. Below this, a table titled 'Picklists Available for Editing' lists three picklist fields: Department, Purpose of Leave, and Status, each with an 'Edit' link and a 'Modified Date' of '9/25/2025, 10:24 AM'.

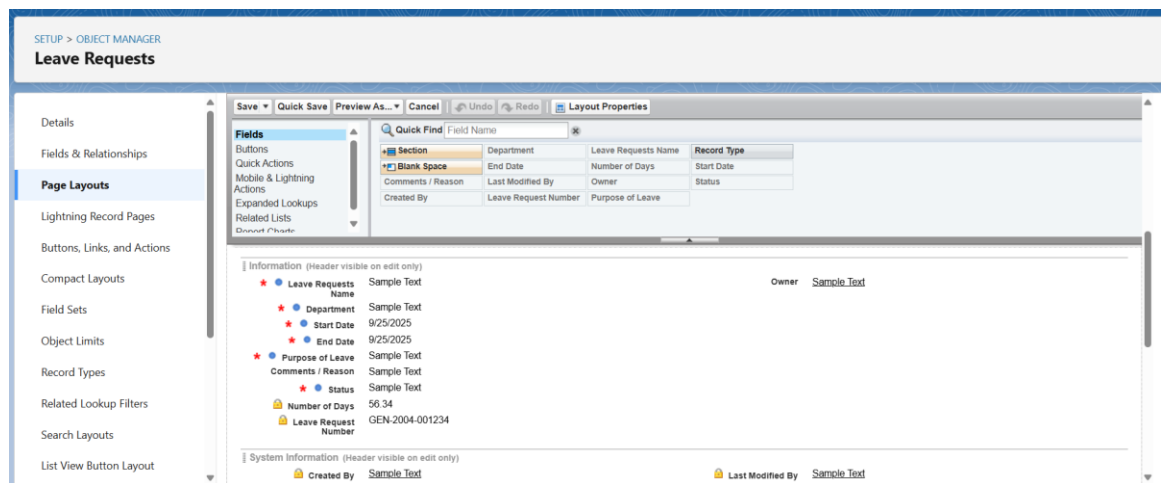
Action	Field	Modified Date
Edit	Department	9/25/2025, 10:24 AM
Edit	Purpose of Leave	9/25/2025, 10:24 AM
Edit	Status	9/25/2025, 10:24 AM

4. Page Layouts

Page Layouts control **how a record looks** in Salesforce.

Steps:

1. Go to **Object Manager** → **Leave Request** → **Page Layouts** → **New**.
2. Select existing layout as template.
3. Drag and drop fields: Employee Name, Leave Type, Start Date, End Date, Department, Status.
4. Save.

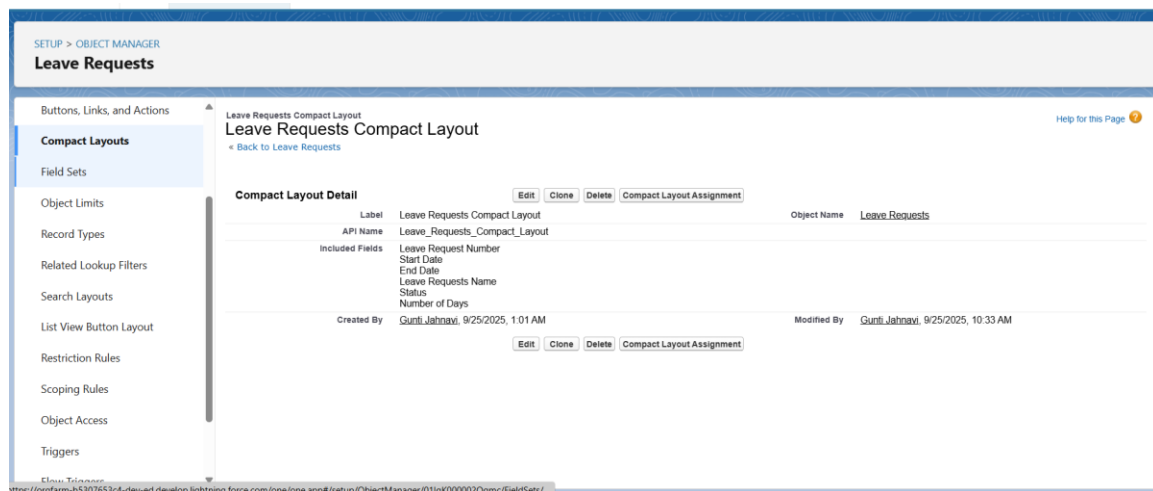


5. Compact Layouts

Compact Layouts show **key information at the top of a record** or in mobile view.

Steps:

1. Go to **Object Manager** → **Leave Request** → **Compact Layouts** → **New**.
2. Name: Leave Request Highlights
3. Add fields: Employee Name, Leave Type, Status, Start Date, End Date, Department.
4. Save.
5. Assign as **Primary Compact Layout**.

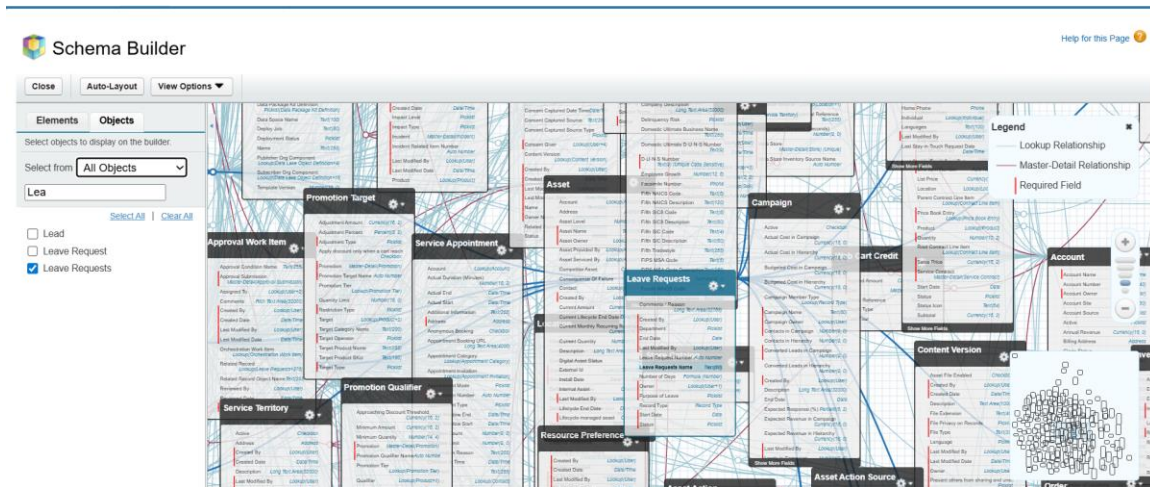


6. Schema Builder

Schema Builder gives a **visual view of objects and relationships**.

Steps:

1. Go to **Setup** → **Schema Builder**.
2. Select the objects: Leave Request, Leave Type, User, Approval History.
3. Drag objects to see **connections**.
4. Check relationships are correct (Lookup, Master-Detail).



7. Lookup vs Master-Detail vs Hierarchical Relationships

Relationships link one object to another.

- Lookup Relationship** – A loose link. Child can exist without the parent.
Example: Leave Request → Leave Type (each request just points to a leave-type record).
- Master-Detail Relationship** – A strong link. Child record is owned by the parent; if parent is deleted, child is deleted; allows roll-up summary fields.
Example: Leave Request → Approval History.
- Hierarchical Relationship** – A special Lookup on the User object to relate one user to another.
Example: Manager field on User record to show who is the manager

8. Junction Objects

Created Junction Object if required in future for Employees ↔ Multiple Leave Policies, allowing many-to-many relationships between employees and applicable leave policies.

SalesHomeOpportunitiesLeadsTasksFilesAccountsContactsCampaignsDashboardsharathi brithday | Leave Re...More

Leave Requests
LR-0001New ContactEditNew Opportunity

RelatedDetails

Leave Requests Nameharathi brithday

Start Date9/25/2025

End Date9/26/2025

StatusPending

Purpose of LeavePersonal

Employee

Comments / Reason

Number of Days2.00

OwnerGunti Jahnavi

Activity

Filters: All time • All activities • All types

RefreshExpand AllView All

Upcoming & Overdue

No activities to show.
Get started by sending an email, scheduling a task, and more.

No past activity. Past meetings and tasks marked as done show up here.