

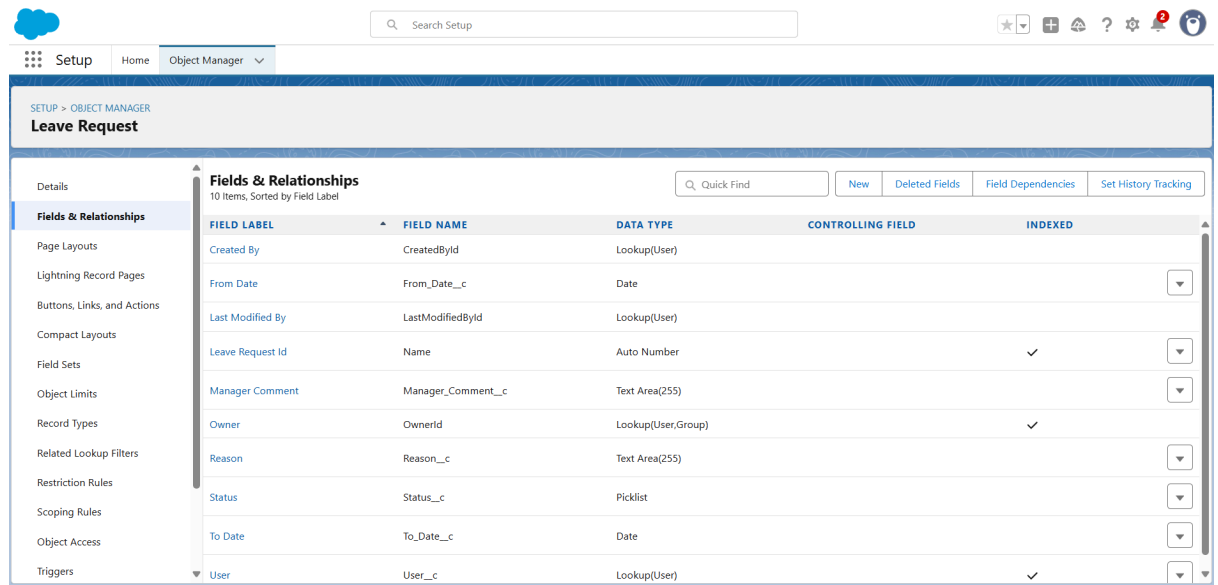
Phase 3: Data Modeling & Relationships – Leave Tracking App

1. Standard & Custom Objects

- **Standard Objects:**
 - **User** → Represents employees, managers, and HR/Admin.
- **Custom Objects:**
 - **Leave Request** → Stores employee leave applications.

2. Fields

- **Leave Request:** Employee (Lookup to User), Leave Type, Start Date, End Date, Total Days (Formula), Status, Reason.

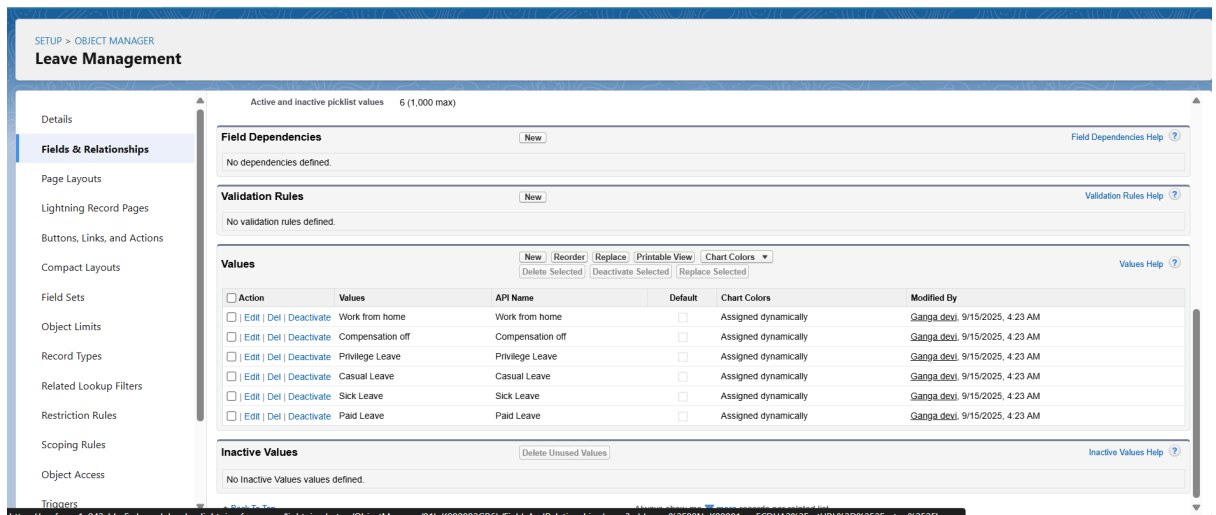


The screenshot shows the Salesforce Setup interface for the 'Leave Request' object. The left sidebar contains navigation links: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, and Triggers. The main content area is titled 'Leave Request' and 'Fields & Relationships'. It displays a table of 10 fields, sorted by Field Label. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: Created By (CreatedBy, Lookup(User)), From Date (From_Date__c, Date), Last Modified By (LastModifiedBy, Lookup(User)), Leave Request Id (Name, Auto Number, indexed), Manager Comment (Manager_Comment__c, Text Area(255)), Owner (OwnerId, Lookup(User,Group), indexed), Reason (Reason__c, Text Area(255)), Status (Status__c, Picklist), To Date (To_Date__c, Date), and User (User__c, Lookup(User), indexed). Above the table are links for 'New', 'Deleted Fields', 'Field Dependencies', and 'Set History Tracking'.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedBy	Lookup(User)		
From Date	From_Date__c	Date		
Last Modified By	LastModifiedBy	Lookup(User)		
Leave Request Id	Name	Auto Number		✓
Manager Comment	Manager_Comment__c	Text Area(255)		
Owner	OwnerId	Lookup(User,Group)		✓
Reason	Reason__c	Text Area(255)		
Status	Status__c	Picklist		
To Date	To_Date__c	Date		
User	User__c	Lookup(User)		✓

3. Record Types

- **Leave Request Record Types:**
 - Sick Leave
 - Casual Leave
 - Earned Leave
 - Special Leave(ex:Maternity,Paternity)
 - Work from home



- Record Types allow different **picklist values, page layouts, and approval processes** for each leave type.

4. Page Layouts

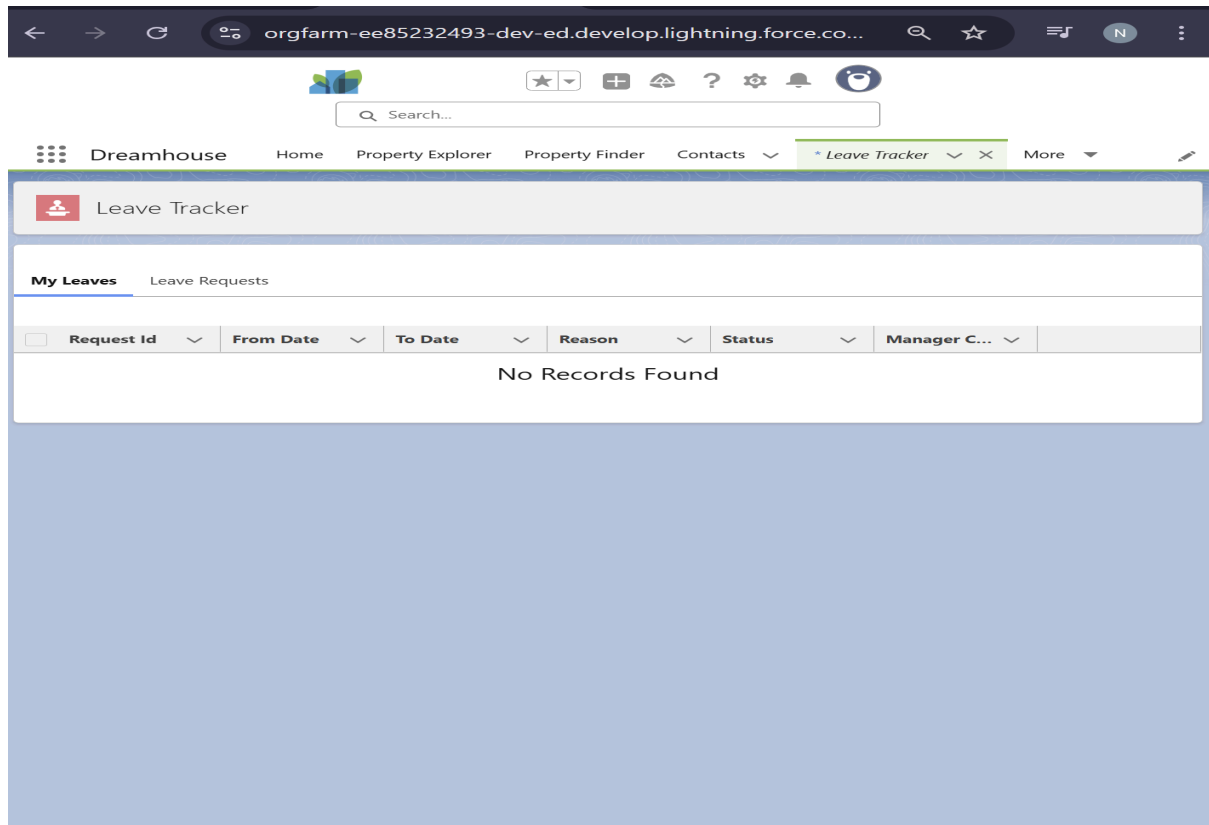
- Employee Layout:** Simple form for applying leave.
- Manager Layout:** Includes approval section and team view.

5. Compact Layouts

- For **Leave Request** (Mobile / Highlights Panel):
 - Employee, Leave Type, Start Date, End Date, Status.
- For **Leave Balance**:
 - Employee, Leave Type, Remaining Balance.

6. Schema Builder

- Use **Schema Builder** to:
 - Visually design object relationships (User ↔ Leave Request ↔ Leave Balance).
 - Add fields & relationships quickly.
 - Check dependencies across objects.



7. Lookup vs Master-Detail vs Hierarchical

- **Lookup Relationship:**
 - Used between **Leave Request** ↔ **User** and **Leave Balance** ↔ **User** (loose coupling).
- **Master-Detail Relationship:**
 - Could be used between **Leave Balance** ↔ **Leave Request** if you want cascading delete and roll-up summaries.
- **Hierarchical Relationship (only on User):**
 - Can define Manager → Employee relationship for approvals.

8. Junction Objects

- Useful if you want **many-to-many relationships**, e.g.:
 - **Employee** ↔ **Project** ↔ **Leave Requests** (if leaves are project-specific).
- For basic Leave Management, junction objects are **not mandatory**.

9. External Objects (Optional)

- If company holidays or employee data is stored in an **external HR system (ERP/Payroll)**, use **External Objects** (via Salesforce Connect).
- Allows referencing external data in real-time without storing in Salesforce.

Phase 3 Outcome

- A **complete data structure** for Leave Management is defined.
- **Standard & Custom Objects** ensure flexibility and scalability.
- **Record Types & Page Layouts** provide tailored experiences for employees, managers, and HR.
- **Schema Builder** helps visualize and maintain relationships.
- Clear use of **Lookup vs Master-Detail** ensures proper data integrity.
- Future scalability supported with **Junction Objects & External Objects** if business expands.