

Phase 3: Data Modeling & Relationships

In this phase, we design custom objects and fields that represent the core entities of the Leave Management System. By establishing the right relationships between objects, we ensure that the system accurately captures and tracks employee leave requests in a structured way.

1. Custom Objects

- **Employee__c**

Represents the employees of the company who can submit leave requests.

Fields Created:

1. **Name (Standard)** → Stores the employee's full name.
2. **Email (Custom, Data Type: Email)** → Employee's official email address.
3. **Department (Custom, Picklist)** → Options: IT, HR, Finance, Operations, Admin.

The screenshot shows the Salesforce Setup interface for the 'Employee' object. The 'Fields & Relationships' tab is selected, displaying a table of 6 fields. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: Created By (CreatedById, Lookup(User)), Department (Department__c, Picklist), E-mail (E_mail__c, Email), Employee Name (Name, Text(80)), Last Modified By (LastModifiedById, Lookup(User)), and Owner (OwnerId, Lookup(User,Group)).

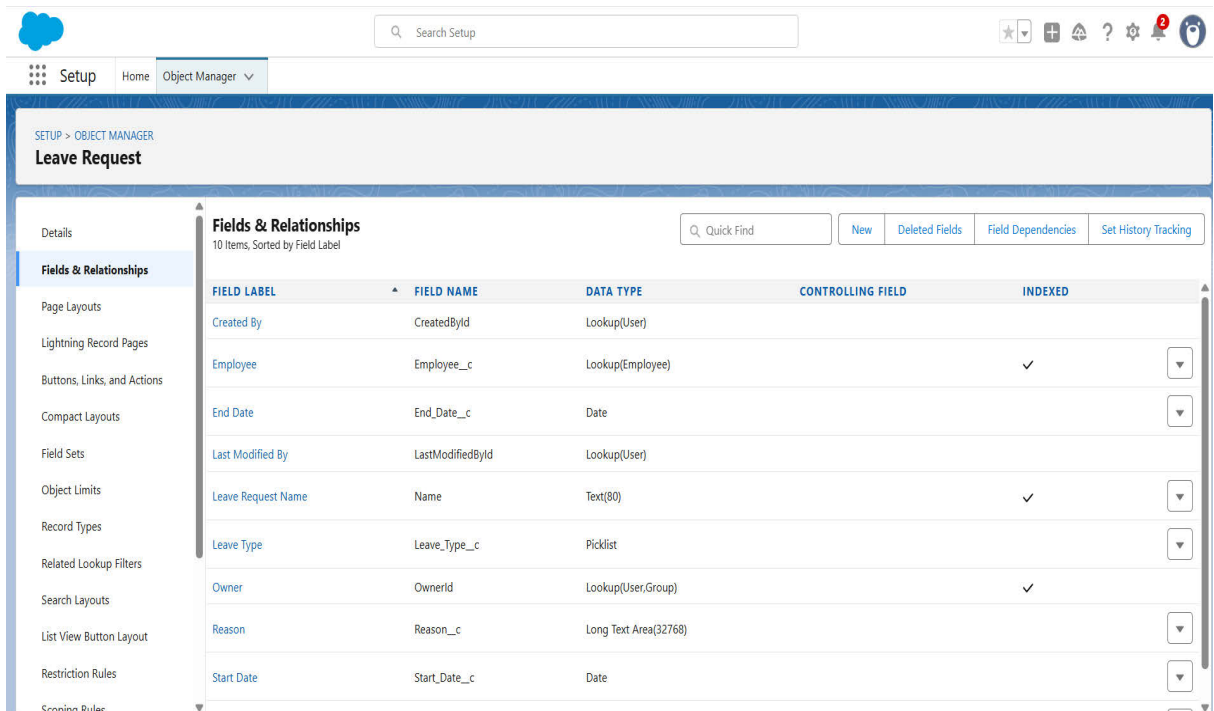
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Department	Department__c	Picklist		
E-mail	E_mail__c	Email		
Employee Name	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓

- **Leave_Request__c**

Represents each leave application submitted by an employee.

Fields Created:

1. **Employee (Lookup → Employee__c)** → Links a leave request to the employee.
2. **Start_Date (Date)** → Start of leave.
3. **End_Date (Date)** → End of leave.
4. **Leave_Type (Picklist)** → Options: Sick, Casual, Earned.
5. **Status (Picklist, Default = New)** → Options: New, Approved, Rejected.
6. **Reason (Long Text Area)** → Description for the leave request.



The screenshot shows the Salesforce Setup interface for the 'Leave Request' object. The 'Fields & Relationships' tab is selected, displaying a table of 10 fields. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: Created By (Lookup(User)), Employee (Lookup(Employee)), End Date (Date), Last Modified By (Lookup(User)), Leave Request Name (Text(80)), Leave Type (Picklist), Owner (Lookup(User/Group)), Reason (Long Text Area(32768)), and Start Date (Date). The 'Employee' and 'Owner' fields are marked as indexed.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Employee	Employee__c	Lookup(Employee)		✓
End Date	End_Date__c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
Leave Request Name	Name	Text(80)		✓
Leave Type	Leave_Type__c	Picklist		
Owner	OwnerId	Lookup(User/Group)		✓
Reason	Reason__c	Long Text Area(32768)		
Start Date	Start_Date__c	Date		

3. Relationship Design

- **Lookup Relationship:**
 - **Employee__c → Leave_Request__c**
 - Each Leave Request record is linked to one Employee.
 - One Employee can have multiple Leave Requests.
- **Cardinality:**
 - **One-to-Many Relationship** → One Employee → Many Leave Requests.

4. Example Scenario

- Employee *prasanth* (Employee__c record) submits 3 leave requests during the year.
- Each leave request is a separate record in **Leave_Request__c**, but all are linked back to the same Employee record.
- This allows the system to track:
 - Total leaves taken by an employee.
 - Pending vs approved requests.
 - Types of leaves used.

5. Outcome of Phase 3

- The custom data model is successfully built in Salesforce.
- The **Employee__c** object stores employee information.
- The **Leave_Request__c** object records leave applications.
- A **One-to-Many relationship** is established, ensuring managers can see all requests made by their employees.