

Phase 3: Data Modeling & Relationships

In this phase, the data model for our **Automated Task Management project** was designed using a combination of **standard Salesforce objects** and **custom objects** to handle employee tasks, customer tasks, and managerial escalations efficiently.

Standard Objects

We leveraged Salesforce's core CRM objects where applicable:.

- **Activity** → To capture and manage daily work items, follow-ups, and scheduled activities.

LABEL	▲	API NAME	TYPE
Activity		Activity	Standard Object

- **User** → To track employees, managers, and task ownership.

User		User	Standard Object
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- **Case (optional)** → For customer-related tasks and escalations.

LABEL	▲	API NAME	TYPE
Case		Case	Standard Object

Custom Objects

To extend standard Salesforce functionality, custom objects were created:

- **Task Escalation_c** → To track managerial escalations for tasks.

LABEL	▲	API NAME	TYPE
Task Escalation		Task_Escalation_c	Custom Object

- **Reminder_Log_c** → To log task reminders sent to users/customers.

LABEL	▲	API NAME	TYPE
Reminder Log		Reminder_Log_c	Custom Object

- **Task_Assignment__c (Junction Object)** → If a task can be assigned to multiple users/teams.

LABEL	API NAME	TYPE
Task Assignment	Task_Assignment__c	Custom Object

Fields

A mix of field types were used:

- **Picklists:** Priority (Low, Medium, High), Status (Open, In Progress, Completed), Escalation Level.
- **Lookup fields:** Activity → Owner (User), Escalation → Activity, Reminder Log → Activity.
- **Date/DateTime:** Due Date, Reminder Sent Date.
- **Text :** Comments.
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ACTIVITY(FIELDS) :

SETUP > OBJECT MANAGER					
Activity					
Details	Fields & Relationships 8 Items, Sorted by Field Label				
Fields & Relationships	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Buttons and Links	Escalation Status	Escalation_Status__c	Picklist		▼
Object Limits	Lookup-case	Lookup_case__c	Lookup(Case)		✓ ▼
Search Layouts	Lookup-Escalation	Lookup_Escalation__c	Lookup(Task Escalation)		✓ ▼
List View Button Layout	Lookup-reminder	Lookup_reminder__c	Lookup(Reminder Log)		✓ ▼
	Lookup-user	Lookup_user__c	Lookup(User)		✓ ▼
	Reminder Sent	Reminder_Sent__c	Checkbox		▼
	SLA Due Date	SLA_Due_Date__c	Date/Time		▼
	Task Priority	Task_Priority__c	Picklist		▼

TASK EXCALATION(FIELDS):

SETUP > OBJECT MANAGER					
Task Escalation					
Details	Fields & Relationships 9 Items, Sorted by Field Label				
Fields & Relationships	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Page Layouts	Created By	CreatedById	Lookup(User)		
Lightning Record Pages	Escalated To	Escalated_To__c	Lookup(User)		✓ ▼
Buttons, Links, and Actions	Escalation Date/Time	Escalation_Date_Time__c	Date/Time		▼
Compact Layouts	Escalation Number	Name	Auto Number		✓ ▼
Field Sets	Last Modified By	LastModifiedById	Lookup(User)		
Object Limits	Owner	OwnerId	Lookup(User.Group)		✓
Record Types	Reason	Reason__c	Picklist		▼
Related Lookup Filters	Task Formula	Task_Formula__c	Formula (Text)		▼
Restriction Rules	Task ID	Task_ID__c	Text(18)		▼
Scoping Rules					
Object Access					

REMINDER LOG(FIELDS):

SETUP > OBJECT MANAGER

Reminder Log

Details

Fields & Relationships

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

Triggers

Fields & Relationships

9 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Reminder Number	Name	Auto Number		✓
Reminder Type	Reminder_Type__c	Picklist		
Sent On	Sent_On__c	Date/Time		
Status	Status__c	Picklist		
Task Formula	Task_Formula__c	Formula (Text)		
Task ID	Task_ID__c	Text(18)		

TASK ASSIGNMENT(FIELDS):

SETUP > OBJECT MANAGER

Task Assignment

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Fields & Relationships

5 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Task Assignment Name	Name	Auto Number		✓
User	User__c	Lookup(User)		✓

Record Types

Record types were created for Task to separate different business processes:

- Internal Task → Employee follow-ups.
- Customer Task → Customer-facing actions.
- Managerial Task → Approvals and escalations.

Each record type can have a different page layout and automation rules.

Record Types

3 Items, Sorted by Record Type Label

RECORD TYPE LABEL	DESCRIPTION	ACTIVE	MODIFIED BY
Customer Task		✓	Meher Srija Potnuru, 9/24/2025, 5:40 AM
Internal Task		✓	Meher Srija Potnuru, 9/24/2025, 5:27 AM
Managerial Task		✓	Meher Srija Potnuru, 9/24/2025, 5:42 AM

CUSTOMER TASK:

Record Type

Customer Task

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	Customer Task	Active	✓
Record Type Name	Customer_Task		
Namespace Prefix			
Description			
Created By	Meher Srija Potnuru, 9/24/2025, 5:40 AM	Modified By	Meher Srija Potnuru, 9/24/2025, 5:40 AM

INTERNAL TASK:

Record Type

Internal Task

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	Internal Task	Active	✓
Record Type Name	Internal_Task		
Namespace Prefix			
Description			
Created By	Meher Srija Potnuru, 9/24/2025, 5:27 AM	Modified By	Meher Srija Potnuru, 9/24/2025, 5:27 AM

MANAGERIAL TASK:

Record Type

Managerial Task

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	Managerial Task	Active	✓
Record Type Name	Managerial_Task		
Namespace Prefix			
Description			
Created By	Meher Srija Potnuru, 9/24/2025, 5:42 AM	Modified By	Meher Srija Potnuru, 9/24/2025, 5:42 AM

Page Layouts

Customized layouts were designed for clarity and usability:

- **Internal Task Layout:** Fields like Assigned To, Priority, Status, Internal Notes.
- **Customer Task Layout:** Fields like Customer Name, Contact Method, Due Date, Status.
- **Managerial Task Layout:** Fields like Approval Status, Escalation Level, Comments.

Customer Task Layout:

SETUP > OBJECT MANAGER

Task

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Search Layouts

List View Button Layout

Customer Task Layout

Save Quick Save Preview As... Cancel Undo Redo Layout Properties

Fields

Buttons

Quick Actions

Mobile & Lightning Actions

Expanded Lookups

Related Lists

Report Charts

Quick Find

Field Name

Call Object Ident...

Completed DateTime

Email

LookUp-Escalation

Phone

Reminder Sent

Status

Task Subtype

Blank Space

Call Result

Created By

Escalation Status

LookUp-reminder

Priority

Reminder Set

Subject

Type

Assigned To

Call Type

Create Recurring...

Last Modified By

LookUp-user

Recurrence Interval

Repeat This Task

Task Priority

Call Duration

Comments

Due Date

LookUp-case

Name

Rotated To

SLA Due Date

Task Record Type

Task Sample

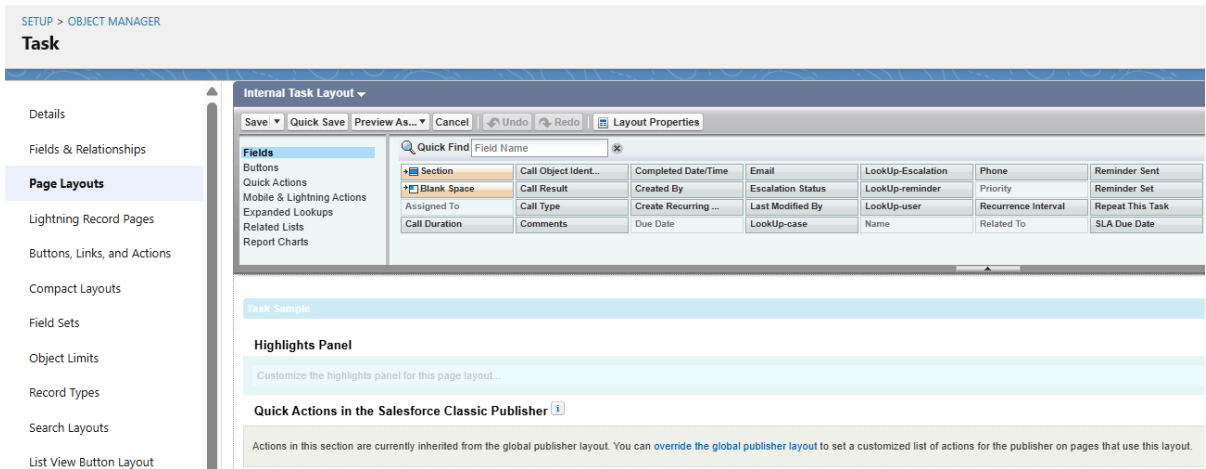
Highlights Panel

Customize the highlights panel for this page layout...

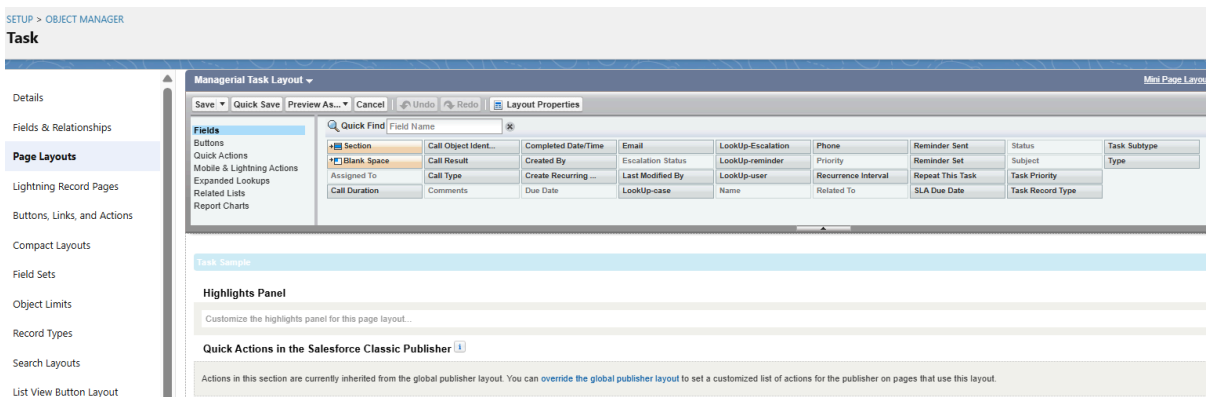
Quick Actions in the Salesforce Classic Publisher

Actions in this section are currently inherited from the global publisher layout. You can override the global publisher layout to set a customized list of actions for the publisher on pages that use this layout.

Internal Task Layout:



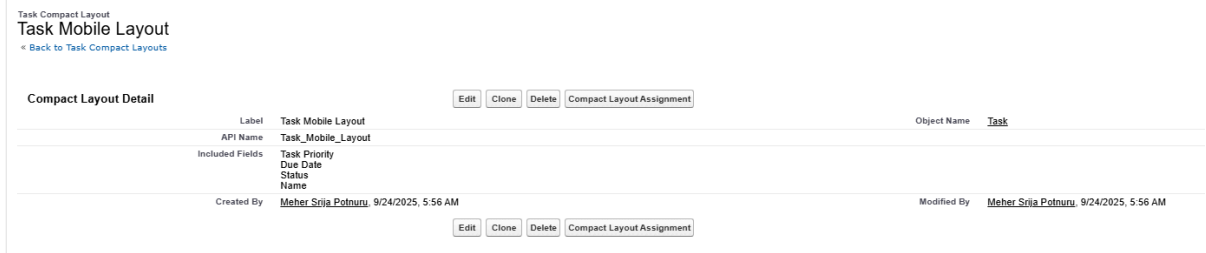
Managerial Task Layout:



Compact Layouts:

Compact Layouts highlight key fields: Priority, Due Date, Status, Owner in Mobile Apps.

TASK MOBILE LAYOUT:



Lookup vs Master-Detail vs Hierarchical Relationships

Lookup: Task Escalation → User, Reminder Log → Task (or use Text/Flow workaround)

Master-Detail: Not used, since independent ownership and sharing rules were required

Hierarchical: User → Manager (built-in for escalations)

Junction Objects

Task Assignment for multi-user tasks.

External Objects

Not used in this phase, but Salesforce provides them for integrating with external system