

# Recipe & Meal Planning manager

## Phase 3: Data Modeling & Relationships

### 1. Standard & Custom Objects

For this project, the following objects were used:

Object Type	Object Name	Purpose
Custom	Recipe	Stores recipe details like name, description, cooking time, difficulty, and cuisine type
Custom	Meal Plan	Stores meal plans (weekly, monthly) and links recipes to a plan
Custom	Ingredients	Stores ingredients used in recipes
Custom	Shopping List	Tracks items needed for meal plans

<div> <input type="text" value="Search Setup"/> <div> </div> </div> <div> <div>Setup</div> <div>Home</div> <div>Object Manager</div> </div>					
<div> <div>SETUP &gt; OBJECT MANAGER</div> <div>Recipe</div> </div>					
<div>Details</div> <div>Fields &amp; Relationships</div> <div>Page Layouts</div> <div>Lightning Record Pages</div> <div>Buttons, Links, and Actions</div> <div>Compact Layouts</div> <div>Field Sets</div> <div>Object Limits</div> <div>Record Types</div> <div>Related Lookup Filters</div> <div>Search Layouts</div> <div>List View Button Layout</div> <div>Restriction Rules</div> <div>Scoping Rules</div> <div>Object Access</div> <div>Triggers</div> <div>Flow Triggers</div> <div>Validation Rules</div> <div>Conditional Field Formatting</div>	<div> <div>Fields &amp; Relationships</div> <div>12 Items, Sorted by Field Label</div> <div> <input type="text" value="Quick Find"/> <div> <a href="#">New</a> <a href="#">Deleted Fields</a> <a href="#">Field Dependencies</a> <a href="#">Set History Tracking</a> </div> </div> </div>				
	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
	Cooking Time	Cooking_Time__c	Number(18, 0)		
	Created By	CreatedById	Lookup(User)		
	Cuisine Type	Cuisine_Type__c	Picklist		
	Description	Description__c	Long Text Area(32768)		
	Difficulty	Difficulty__c	Picklist		
	Last Modified By	LastModifiedById	Lookup(User)		
	Meal Plan	Meal_Plan__c	Lookup(Meal Plan)		✓
	MealPlan Lookup	MealPlan_Lookup__c	Lookup(Meal Plan)		✓
	Owner	OwnerId	Lookup(User,Group)		✓
	Recipe Lookup	Recipe_Lookup__c	Lookup(Recipe)		✓
	Recipe Name	Name	Text(80)		✓
	Record Type	RecordTypeId	Record Type		✓

2.Fields

Each custom object was assigned relevant fields:

Recipe

- Recipe Name (Text)
- Description (Long Text)
- Cooking Time (Number)
- Difficulty (Picklist: Easy, Medium, Hard)
- Cuisine Type (Picklist: Indian, Italian, etc.)
- Meal Plan Lookup (Lookup to Meal Plan)

Meal Plan

- Meal Plan Name (Text)

- Start Date (Date)
- End Date (Date)

## Ingredients

- Ingredient Name (Text)
- Quantity (Number)
- Unit (Picklist: grams, ml, cups)
- **Recipe Lookup** (Master-Detail to Recipe)

## Shopping List

- Shopping List Name (Text)
- Date (Date)
- Notes (Text Area)
- **Ingredient Lookup** (Lookup to Ingredients)

Optimizer	NAME	TYPE	OBJECT
Sales Cloud Everywhere	<a href="#">Recipe - NonVeg Layout</a>	Page Layout	<a href="#">Recipe</a>
ADMINISTRATION	<a href="#">Ingredient Lookups</a>	Custom Field Definition	<a href="#">Shopping List</a>
> Users	<a href="#">Notes</a>	Custom Field Definition	<a href="#">Shopping List</a>
> Data	<a href="#">Date</a>	Custom Field Definition	<a href="#">Shopping List</a>
> Email	<a href="#">Unit</a>	Custom Field Definition	<a href="#">Ingredient</a>
PLATFORM TOOLS	<a href="#">Quantity</a>	Custom Field Definition	<a href="#">Ingredient</a>
> Subscription Management	<a href="#">End Date</a>	Custom Field Definition	<a href="#">Meal Plan</a>
> Apps	<a href="#">Start Date</a>	Custom Field Definition	<a href="#">Meal Plan</a>
> Feature Settings	<a href="#">Meal Plan Layout</a>	Page Layout	<a href="#">Meal Plan</a>
> Slack	<a href="#">Recipe Layout</a>	Page Layout	<a href="#">Recipe</a>
> Data Cloud			
> Heroku			
> MuleSoft			
> Einstein			
> Objects and Fields			

### 3.Record Types

- No special record types were required; default record types are used for all objects.

### 4.Page Layouts

Custom page layouts were created for each object:

- **Recipe Layout:** Displays Recipe fields and related list of Ingredients.
- **Meal Plan Layout:** Displays Meal Plan fields and related list of Recipes.
- **Ingredients Layout:** Displays Ingredient fields and links to Recipe.
- **Shopping List Layout:** Displays Shopping List fields and links to Ingredients.

The screenshot shows the Salesforce Setup interface for the 'Recipe' object. The left sidebar contains a navigation menu with options like 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, Restriction Rules, Scoping Rules, Object Access, Triggers, Flow Triggers, Validation Rules, and Conditional Field Formatting. The main content area is titled 'Page Layouts' and shows a table of three layouts. The table has columns for 'PAGE LAYOUT NAME', 'CREATED BY', and 'MODIFIED BY'. The layouts are 'Recipe - NonVeg Layout', 'Recipe - Vegetarian Layout', and 'Recipe Layout', all created and modified by 'vigna bavana' on 9/24/2025. There are also 'Quick Find', 'New', and 'Page Layout Assignment' buttons at the top right of the table.

PAGE LAYOUT NAME	CREATED BY	MODIFIED BY
Recipe - NonVeg Layout	vigna bavana, 9/24/2025, 5:43 AM	vigna bavana, 9/24/2025, 6:41 AM
Recipe - Vegetarian Layout	vigna bavana, 9/24/2025, 5:43 AM	vigna bavana, 9/24/2025, 6:41 AM
Recipe Layout	vigna bavana, 9/24/2025, 12:32 AM	vigna bavana, 9/24/2025, 6:42 AM

## 5.Compact Layouts

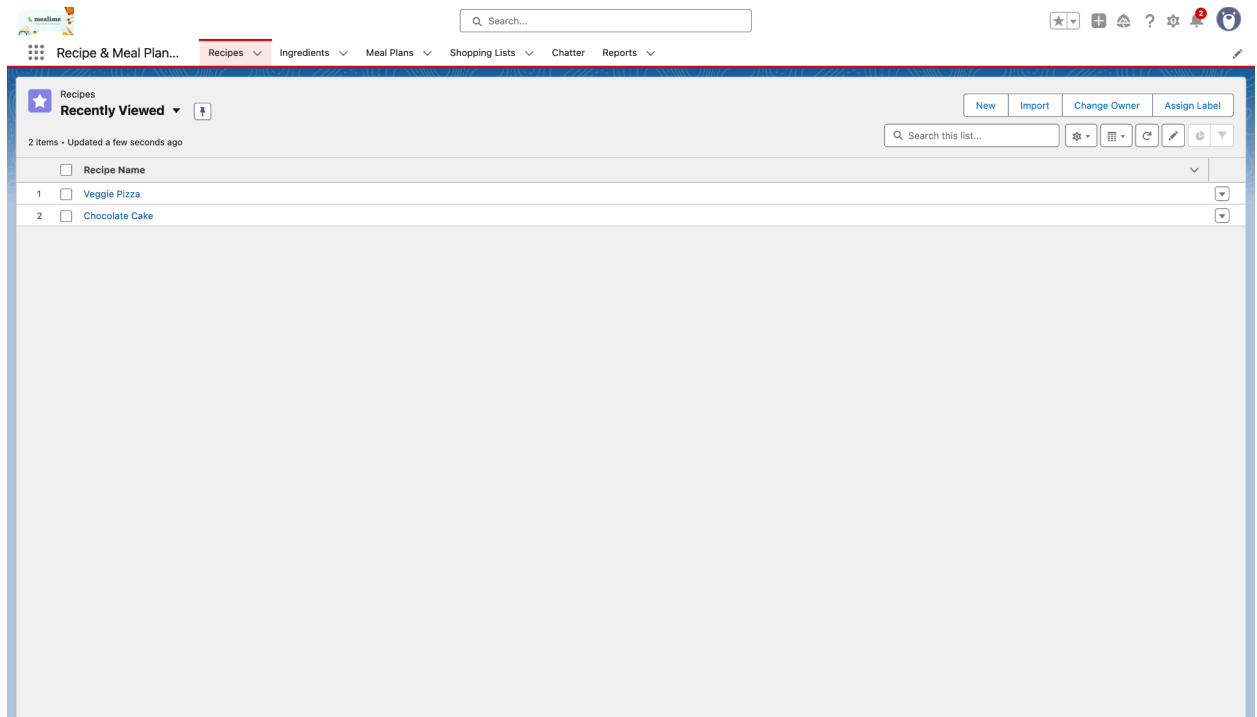
- Customized compact layouts were created to show key information on record highlights (e.g., Recipe Name, Cooking Time, Difficulty).

## 6.Schema Builder

- Visual schema built using Salesforce Schema Builder to show relationships:
  - Recipe → Meal Plan (Lookup)
  - Ingredient → Recipe (Master-Detail)
  - Shopping List → Ingredients (Lookup)

## 7.Lookup vs Master-Detail vs Hierarchical Relationships

- **Recipe → Meal Plan:** Lookup (a recipe can optionally belong to a meal plan).
- **Ingredient → Recipe:** Master-Detail (ingredients cannot exist without a recipe).
- **Shopping List → Ingredients:** Lookup (shopping list can include multiple ingredients).



## 8.Junction Objects

- Not used in this project as no many-to-many relationships required a separate junction object.

## 9.External Objects

- Not applicable for this project (no external data sources connected).

## 10. Testing & Verification

### Sample Data Created:

- Recipes: Chocolate Cake, Veggie Pizza

- Ingredients: Flour, Sugar, Dough, Cheese, Tomato
- Meal Plans: Weekly Healthy Plan
- Shopping Lists: Weekly Grocery List

## Verification Steps:

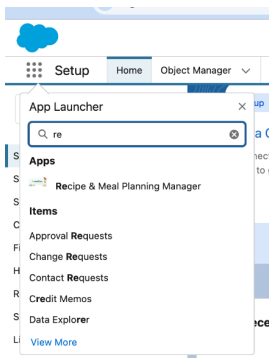
### 1. Related Lists:

- Open a Meal Plan → Recipes are visible.
- Open a Recipe → Ingredients are visible.

### 2. Record Access:

- Logged in as End User → OWD = Private → Only own records visible.
- Logged in as Admin → Can see all records.

**Outcome:** All relationships, layouts, and record access worked as intended.





Q Search...



Shopping Lists

Meal Plans

Recently Viewed ▾ ⌵

4 Items • Updated a few seconds ago

New Import Change Owner Assign Label

Q Search this list... ⌵ ⌵ ⌵ ⌵ ⌵ ⌵

	<input type="checkbox"/> Meal Plan Name	
1	<input type="checkbox"/> snacks	⌵
2	<input type="checkbox"/> Weekly Healthy Plan	⌵
3	<input type="checkbox"/> Weekly Healthy Plan	⌵
4	<input type="checkbox"/> Snacks	⌵