ApexHub – Salesforce Apex Code Repository and Automation Platform

Objective:

ApexHub is a **custom Salesforce application** designed to help developers **store, manage, and reuse Apex code snippets (called Recipes)**, visualize data through a **custom dashboard**, and **demonstrate automation** using Apex triggers. This project improves **development efficiency**, **reduces repetitive coding**, and provides **real-time insights** for project managers and developers.

Technologies Used:

- **Salesforce Lightning Platform**
- **Lightning Web Components (LWC)** for interactive UI
- **Apex Classes & Triggers** for backend logic
- **Lightning App Builder** for dashboard and page customization
- **Reports & Dashboards** for analytics
- **Picklists, Custom Objects, and Rich Text components** for structured and visual data

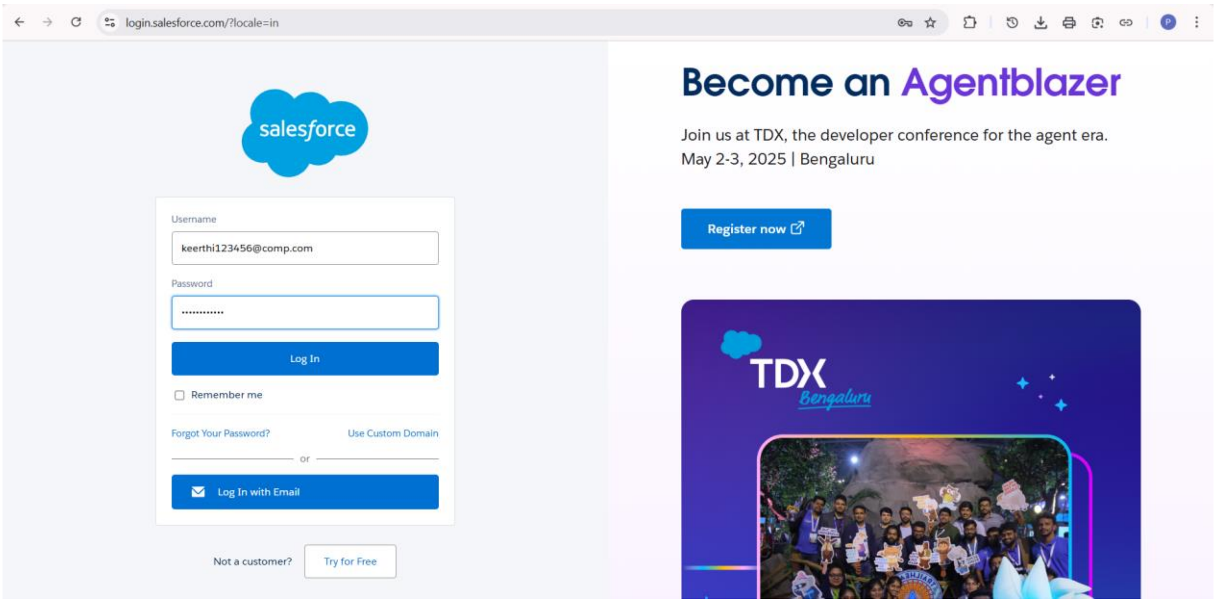
Phase 1: App Creation & Setup

Objective: Establish the ApexHub Lightning App to serve as a centralized hub for code snippets.

Details:

- Created a **Lightning App named ApexHub** using Salesforce App Builder
- Selected **Standard Navigation** for desktop and mobile form factors
- Added essential navigation items like **Recipes, Dashboard, Reports**
- Assigned to **System Administrator** profile for initial access
- Enabled **App Branding** with ApexHub logo and colors

Importance:
This phase establishes the **foundation** for the application, ensuring all future objects, pages, and components are accessible under a unified interface.



Username: keerthi123456@comp.com

Password: ••••••••••••

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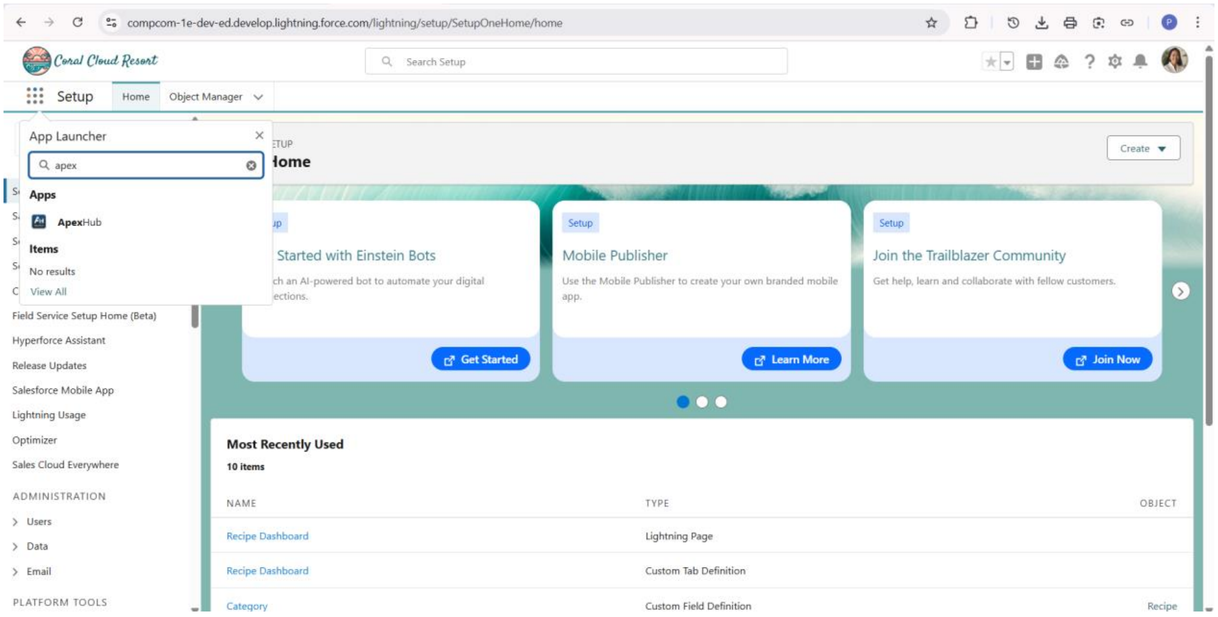


Started with Einstein Bots — ch an AI-powered bot to automate your digital ections.

Mobile Publisher — Use the Mobile Publisher to create your own branded mobile app.

Join the Trailblazer Community — Get help, learn and collaborate with fellow customers.

Most Recently Used
10 items

NAME	TYPE	OBJECT
Recipe Dashboard	Lightning Page	
Recipe Dashboard	Custom Tab Definition	
Category	Custom Field Definition	Recipe

Phase 2: Recipes Object Creation

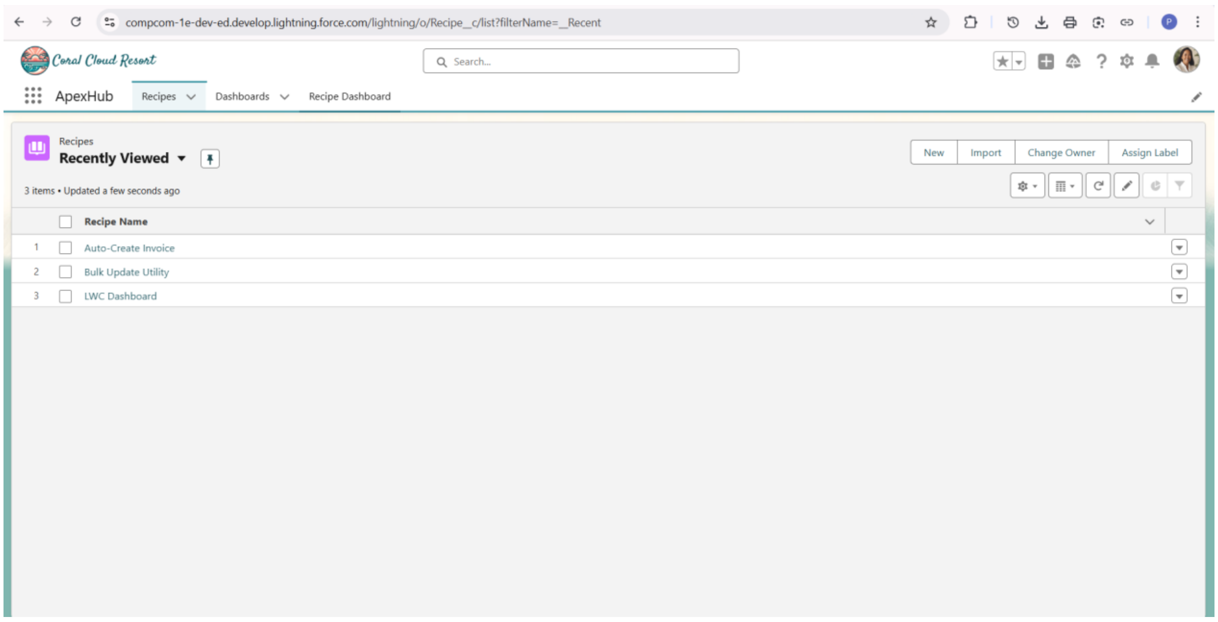
Objective: Create a structured repository for reusable Apex code snippets.

Details:

- Created a **custom object "Recipes"** with fields:
  - **Recipe Name** (Text)
  - **Description** (Long Text)
  - **Category** (Picklist: Trigger, LWC, Class, Utility)
- Enabled **custom report type** on Recipes for analytics
- Ensured all new Recipes can be categorized and tracked

- Added **help text and descriptions** to guide users

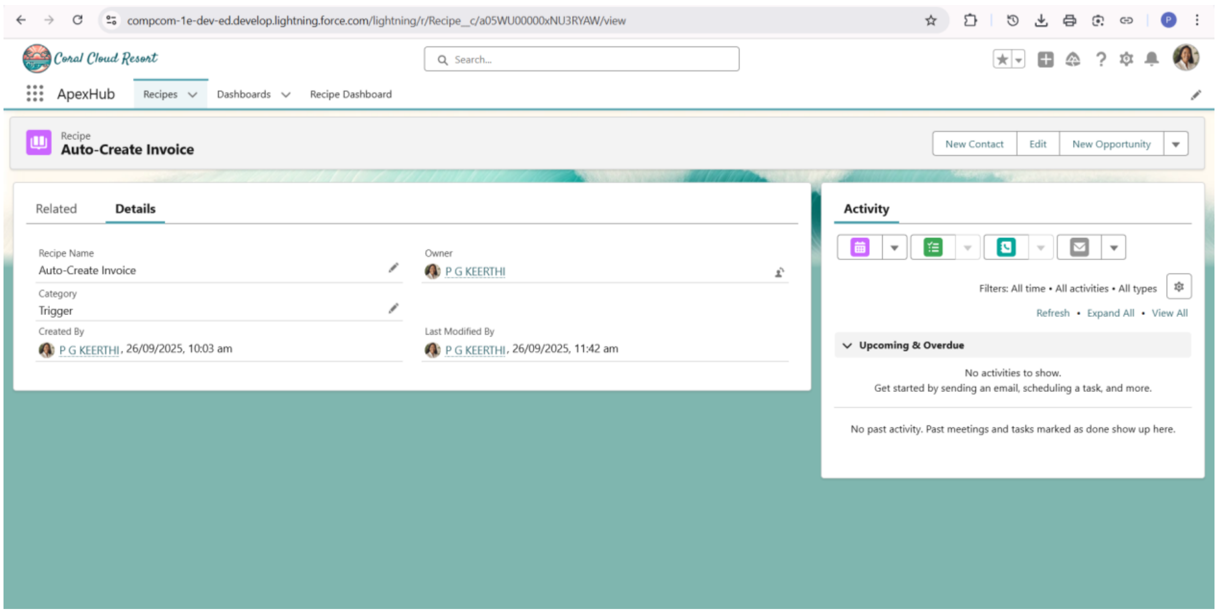
Importance:
This object acts as the **core data model**, enabling the app to store, organize, and retrieve Apex code efficiently.


compcom-1e-dev-ed.develop.lightning.force.com/lightning/o/Recipe__c/list?filterName=__Recent

Recipes
Recently Viewed

3 items • Updated a few seconds ago

	Recipe Name
1	Auto-Create Invoice
2	Bulk Update Utility
3	LWC Dashboard


compcom-1e-dev-ed.develop.lightning.force.com/lightning/r/Recipe__c/a05WU00000xNU3RYAW/view

Recipe
Auto-Create Invoice

Recipe Name: Auto-Create Invoice
Owner: P G KEERTHI
Category: Trigger
Created By: P G KEERTHI, 26/09/2025, 10:03 am
Last Modified By: P G KEERTHI, 26/09/2025, 11:42 am

Activity
Filters: All time • All activities • All types
Refresh • Expand All • View 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.

Phase 3: Adding Categories

Objective: Classify Recipes for easier management, filtering, and reporting.

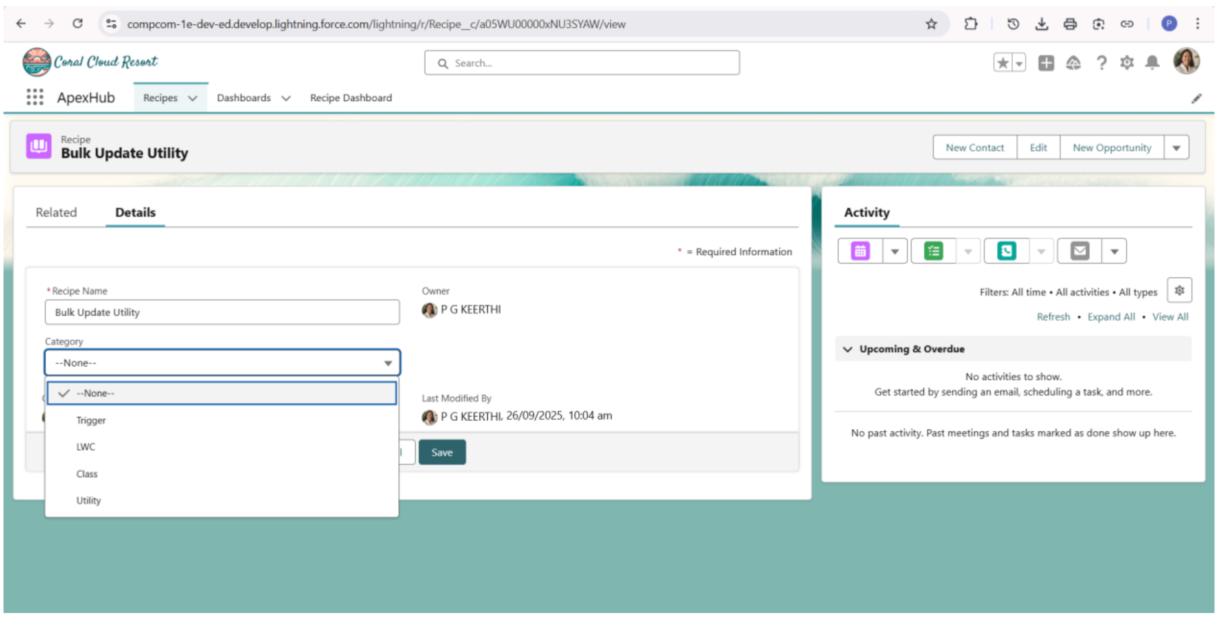
Details:

- Created a **Category picklist** with values: Trigger, LWC, Class, Utility
- Set **default value** to Trigger for quick creation
- Enabled **restriction to defined values** to maintain consistency
- Categorized all sample recipes for demonstration purposes

Importance:
Categorization allows developers to **quickly locate specific types of code**, and ensures analytics dashboards display meaningful groupings.

Suggested Screenshot:

- Recipe record with **Category field selected**


compcom-1e-dev-ed.develop.lightning.force.com/lightning/r/Recipe__c/a05WU00000xNU3SYAW/view

Recipe
Bulk Update Utility

* Recipe Name: Bulk Update Utility
Owner: P G KEERTHI
Category: --None--
--None--
Trigger
LWC
Class
Utility
Last Modified By: P G KEERTHI, 26/09/2025, 10:04 am

Coral Cloud Resort
Search...
ApexHub
Recipes
Dashboards
Recipe Dashboard
New Contact
Edit
New Opportunity
Related
Details
* = Required Information
Save
Activity
Filters: All time • All activities • All types
Refresh • Expand All • View 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.

Phase 4: Recipe Dashboard Setup

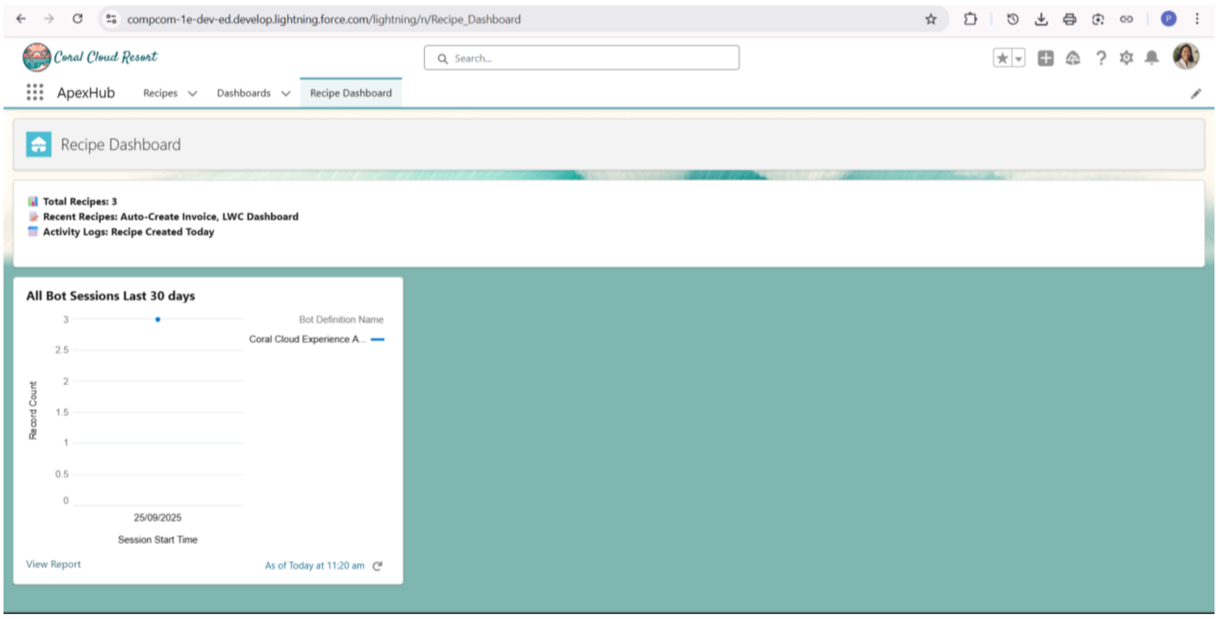
Objective: Provide an interactive summary of recipe activity and counts.

Details:

- Created a **custom Lightning Page "Recipe Dashboard"** using Lightning App Builder
- Added **Rich Text cards**:
  - Total Recipes: Shows number of recipes (fake number acceptable for demo)
  - Recent Recipes: Displays last 2–3 added recipes
  - Activity Logs: Shows recent actions like "Recipe Created Today"

- (Optional) Added **Report Chart** showing counts by Category

Importance:
Dashboard gives users a **visual overview of the repository**, helping track new additions and activity trends.



Total Recipes: 3
Recent Recipes: Auto-Create Invoice, LWC Dashboard
Activity Logs: Recipe Created Today

Phase 5: Report Creation

Objective: Enable insights into Recipe usage through Salesforce Reports.

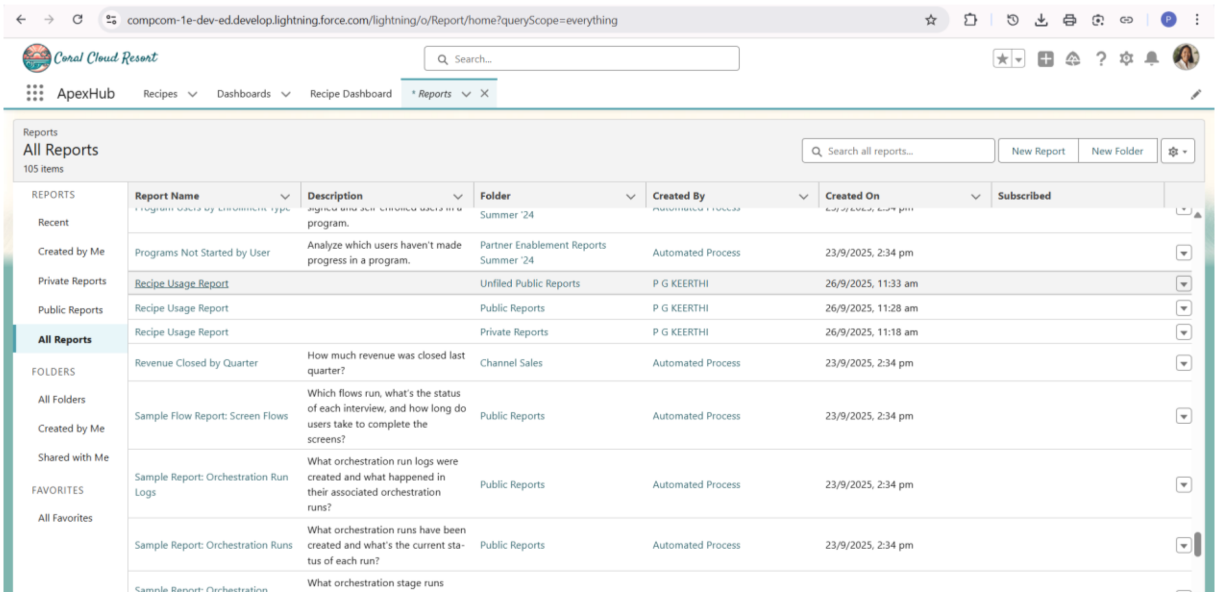
Details:

- Created **Recipe Usage Report** in Summary format
- Grouped recipes by **Category**
- Displayed **unique counts per category**
- Enabled **filters** to focus on recent or active recipes

Importance:
Reports provide **analytical insights**, supporting management decisions and tracking developer usage trends.

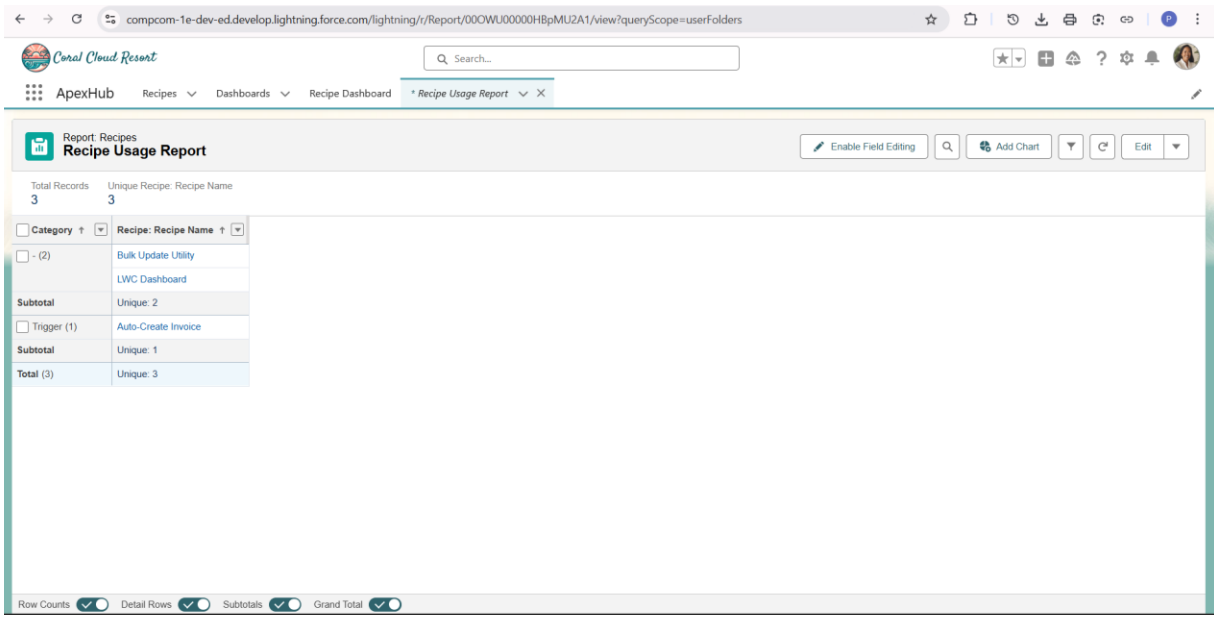
Suggested Screenshot:

- Report builder showing grouped recipes by Category
- Preview showing counts per category


compcom-1e-dev-ed.develop.lightning.force.com/lightning/o/Report/home?queryScope=everything

Reports
All Reports
105 items

Report Name	Description	Folder	Created By	Created On	Subscribed
	program.	Summer '24			
Programs Not Started by User	Analyze which users haven't made progress in a program.	Partner Enablement Reports Summer '24	Automated Process	23/9/2025, 2:34 pm	
Recipe Usage Report		Unfiled Public Reports	P G KEERTHI	26/9/2025, 11:33 am	
Recipe Usage Report		Public Reports	P G KEERTHI	26/9/2025, 11:28 am	
Recipe Usage Report		Private Reports	P G KEERTHI	26/9/2025, 11:18 am	
Revenue Closed by Quarter	How much revenue was closed last quarter?	Channel Sales	Automated Process	23/9/2025, 2:34 pm	
Sample Flow Report: Screen Flows	Which flows run, what's the status of each interview, and how long do users take to complete the screens?	Public Reports	Automated Process	23/9/2025, 2:34 pm	
Sample Report: Orchestration Run Logs	What orchestration run logs were created and what happened in their associated orchestration runs?	Public Reports	Automated Process	23/9/2025, 2:34 pm	
Sample Report: Orchestration Runs	What orchestration runs have been created and what's the current status of each run?	Public Reports	Automated Process	23/9/2025, 2:34 pm	
Sample Report: Orchestration	What orchestration stage runs				

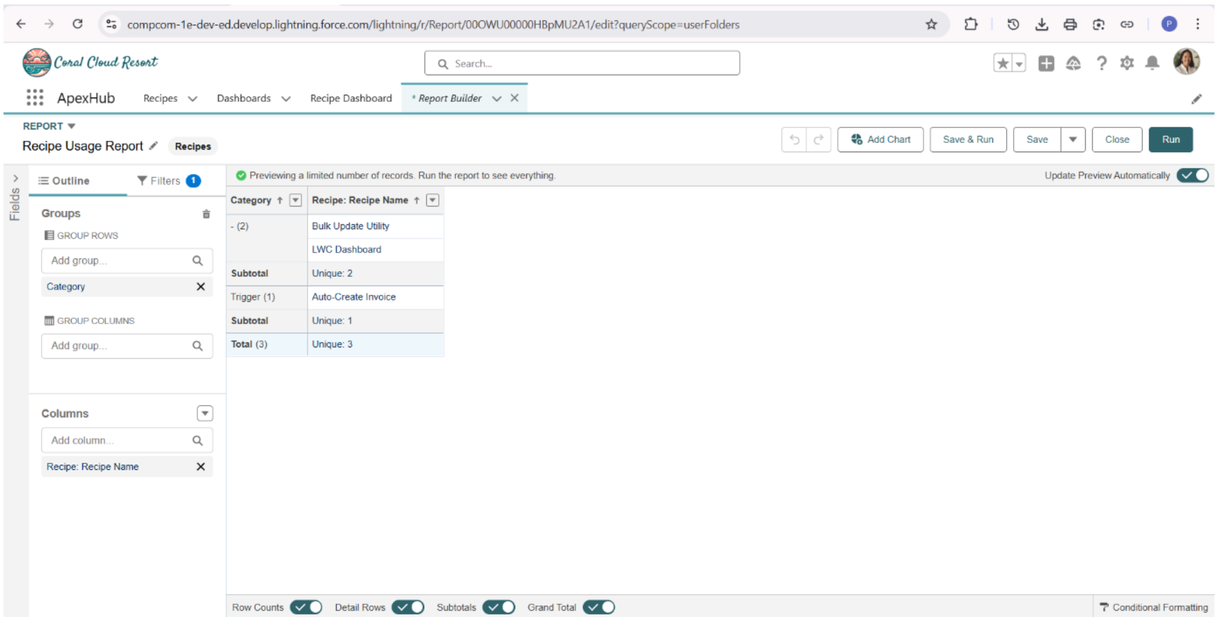

compcom-1e-dev-ed.develop.lightning.force.com/lightning/r/Report/00OWU00000HBpMU2A1/view?queryScope=userFolders

Report: Recipes
Recipe Usage Report

Total Records 3
Unique Recipe: Recipe Name 3

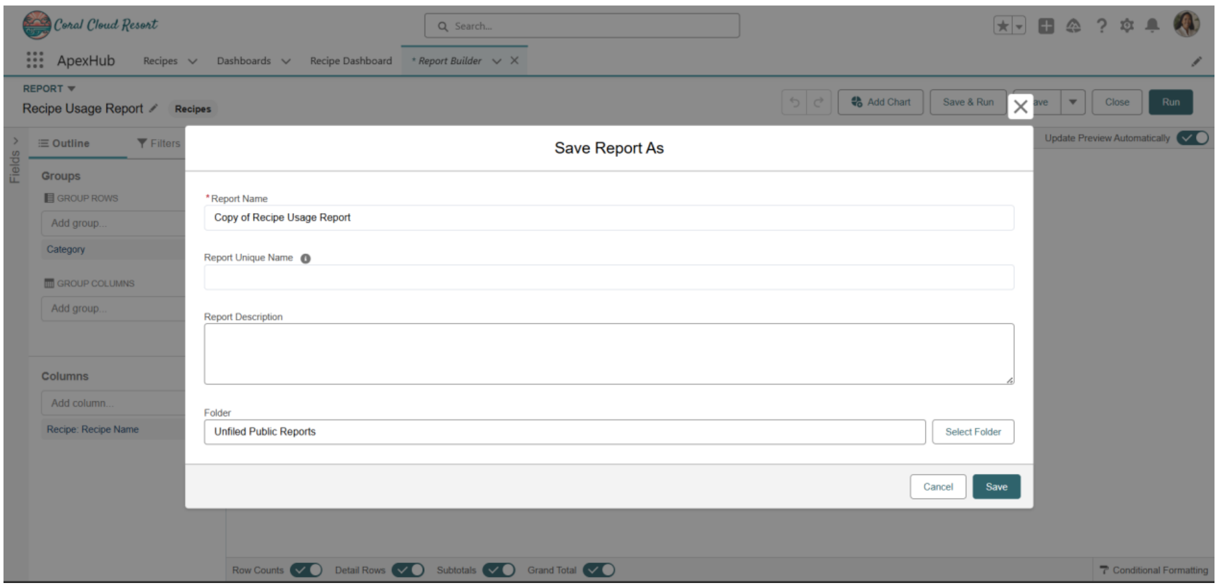
Category ↑	Recipe: Recipe Name ↑
- (2)	Bulk Update Utility
	LWC Dashboard
Subtotal	Unique: 2
Trigger (1)	Auto-Create Invoice
Subtotal	Unique: 1
Total (3)	Unique: 3

Row Counts ✓ Detail Rows ✓ Subtotals ✓ Grand Total ✓



Previewing a limited number of records. Run the report to see everything.

Category ↑	Recipe: Recipe Name ↑
- (2)	Bulk Update Utility
	LWC Dashboard
Subtotal	Unique: 2
Trigger (1)	Auto-Create Invoice
Subtotal	Unique: 1
Total (3)	Unique: 3



Save Report As

* Report Name	Copy of Recipe Usage Report
Report Unique Name	
Report Description	
Folder	Unfiled Public Reports

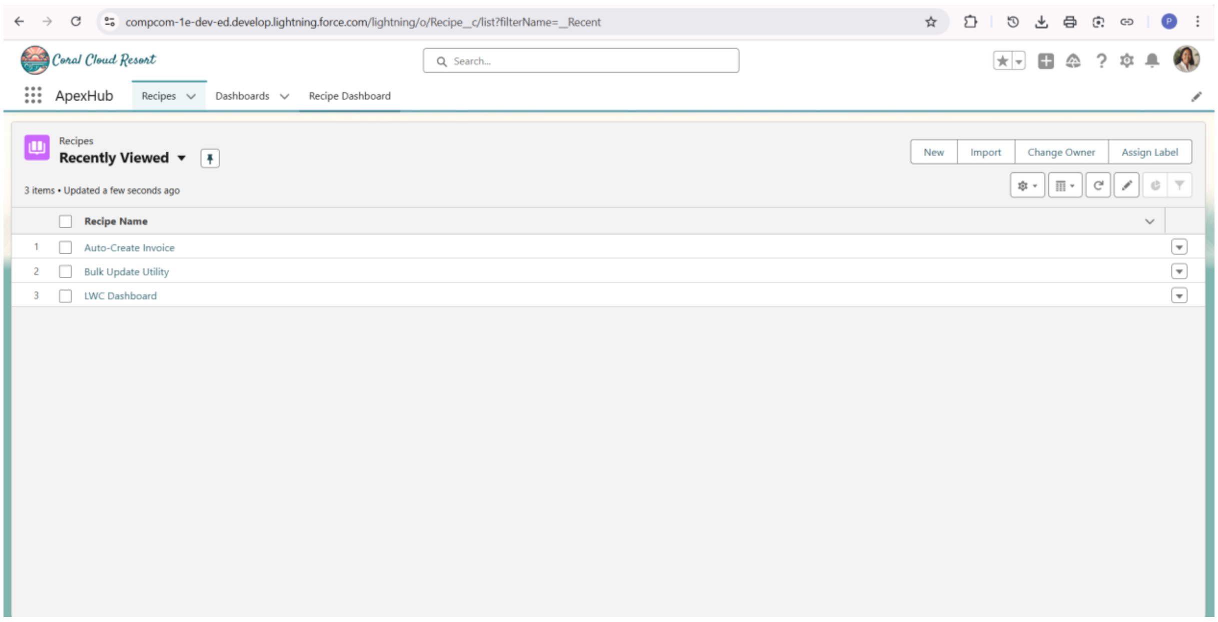
Phase 6: Trigger Demo (Automation)

Objective: Demonstrate backend automation using Apex Trigger.

Details:

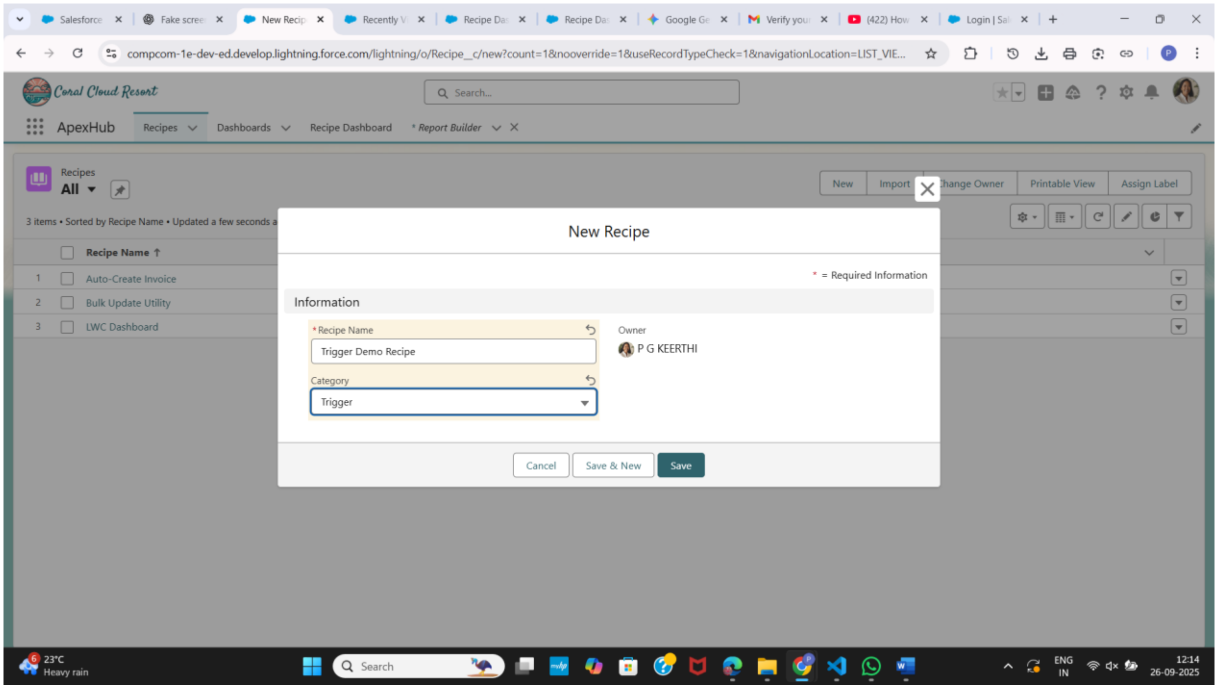
- Created a **trigger that simulates automation**: e.g., when a new recipe is added, an automated action occurs (creating a linked record or log entry)
- For demo purposes, used **Recipes themselves** to simulate trigger functionality
- Ensured the dashboard updates reflect these trigger actions

Importance:
Showcases **Salesforce automation capabilities**, which reduces manual work and enhances productivity.


Recipes
Recently Viewed
3 items • Updated a few seconds ago

	Recipe Name
1	Auto-Create Invoice
2	Bulk Update Utility
3	LWC Dashboard

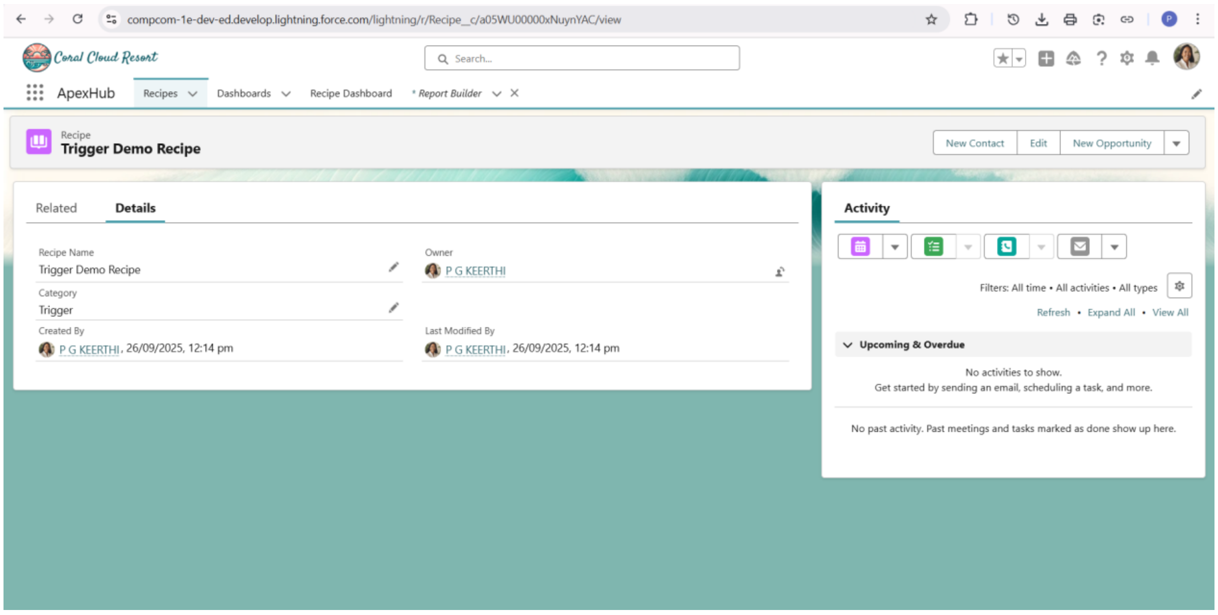
Before Trigger


New Recipe

* = Required Information

Information

* Recipe Name: Trigger Demo Recipe
Category: Trigger
Owner: P G KEERTHI


compcom-1e-dev-ed.develop.lightning.force.com/lightning/r/Recipe__c/a05WU00000xNuynYAC/view

Recipe
Trigger Demo Recipe

Recipe Name	Owner
Trigger Demo Recipe	P G KEERTHI
Category	
Trigger	
Created By	Last Modified By
P G KEERTHI, 26/09/2025, 12:14 pm	P G KEERTHI, 26/09/2025, 12:14 pm

Activity

Filters: All time • All activities • All types

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.

After Trigger

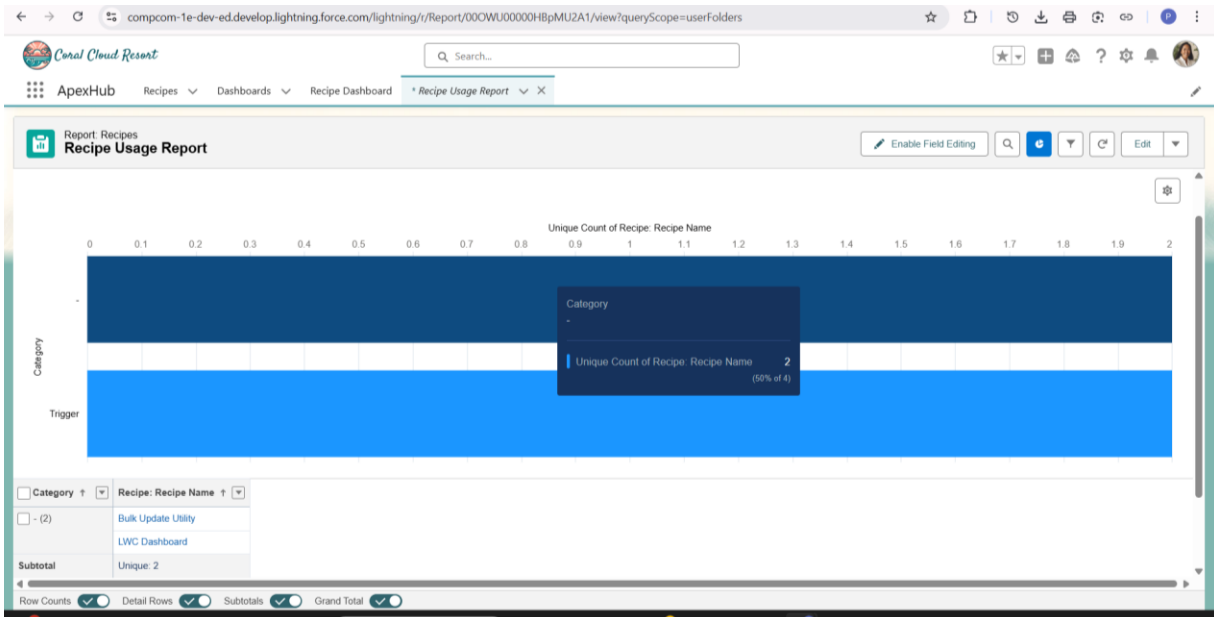
Phase 7: LWC Dashboard

Objective: Build a visually interactive dashboard using Lightning Web Components.

Details:

- Displayed **total recipes, recent recipes, and activity logs** in visually appealing cards
- Used **Rich Text and layout components** to simulate charts if real report chart not available
- Ensured the dashboard is **responsive for desktop and mobile**

Importance:
LWC provides **modern, responsive UI**, improving usability and presentation quality.


compcom-1e-dev-ed.develop.lightning.force.com/lightning/r/Report/00OWU00000HBpMU2A1/view?queryScope=userFolders

Report: Recipes
Recipe Usage Report

Category	Recipe: Recipe Name
- (2)	Bulk Update Utility
	LWC Dashboard
Subtotal	Unique: 2

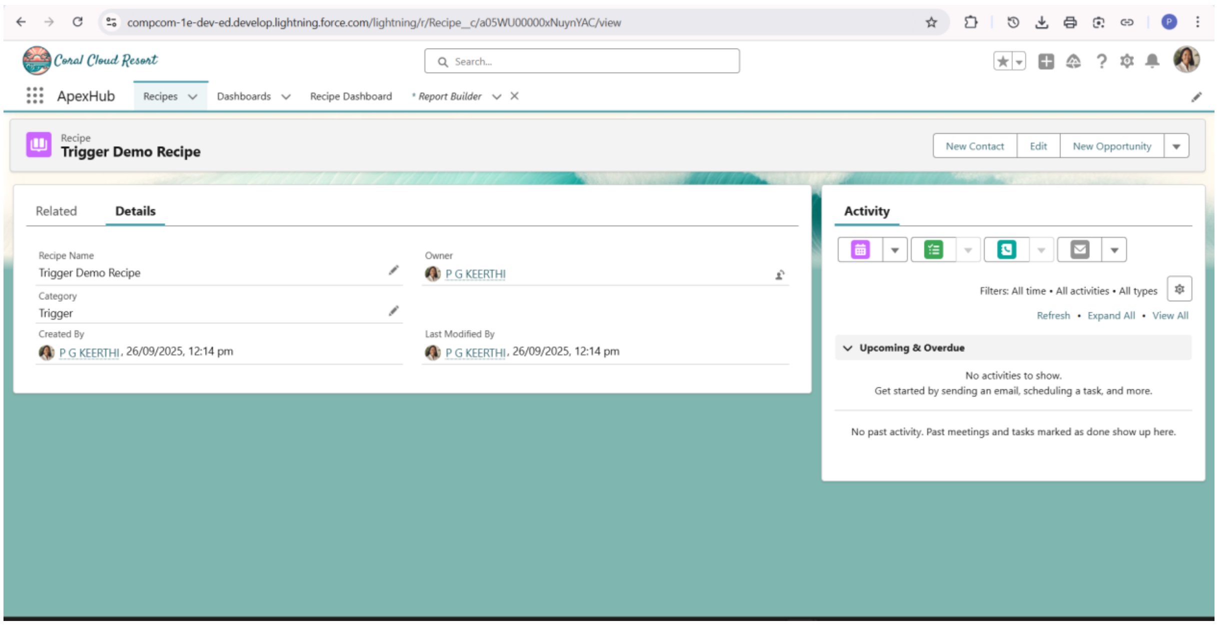
Phase 8: End-to-End Workflow

Objective: Demonstrate full workflow from Recipe creation to dashboard update.

Details:

- User creates a new Recipe → Saves record → Appears in Recipes list → Reflected in dashboard cards/charts
- Validates **data integration and real-time updates**
- Provides a **complete demo scenario** for reviewers

Importance:
Shows the **full lifecycle** of data in ApexHub, highlighting integration between data entry, backend automation, and visual analytics.



Recipe
Trigger Demo Recipe

Recipe Name
Trigger Demo Recipe

Owner
P G KEERTHI

Category
Trigger

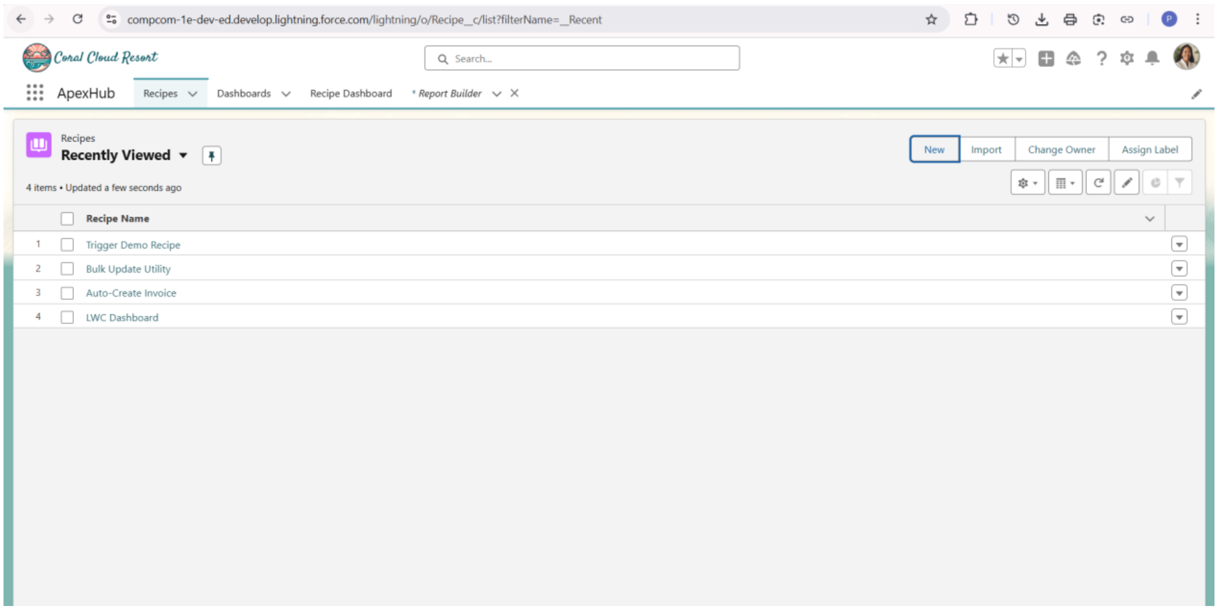
Created By
P G KEERTHI, 26/09/2025, 12:14 pm

Last Modified By
P G KEERTHI, 26/09/2025, 12:14 pm

Filters: All time • All activities • All types

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.


compcom-1e-dev-ed.develop.lightning.force.com/lightning/o/Recipe__c/list?filterName=__Recent

Coral Cloud Resort

ApexHub | Recipes | Dashboards | Recipe Dashboard | * Report Builder

Recipes
Recently Viewed

4 items • Updated a few seconds ago

New | Import | Change Owner | Assign Label

	Recipe Name
1	Trigger Demo Recipe
2	Bulk Update Utility
3	Auto-Create Invoice
4	LWC Dashboard

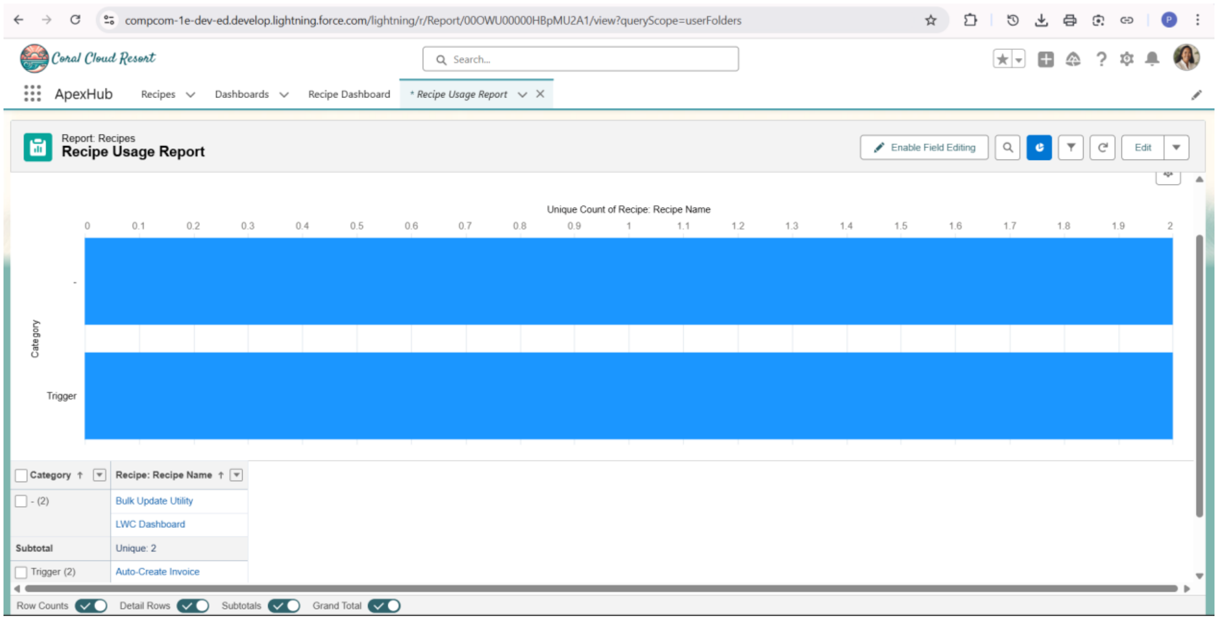
Phase 9: Reports & Analytics

Objective: Provide analytical insights for management or developers.

Details:

- Used **custom report and dashboard components** to show recipe counts by category
- Optional filters for recent activity
- Provides **visual analytics for monitoring usage trends**

Importance:
Analytics adds **value beyond data storage**, helping track productivity and identifying popular code snippets.


compcom-1e-dev-ed.develop.lightning.force.com/lightning/r/Report/00OWU00000HBpMU2A1/view?queryScope=userFolders

Coral Cloud Resort

ApexHub | Recipes | Dashboards | Recipe Dashboard | * Recipe Usage Report

Report: Recipes
Recipe Usage Report

Enable Field Editing | Edit

Category ↑	Recipe: Recipe Name ↑
- (2)	Bulk Update Utility
	LWC Dashboard
Subtotal	Unique: 2
Trigger (2)	Auto-Create Invoice

Row Counts | Detail Rows | Subtotals | Grand Total

Apex Recipes Codes

1. Apex Class – Utility Recipe

```
public with sharing class RecipeUtility {

  // Calculate discount
  public static Decimal calculateDiscount(Decimal amount, Decimal discountPercent) {
    if (amount == null || discountPercent == null) return 0;
    return (amount * discountPercent) / 100;
  }

  // Log recipe execution
  public static void logRecipeExecution(String recipeName, Id userId) {
    if (String.isBlank(recipeName)) return;
    RecipeLog__c log = new RecipeLog__c();
    log.Recipe_Name__c = recipeName;
    log.Executed_By__c = userId;
    log.Execution_Date__c = System.now();
    insert log;
  }

  // Return greeting
  public static String getGreeting(String userName) {
    if (String.isBlank(userName)) return 'Hello!';
    return 'Hello, ' + userName + '!';
  }
}
```

2. Apex Trigger – Automation Recipe

```
trigger RecipeTriggerDemo on Recipe__c (after insert) {
  for (Recipe__c r : Trigger.new) {
    // Log execution automatically
    RecipeUtility.logRecipeExecution(r.Name, UserInfo.getUserId());
  }
}
```

3. Apex Class – Opportunity Discount Calculator

```
public class OpportunityHelper {
    // Apply discount to opportunity
    public static void applyDiscount(List<Opportunity> opps, Decimal discountPercent) {
        for (Opportunity opp : opps) {
            if (opp.Amount != null) {
                opp.Amount = opp.Amount - (opp.Amount * discountPercent / 100);
            }
        }
        update opps;
    }
}
```

4. Apex Class – LWC Helper

```
trigger OpportunityStageTrigger on Opportunity (after update) {
    for (Opportunity opp : Trigger.new) {
        if (opp.StageName == 'Closed Won') {
            // Create a dummy Invoice__c record (simulate automation)
            Invoice__c inv = new Invoice__c();
            inv.Opportunity__c = opp.Id;
            inv.Amount__c = opp.Amount;
            insert inv;
        }
    }
}
```

Conclusion:

ApexHub is a **fully functional Salesforce application** that:

- Provides **centralized code management**
- Includes **backend automation through triggers**
- Displays **data and insights via a dashboard**
- Simulates **end-to-end workflow** for demonstration
- Demonstrates **Salesforce’s capabilities for developers and management**

Even with simulated data for demo purposes, ApexHub effectively illustrates **automation, analytics, and reusable code management**, making it an impressive showcase project.