# GARAGE MANAGEMENT SYSTEM

**COLLEGE NAME :** GOVERNMENT ARTS AND SCIENCE COLLEGE MODAKKURICHI ERODE .

**COLLEGE CODE :** BRUAB

**TEAM ID :** NM2025TMID26320

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# INTRODUCTION

## Project Overview

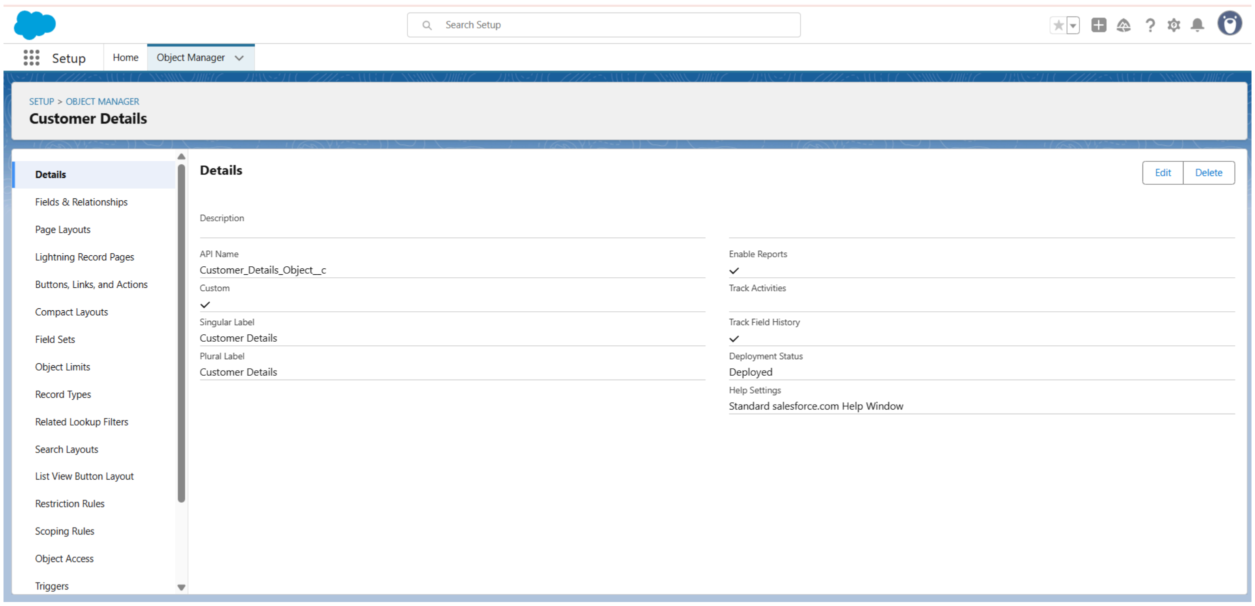
The Garage Management System is a valuable tool for automotive repair facilities, helping them deliver top-notch service, increase operational efficiency, and build lasting customer relationships. With its user-friendly interface and powerful features, GMS empowers garages to thrive in a competitive market while ensuring a seamless and satisfying experience for both customers and staff.

## Used Technology : Salesforce

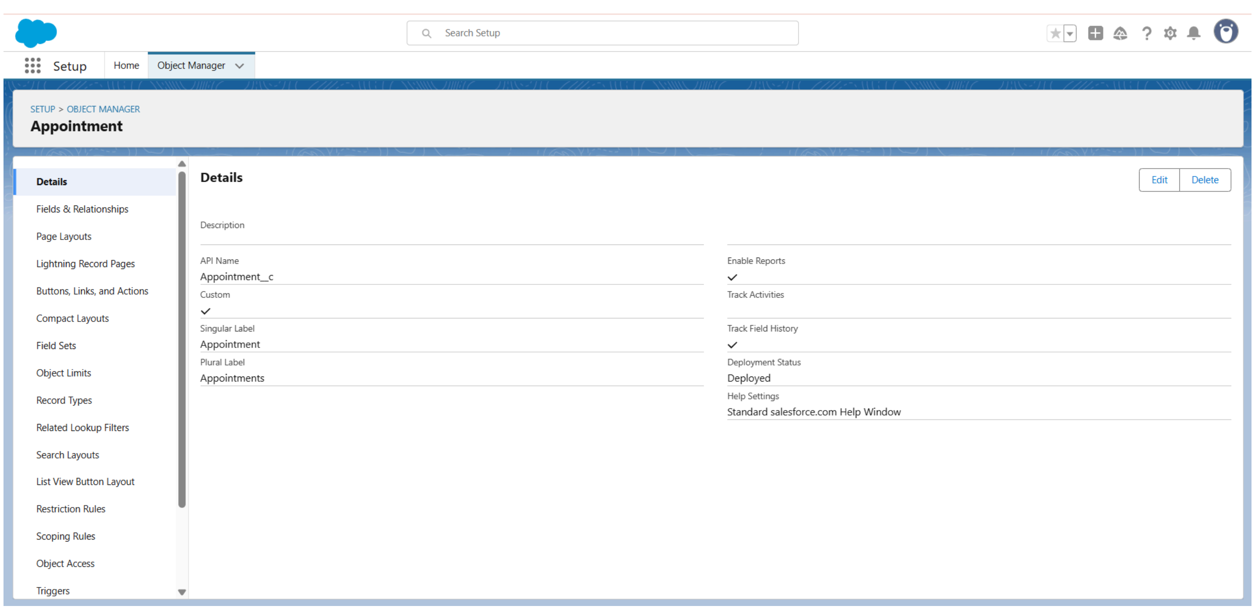
Salesforce is a leading cloud-based Customer Relationship Management (CRM) platform that enables businesses to manage customer data, sales processes, marketing campaigns, and customer service activities. It offers a suite of applications designed to streamline and automate various business functions, enhancing efficiency and customer engagement.

# Creation of custom objects :

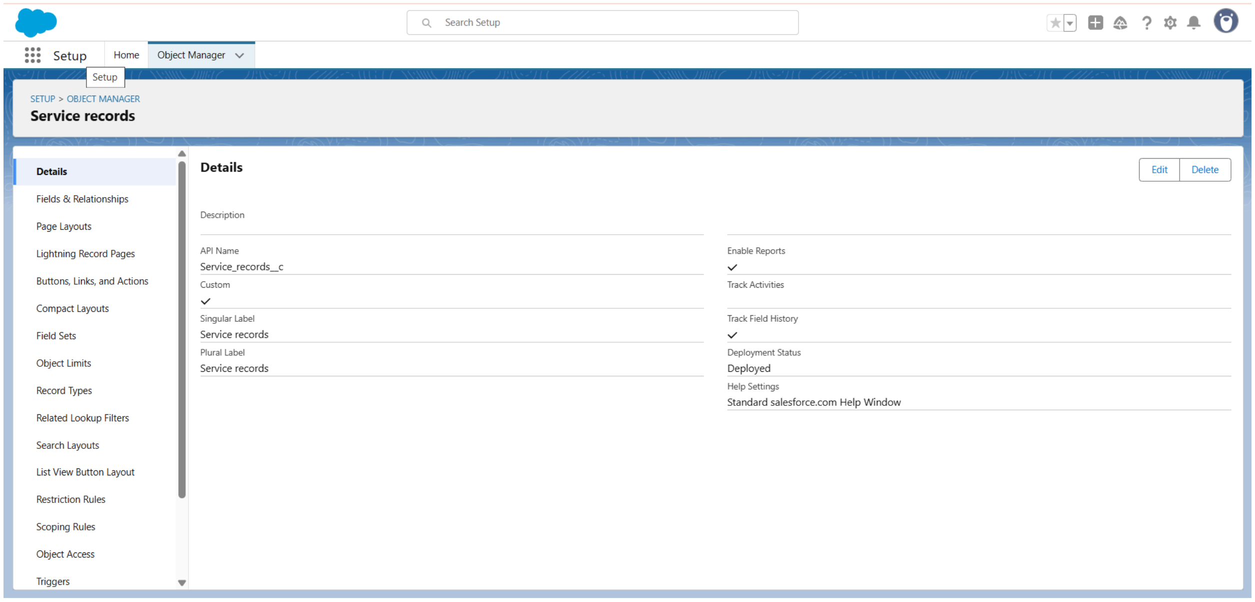
## Customer Details Object



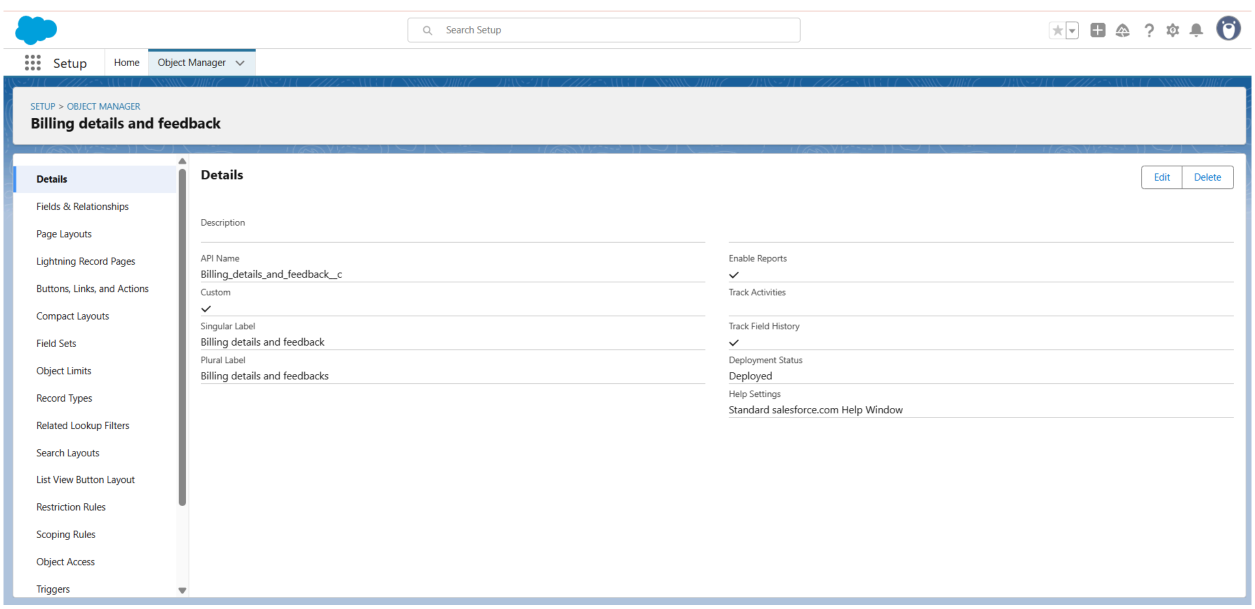

## Appointment Object



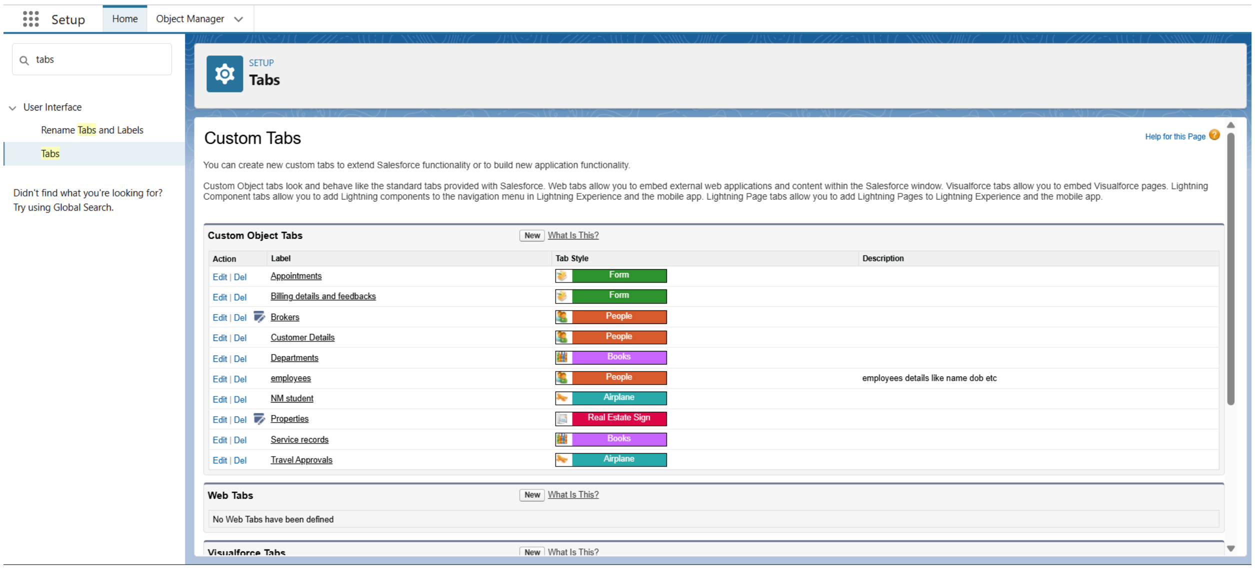
# Service Record Object



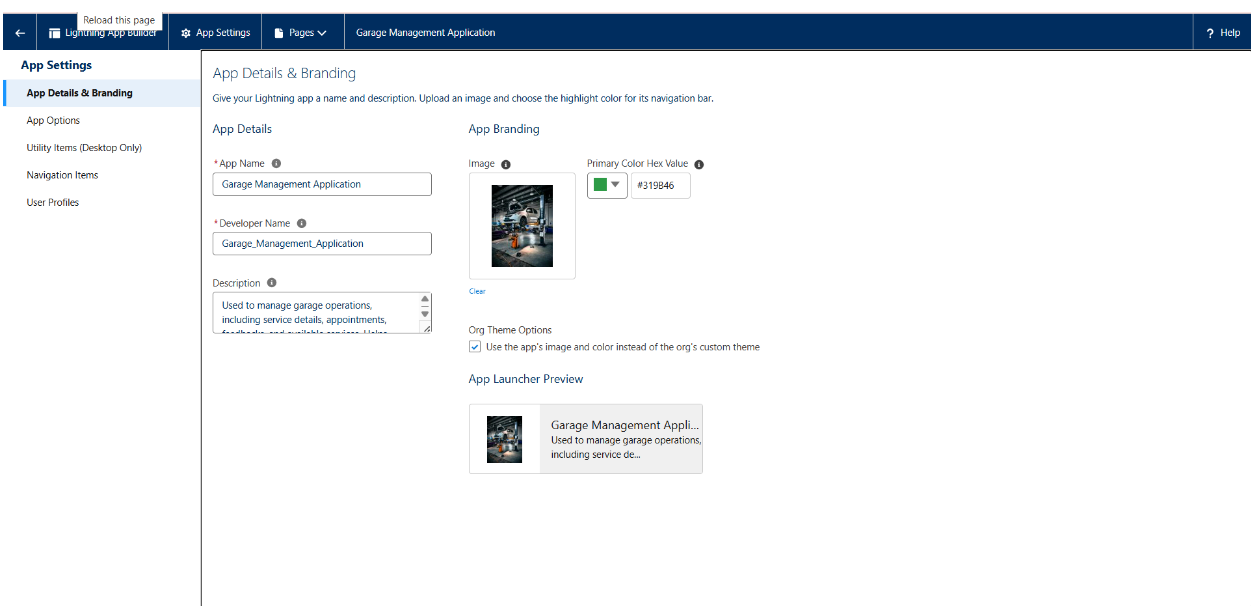

# Billing details and feedback Object

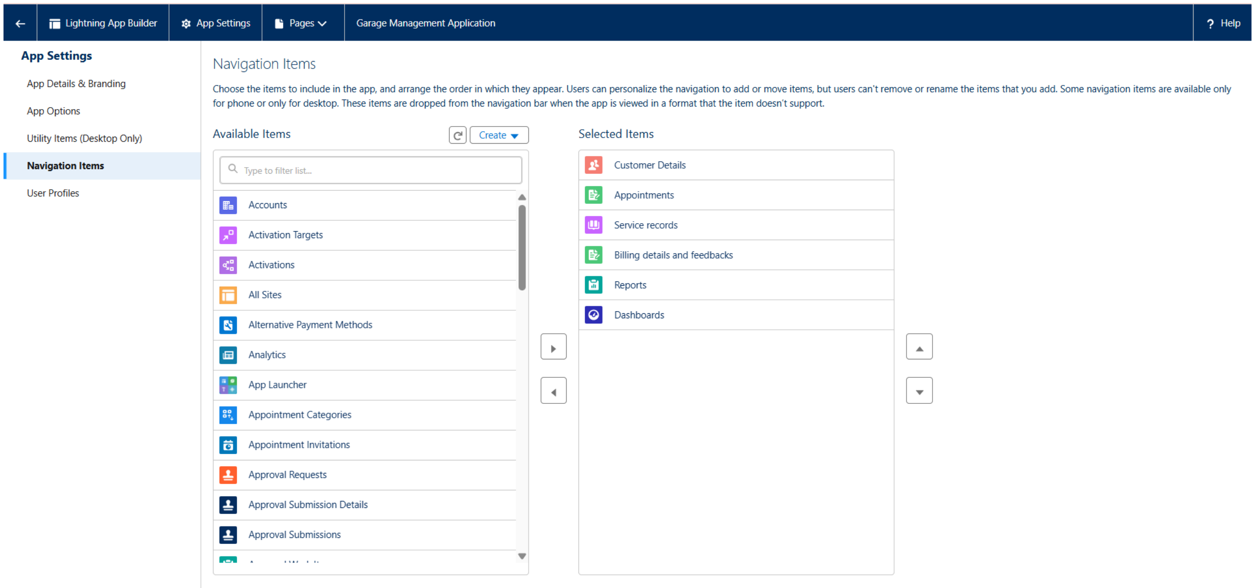


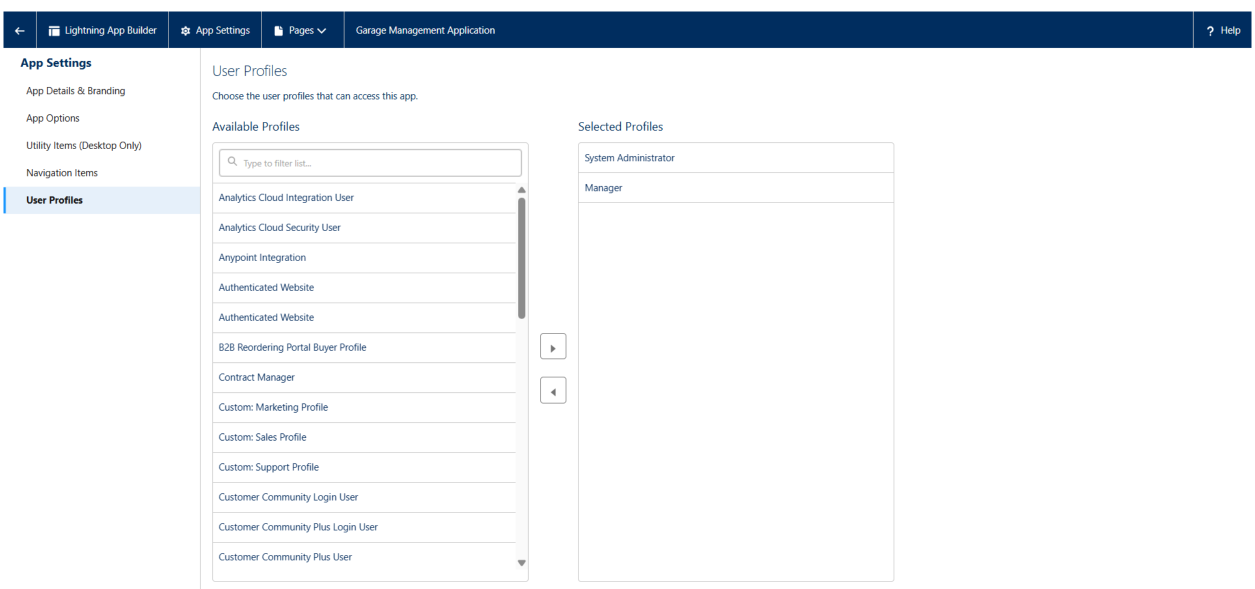
# Creation of tabs for the objects



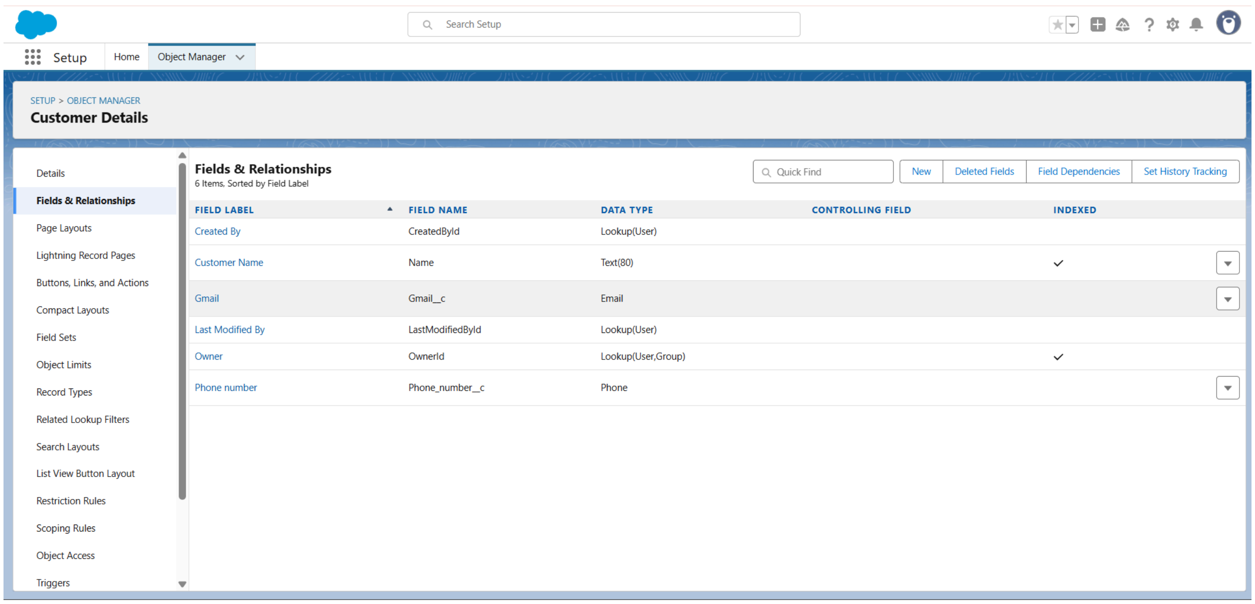

# Creating a lightning app

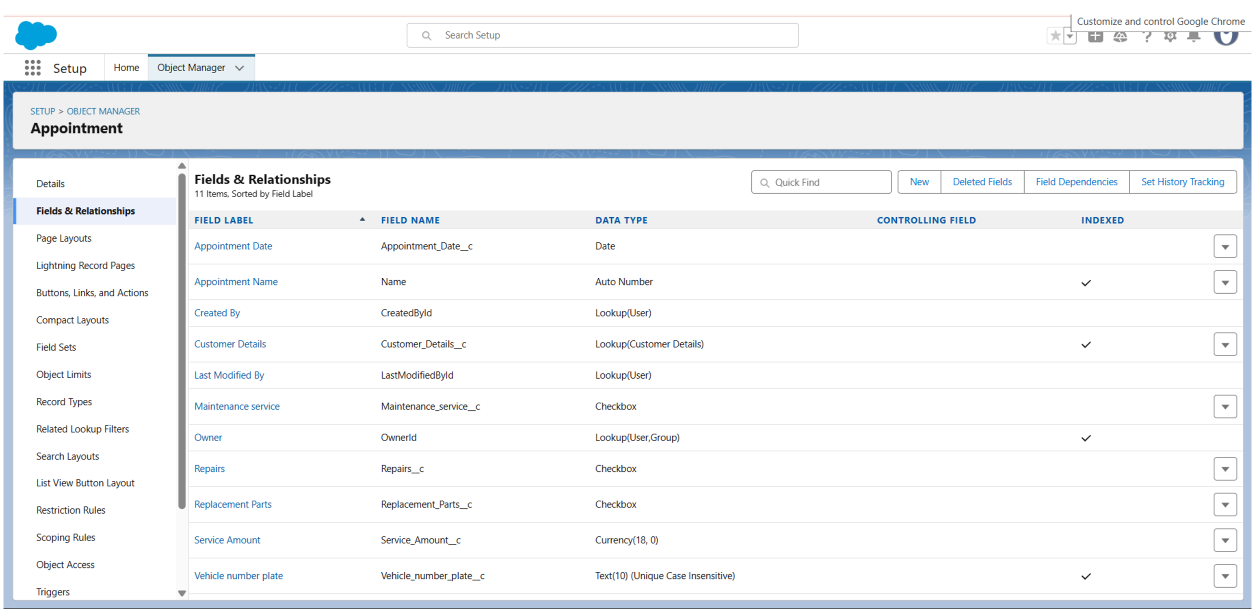


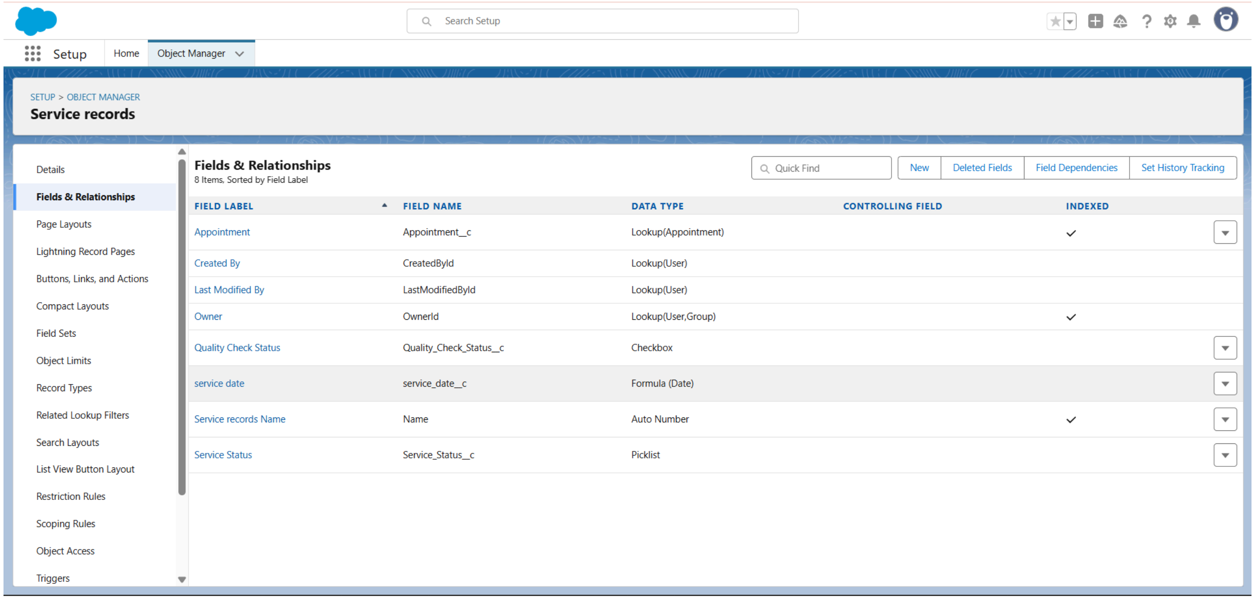

Lightning App Builder
App Settings
Pages
Garage Management Application
Help
App Settings
App Details & Branding
App Options
Utility Items (Desktop Only)
Navigation Items
User Profiles
Navigation Items
Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.
Available Items
Create
Type to filter list...
Accounts
Activation Targets
Activations
All Sites
Alternative Payment Methods
Analytics
App Launcher
Appointment Categories
Appointment Invitations
Approval Requests
Approval Submission Details
Approval Submissions
Selected Items
Customer Details
Appointments
Service records
Billing details and feedbacks
Reports
Dashboards

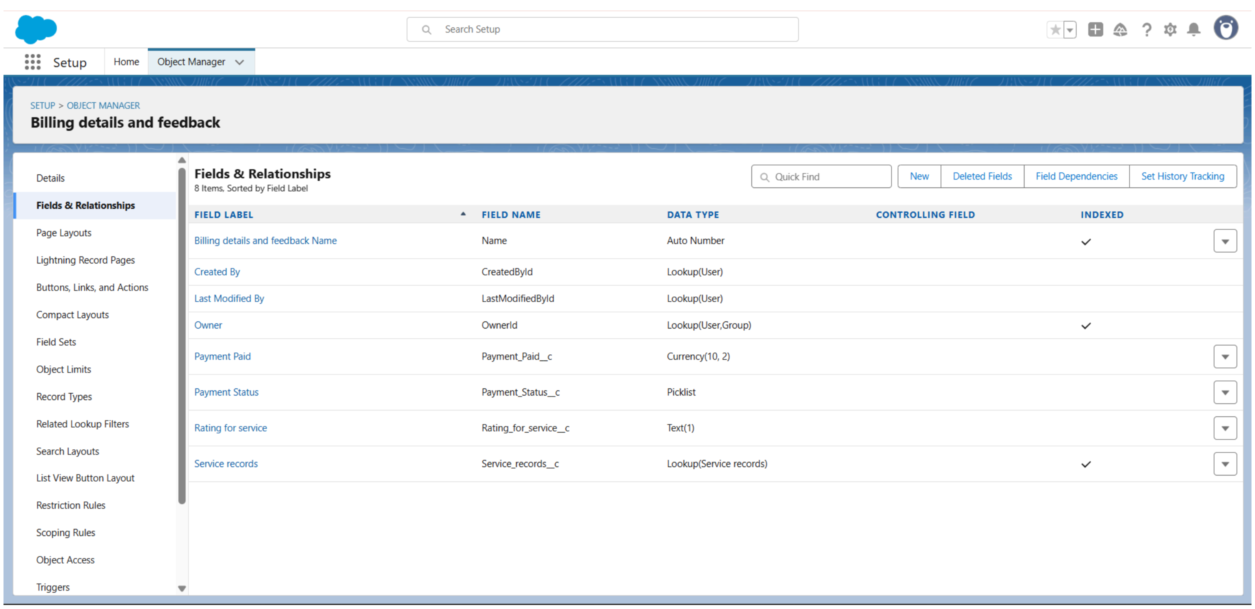

Lightning App Builder
App Settings
Pages
Garage Management Application
Help
App Settings
App Details & Branding
App Options
Utility Items (Desktop Only)
Navigation Items
User Profiles
User Profiles
Choose the user profiles that can access this app.
Available Profiles
Type to filter list...
Analytics Cloud Integration User
Analytics Cloud Security User
Anypoint Integration
Authenticated Website
Authenticated Website
B2B Reordering Portal Buyer Profile
Contract Manager
Custom: Marketing Profile
Custom: Sales Profile
Custom: Support Profile
Customer Community Login User
Customer Community Plus Login User
Customer Community Plus User
Selected Profiles
System Administrator
Manager

# Configured fields and relationships for objects




Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Service records
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
Fields & Relationships
8 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Appointment
Appointment__c
Lookup(Appointment)
Created By
CreatedById
Lookup(User)
Last Modified By
LastModifiedById
Lookup(User)
Owner
OwnerId
Lookup(User,Group)
Quality Check Status
Quality_Check_Status__c
Checkbox
service date
service_date__c
Formula (Date)
Service records Name
Name
Auto Number
Service Status
Service_Status__c
Picklist


Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Billing details and feedback
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
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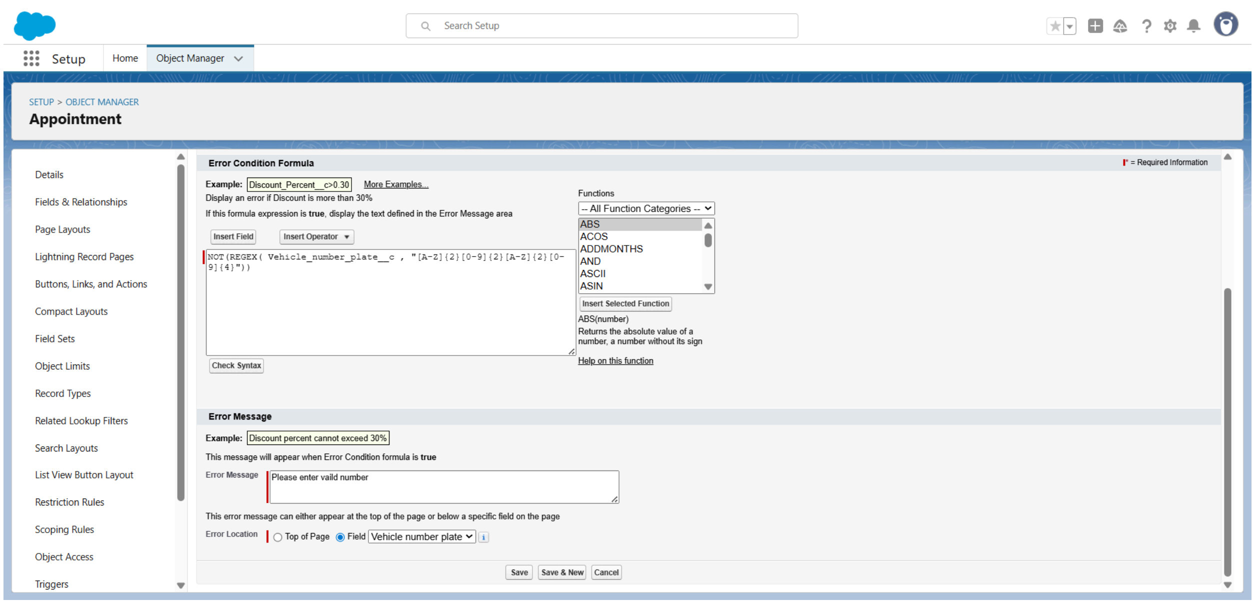
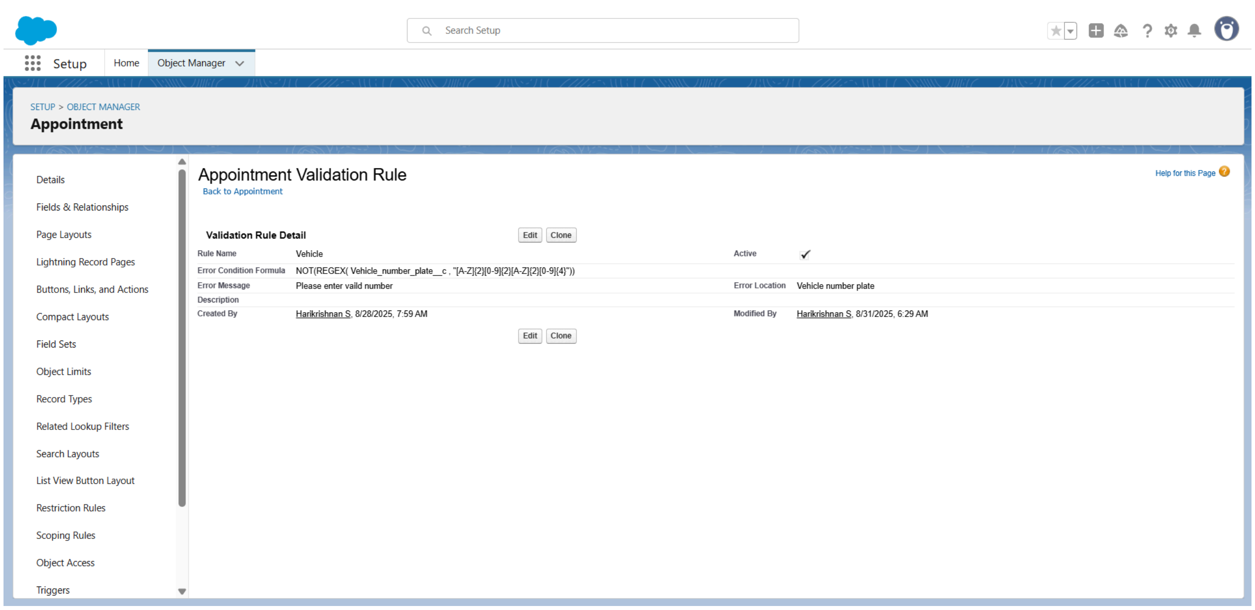
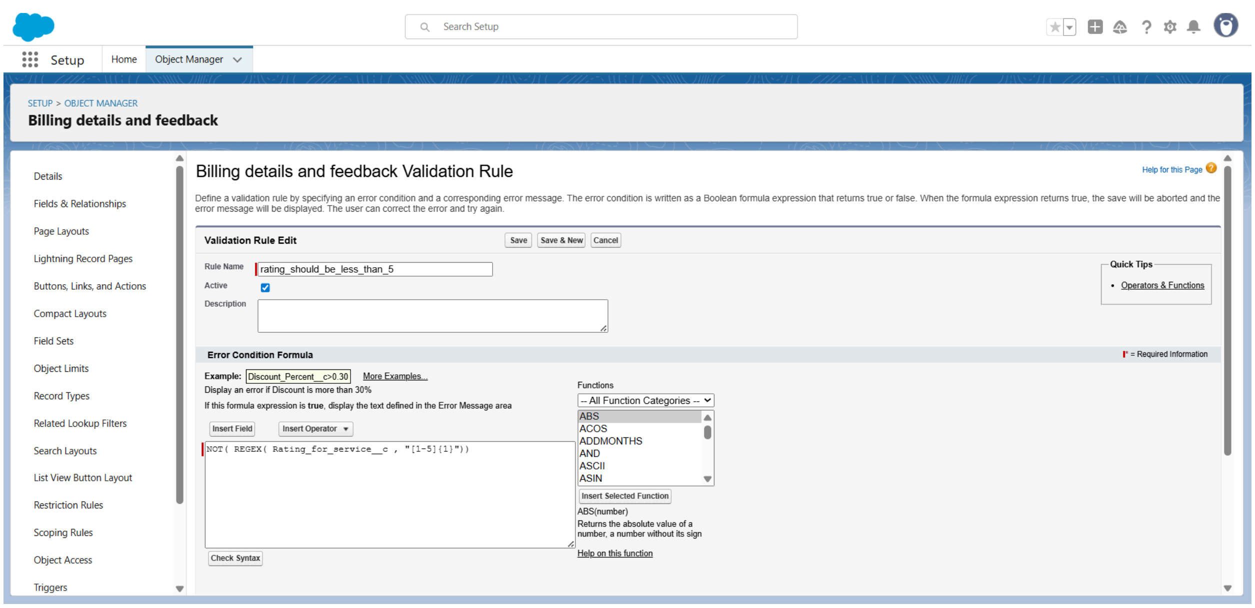
Triggers
Fields & Relationships
8 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Billing details and feedback Name
Name
Auto Number
Created By
CreatedById
Lookup(User)
Last Modified By
LastModifiedById
Lookup(User)
Owner
OwnerId
Lookup(User,Group)
Payment Paid
Payment_Paid__c
Currency(10, 2)
Payment Status
Payment_Status__c
Picklist
Rating for service
Rating_for_service__c
Text(1)
Service records
Service_records__c
Lookup(Service records)

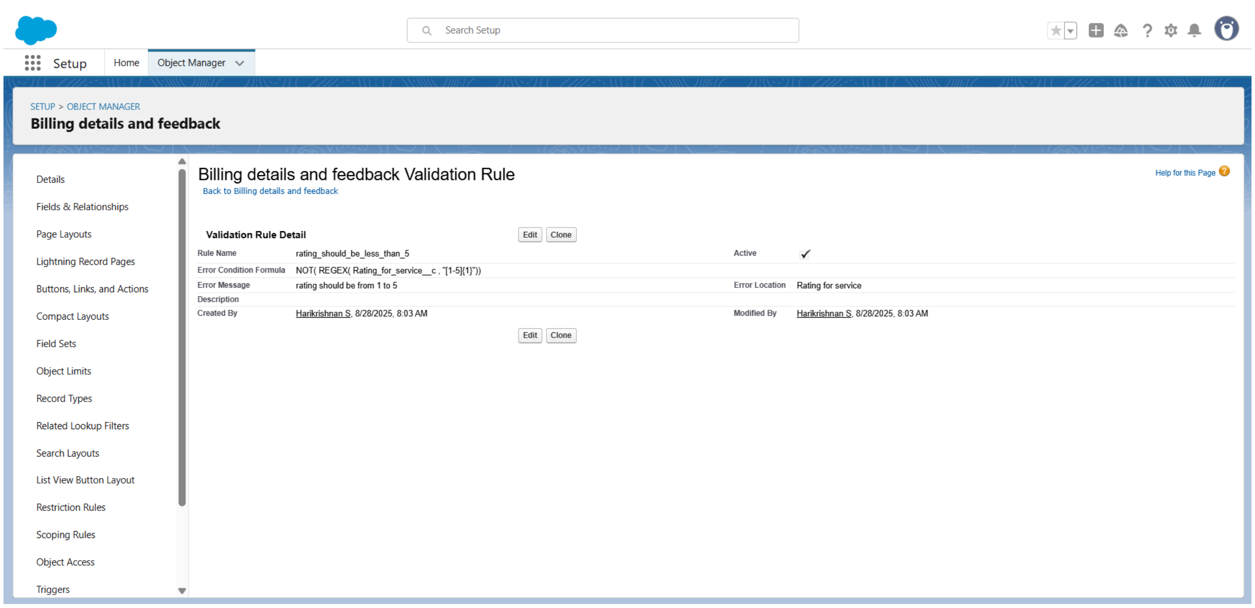
# Creating validation rule for appointment object



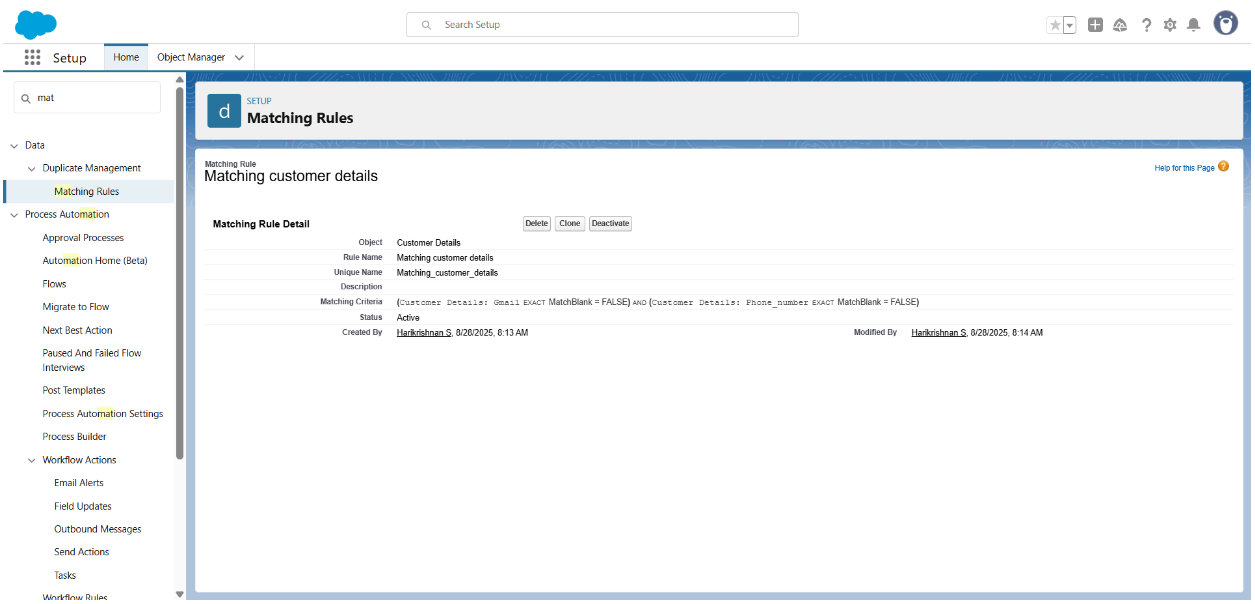



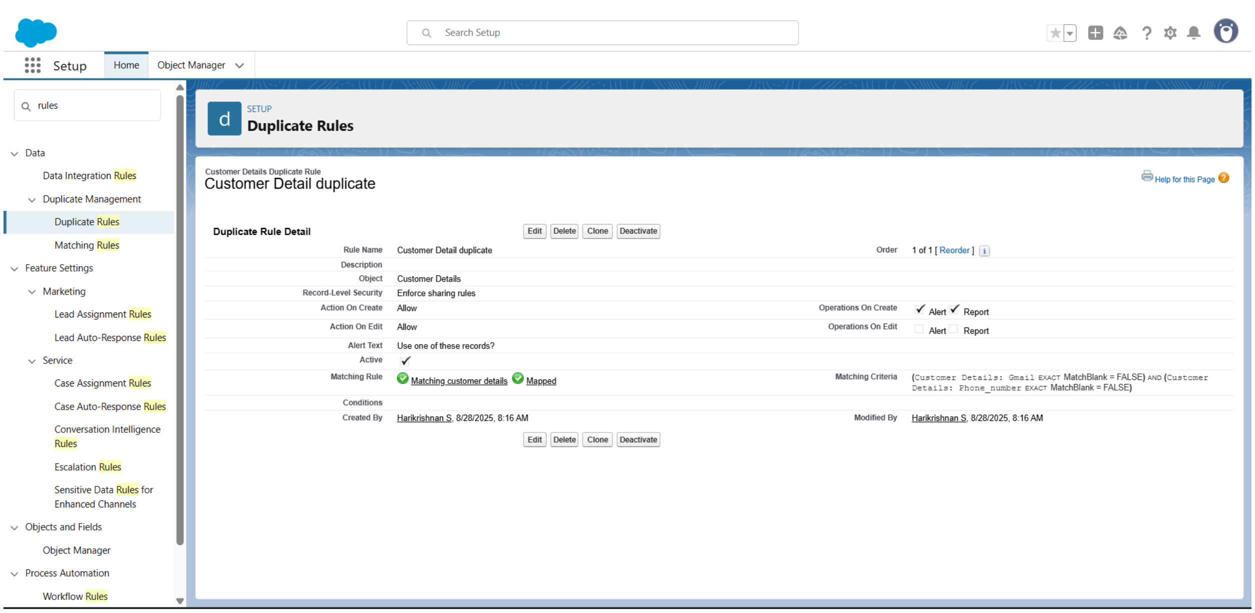
# Creating validation rule for billing details and feedback object



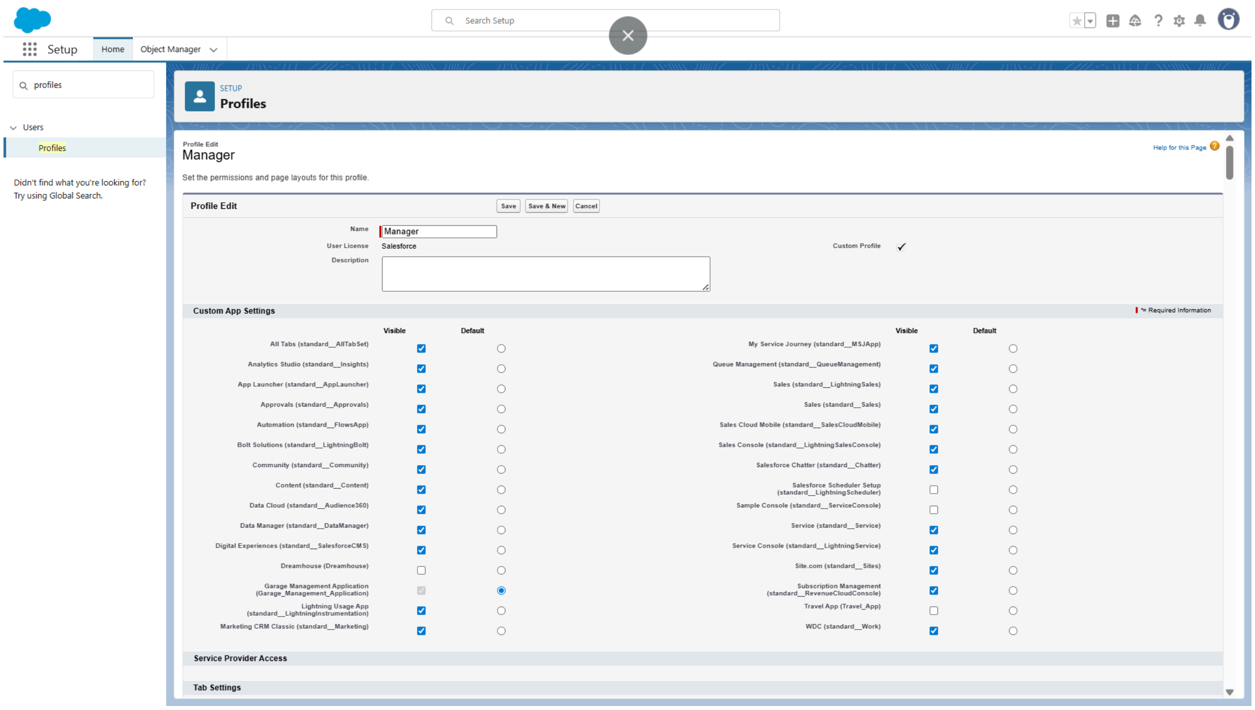



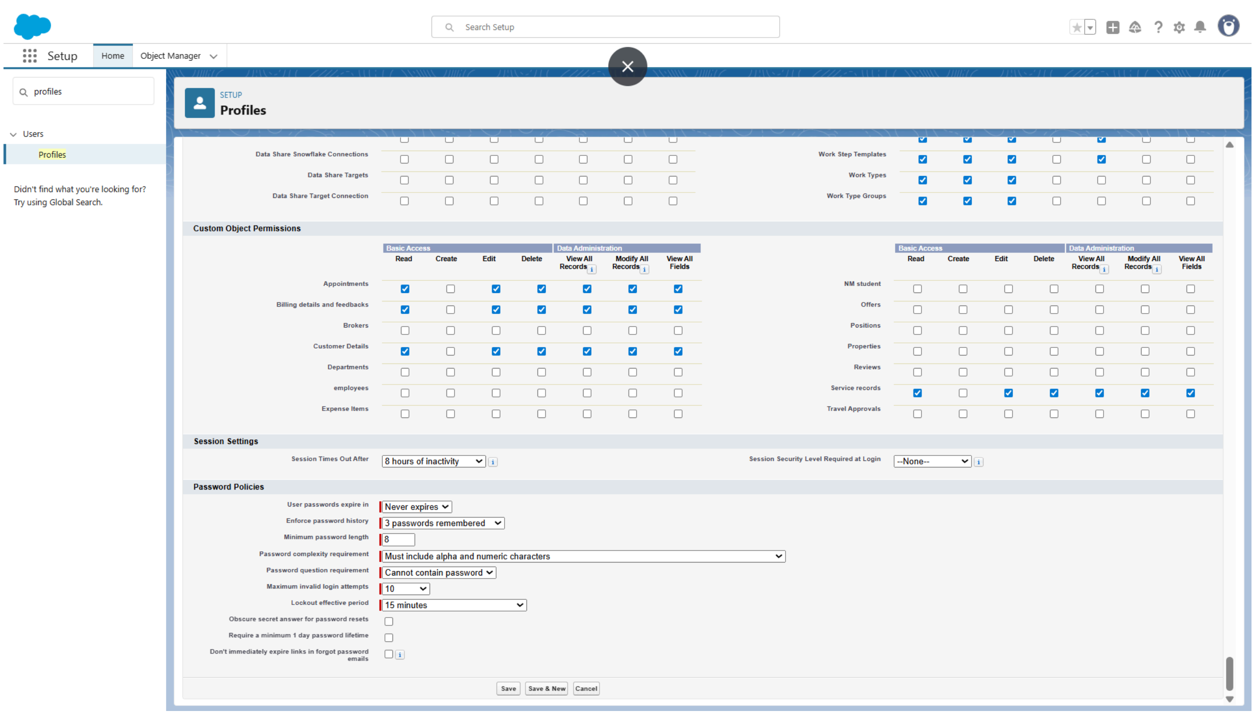
# Creating matching and duplication rule to an customer details object

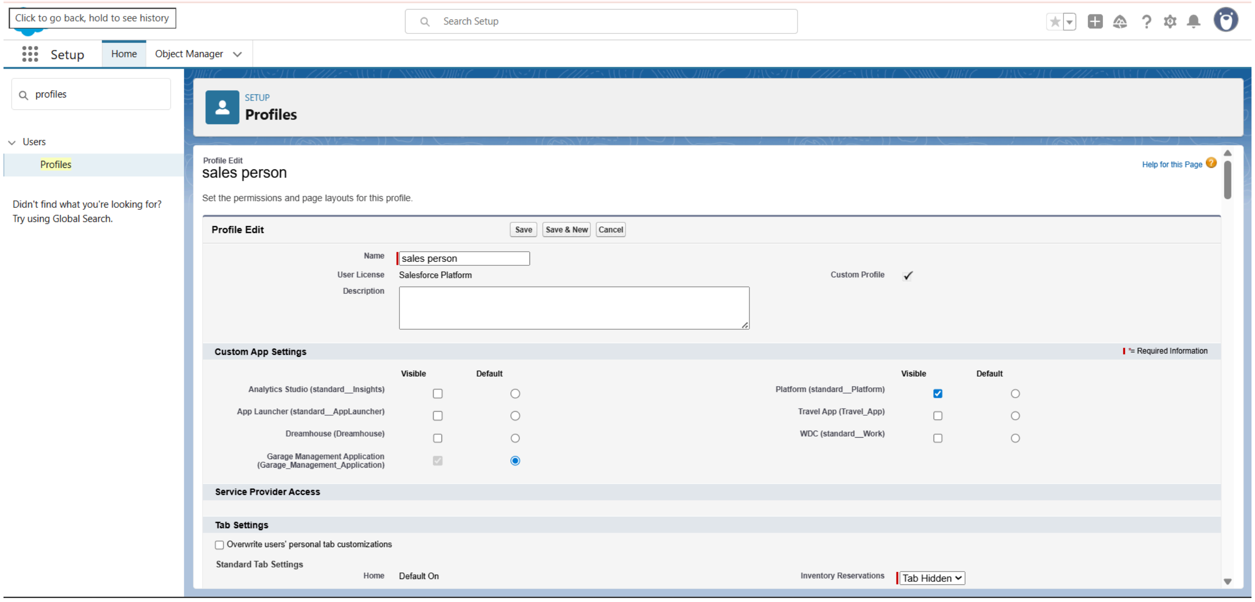


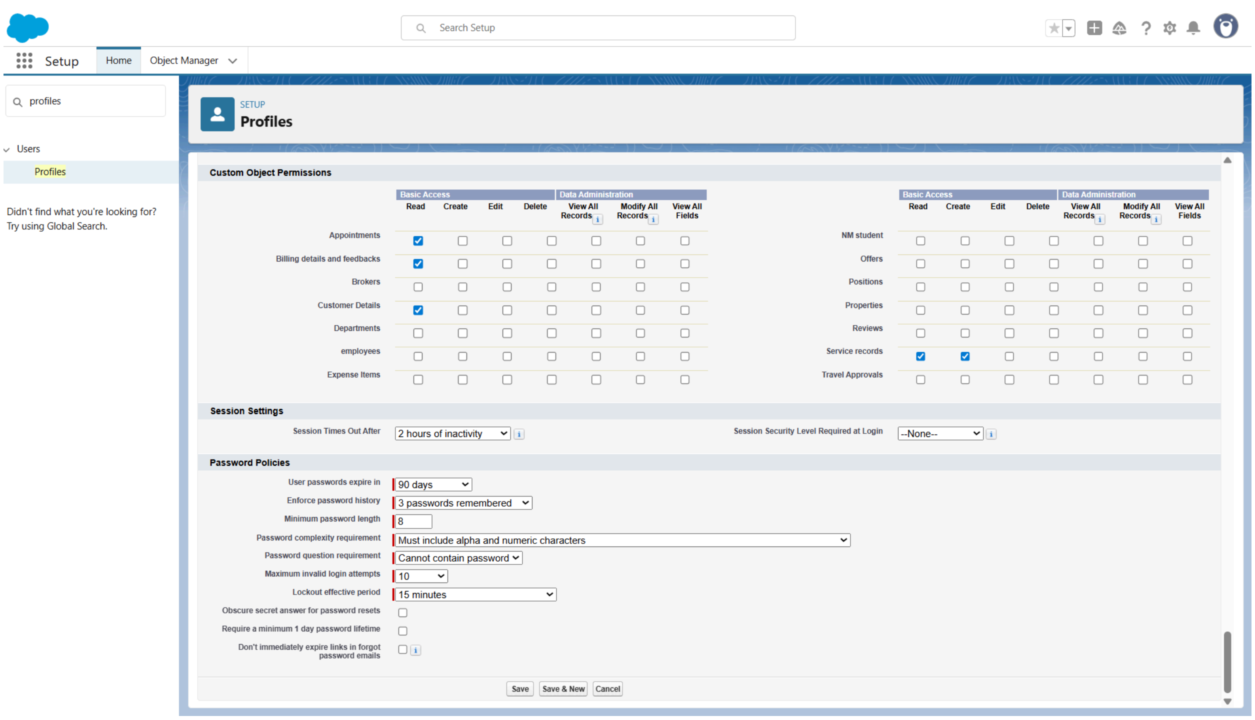



# Creating a new profiles

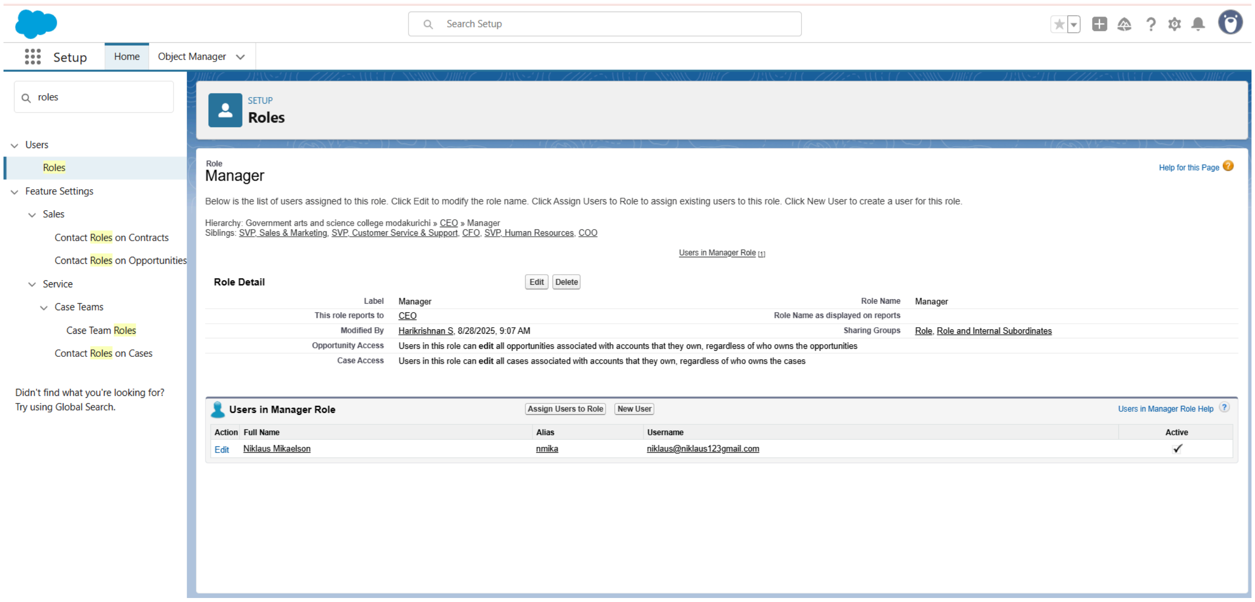


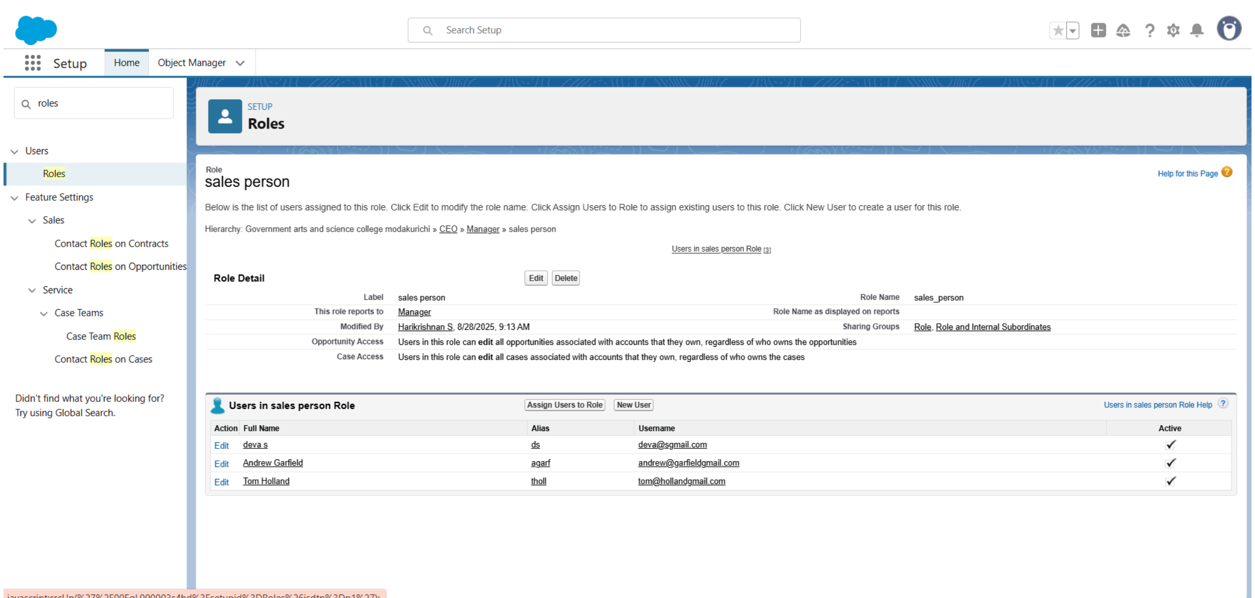




Click to go back, hold to see history
Search Setup
Setup
Home
Object Manager
profiles
Users
Profiles
Didn't find what you're looking for? Try using Global Search.
SETUP
Profiles
Profile Edit
sales person
Set the permissions and page layouts for this profile.
Help for this Page
Profile Edit
Save
Save & New
Cancel
Name
sales person
User License
Salesforce Platform
Custom Profile
Description
Custom App Settings
= Required Information
Visible
Default
Analytics Studio (standard__Insights)
App Launcher (standard__AppLauncher)
Dreamhouse (Dreamhouse)
Garage Management Application (Garage_Management_Application)
Platform (standard__Platform)
Travel App (Travel_App)
WDC (standard__Work)
Service Provider Access
Tab Settings
Overwrite users' personal tab customizations
Standard Tab Settings
Home
Default On
Inventory Reservations
Tab Hidden

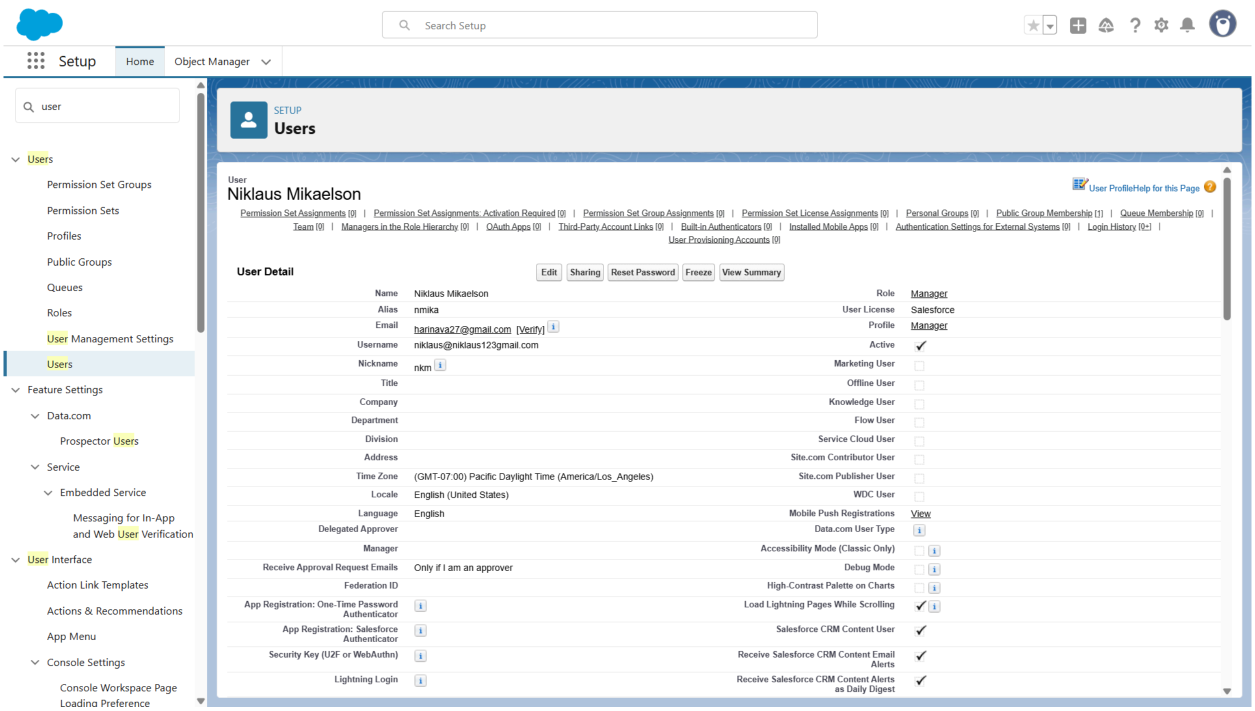

Search Setup
Setup
Home
Object Manager
profiles
Users
Profiles
Didn't find what you're looking for? Try using Global Search.
SETUP
Profiles
Custom Object Permissions
Basic Access
Data Administration
Read
Create
Edit
Delete
View All Records
Modify All Records
View All Fields
Appointments
Billing details and feedbacks
Brokers
Customer Details
Departments
employees
Expense Items
NM student
Offers
Positions
Properties
Reviews
Service records
Travel Approvals
Session Settings
Session Times Out After
2 hours of inactivity
Session Security Level Required at Login
--None--
Password Policies
User passwords expire in
90 days
Enforce password history
3 passwords remembered
Minimum password length
8
Password complexity requirement
Must include alpha and numeric characters
Password question requirement
Cannot contain password
Maximum invalid login attempts
10
Lockout effective period
15 minutes
Obscure secret answer for password resets
Require a minimum 1 day password lifetime
Don't immediately expire links in forgot password emails
Save
Save & New
Cancel

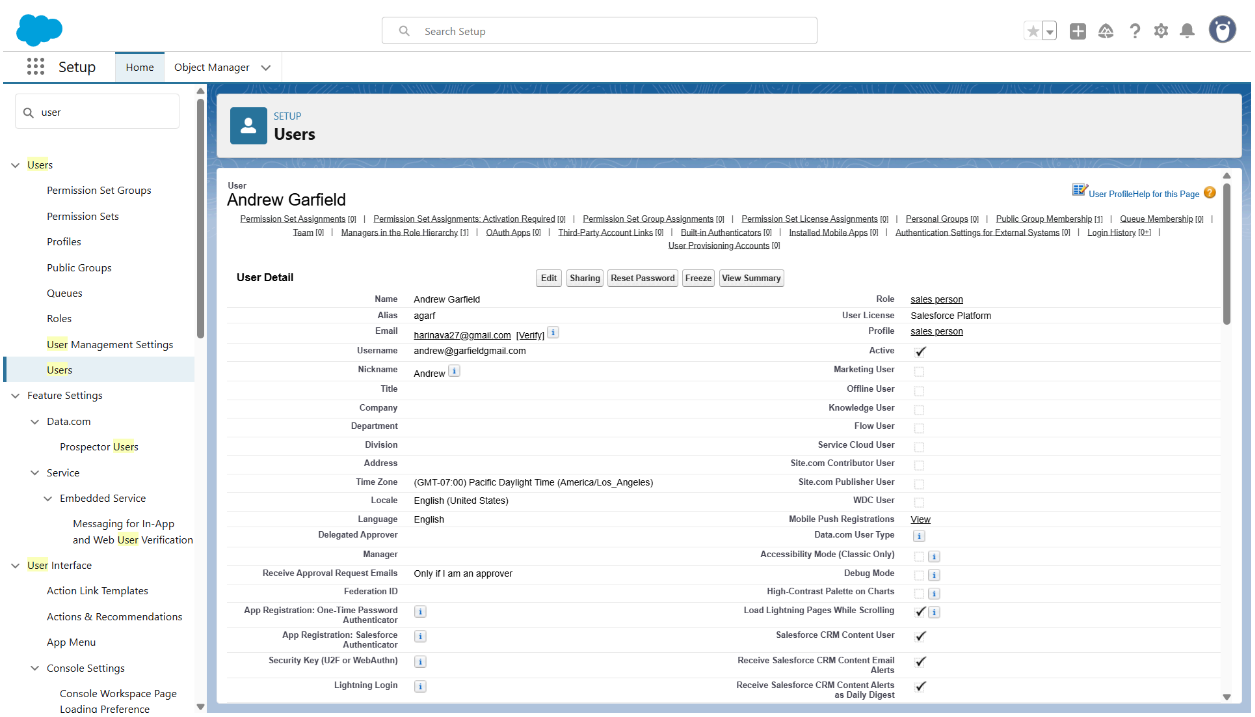
# Creating a  roles

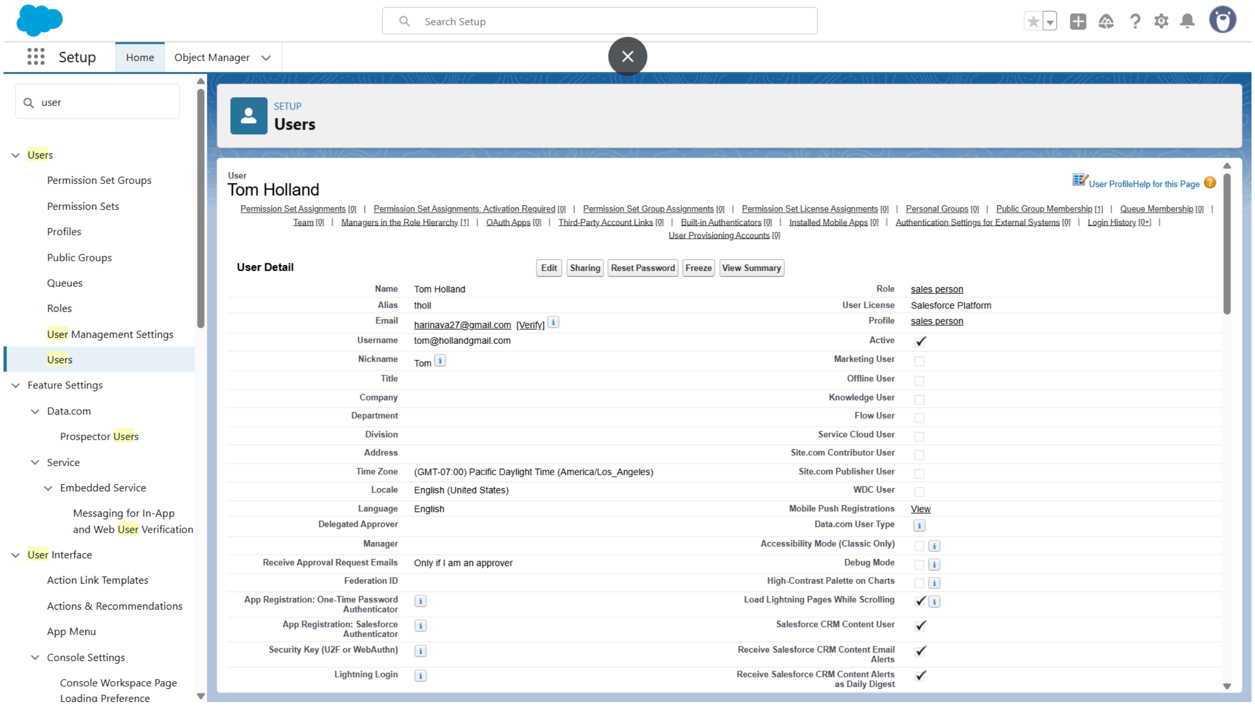


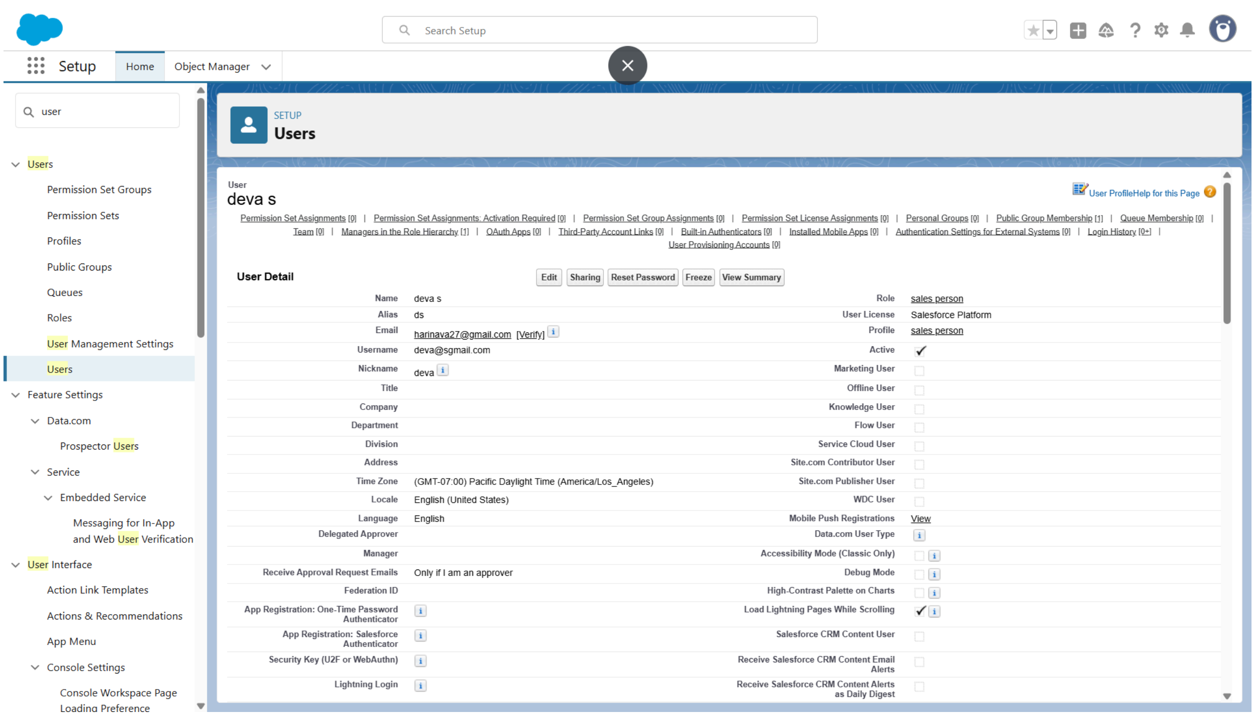



# Create ther new users

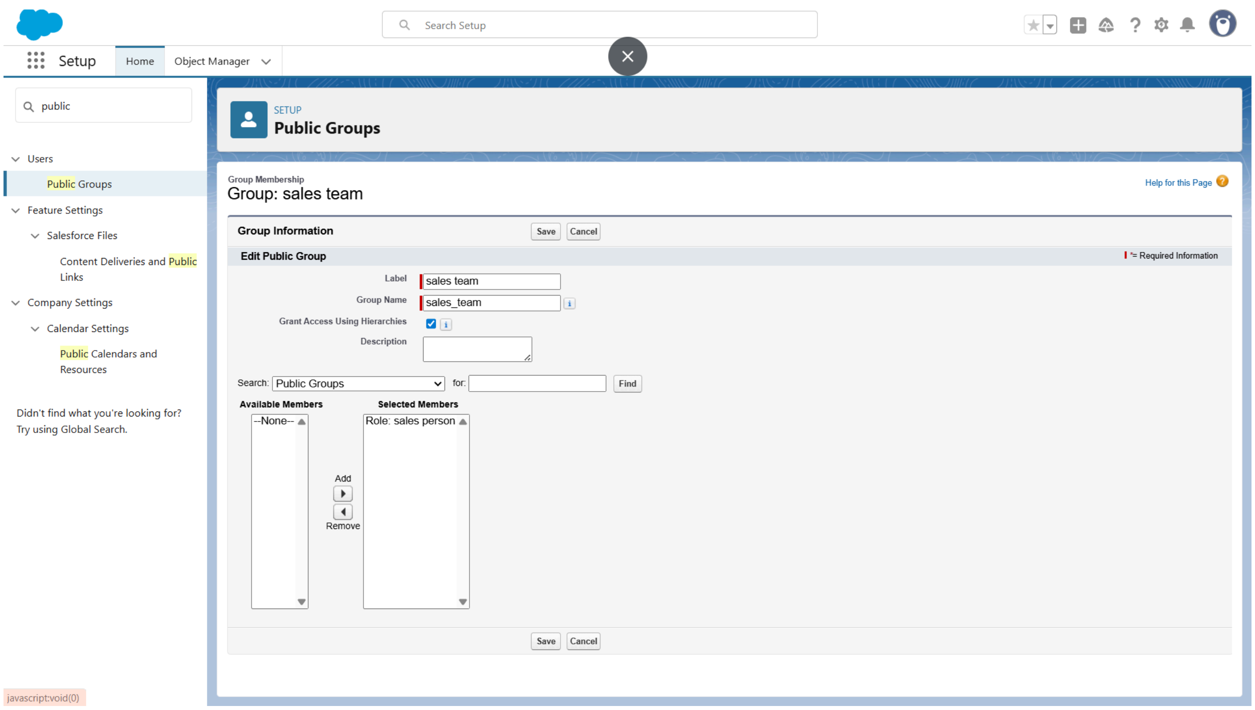


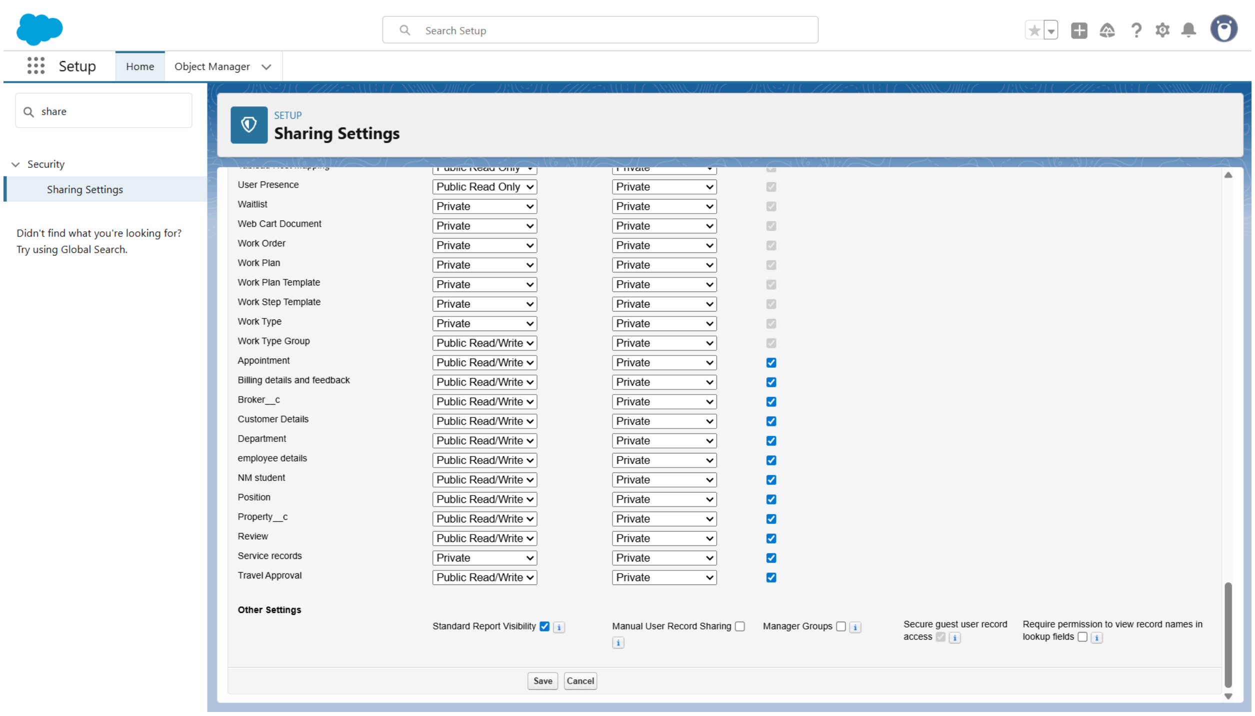

Search Setup
Setup
Home
Object Manager
user
Users
Permission Set Groups
Permission Sets
Profiles
Public Groups
Queues
Roles
User Management Settings
Users
Feature Settings
Data.com
Prospector Users
Service
Embedded Service
Messaging for In-App and Web User Verification
User Interface
Action Link Templates
Actions & Recommendations
App Menu
Console Settings
Console Workspace Page Loading Preference
SETUP
Users
User
Tom Holland
Help for this Page
User Detail
Edit
Sharing
Reset Password
Freeze
View Summary
Name Tom Holland
Alias tholl
Email harinava27@gmail.com [Verify]
Username tom@hollandgmail.com
Nickname Tom
Title
Company
Department
Division
Address
Time Zone (GMT-07:00) Pacific Daylight Time (America/Los_Angeles)
Locale English (United States)
Language English
Delegated Approver
Manager
Receive Approval Request Emails Only if I am an approver
Federation ID
App Registration: One-Time Password Authenticator
App Registration: Salesforce Authenticator
Security Key (U2F or WebAuthn)
Lightning Login
Role sales person
User License Salesforce Platform
Profile sales person
Active
Marketing User
Offline User
Knowledge User
Flow User
Service Cloud User
Site.com Contributor User
Site.com Publisher User
WDC User
Mobile Push Registrations View
Data.com User Type
Accessibility Mode (Classic Only)
Debug Mode
High-Contrast Palette on Charts
Load Lightning Pages While Scrolling
Salesforce CRM Content User
Receive Salesforce CRM Content Email Alerts
Receive Salesforce CRM Content Alerts as Daily Digest

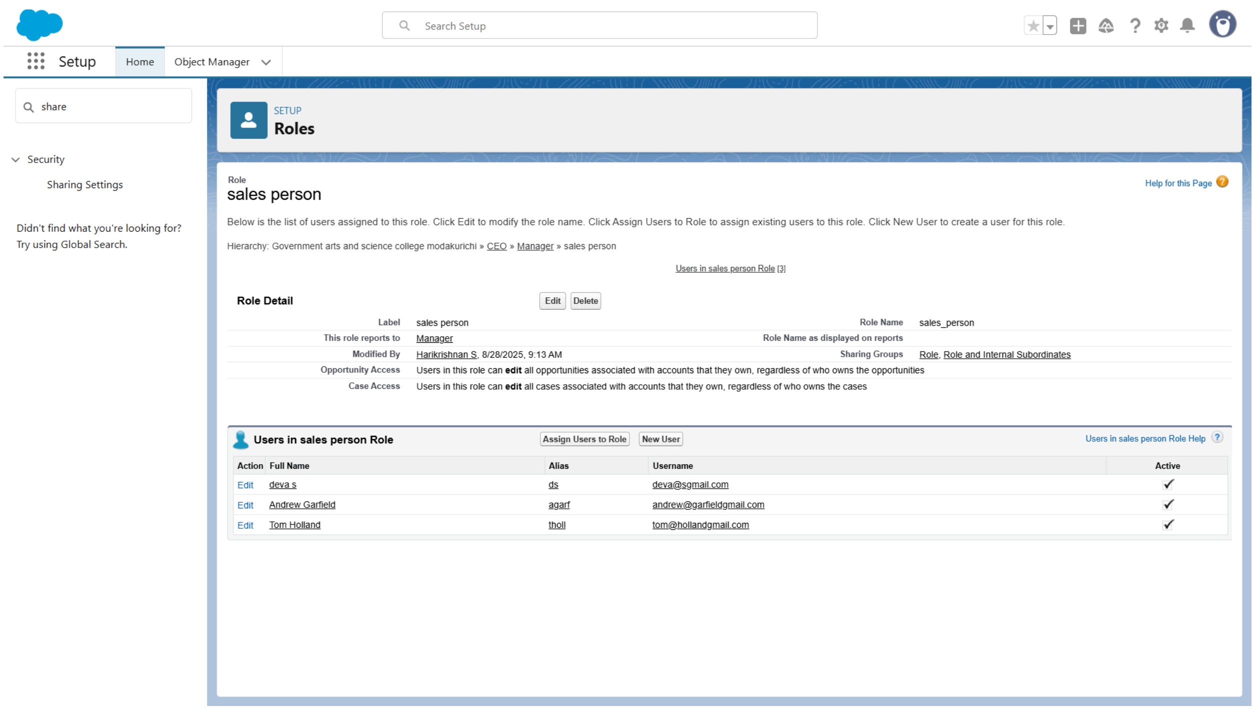

Search Setup
Setup
Home
Object Manager
user
Users
Permission Set Groups
Permission Sets
Profiles
Public Groups
Queues
Roles
User Management Settings
Users
Feature Settings
Data.com
Prospector Users
Service
Embedded Service
Messaging for In-App and Web User Verification
User Interface
Action Link Templates
Actions & Recommendations
App Menu
Console Settings
Console Workspace Page Loading Preference
SETUP
Users
User
deva s
Help for this Page
User Detail
Edit
Sharing
Reset Password
Freeze
View Summary
Name deva s
Alias ds
Email harinava27@gmail.com [Verify]
Username deva@sgmail.com
Nickname deva
Title
Company
Department
Division
Address
Time Zone (GMT-07:00) Pacific Daylight Time (America/Los_Angeles)
Locale English (United States)
Language English
Delegated Approver
Manager
Receive Approval Request Emails Only if I am an approver
Federation ID
App Registration: One-Time Password Authenticator
App Registration: Salesforce Authenticator
Security Key (U2F or WebAuthn)
Lightning Login
Role sales person
User License Salesforce Platform
Profile sales person
Active
Marketing User
Offline User
Knowledge User
Flow User
Service Cloud User
Site.com Contributor User
Site.com Publisher User
WDC User
Mobile Push Registrations View
Data.com User Type
Accessibility Mode (Classic Only)
Debug Mode
High-Contrast Palette on Charts
Load Lightning Pages While Scrolling
Salesforce CRM Content User
Receive Salesforce CRM Content Email Alerts
Receive Salesforce CRM Content Alerts as Daily Digest

# Create a new public groups

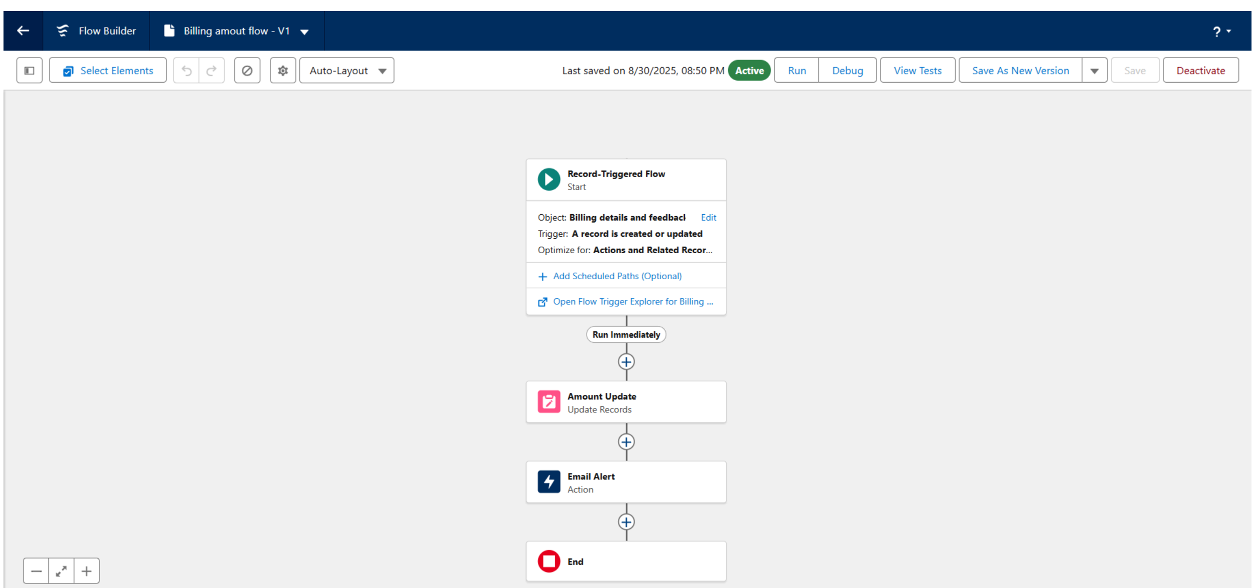


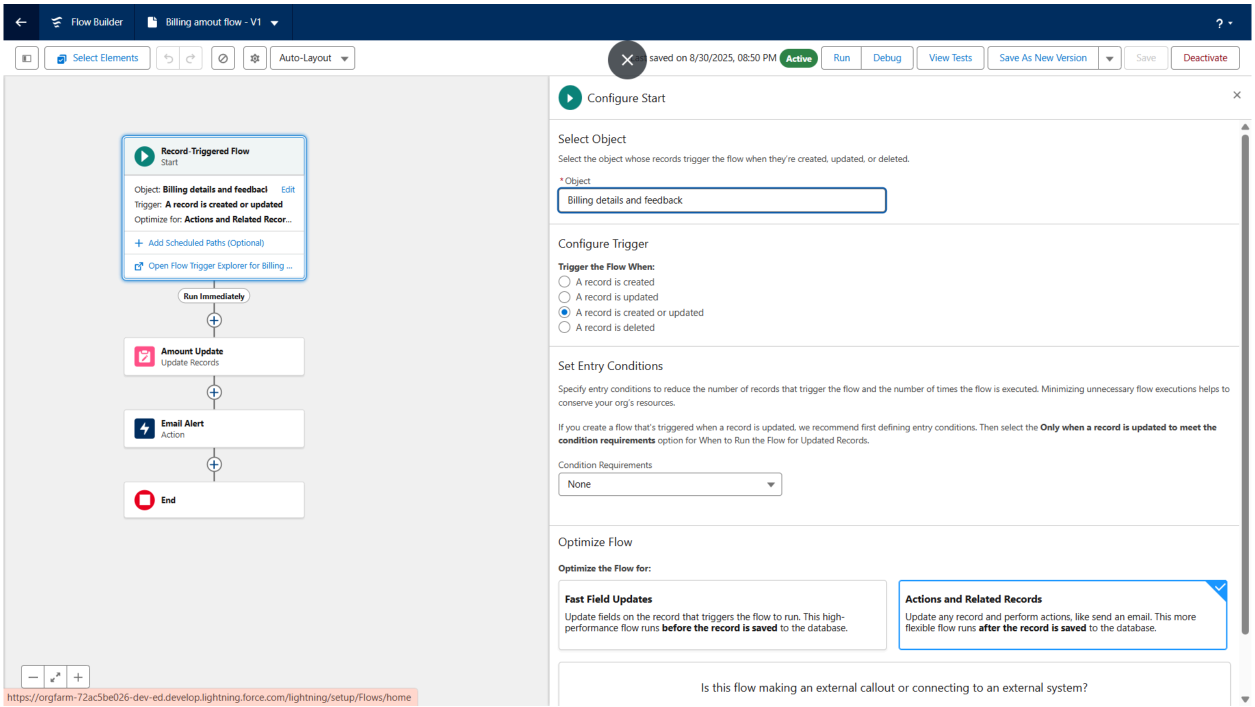

# Creating a sharing settings

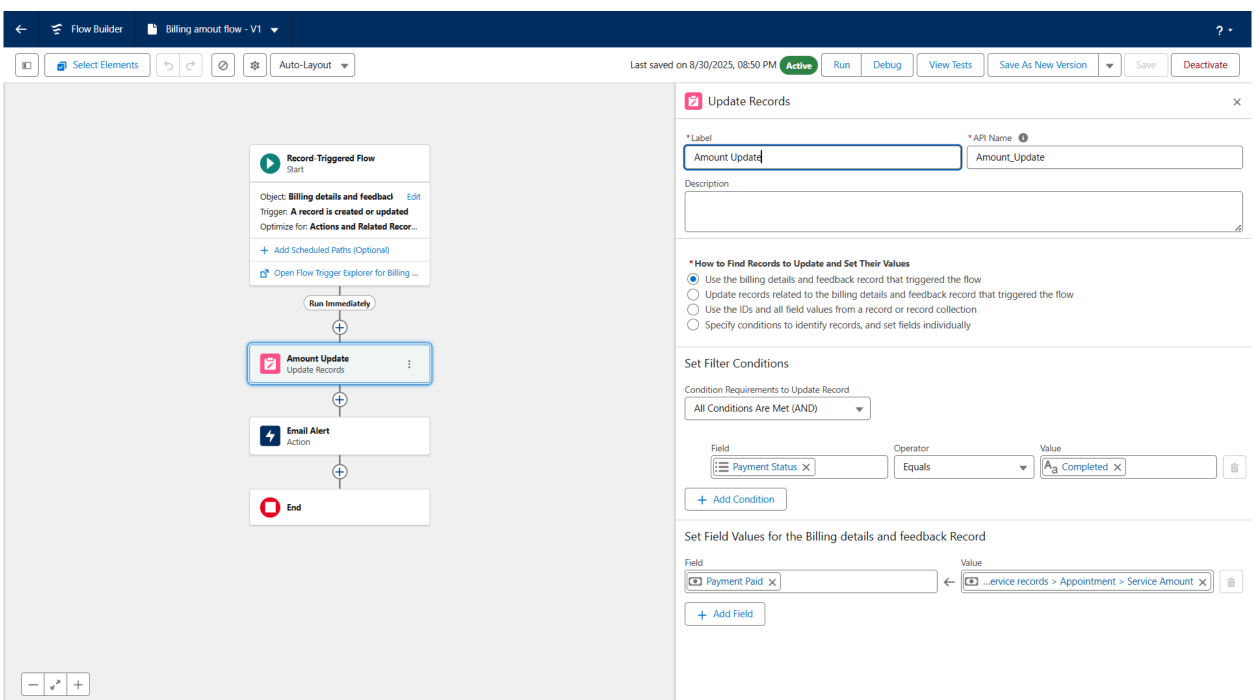


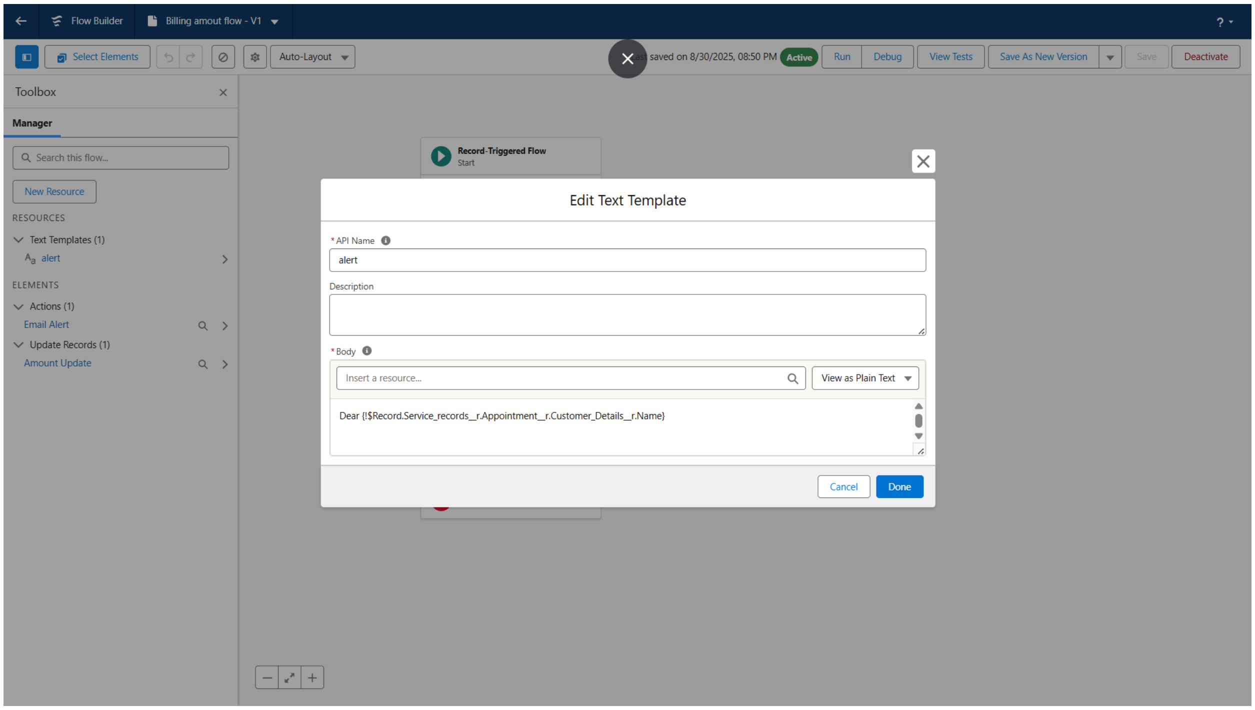



# Creating a flows

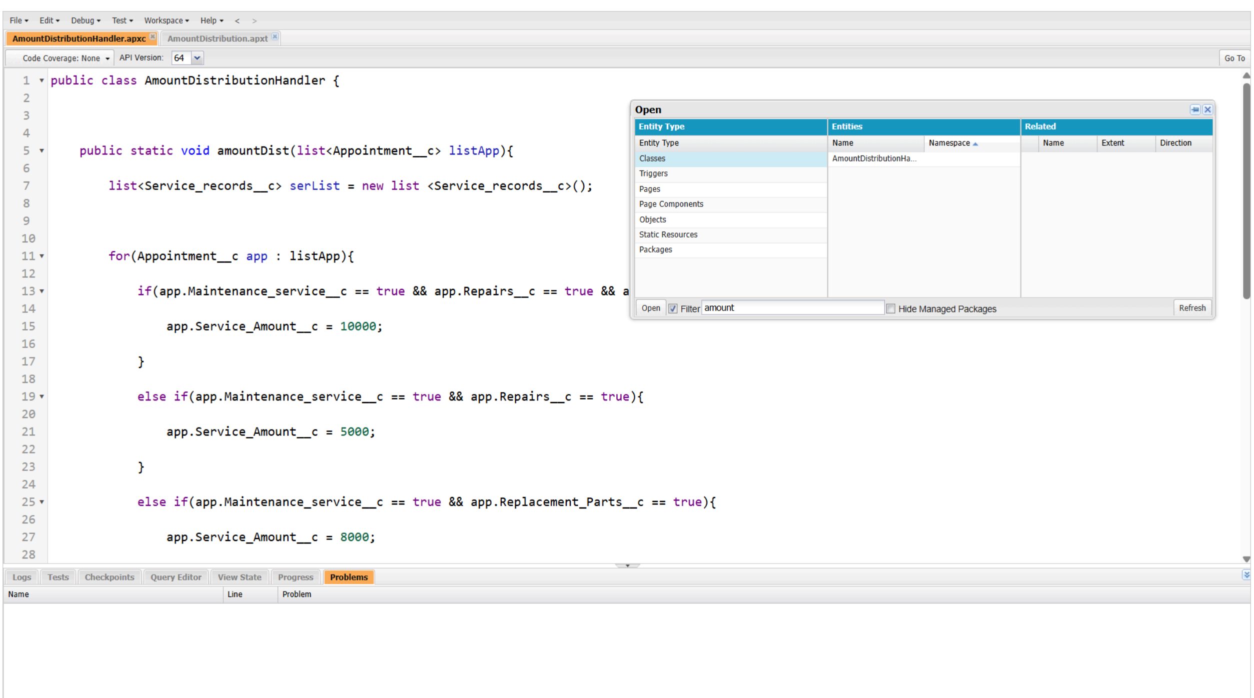


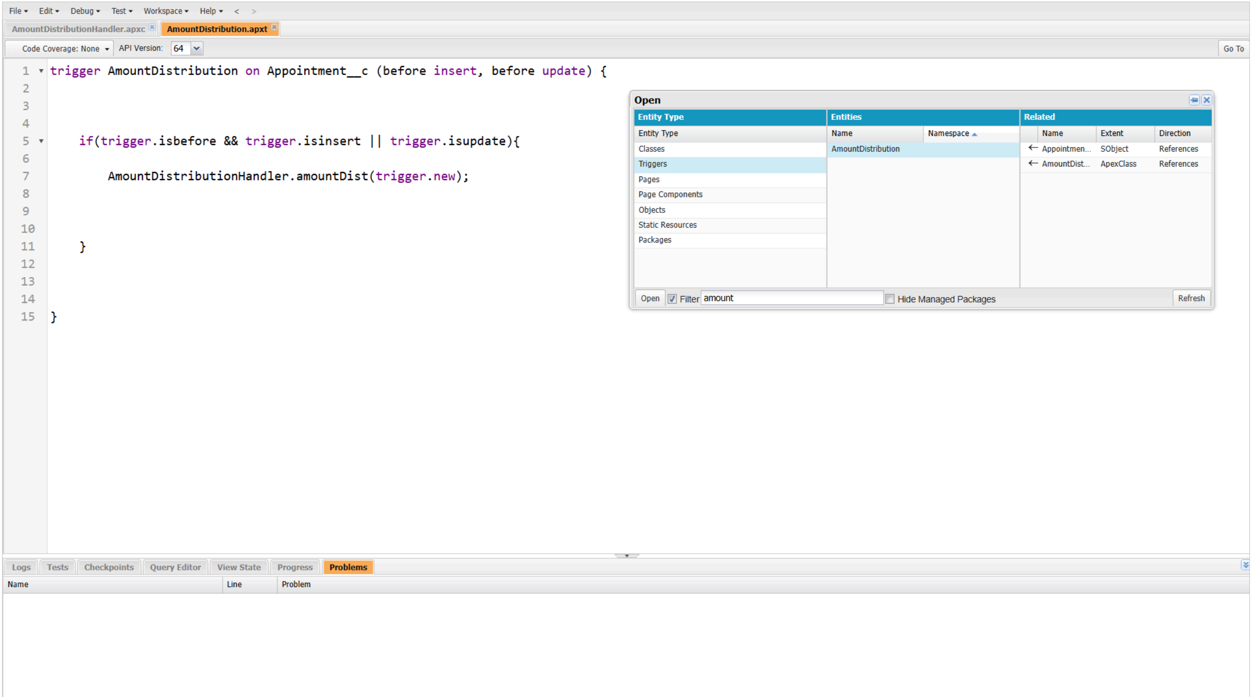







# Creating apex handler






## Source code:

### Create a class "AmountDistributionHandler"

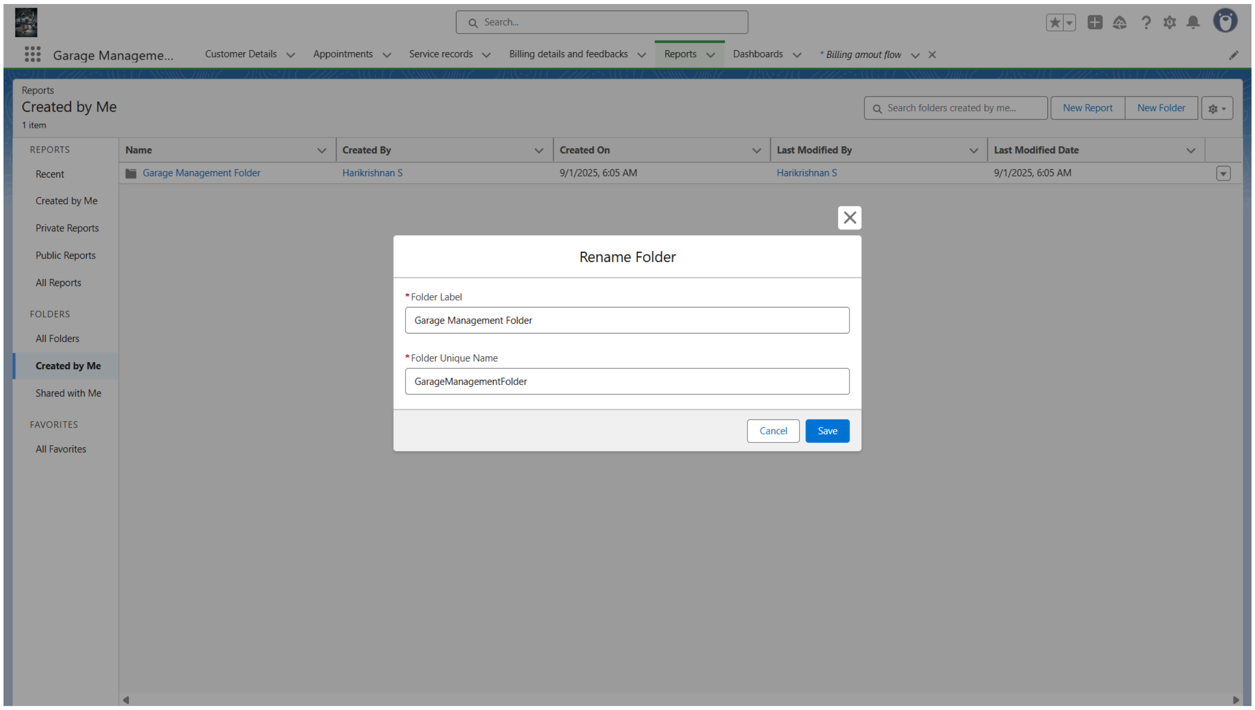
```
public class AmountDistributionHandler {

    public static void amountDist(list<Appointment__c> listApp){
        list<Service_records__c> serList = new list <Service_records__c>();

        for(Appointment__c app : listApp){
            if(app.Maintenance_service__c == true && app.Repairs__c == true &&
app.Replacement_Parts__c == true){
                app.Service_Amount__c = 10000;
            }
            else if(app.Maintenance_service__c == true && app.Repairs__c == true){
                app.Service_Amount__c = 5000;
            }
            else if(app.Maintenance_service__c == true && app.Replacement_Parts__c == true){
```

```
            app.Service_Amount__c = 8000;
        }
        else if(app.Repairs__c == true && app.Replacement_Parts__c == true){
            app.Service_Amount__c = 7000;
        }
        else if(app.Maintenance_service__c == true){
            app.Service_Amount__c = 2000;
        }
        else if(app.Repairs__c == true){
            app.Service_Amount__c = 3000;
        }
        else if(app.Replacement_Parts__c == true){
            app.Service_Amount__c = 5000;
        }

    }
    }
}
```

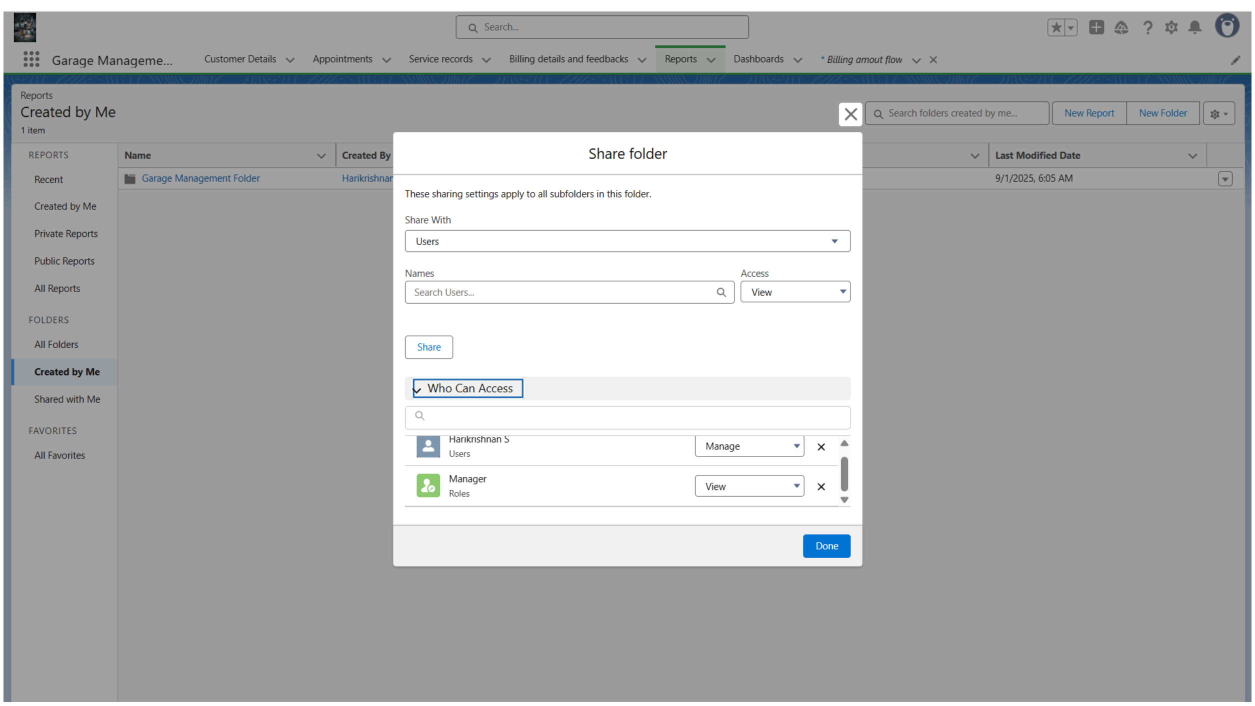
## Create a trigger :

```
trigger AmountDistribution on Appointment__c (before insert, before update) {

    if(trigger.isbefore && trigger.isinsert || trigger.isupdate){
        AmountDistributionHandler.amountDist(trigger.new);

    }
}
```

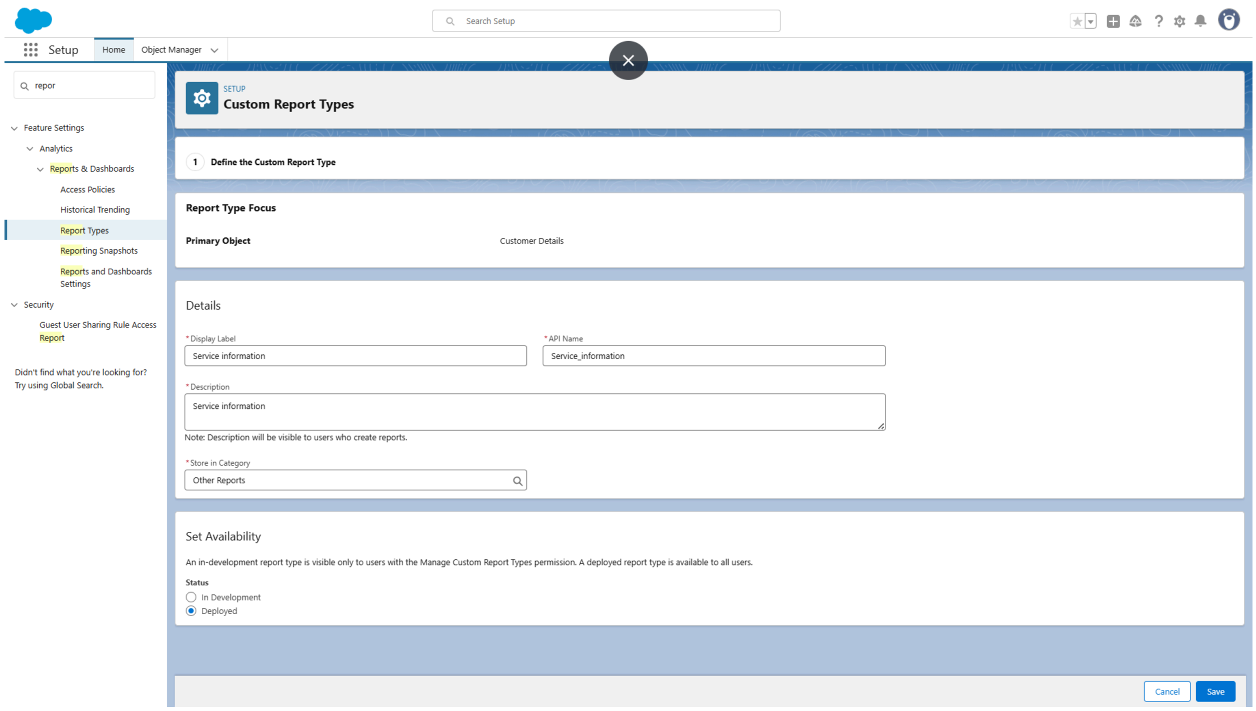
# Create a report folder

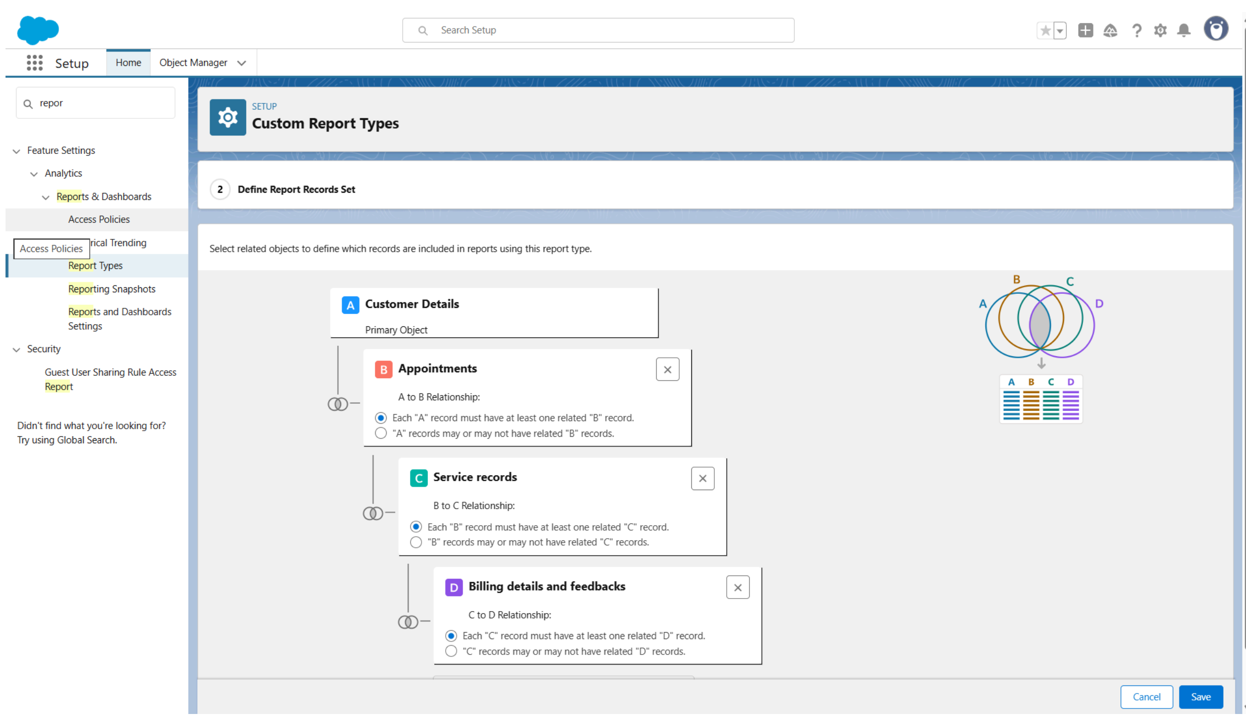



# Sharing a report folder

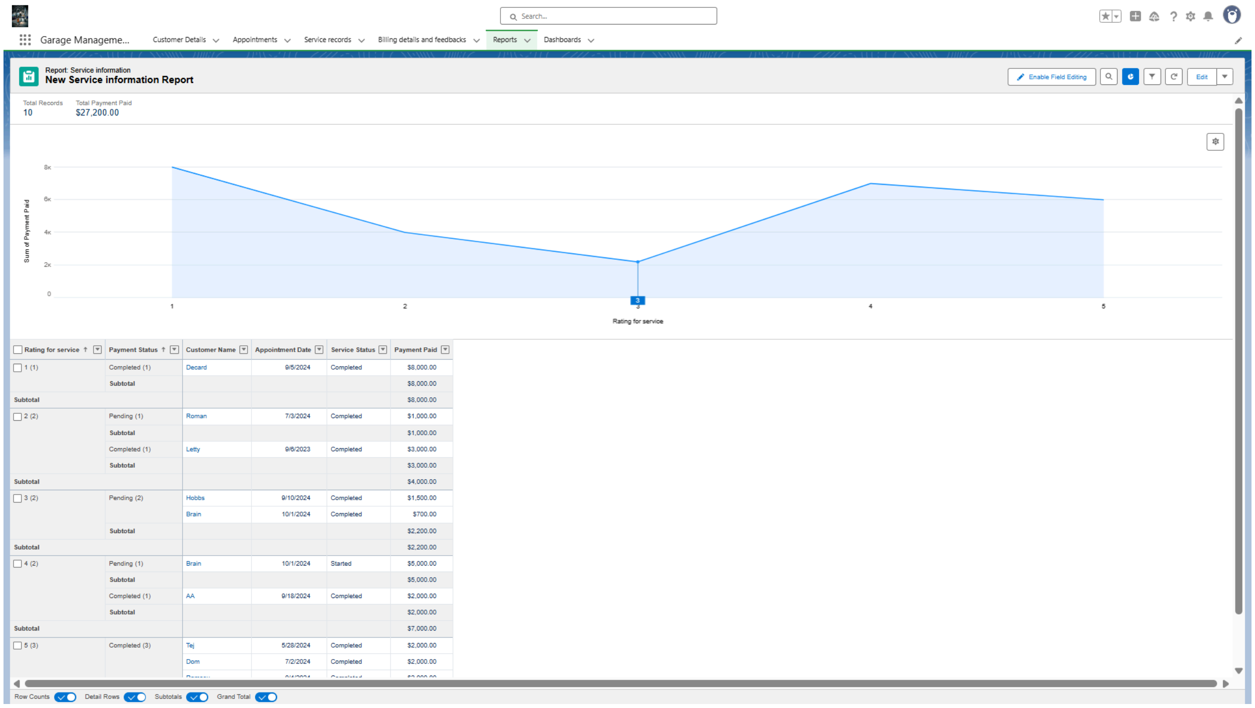


# Create a report type

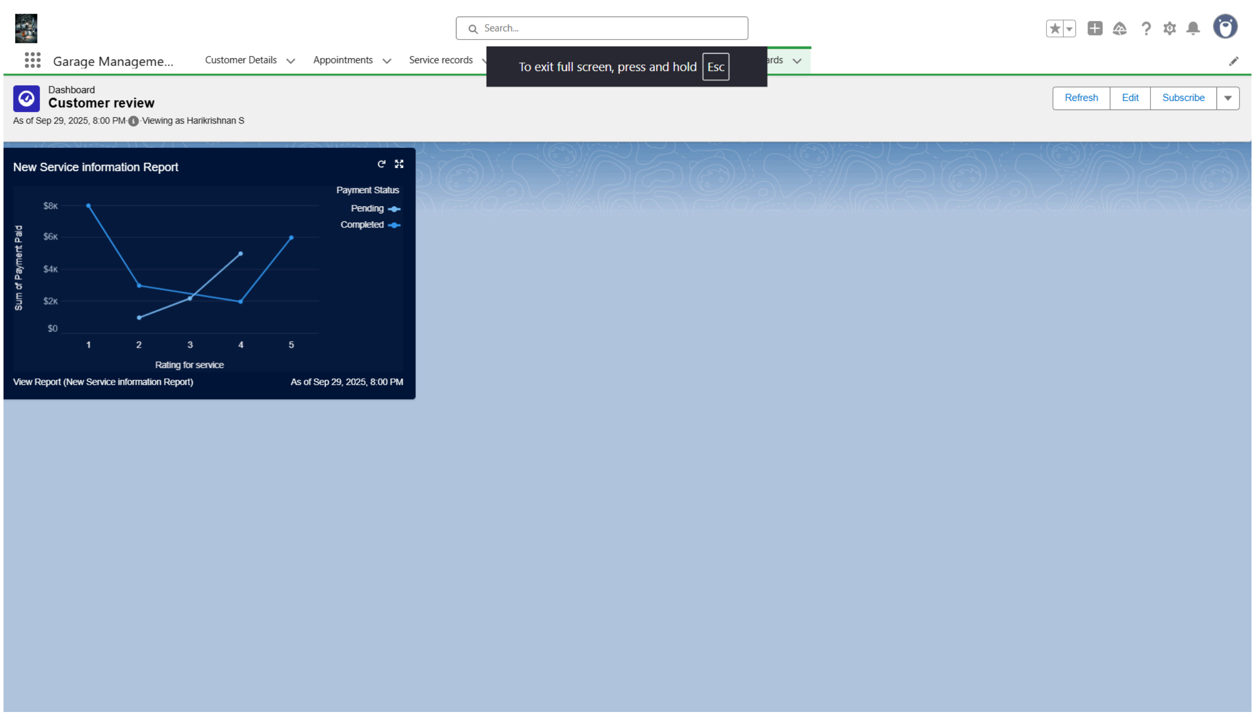


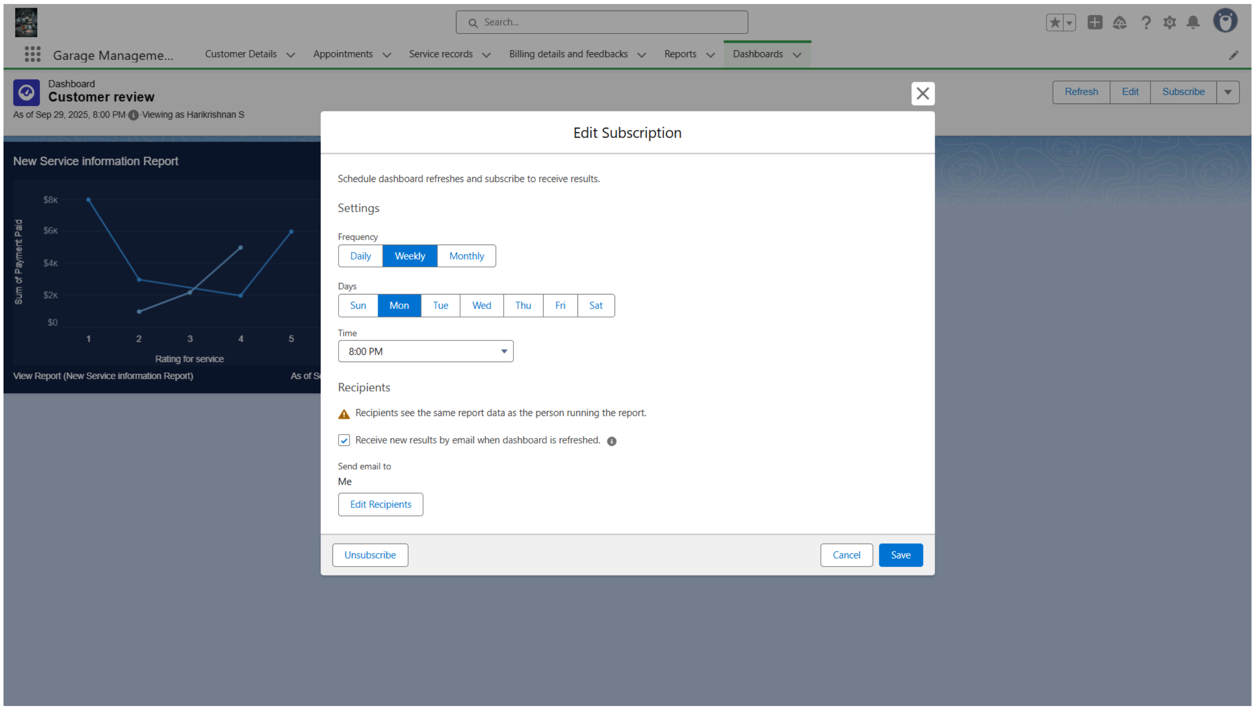



# Create a report

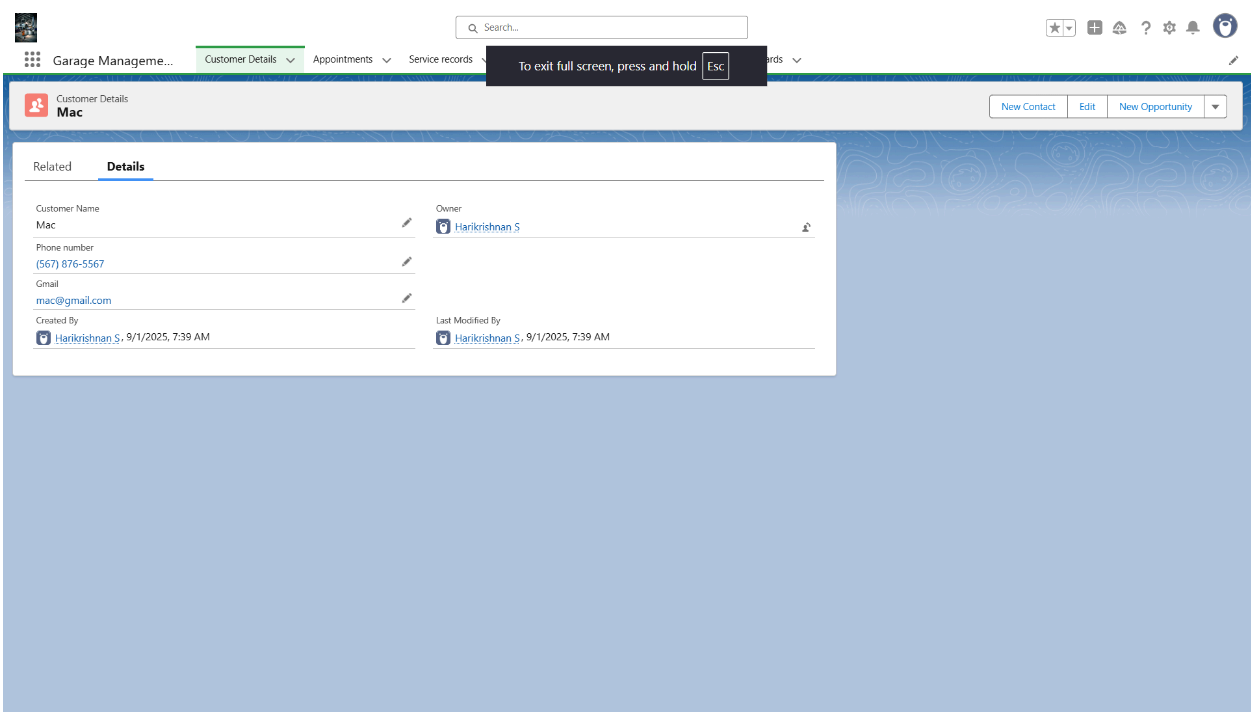


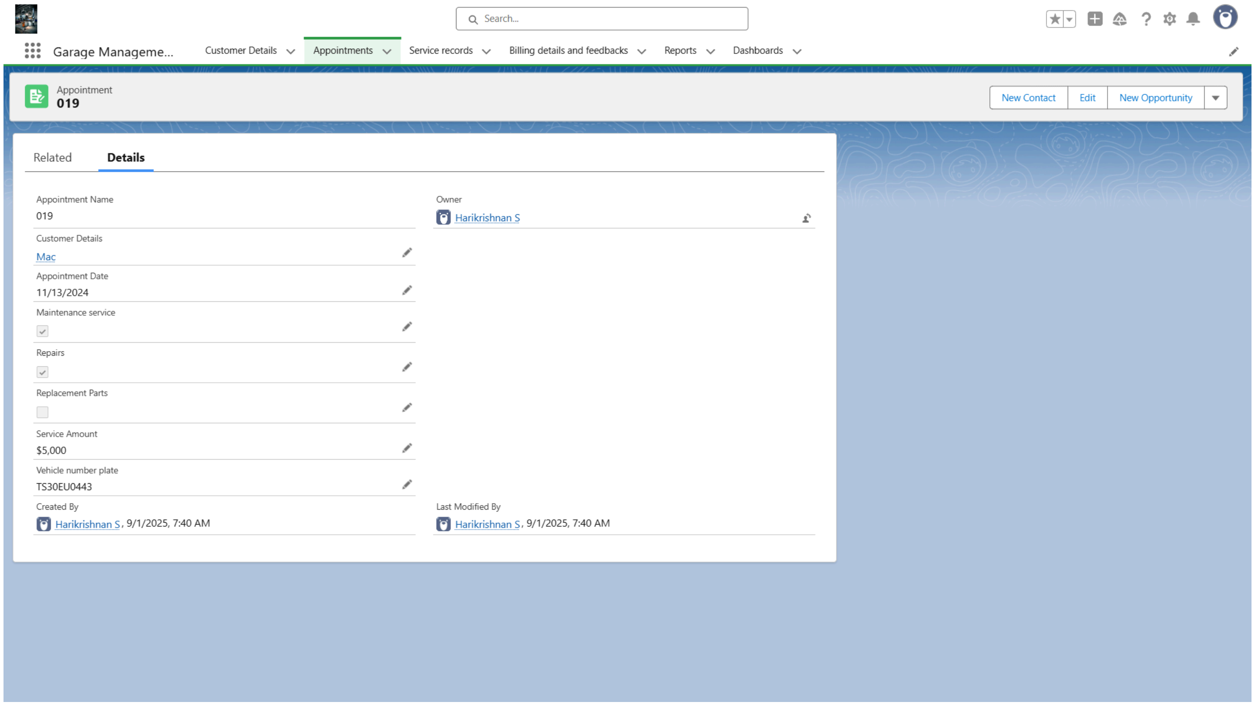

# Create a dashboard folder

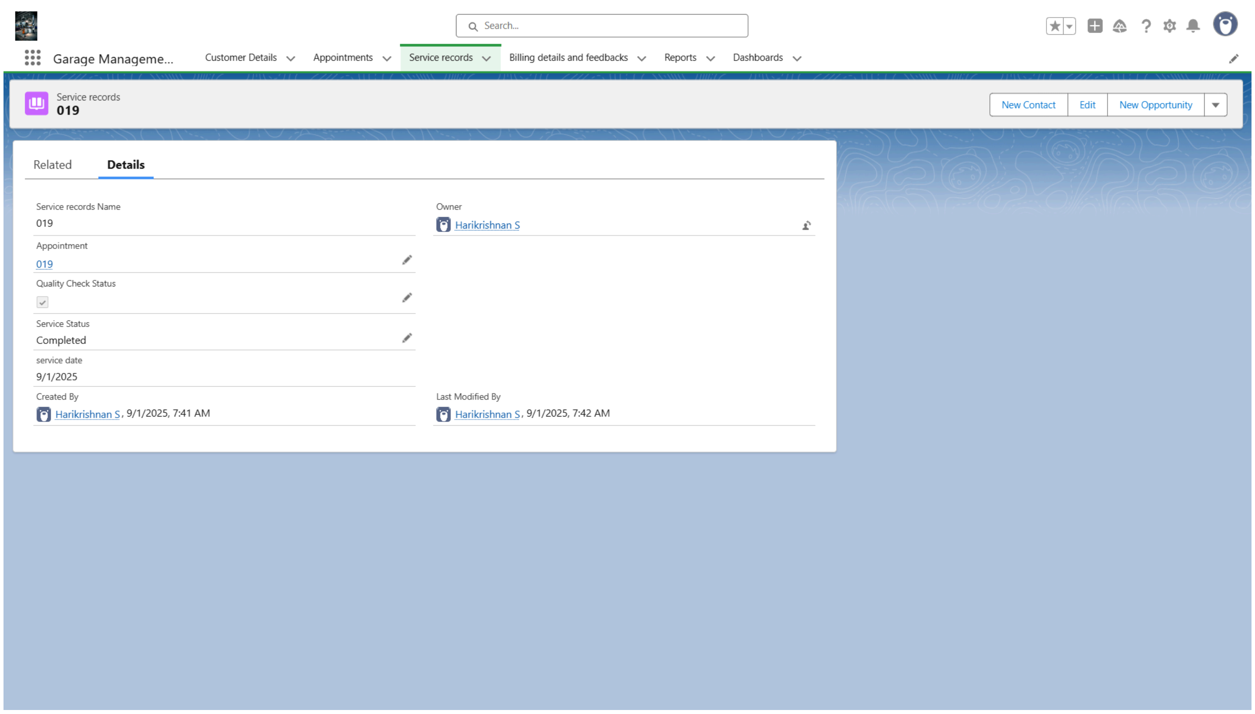





# Creating a records




Garage Manageme...
Customer Details
Appointments
Service records
Billing details and feedbacks
Reports
Dashboards
Appointment
019
New Contact
Edit
New Opportunity
Related
Details
Appointment Name
019
Owner
Harikrishnan S
Customer Details
Mac
Appointment Date
11/13/2024
Maintenance service
Repairs
Replacement Parts
Service Amount
$5,000
Vehicle number plate
TS30EU0443
Created By
Harikrishnan S, 9/1/2025, 7:40 AM
Last Modified By
Harikrishnan S, 9/1/2025, 7:40 AM


Garage Manageme...
Customer Details
Appointments
Service records
Billing details and feedbacks
Reports
Dashboards
Service records
019
New Contact
Edit
New Opportunity
Related
Details
Service records Name
019
Owner
Harikrishnan S
Appointment
019
Quality Check Status
Service Status
Completed
service date
9/1/2025
Created By
Harikrishnan S, 9/1/2025, 7:41 AM
Last Modified By
Harikrishnan S, 9/1/2025, 7:42 AM

# Testing and validation

## Unit Testing

- ❖ Comprehensive testing of individual components, including Apex classes and triggers, to ensure code accuracy and functionality.
- ❖ Each module will be tested in isolation to detect and fix issues at an early stage.

## User Interface Testing

- ❖ Ensure the user interface is user-friendly, responsive, and works on different devices (desktop, tablet, mobile).
- ❖ Validate the functionality of buttons, links, forms, and navigation.

## Key Scenarios Addressed by Salesforce in the Implementation Project

This section outlines the key scenarios that Salesforce addresses in the implementation of the Garage Management System:

- ❖ **Service Appointment Booking:** Customers can book appointments via a self-service portal.

- ❖ **Customer Communication:** Automated notifications and reminders are sent to customers.

- ❖ **Job Tracking:** Service advisors and technicians can track the status of jobs and update customers in real time.

- ❖ **Billing and Payments:** Generate invoices and process payments through an integrated payment gateway.

- **Customer Feedback Collection:** Customers provide feedback after service completion, which is used to improve service quality.

## Conclusion

The Garage Management System built on Salesforce provides a comprehensive platform for managing appointments, services, and billing. Through the use of custom objects, tabs, profiles, flows, validation rules, and Apex triggers, the system ensures smooth operations, efficient record management, and enhanced customer satisfaction. This project enables better tracking of garage operations, fosters data-driven decision-making, and supports the long-term growth of garage businesses.

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