GARAGE MANAGEMENT SYSTEM

College Name: SRI KRISHNA ADITHYA COLLEGE OF ARTS AND SCIENCE KOVAIPUTHUR, COIMBATORE.

College Code: 274

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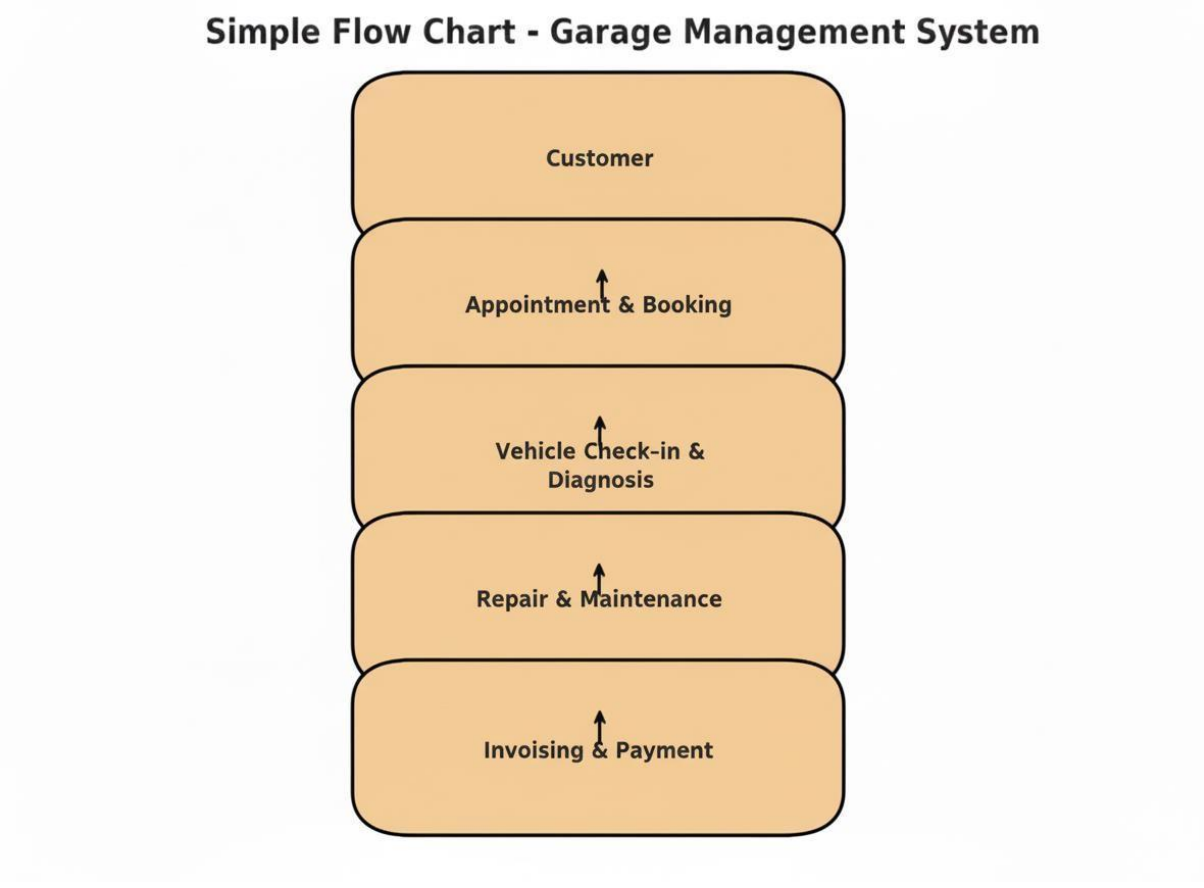
1. INTRODUCTION

1.1. Project Overview

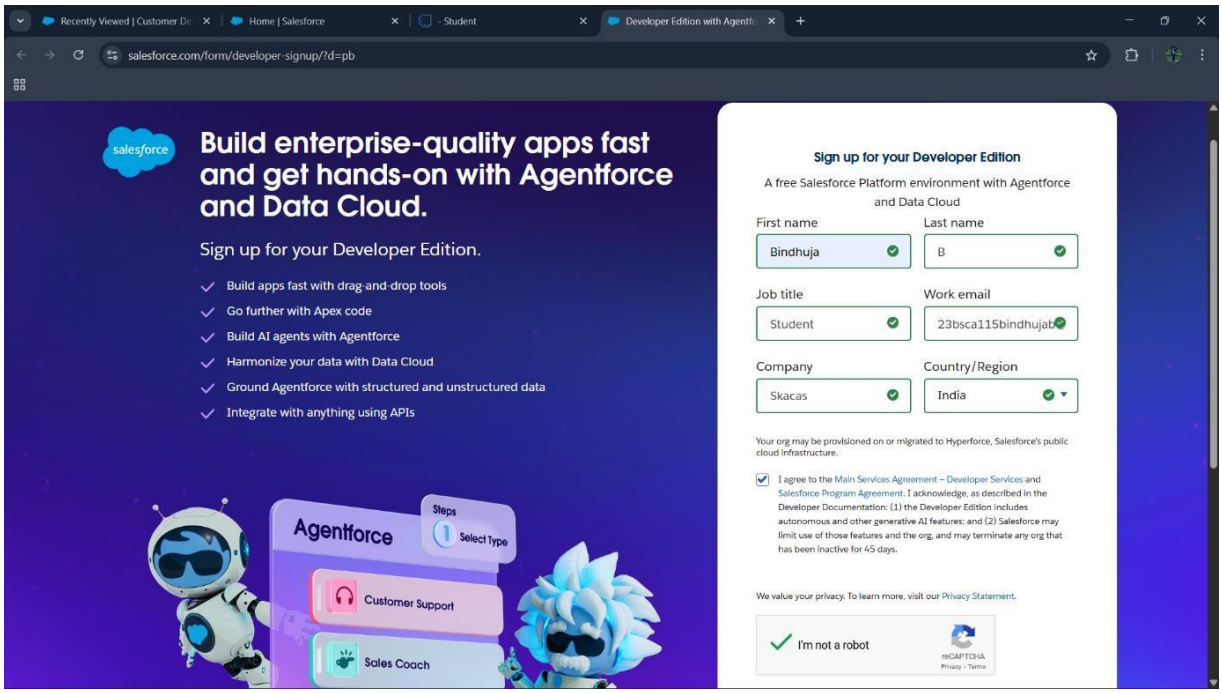
The Garage Management System is a valuable tool for automotive repair facilities, helping them deliver top-notch service, increase operational efficiency, and build lasting customer relationships. With its user-friendly interface and powerful features, GMS empowers garages to thrive in a competitive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



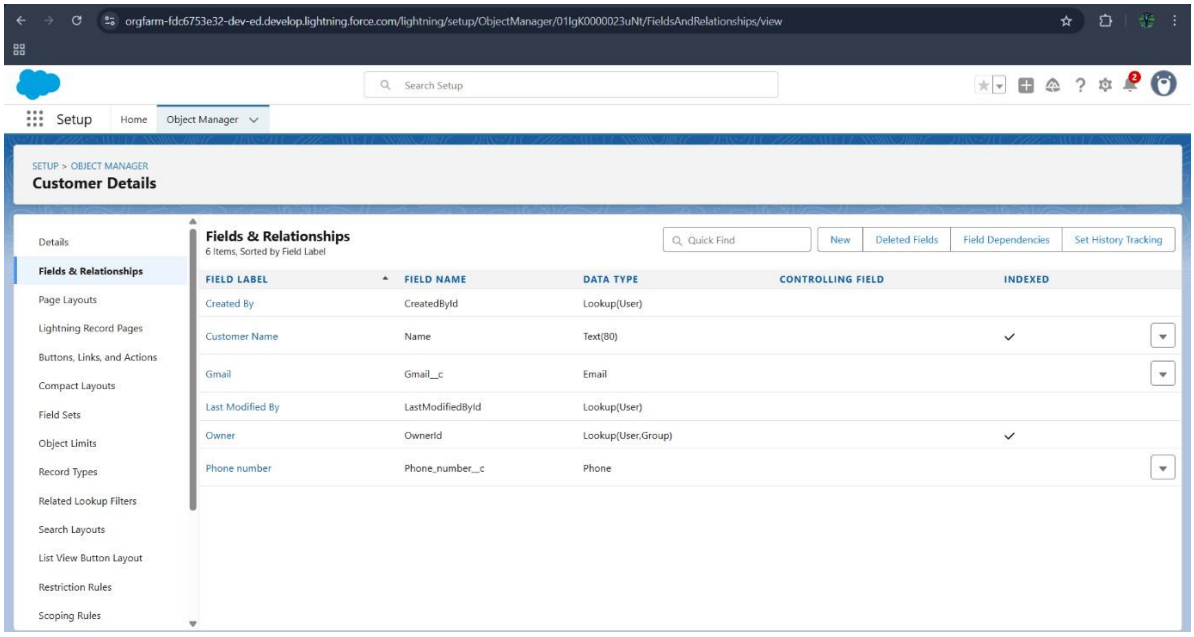
1.2 Purpose

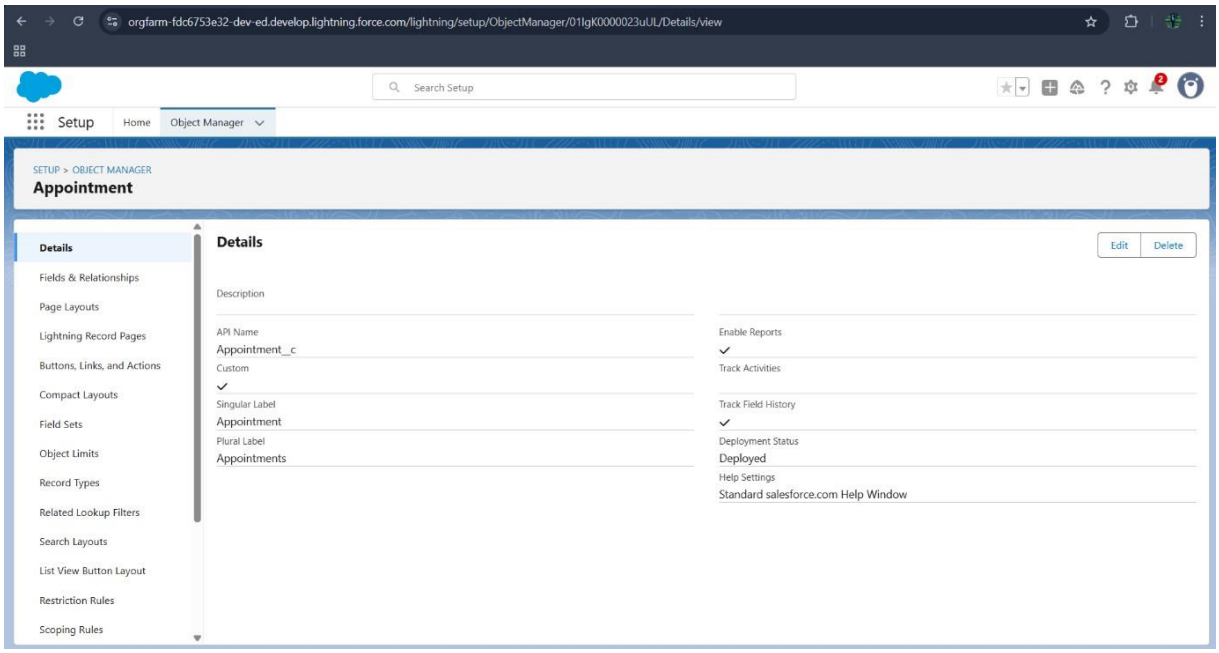
The purpose of the Garage Management System is to streamline and automate the day-to-day operations of automotive repair facilities. It ensures efficient handling of appointments, service tracking, billing, and customer interactions while minimizing manual errors. By providing better control over resources and enhancing transparency, the system helps improve customer satisfaction and supports garage staff and managers in delivering reliable and timely services.

DEVELOPMENT PHASE



- **Created objects: Customer Details,Appointment,Service Records & Billings and feedback**

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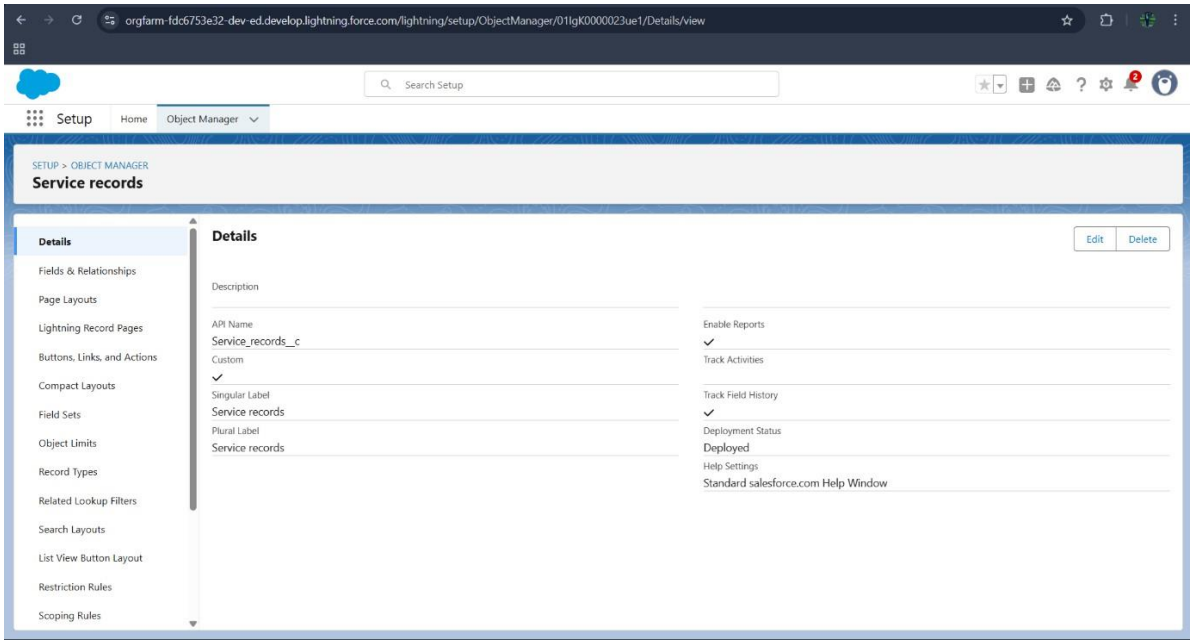
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Appointment
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Details
Edit
Delete
Description
API Name
Appointment__c
Custom
Singular Label
Appointment
Plural Label
Appointments
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window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Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
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Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Details
Edit
Delete
Description
API Name
Service_records__c
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Service records
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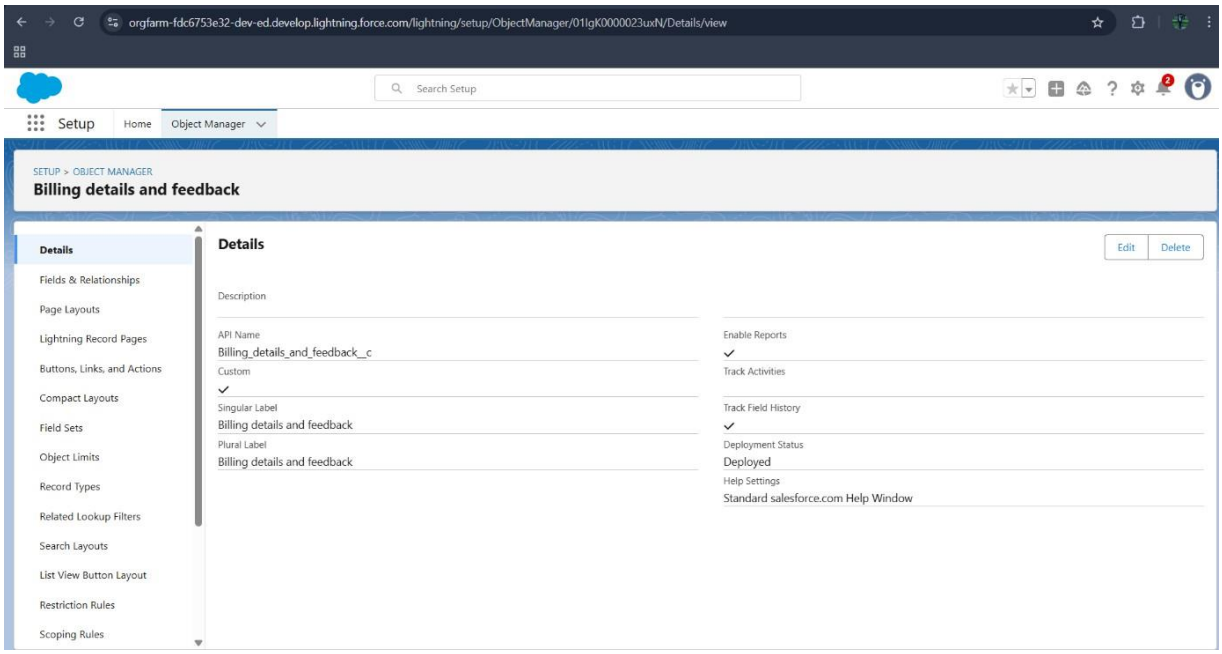
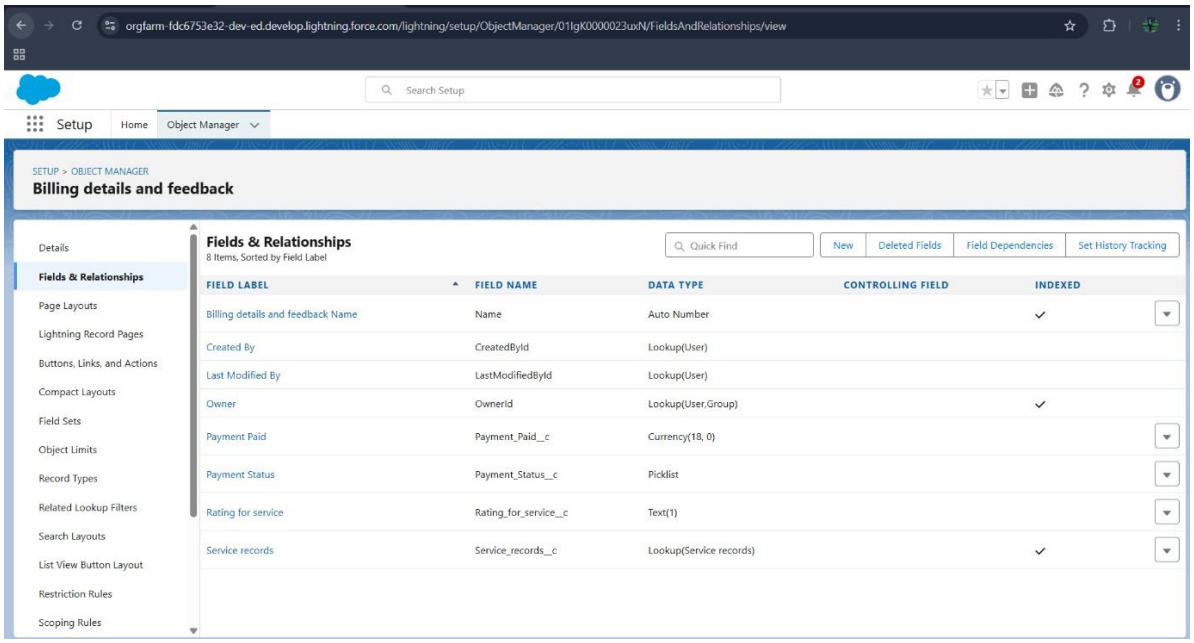
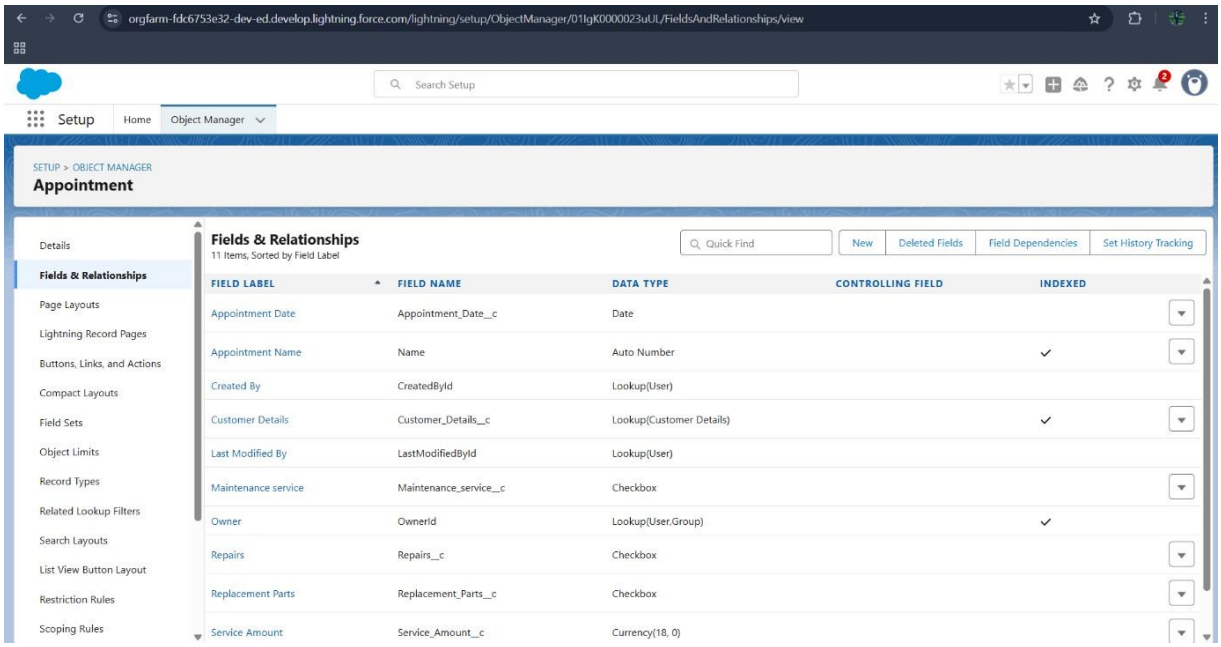
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window



- **Configured fields and relationship :**

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Appointment
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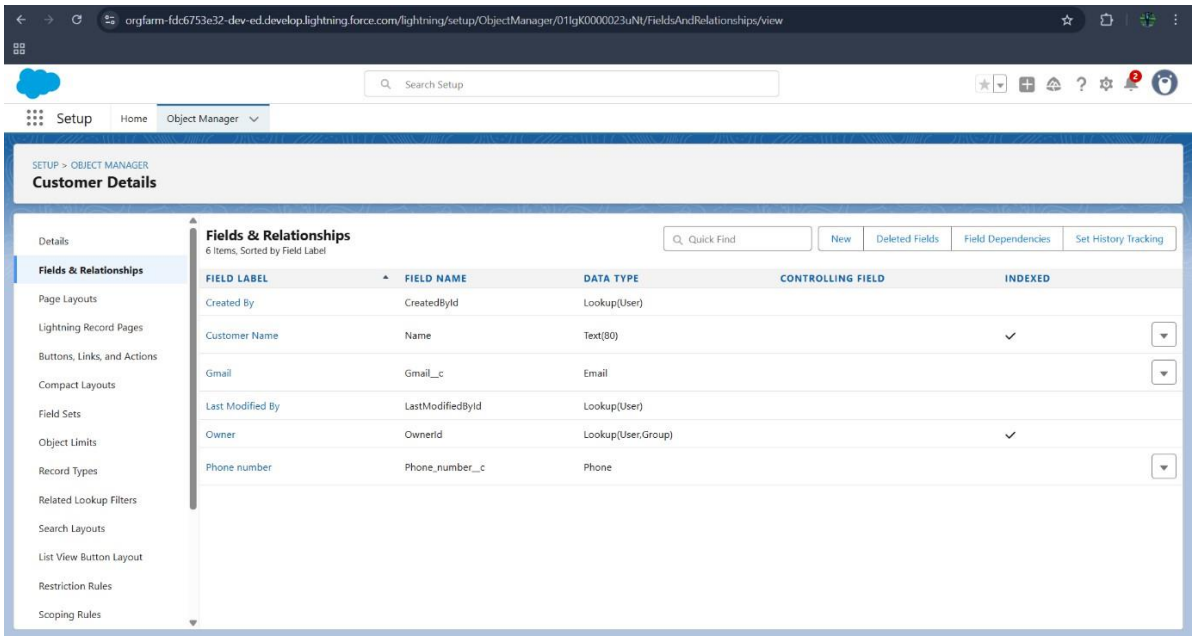
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Fields & Relationships
11 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Appointment Date
Appointment_Date__c
Date
Appointment Name
Name
Auto Number
Created By
CreatedById
Lookup(User)
Customer Details
Customer_Details__c
Lookup(Customer Details)
Last Modified By
LastModifiedById
Lookup(User)
Maintenance service
Maintenance_service__c
Checkbox
Owner
OwnerId
Lookup(User,Group)
Repairs
Repairs__c
Checkbox
Replacement Parts
Replacement_Parts__c
Checkbox
Service Amount
Service_Amount__c
Currency(18, 0)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Search Setup
Setup
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Object Manager
SETUP > OBJECT MANAGER
Customer Details
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
Fields & Relationships
6 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)
Customer Name
Name
Text(80)
Gmail
Gmail__c
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LastModifiedById
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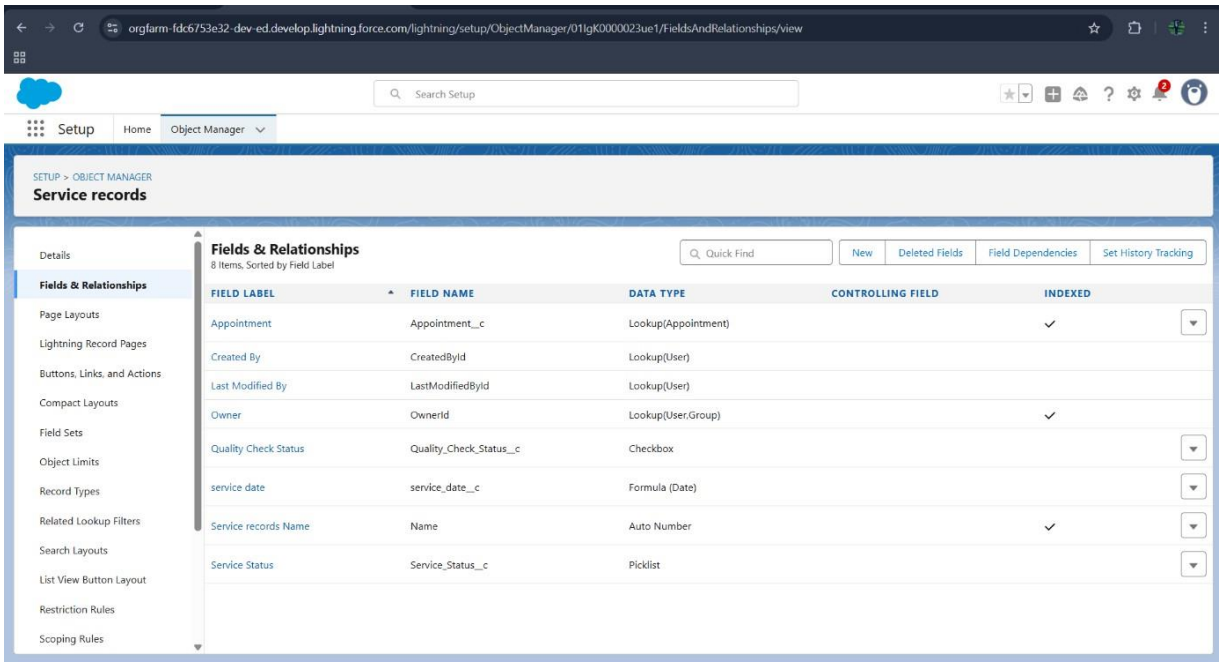
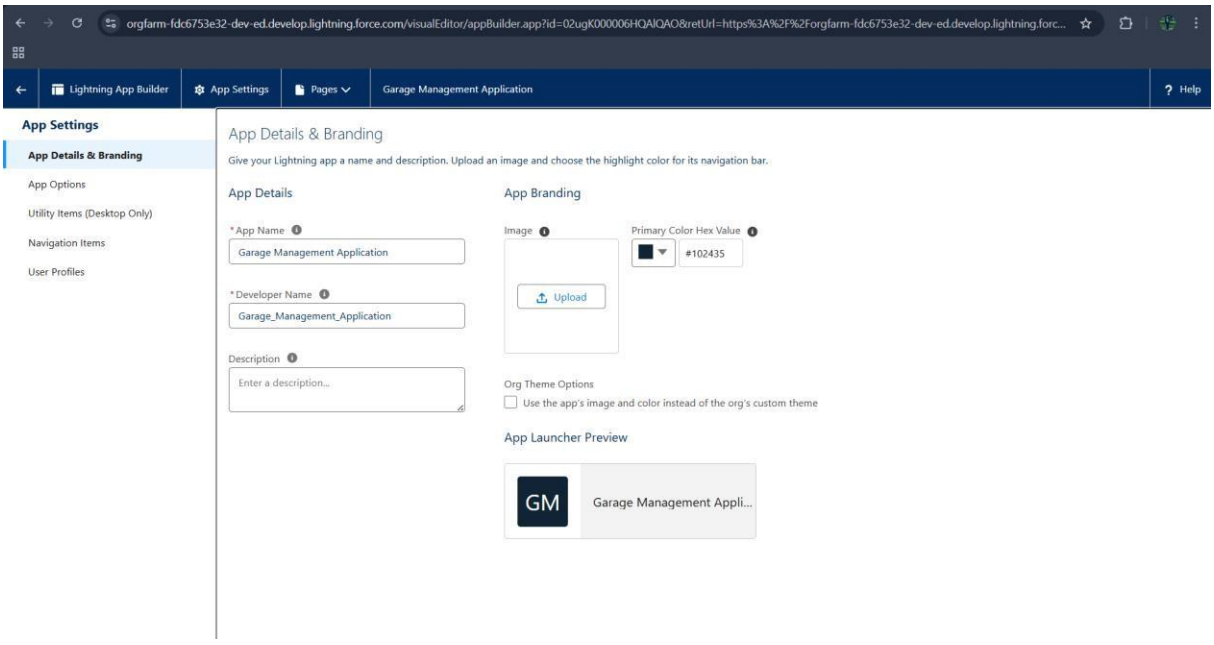
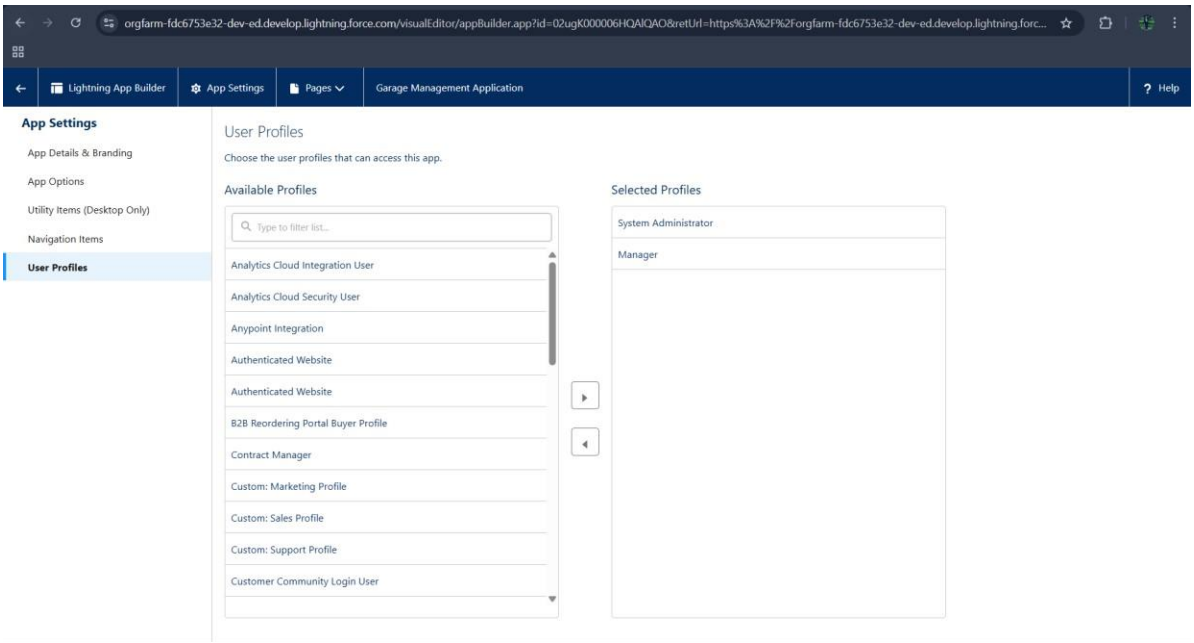
Owner
OwnerId
Lookup(User,Group)
Phone number
Phone_number__c
Phone



- **Developed Lighting App with relevant tabs**

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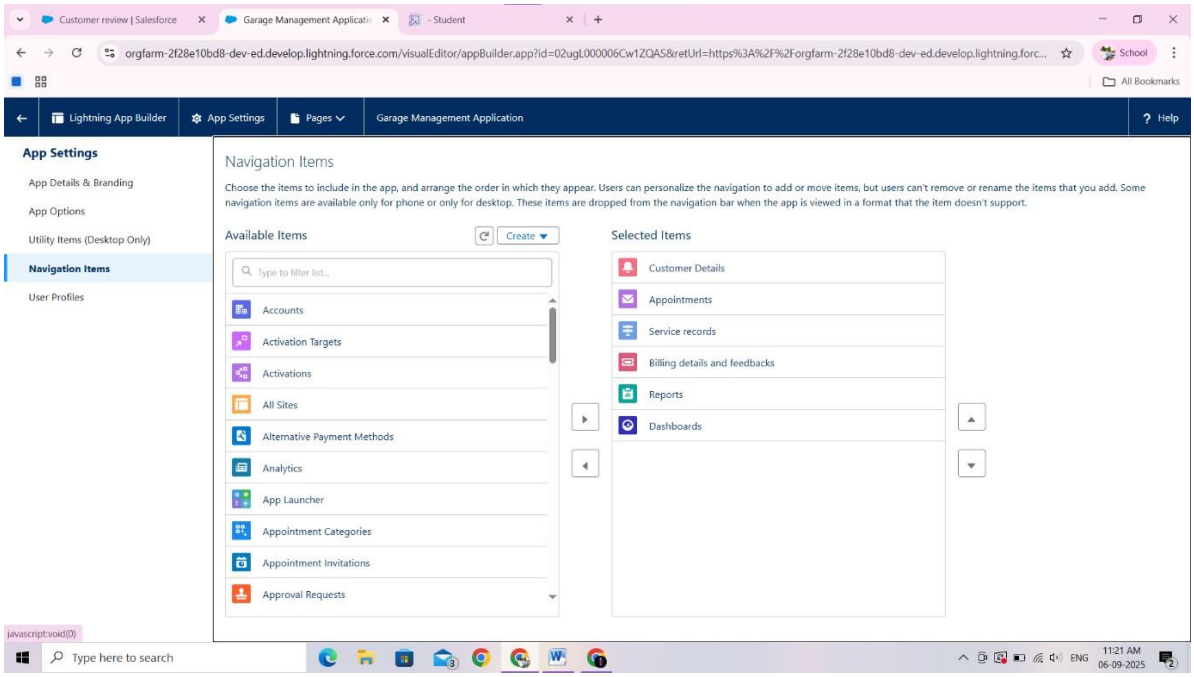
Lightning App Builder
App Settings
Pages
Garage Management Application
Help
App Settings
App Details & Branding
App Options
Utility Items (Desktop Only)
Navigation Items
User Profiles
User Profiles
Choose the user profiles that can access this app.
Available Profiles
Type to filter list...
Analytics 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
Selected Profiles
System Administrator
Manager


Customer review | Salesforce
Garage Management Applicati
- Student
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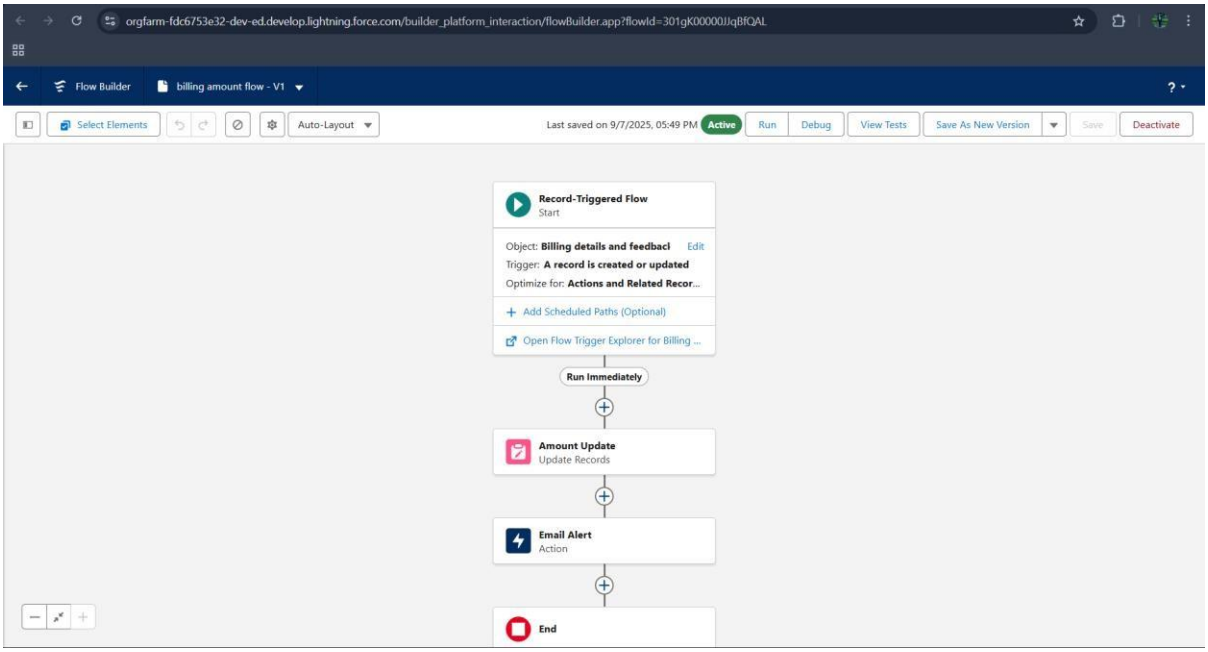
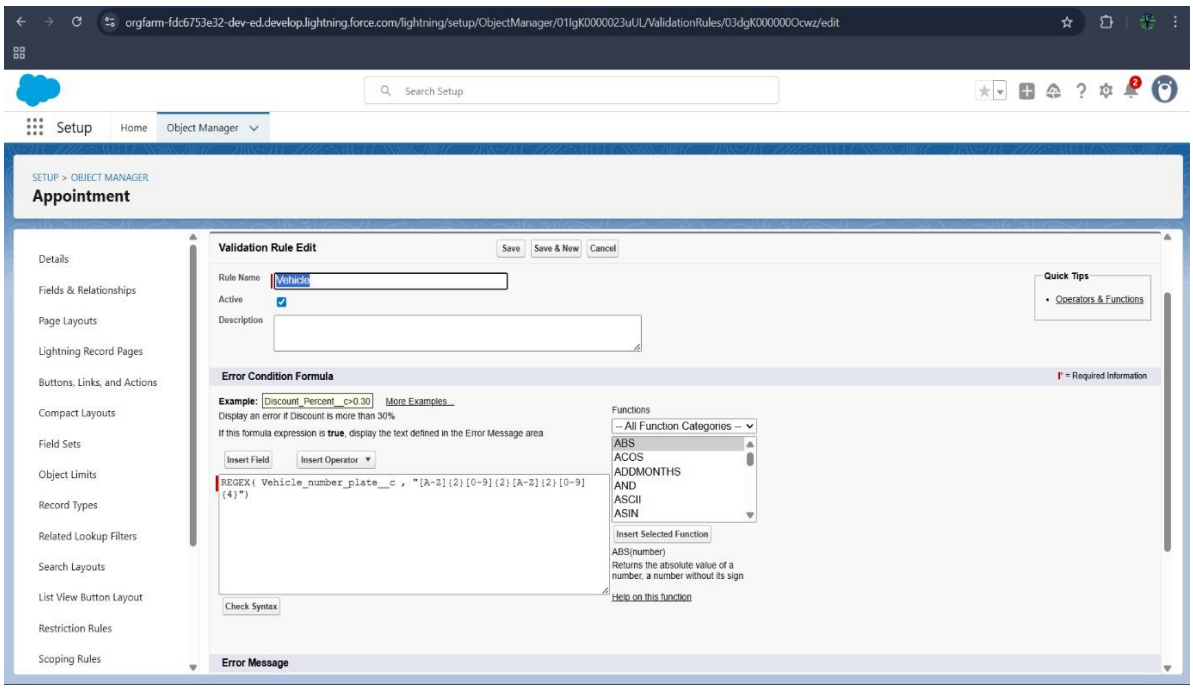
School
All Bookmarks
Lightning App Builder
App Settings
Pages
Garage Management Application
Help
App Settings
App Details & Branding
App Options
Utility Items (Desktop Only)
Navigation Items
User Profiles
Navigation Items
Choose the items to include in the app, and arrange the order in which they appear. 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
Selected Items
Customer Details
Appointments
Service records
Billing details and feedbacks
Reports
Dashboards
javascript:void(0)
Type here to search
ENG
11:21 AM
06-09-2025

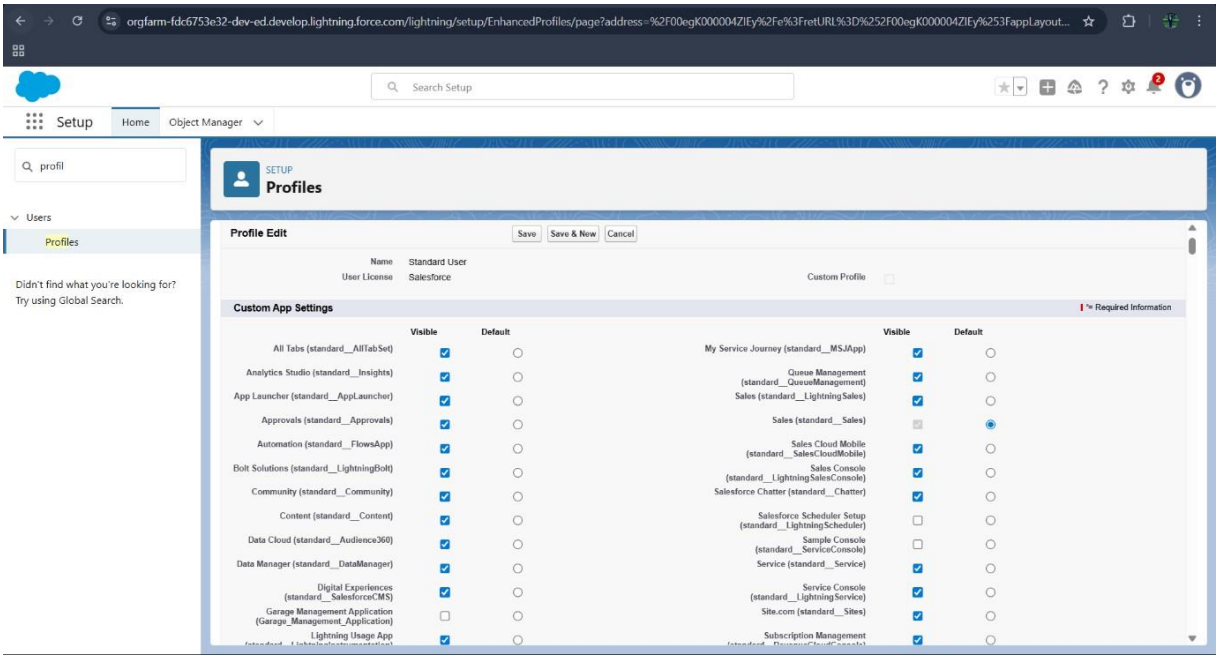
- **Implemented flow for billing and feedback and update amount :**

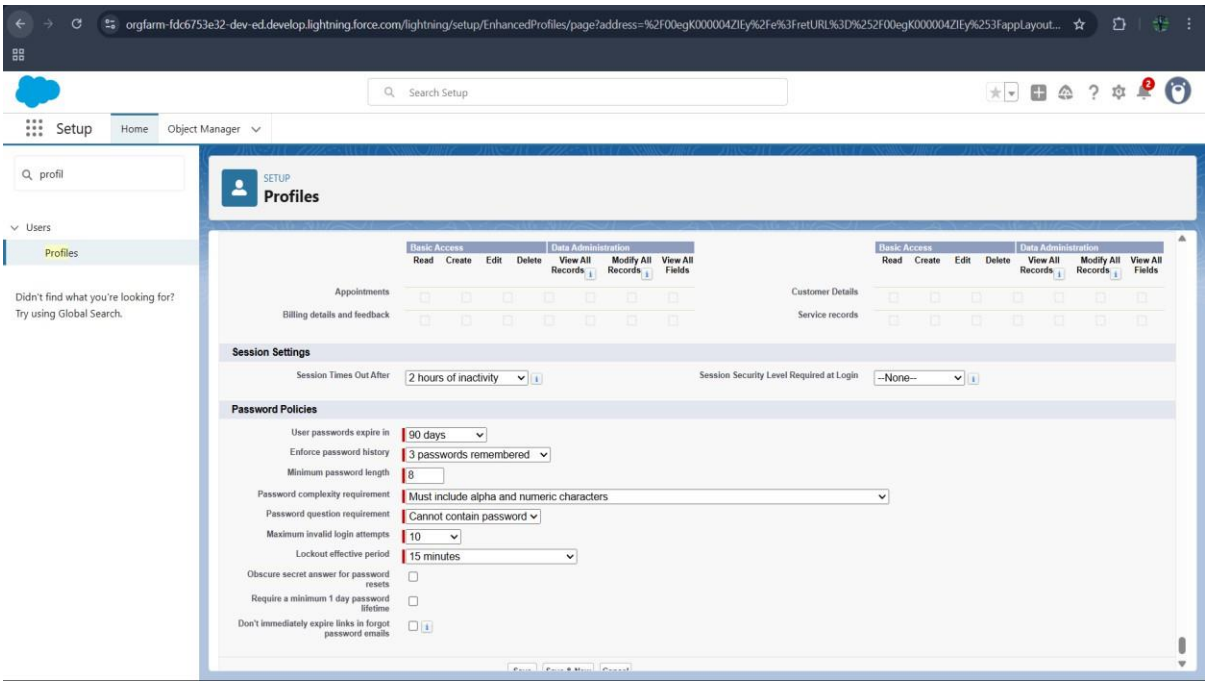


- **To create a validation rules for the objects :**



- **Profiles :**


Setup
Home
Object Manager
Search Setup
profil
Users
Profiles
Didn't find what you're looking for?
Try using Global Search.
SETUP
Profiles
Profile Edit
Save
Save & New
Cancel
Name
Standard User
User License
Salesforce
Custom Profile
Custom App Settings
Required Information
Visible
Default


Setup
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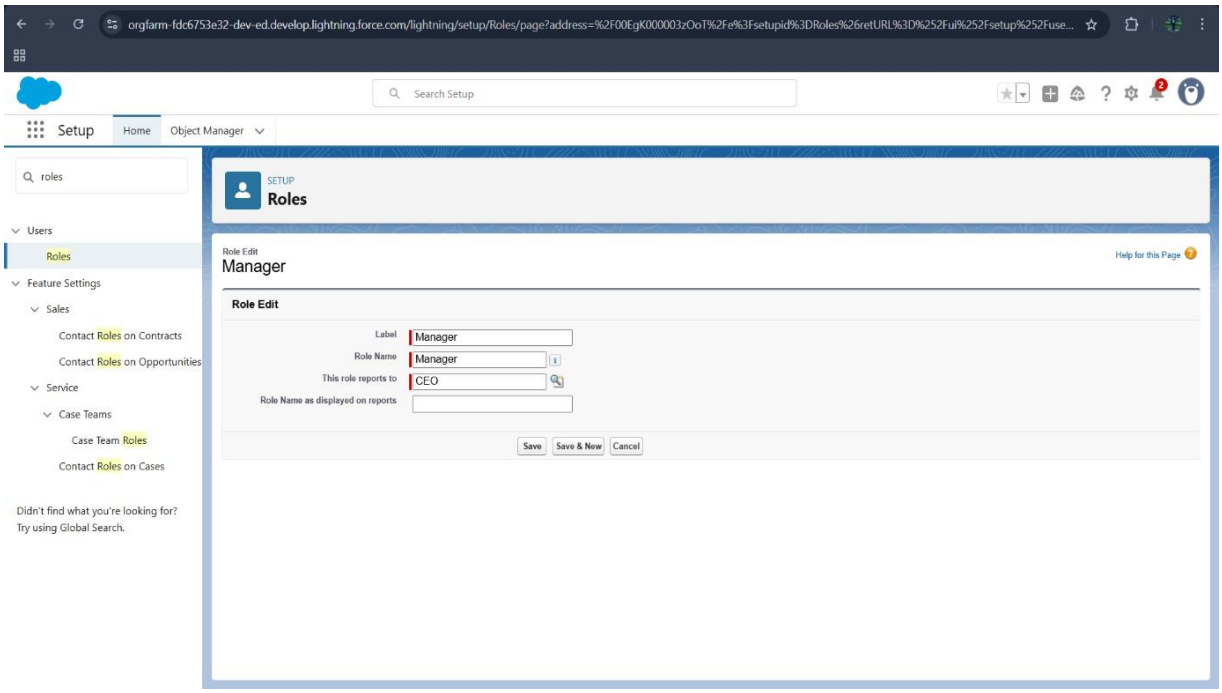
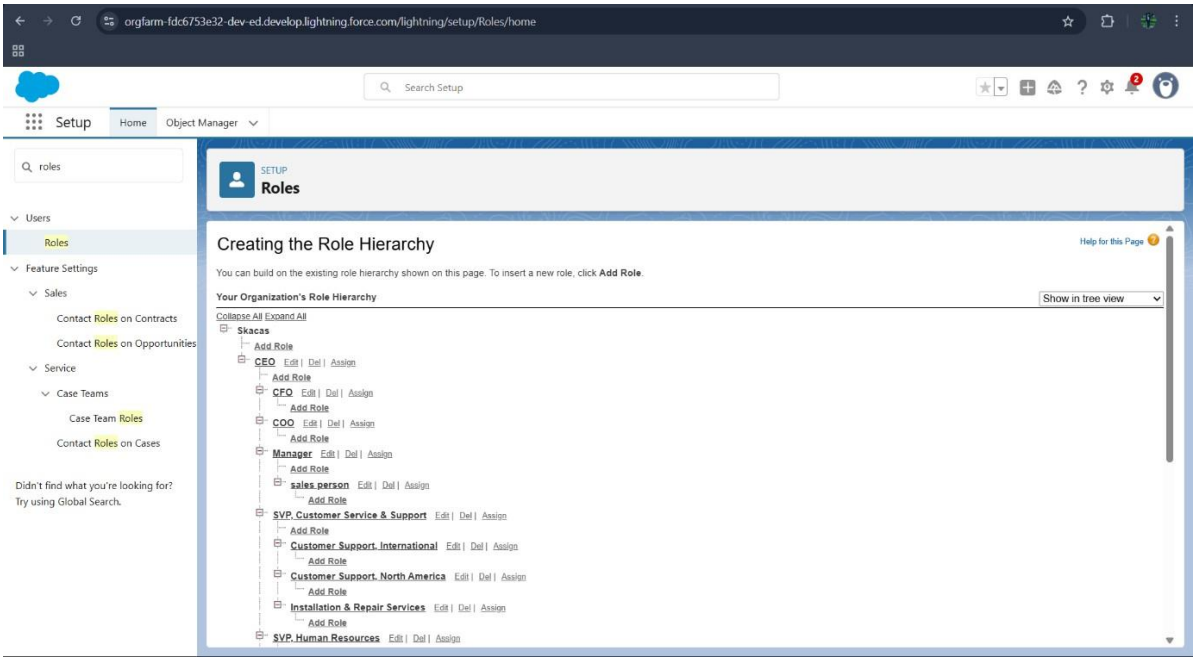
Profiles
Didn't find what you're looking for?
Try using Global Search.
SETUP
Profiles
Basic Access
Data Administration
Read
Create
Edit
Delete
View All Records
Modify All Records
View All Fields
Appointments
Billing details and feedback
Customer Details
Service records
Session Settings
Session Times 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

- **Roles :**


Setup
Home
Object Manager
roles
Users
Roles
Feature Settings
Sales
Contact Roles on Contracts
Contact Roles on Opportunities
Service
Case Teams
Case Team Roles
Contact Roles on Cases
Didn't find what you're looking for?
Try using Global Search.
SETUP
Roles
Role Edit
Manager
Help for this Page
Role Edit
Label
Manager
Role Name
Manager
This role reports to
CEO
Role Name as displayed on reports
Save
Save & New
Cancel


Setup
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Roles
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Sales
Contact Roles on Contracts
Contact Roles on Opportunities
Service
Case Teams
Case Team Roles
Contact Roles on Cases
Didn't find what you're looking for?
Try using Global Search.
SETUP
Roles
Creating the Role Hierarchy
Help for this Page
You can build on the existing role hierarchy shown on this page. To insert a new role, click Add Role.
Your Organization's Role Hierarchy
Show in tree view
Collapse All Expand All
Skacas
Add Role
CEO Edit | Del | Assign
Add Role
CFO Edit | Del | Assign
Add Role
COO Edit | Del | Assign
Add Role
Manager Edit | Del | Assign
Add Role
sales person Edit | Del | Assign
Add Role
SVP, Customer Service & Support Edit | Del | Assign
Add Role
Customer Support, International Edit | Del | Assign
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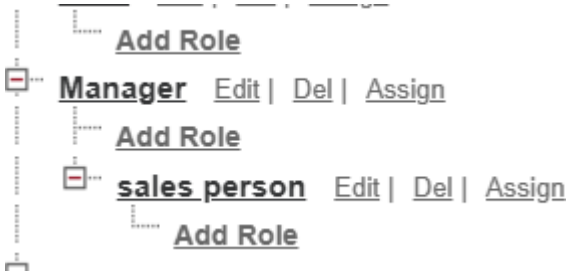
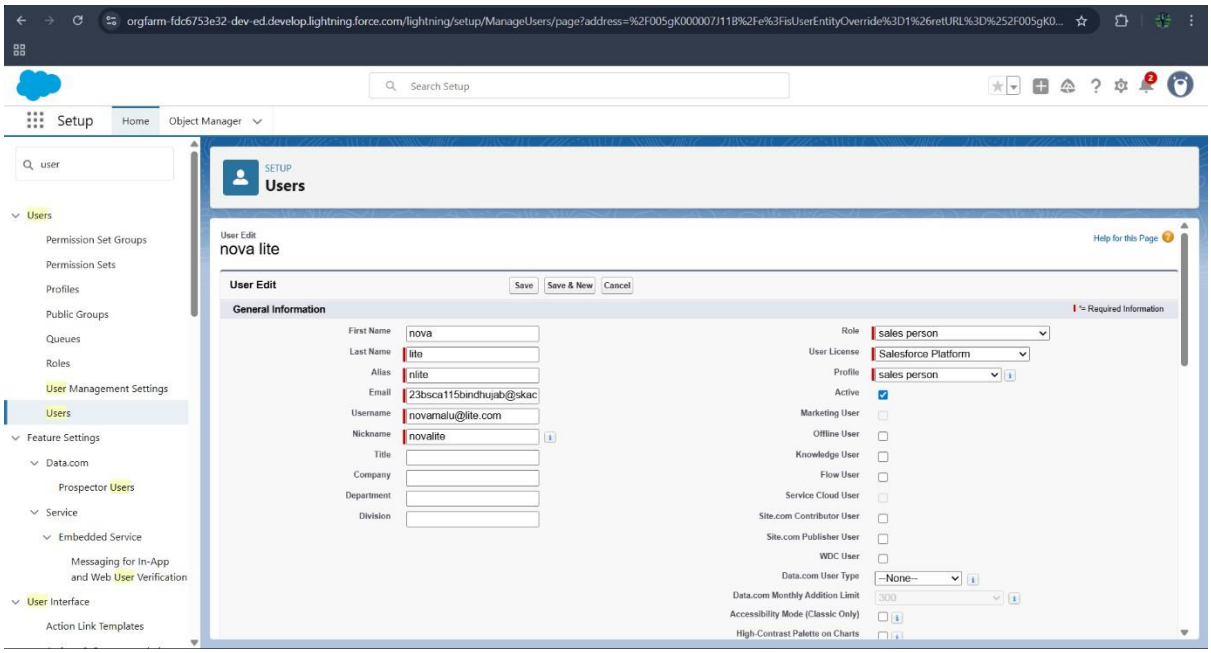
Customer Support, North America Edit | Del | Assign
Add Role
Installation & Repair Services Edit | Del | Assign
Add Role
SVP, Human Resources Edit | Del | Assign


Add Role
Manager Edit | Del | Assign
Add Role
sales person Edit | Del | Assign
Add Role

- **User**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Search Setup
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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
SETUP
Users
User Edit
nova lite
Help for this Page
User Edit
Save
Save & New
Cancel
General Information
* = Required Information
First Name
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Last Name
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Alias
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23bsca115bindhujab@skac
Username
novamalu@lite.com
Nickname
novalite
Title
Company
Department
Division
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
Data.com User Type
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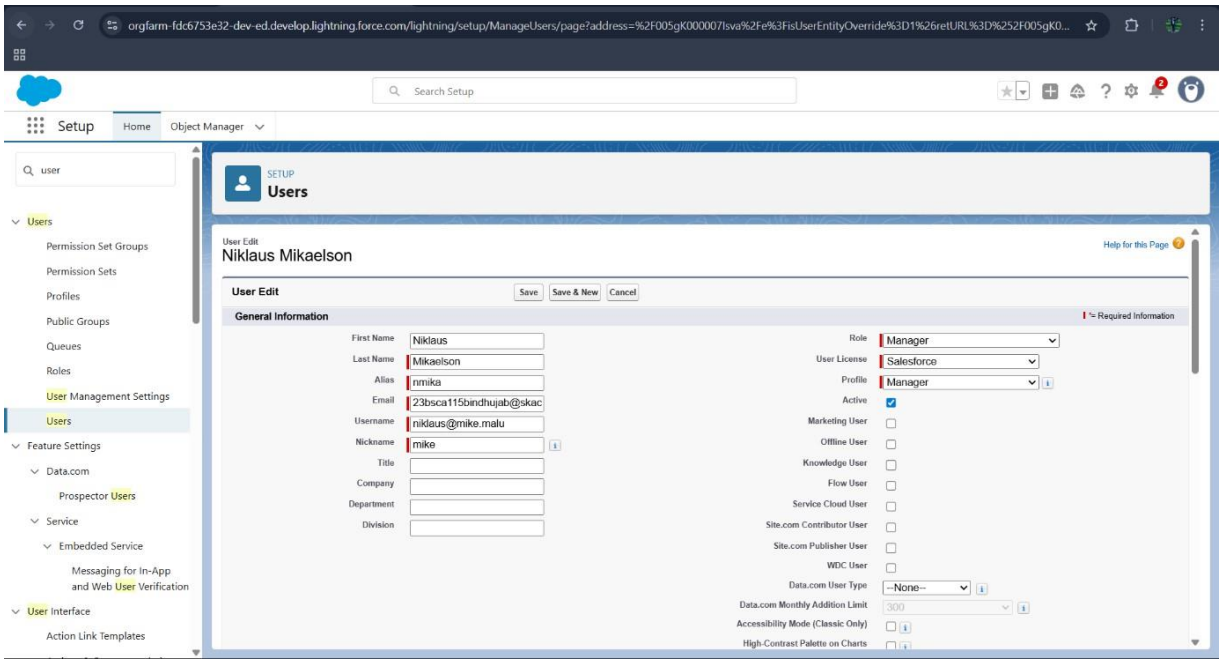
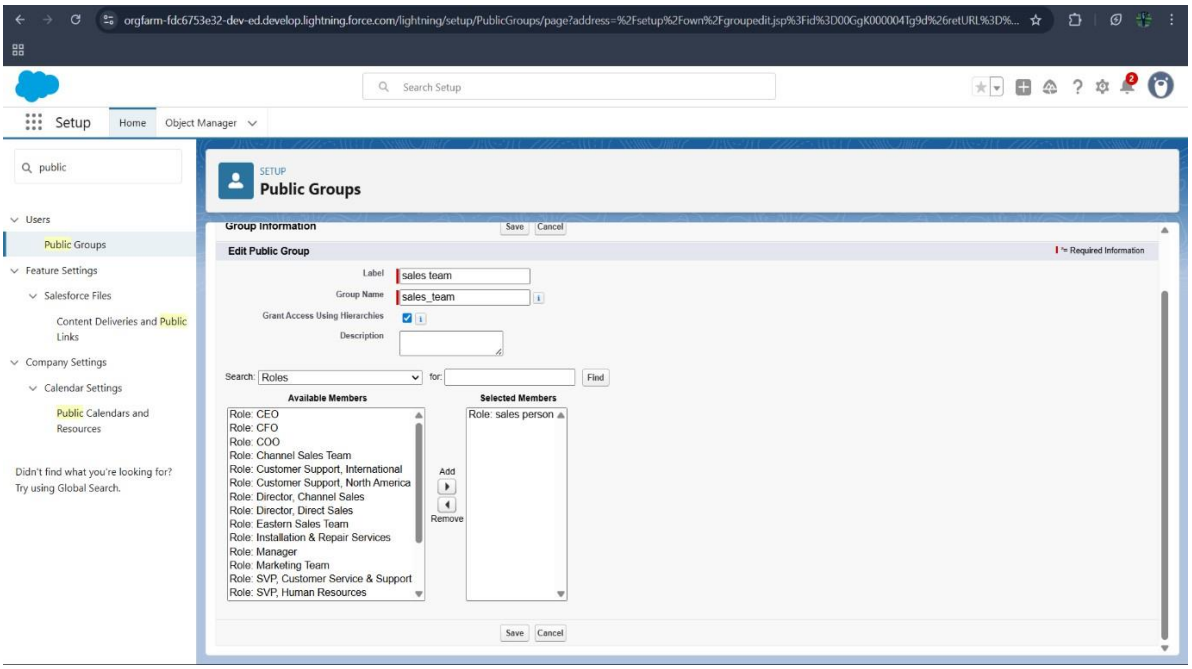
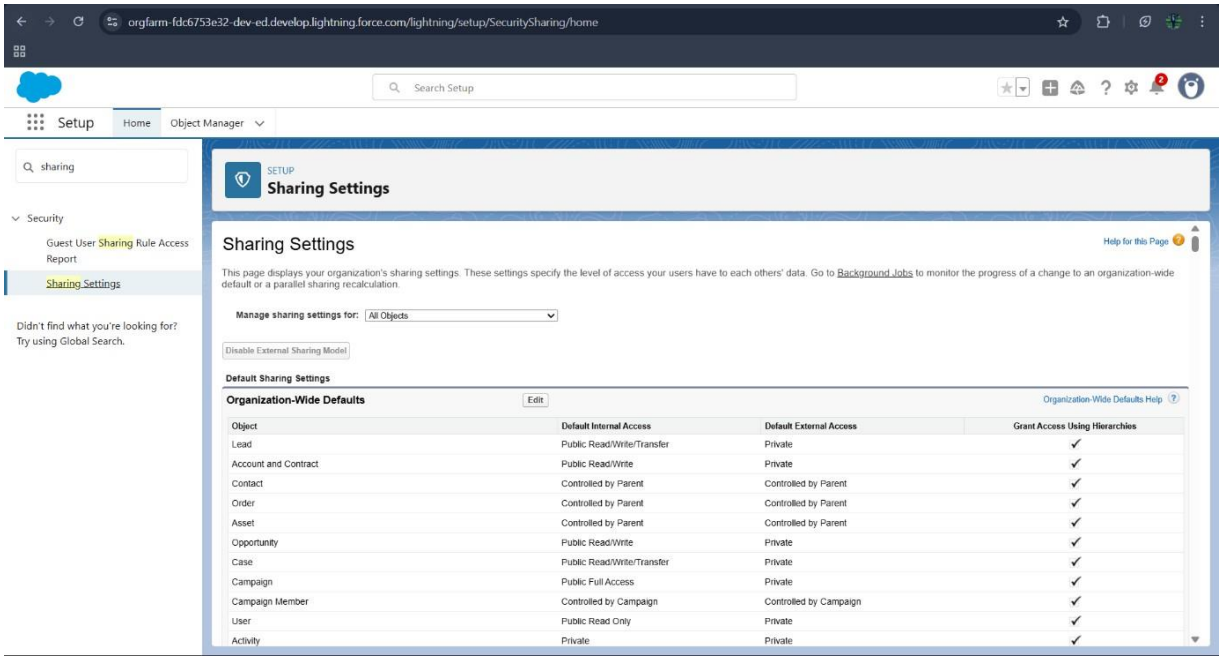
Data.com Monthly Addition Limit
300
Accessibility Mode (Classic Only)
High-Contrast Palette on Charts



- **Public Group :**



- **Share Setting**



- **Apex handler**

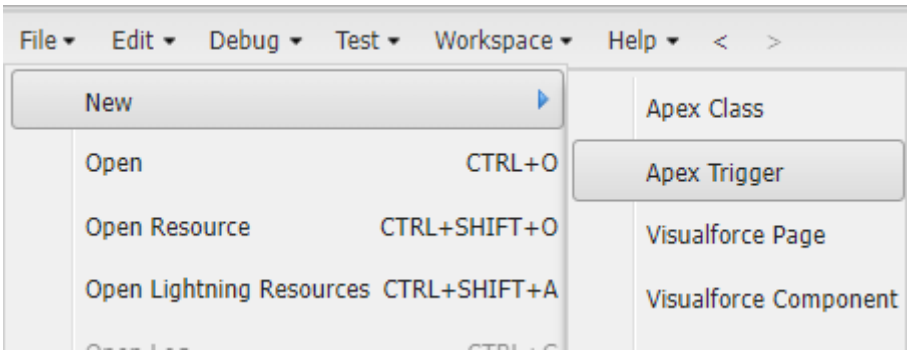
Code :

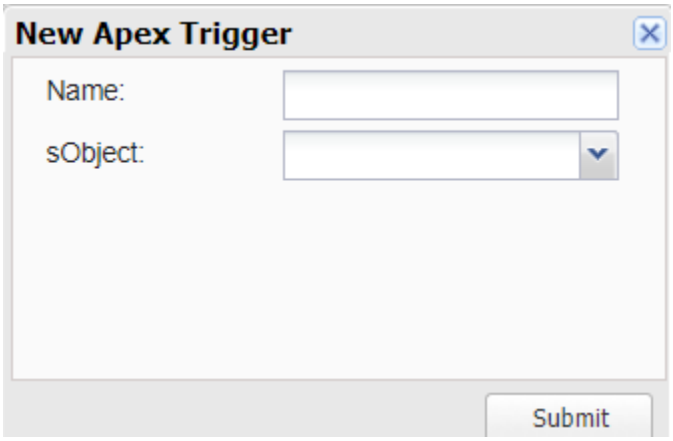
```
public class AmountDistributionHandler {

    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;
        }

   }
   }
}
```

How to create a new trigger :

1. While still in the trailhead account, navigate to the gear icon in the top right corner.
2. Click on developer console and you will be navigated to a new console window.
3. Click on File menu in the tool bar, and click on new? Trigger.
4. Enter the trigger name and the object to be triggered.
5. Name : AmountDistribution
6. sObject : Appointment__c

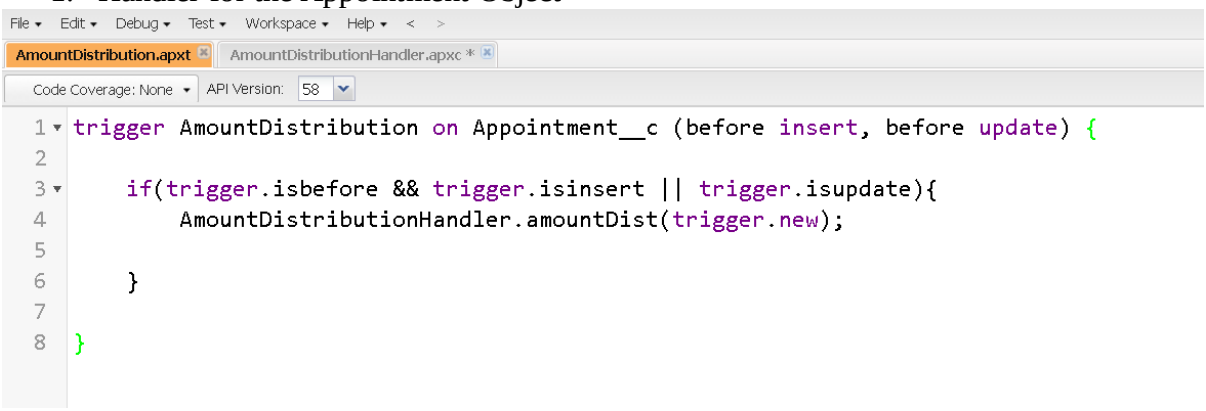




Syntax For creating trigger :

The syntax for creating trigger is :
Trigger [trigger name] on [object name](Before/After event)
{
}
In this project , trigger is called whenever the particular records sum exceed the threshold i.e minimum business requirement value. Then the code in the trigger will get executed.

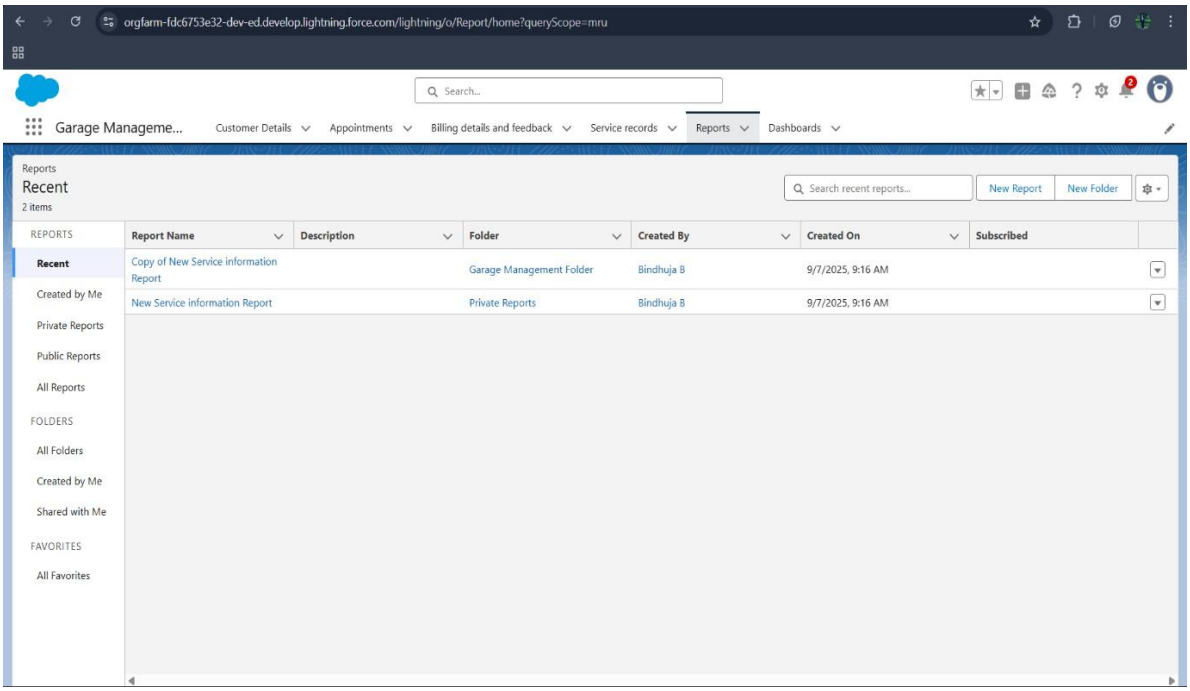
1. Handler for the Appointment Object



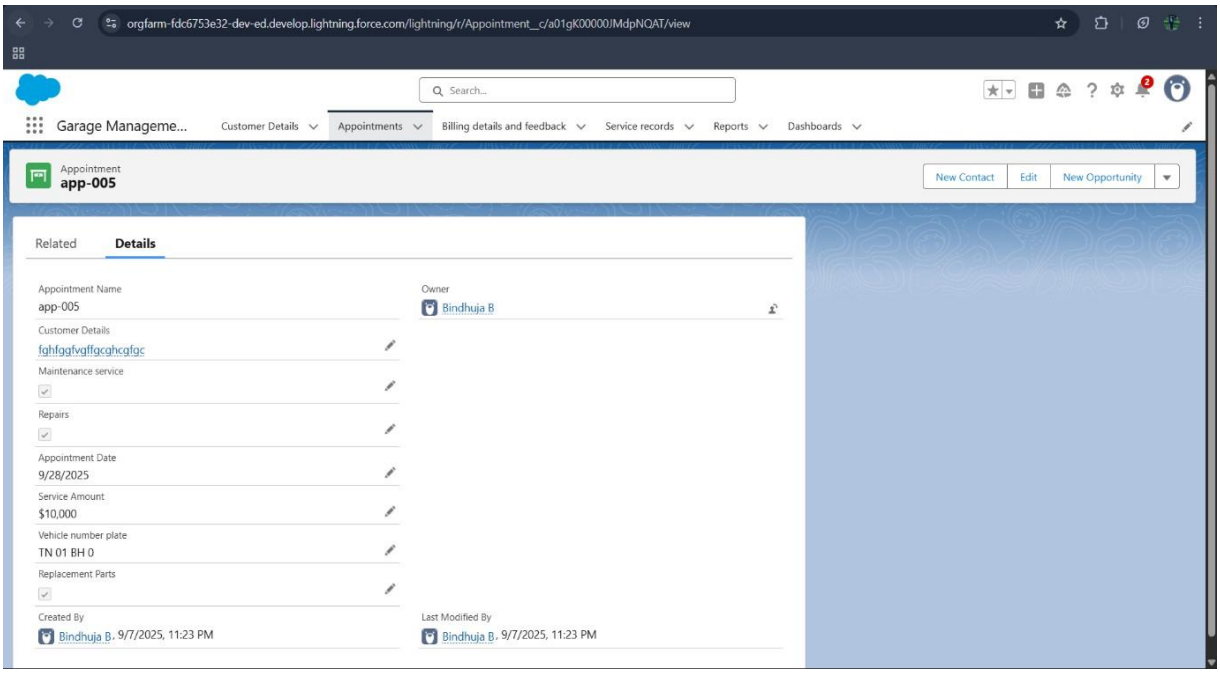
Code:

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

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

    }

}
```

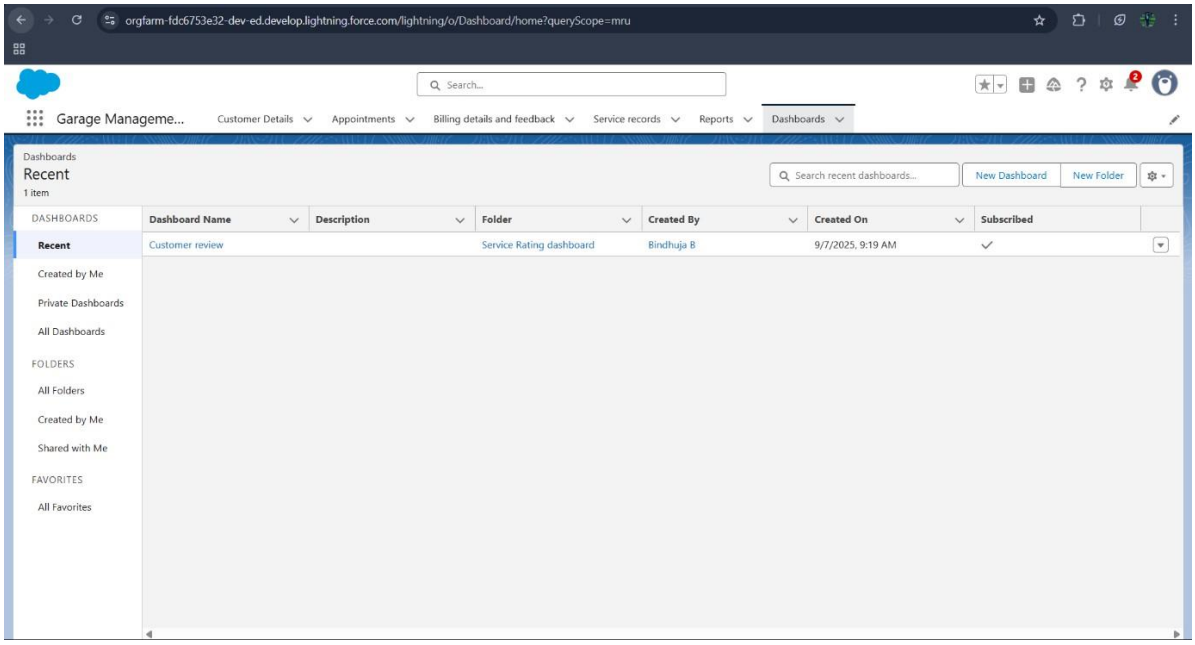
- **Reports :**



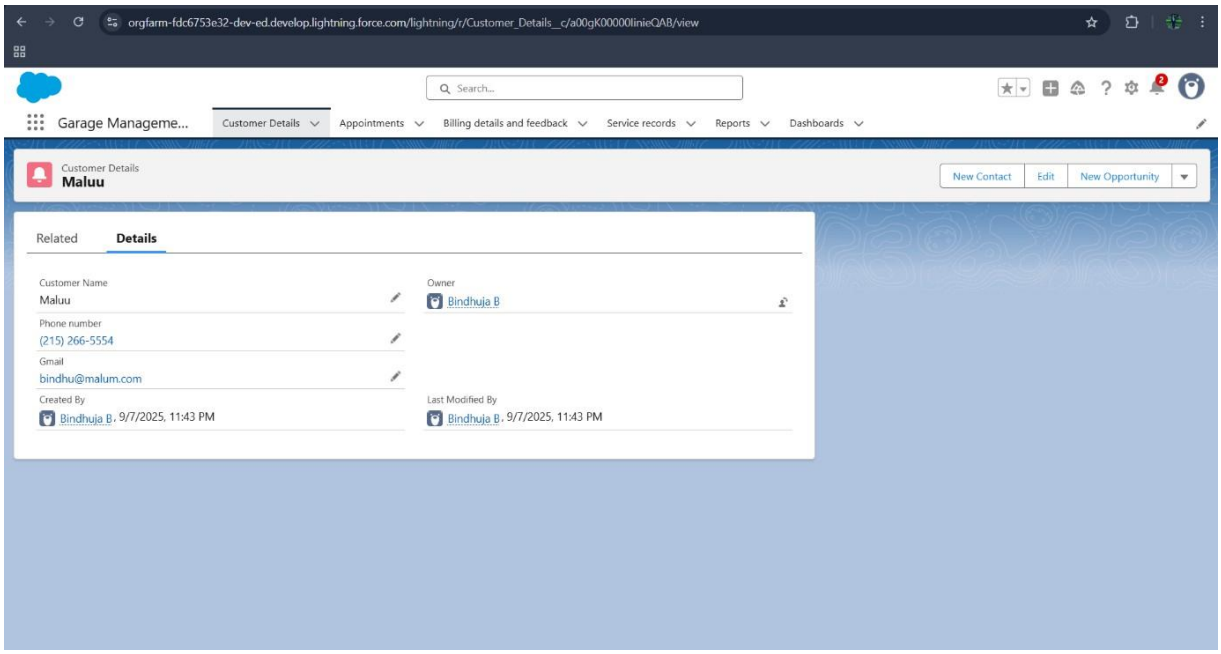
- **Appointments :**



- **Dashboards**



- **User Adoption**



Conclusion

In conclusion, the Garage Management System plays a vital role in modernizing garage operations by integrating key functions such as booking, service management, inventory control, and billing into a single platform. It not only boosts efficiency and reduces errors but also strengthens customer relationships through transparent and timely services. By adopting this system, garages can achieve higher productivity, improved service quality, and long-term business growth. Furthermore, it empowers staff with user-friendly tools to manage their tasks effectively, provides managers with valuable insights through reports and analytics, and ensures customers enjoy a seamless service experience. Ultimately, the Garage Management System serves as a comprehensive solution that helps garages remain competitive, adapt to changing market needs, and deliver consistent excellence.