

Project Execution Phase

Project Files

Date	27 June 2025
Team ID	LTVIP2025TMID29772
Project Name	GARAGE MANAGEMENT SYSTEM

Project Files:

Project files are essential documents created and maintained during the execution of the Garage Management System to ensure smooth development, testing, deployment, and delivery.

Key Project Files Include:

- **Project Plan** – Outlines timeline, team roles, and milestones.
- **Requirements Document** – Captures functional and non-functional system needs.
- **Use Case/User Stories** – Describes how users interact with the system.
- **Data Model & ER Diagram** – Shows object relationships (Customer → Appointment → Billing).
- **Configuration Sheets** – Details all objects, fields, and validations.
- **Apex/Flow Logic Docs** – Explains automation rules and triggers.
- **Test Plan & Cases** – Ensures all features are working as expected.
- **Deployment Checklist** – Guides pre/post deployment tasks.
- **User Manual** – Helps users understand system usage.
- **Reports & Dashboards File** – Describes analytics and metrics used.
- **Client Sign-Off Form** – Confirms approval from stakeholders.

Project Overview:

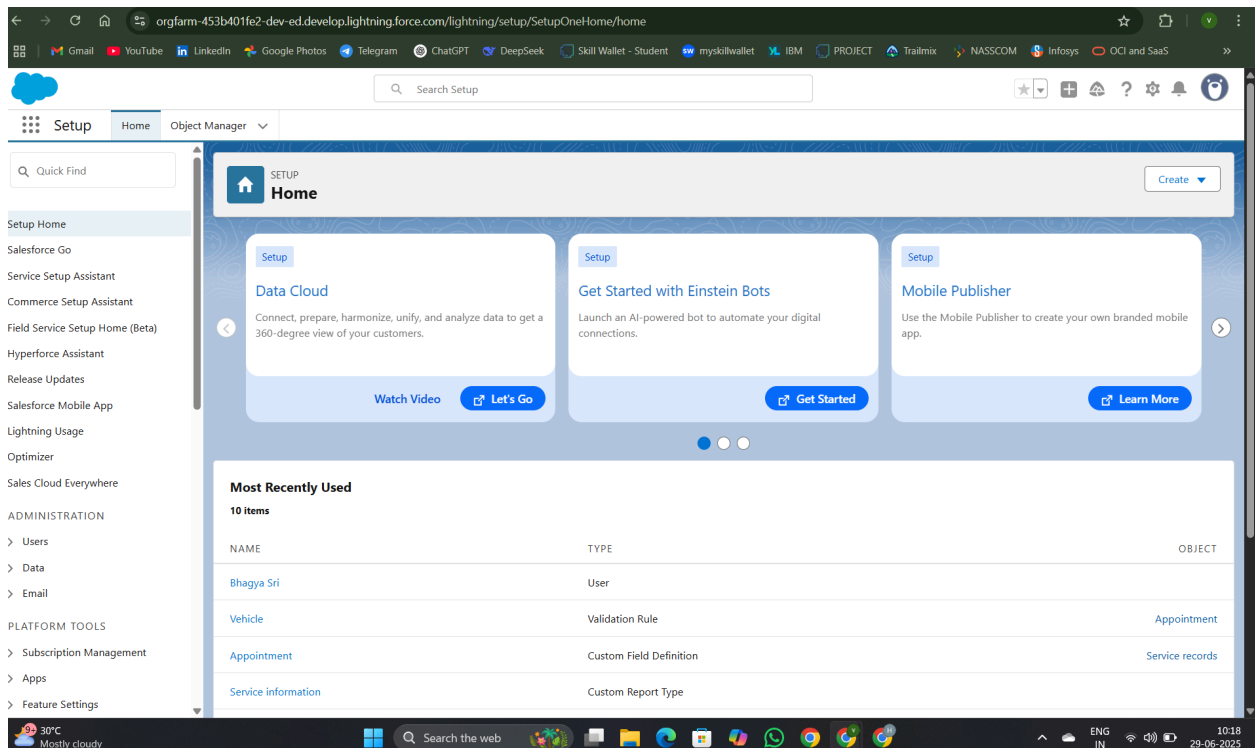
The Garage Management System is a Salesforce-based application designed to streamline operations in a vehicle repair/maintenance garage. It manages customer records, service appointments, billing, feedback, and reporting — improving customer experience and business efficiency.

Developer Account Setup:

Creating Developer Org

- Go to: <https://developer.salesforce.com/signup>
- Fill in details like Name, Email, Role (Developer), etc.
- Create a username (e.g., yourname@yourcollege.com)

- Activate via email and set password.



Object Creation:

Objects are used to store data like customers, appointments, services, etc.

Custom Objects Created:

- Customer Details
- Appointments
- Service Records
- Billing Details & Feedback

Each object has its own **Record Name**, **Data Type**, and is enabled for **Reports**, **Search**, and **Field Tracking**.

The screenshot shows the Salesforce Setup interface. The top navigation bar includes the Setup icon, a search bar labeled "Search Setup", and several utility icons. The main navigation menu on the left shows "Setup" selected, with "Home" and "Object Manager" as sub-options. The main content area is titled "Customer Details" under the "Object Manager" section. A left sidebar lists various configuration options for the object, with "Details" selected. The main area displays the "Details" configuration for the "Customer Details" object, including fields like API Name, Singular Label, Plural Label, and various system settings like "Enable Reports" and "Track Activities".

Tabs:

Tabs are created for UI access to each object:

- Go to Setup → Tabs → Create New Tab
- Tabs created for: Customer Details, Appointments, Service Records, Billing Details & Feedback

The screenshot shows the Salesforce Setup interface for the "Tabs" section. The top navigation bar is consistent with the previous screenshot. The main navigation menu on the left shows "Setup" selected, with "Home" and "Object Manager" as sub-options. The main content area is titled "Custom Tabs" under the "Setup" section. A left sidebar lists various configuration options for tabs, with "Tabs" selected. The main area displays the "Custom Tabs" configuration page, which includes a table of existing custom tabs and sections for "Web Tabs", "Visualforce Tabs", and "Lightning Component Tabs".

Action	Label	Tab Style	Description
Edit Del	Appointments	Alarm clock	
Edit Del	Billing details and feedbacks	Balls	
Edit Del	Customer Details	Airplane	
Edit Del	Service records	Apple	

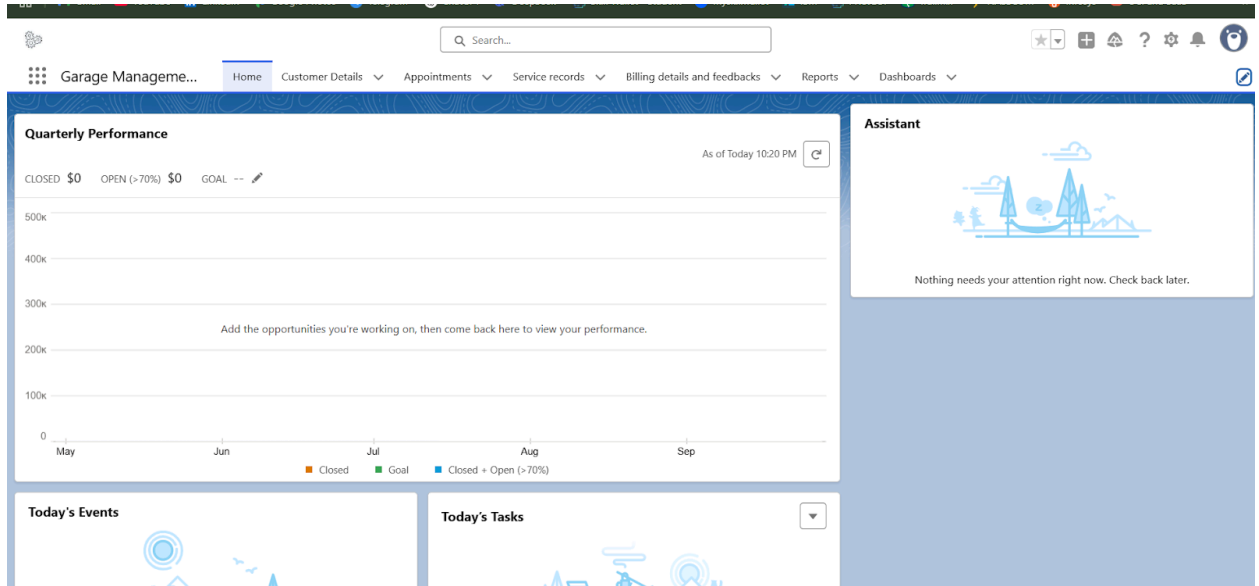
Web Tabs
No Web Tabs have been defined

Visualforce Tabs
No Visualforce Tabs have been defined

Lightning Component Tabs
No Lightning component tabs have been defined

Lightning App Setup:

- Created a custom app: **Garage Management Application**
- Added navigation items: all custom objects, Reports, Dashboards
- Set up default user profile access.



Field Creation:

Each object is enriched with standard and custom fields.

Example Fields:

- **Customer Details:** Phone number, Gmail

Setup | Home | Object Manager

Search Setup

SETUP > OBJECT MANAGER

Customer Details

Details

Fields & Relationships
6 Items, Sorted by Field Label

Q 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 Details Name	Name	Text(80)		✓
Gmail	Gmail__c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone number	Phone_number__c	Phone		

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

- **Appointments:** Vehicle number plate, Appointment date, Service checkboxes (Maintenance, Repairs, Replacements), Service Amount

Setup | Home | Object Manager

Search Setup

SETUP > OBJECT MANAGER

Appointment

Details

Fields & Relationships
11 Items, Sorted by Field Label

Q 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)		
Vehicle number plate	Vehicle_number_plate__c	Text(10) (Unique Case Insensitive)		✓

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

- **Service Records:** Service Status (Picklist), Quality Check (Checkbox)

Setup

Home

Object Manager

Search Setup

Service records

Details

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			

- **Billing & Feedback:** Payment Status, Rating, Payment Paid

Setup

Home

Object Manager

Search Setup

Billing details and feedback

Details

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(18, 0)			
Payment Status	Payment_Status__c	Picklist			
Rating for service	Rating_for_service__c	Text(1)			
Service records	Service_records__c	Lookup(Service records)		✓	

Lookup Relationships

Enables linking between objects:

- Appointment → Customer Details
- Service Records → Appointment
- Billing Details → Service Records

Also includes **lookup filters** (e.g., appointment date < created date).

Validation Rules:

Ensures data correctness:

- Vehicle number plate follows a specific format
- Rating for service must be between 1 to 5

The screenshot shows the Salesforce Setup interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager' (selected). A search bar labeled 'Search Setup' is on the right. Below the navigation bar, the breadcrumb trail reads 'SETUP > OBJECT MANAGER' and the page title is 'Appointment'. On the left, a sidebar lists various setup options: 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, and Restriction Rules. The main content area is titled 'Validation Rules' and shows '1 Items, Sorted by Rule Name'. A table lists the validation rules:

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Vehicle	Vehicle number plate	Please enter valid number	✓	Bhagya Sri, 6/19/2025, 3:08 AM

A 'New' button is located in the top right corner of the table area.

Duplicate Rules:

Ensures no duplicate customer entries:

- Created **Matching Rule** using Gmail and Phone Number

The screenshot shows the Salesforce Setup interface. On the left, the navigation menu is open, showing the path: Setup > Data > Duplicate Management > Duplicate Rules. The main content area is titled "Matching Rules" and displays a "Matching Rule Detail" for "Matching customer details". The rule is active and was created by Bhagya Sili on 6/19/2025 at 3:18 AM. The matching criteria are: (Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone_number EXACT MatchBlank = FALSE). The rule is associated with the "Customer Details" object.

- Created **Duplicate Rule** using the matching rule for Customer Details object

The screenshot shows the Salesforce Setup interface. On the left, the navigation menu is open, showing the path: Setup > Data > Duplicate Management > Duplicate Rules. The main content area is titled "Duplicate Rules" and displays a "Duplicate Rule Detail" for "Customer Detail duplicate". The rule is active and was created by Bhagya Sili on 6/19/2025 at 3:21 AM. The matching rule is "Matching customer details" and is mapped. The rule is associated with the "Customer Details" object. The rule is configured with "Enforce sharing rules" and "Alert" and "Report" operations on create and edit.

Profiles:

Profiles control user permissions:

- Manager Profile:** Full access to all objects

The screenshot shows the Salesforce Setup interface for the 'Profiles' section. The left sidebar has a search bar with 'profiles' and a 'Users' section with 'Profiles' highlighted. The main content area is titled 'Profiles' and shows the 'Manager' profile selected. Below the title, there is a description: 'Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information. If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.' A row of links for various access types is displayed. The 'Profile Detail' section shows the profile name 'Manager', user license 'Salesforce', and a 'Custom Profile' checkbox checked. The 'Page Layouts' section is a table with two columns: 'Standard Object Layouts' and 'Page Layouts'. The table lists various layouts and their assignments.

Standard Object Layouts	Page Layouts
Global	Global Layout [View Assignment]
Email Application	Not Assigned [View Assignment]
Home Page Layout	Home Page Default [View Assignment]
Account	Account Layout [View Assignment]
Alternative Payment Method	Alternative Payment Method Layout [View Assignment]
Appointment Invitation	Appointment Invitation Layout [View Assignment]
Asset	Asset Layout [View Assignment]
Location Group	Location Group Layout [View Assignment]
Location Group Assignment	Location Group Assignment Layout [View Assignment]
Macro	Macro Layout [View Assignment]
Object Milestone	Object Milestone Layout [View Assignment]
Operating Hours	Operating Hours Layout [View Assignment]
Opportunity	Opportunity Layout [View Assignment]
Opportunity Product	Opportunity Product Layout [View Assignment]

- **Sales Person Profile: Limited access for appointment and customer handling**

The screenshot shows the Salesforce Setup interface for the 'Profiles' section. The left sidebar has a search bar with 'profiles' and a 'Users' section with 'Profiles' highlighted. The main content area is titled 'Profiles' and shows the 'sales person' profile selected. Below the title, there is a description: 'Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information. If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.' A row of links for various access types is displayed. The 'Profile Detail' section shows the profile name 'sales person', user license 'Salesforce Platform', and a 'Custom Profile' checkbox checked. The 'Page Layouts' section is a table with two columns: 'Standard Object Layouts' and 'Page Layouts'. The table lists various layouts and their assignments.

Standard Object Layouts	Page Layouts
Global	Global Layout [View Assignment]
Email Application	Not Assigned [View Assignment]
Home Page Layout	Home Page Default [View Assignment]
Account	Account Layout [View Assignment]
Alternative Payment Method	Alternative Payment Method Layout [View Assignment]
Appointment Invitation	Appointment Invitation Layout [View Assignment]
Asset	Asset Layout [View Assignment]
Lead	Lead Layout [View Assignment]
Location	Location Layout [View Assignment]
Location Group	Location Group Layout [View Assignment]
Location Group Assignment	Location Group Assignment Layout [View Assignment]
Object Milestone	Object Milestone Layout [View Assignment]
Operating Hours	Operating Hours Layout [View Assignment]
Order	Order Layout [View Assignment]

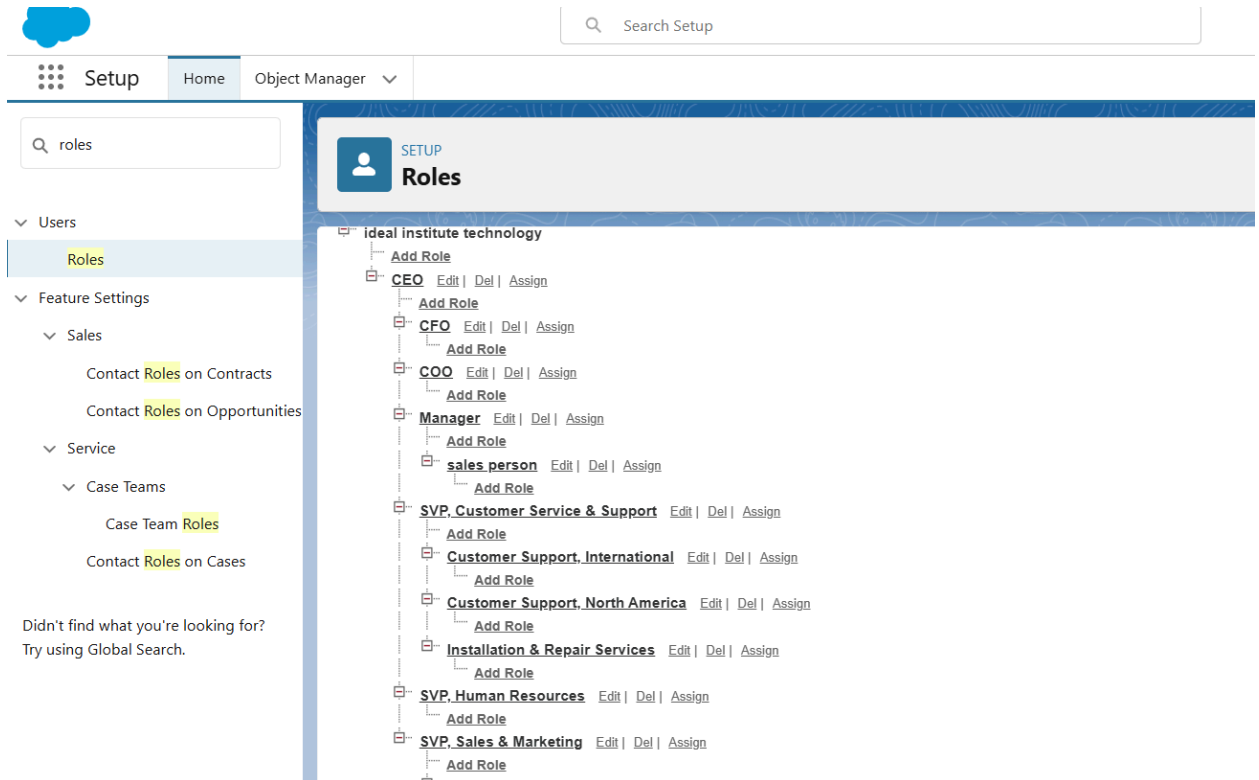
Custom profiles cloned and modified from:

- Standard User (Manager)
- Salesforce Platform User (Sales Person)

Roles and Role Hierarchy

Defines data visibility levels:

- **Manager**
- **Sales Person** under Manager



Users:

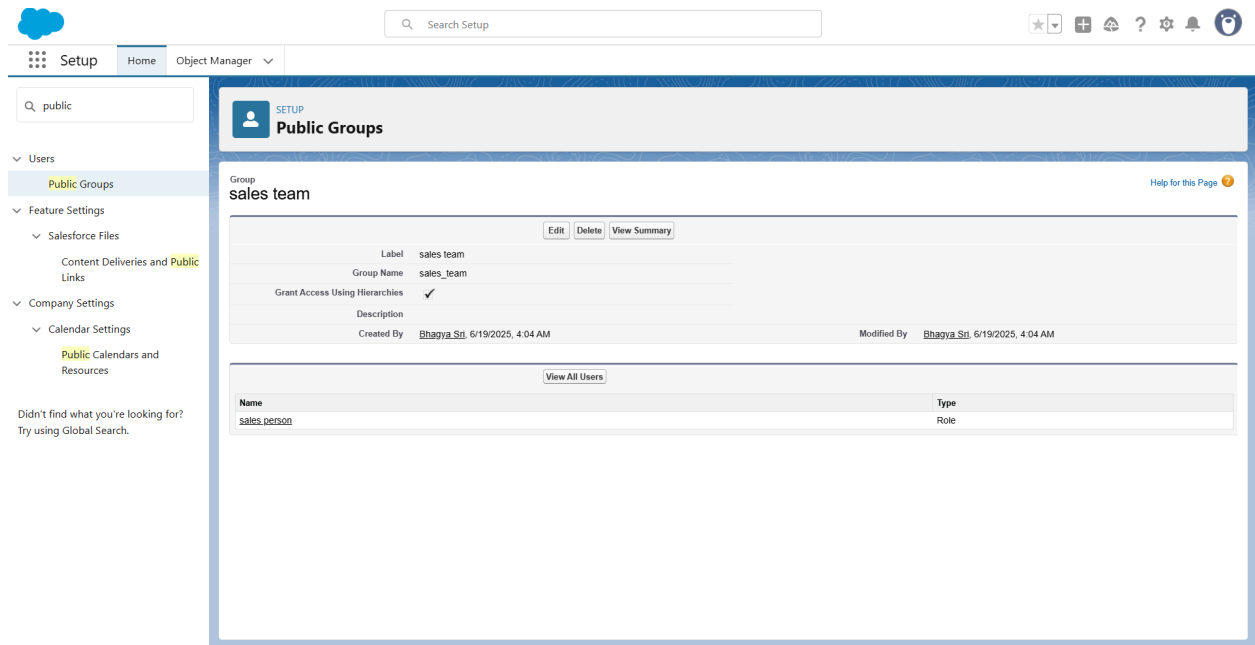
Created user accounts:

- **Manager** role & profile
- **Sales Person** role & profile

Public Groups:

Created a group:

- **Sales Team** includes all SalesPerson roles



Sharing Settings:

Customized object sharing:

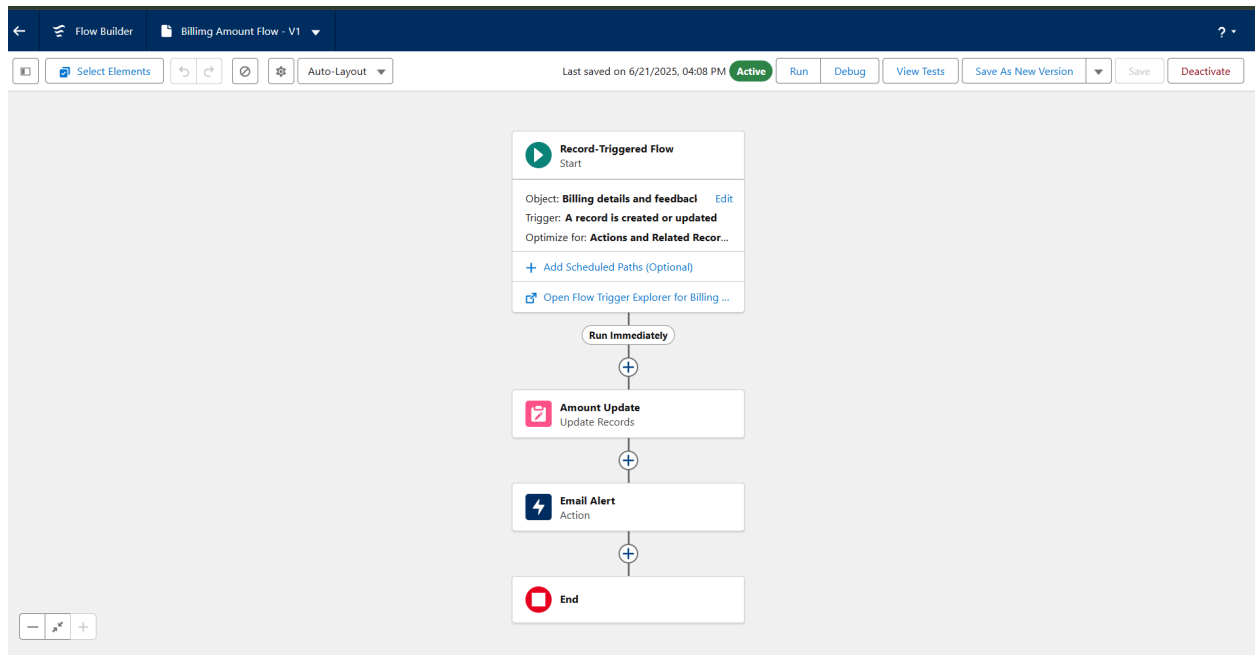
- **Service Records** set to Private (OWD)
- Created Sharing Rule to allow Sales Person to share data with Manager



Flows:

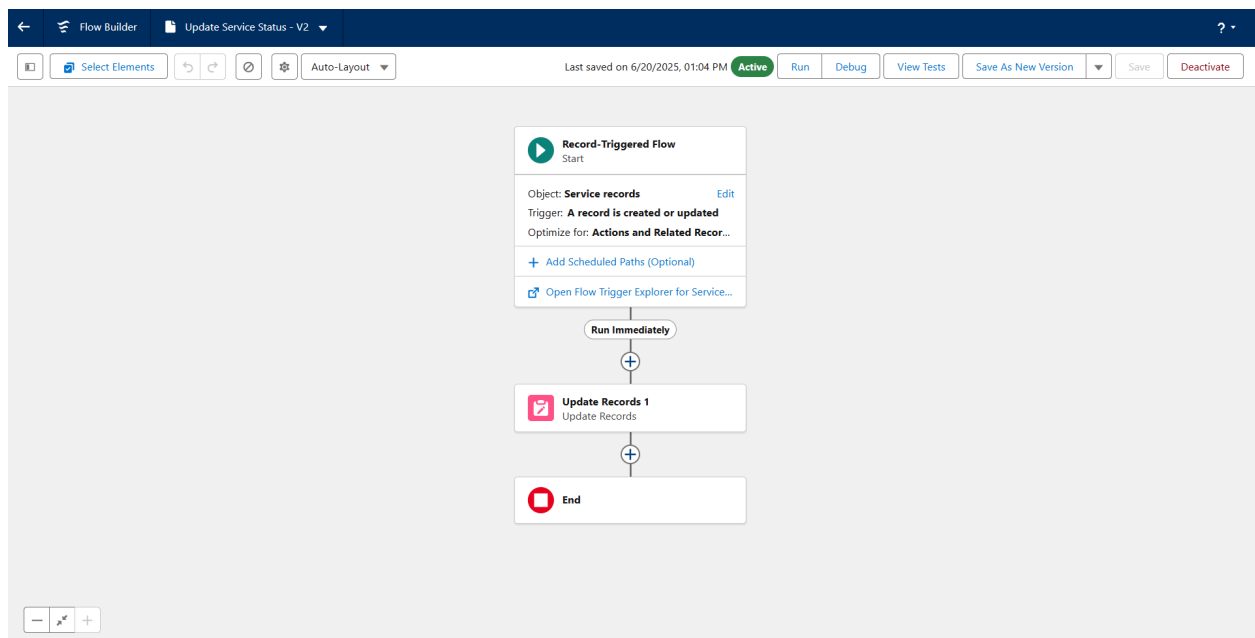
Flow 1: Payment Confirmation Email

- Trigger: Billing record updated with status = "Completed"
- Action: Send email with service amount and thank-you message



Flow 2: Auto Update Service Status

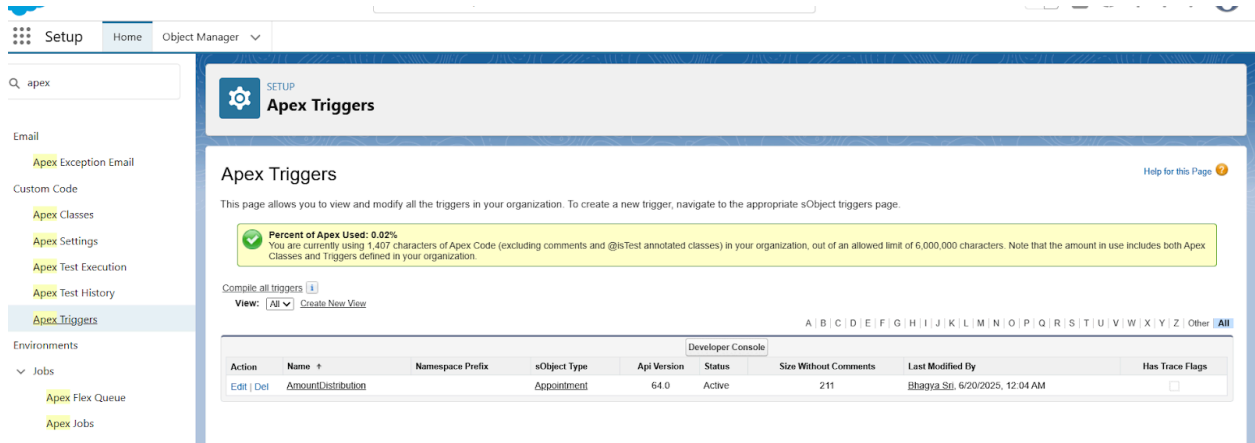
- Trigger: Quality Check marked true
- Action: Auto-update service status to “Completed”



Apex Trigger & Handler:

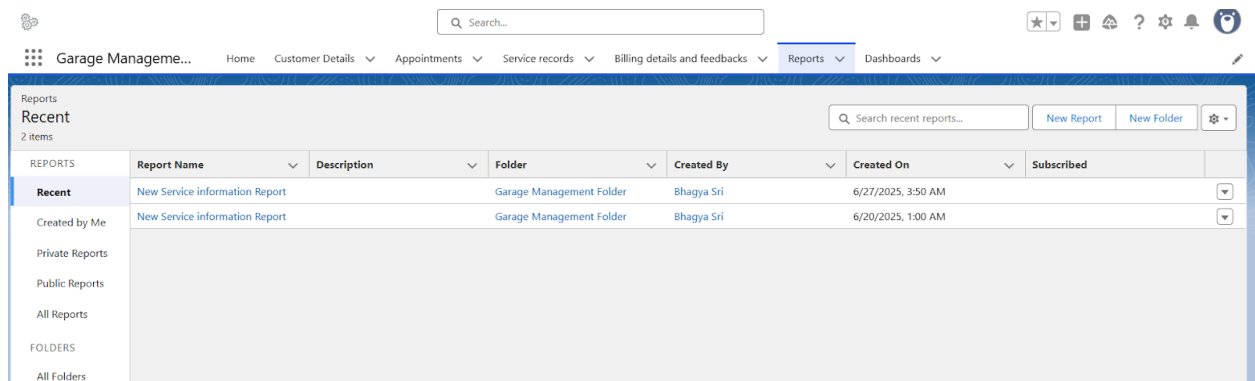
Use Case: Calculate Service Amount

- Trigger on **Appointment** object
- Handler calculates amount based on checkboxes:
 - Maintenance + Repairs = ₹5000
 - All 3 selected = ₹10,000
 - Individual selections calculated accordingly



Reports:

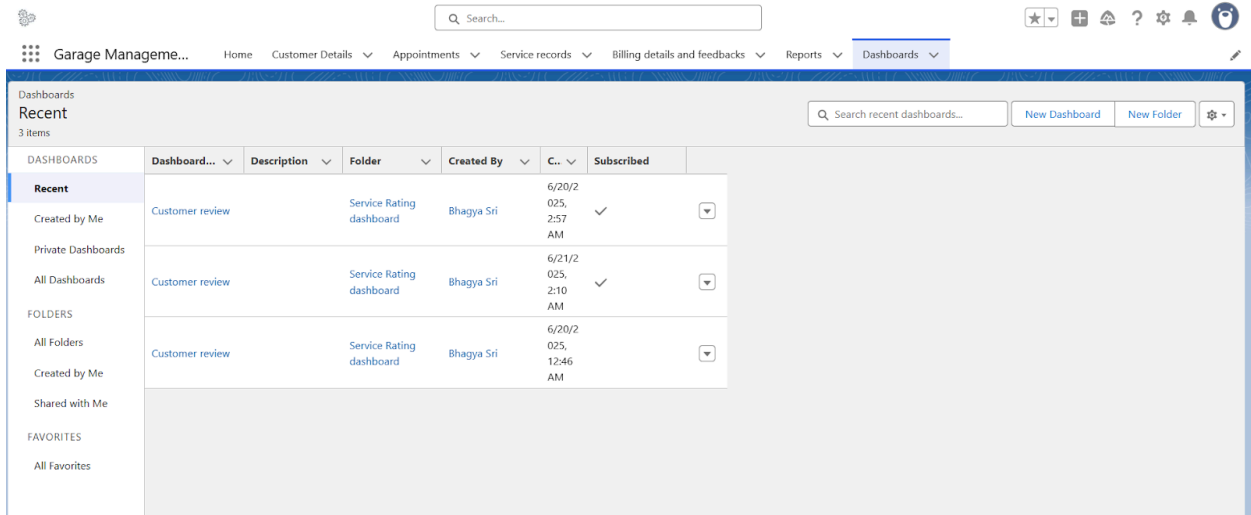
- Created a custom **Report Type** joining:
 - Customer → Appointment → Service Records → Billing
- Report: **New Service Information Report**
 - Fields: Customer Name, Appointment Date, Service Status, Payment Paid, Rating
 - Grouped & Charted (Line Chart)



Dashboards:

- Created **Dashboard Folder**: Service Rating Dashboard
- Used report above to build dashboard component (Line Chart)

- Subscribed to dashboard weekly (e.g., every Monday)



The screenshot shows the Salesforce Dashboards page. The top navigation bar includes the Salesforce logo, a search bar, and various utility icons. The main header shows the current page is 'Dashboards'. Below this, there's a 'Recent' section with a search bar and buttons for 'New Dashboard' and 'New Folder'. A table lists the recent dashboards.

DASHBOARDS	Dashboard...	Description	Folder	Created By	C..	Subscribed	
Recent							
Created by Me	Customer review	Service Rating dashboard	Bhagya Sri	6/20/2025, 2:57 AM	✓		
Private Dashboards							
All Dashboards	Customer review	Service Rating dashboard	Bhagya Sri	6/21/2025, 2:10 AM	✓		
FOLDERS							
All Folders	Customer review	Service Rating dashboard	Bhagya Sri	6/20/2025, 12:46 AM			
Created by Me							
Shared with Me							
FAVORITES							
All Favorites							

Testing: Record Creation:

Created records in:

- Customer Details
- Appointments (with vehicle number format)
- Service Records
- Billing and Feedback

Tested automation:

- Auto-updated fields
- Triggered flows and emails

Outcome:

- Seamless end-to-end garage workflow in Salesforce
- Automated billing, updates, and communication
- Enhanced transparency, efficiency, and user satisfaction