

# PROJECT MILESTONES AND ACTIVITY

Date	01 November 2025
Team ID	NM2025TMID01280
Project Name	Garage Management System – Digitalization of Garage Operations

## MILESTONE 1 : OBJECT

Objects are the foundation of Salesforce data architecture. They represent real-world entities such as customers, appointments, services, and billing details. In this project, custom objects were created to capture and relate these entities seamlessly. This ensures structured data management and easy reporting for garage operations.

### ACTIVITY 1: Create Customer Details Object

#### Objective:

To store essential customer information and maintain a master list of all customers in the system.

#### Process:

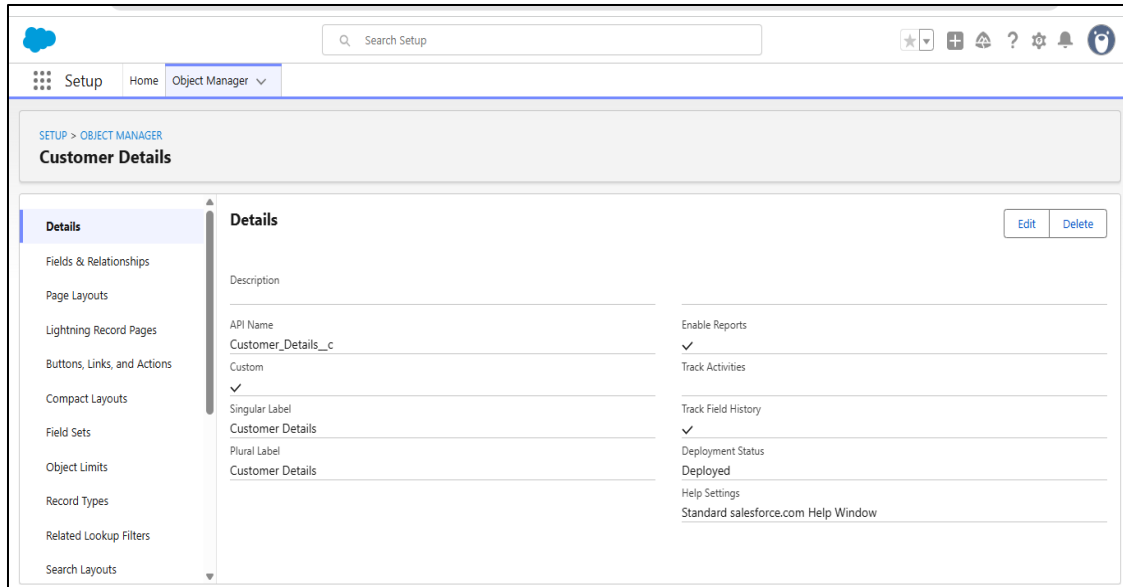
- Navigate to Setup → Object Manager → Create → Custom Object.
- Enter the Label as “Customer Details” and the API Name as Customer\_Details\_\_c.
- Choose Text as the Record Name field type and name it Customer ID.

- Enable important options like Allow Reports, Allow Activities, and Track Field History.
- Save and Deploy the object.

Attribute	Value
Label	Customer Details
API Name	Customer_Details__c
Record Name	Customer ID (Text)
Options Enabled	Reports, Activities, Field History
Status	Deployed

**Description:**

This object holds all core customer details such as name, contact number, and address. It serves as the parent record for related objects like Appointments and Billing, ensuring that each customer's interactions and transactions can be traced efficiently.



## ACTIVITY 2: Create Appointment Object

### Objective:

To manage and record customer bookings for vehicle servicing or repairs.

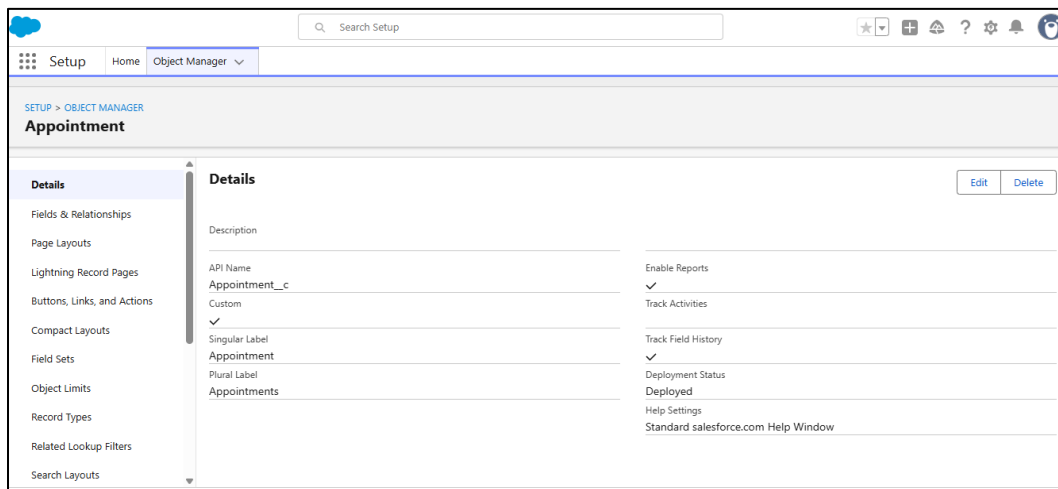
### Process:

- Go to Setup → Object Manager → Create → Custom Object.
- Set Label as “Appointment” and API Name as Appointment\_\_c.
- Choose Auto Number for Record Name with format APP-{000}.
- Enable Allow Reports and Allow Activities.
- Create a Lookup Relationship with Customer Details to link appointments with customers.
- Save the object.

Attribute	Value
Label	Appointment
API Name	Appointment__c
Record Name	Auto Number (APP-{000})
Lookup Relationship	Customer Details
Status	Deployed

### Description:

This object tracks customer appointments, including date, time, and services requested. It connects directly to customer records, giving a complete history of interactions.



## ACTIVITY 3: Create Service Records Object

### Objective:

To maintain a log of services performed during each appointment.

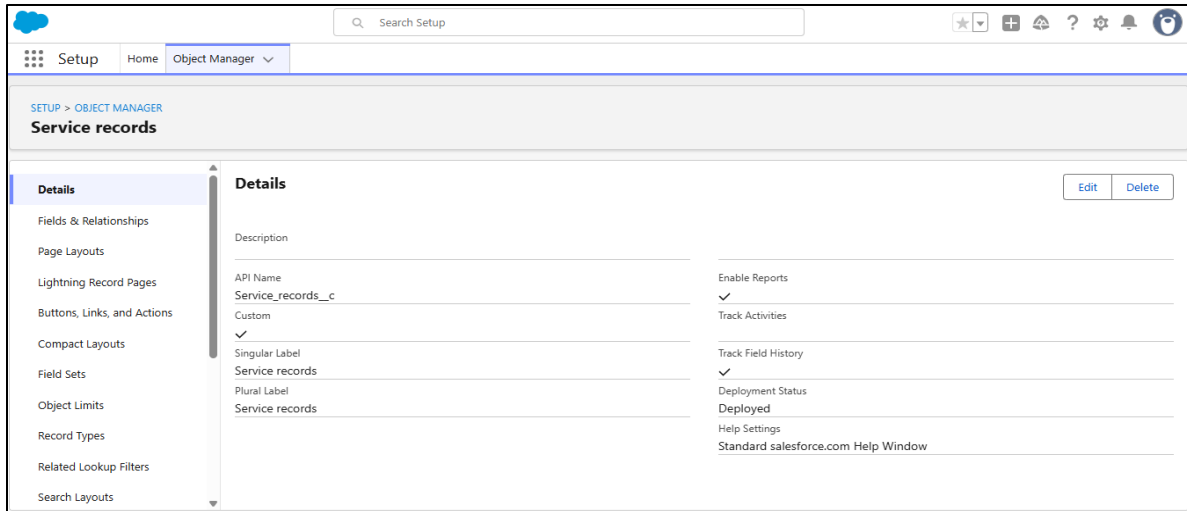
**Process:**

- Create a custom object named Service Records.
- Choose Auto Number for the Record Name as SER-{000}.
- Enable Reports and Field History Tracking.
- Add a Lookup Relationship to Appointment so each service links to a booked appointment.
- Save the object.

Attribute	Value
Label	Service Records
API Name	Service_Records__c
Record Name	Auto Number (SER-{000})
Lookup Relationship	Appointment
Options	Reports, Field History Tracking

**Description:**

Each service record provides details on the work done, parts replaced, and the inspection results. It acts as the operational backbone, showing what the garage delivered for each appointment.



## ACTIVITY 4: Create Billing Details and Feedback Object

### Objective:

To record payment details and capture post-service feedback from customers.

### Process:

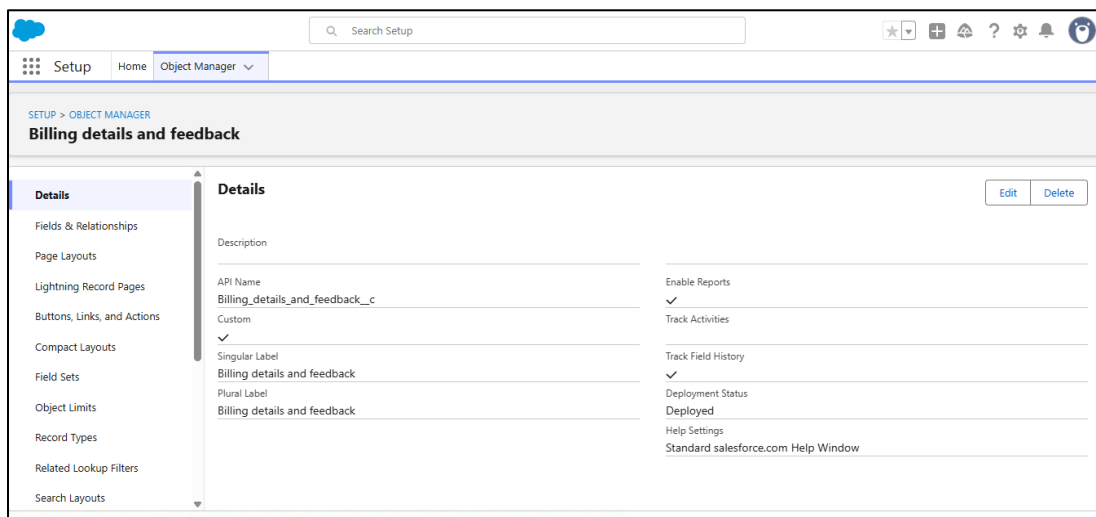
- Create an object labeled Billing Details and Feedback.
- Use Auto Number as Record Name (BILL-{000}).
- Add a Lookup Relationship to Service Records to link billing with completed services.
- Enable Reports and Activities for better tracking.
- Save and deploy.

Attribute	Value
Label	Billing Details and Feedback
API Name	Billing_Details_Feedback__c
Record Name	Auto Number (BILL-{000})

Lookup Relationship	Service Records
Options	Reports, Activities

### Description:

This object finalizes the workflow — connecting services to payments and feedback. It helps in analyzing service quality and managing garage revenue efficiently.



## MILESTONE 2: TABS CREATION

Tabs give users easy access to objects directly from the Salesforce app interface. By creating tabs for each object, we made the system more accessible and user-friendly.

### Process:

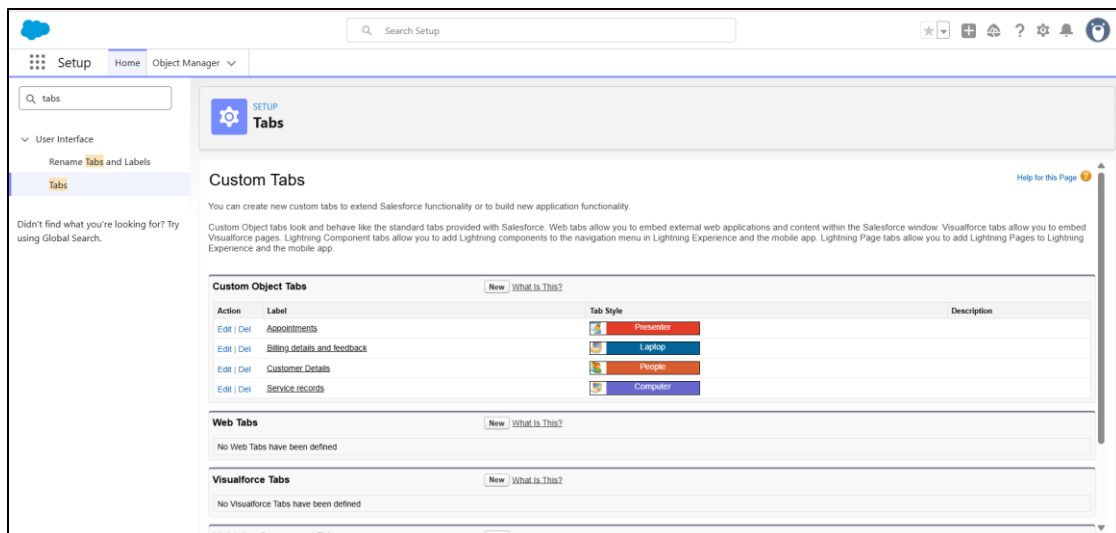
- Go to Setup → Tabs → New Custom Object Tab.
- Select each custom object one by one.

- Choose suitable icons (like user, wrench, or dollar).
- Assign access to all profiles to ensure everyone can view relevant data.
- Save each tab.

Object	Tab Created	Icon	Access Granted
Customer Details	Yes	User Icon	All Profiles
Appointment	Yes	Calendar Icon	All Profiles
Service Records	Yes	Wrench Icon	All Profiles
Billing Details & Feedback	Yes	Dollar Icon	All Profiles

## Description:

These tabs act as navigation links on the Salesforce app menu, enabling users to quickly create, edit, and manage records without needing to go through setup pages.





## MILESTONE 3: LIGHTNING APPLICATION

### Objective:

To build a centralized and branded workspace containing all key tabs, reports, and dashboards.

### Process:

- Navigate to Setup → App Manager → New Lightning App.
- Enter the app name as Garage Management Application.
- Add a custom icon for branding.
- Include all relevant tabs (Customer Details, Appointment, Service Records, Billing & Feedback).
- Assign visibility to System Administrator, Manager, and Sales Person profiles.
- Save and deploy the app.

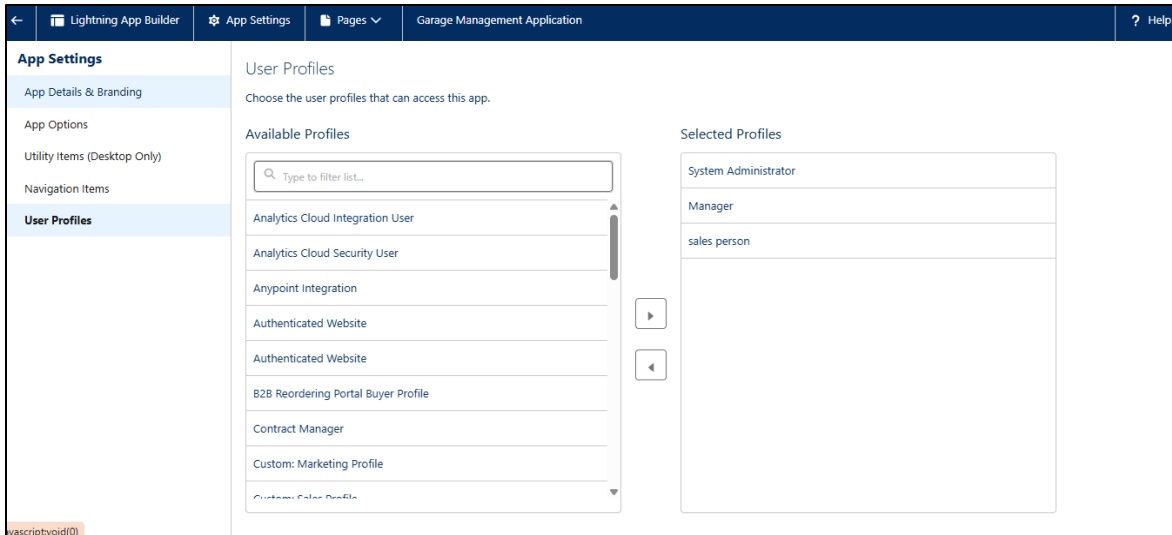
Configuration	Details
App Name	Garage Management Application
Tabs Added	Customer, Appointment, Service, Billing & Feedback
Profiles	System Admin, Manager, Sales Person
Type	Lightning App

## Description:

This app serves as a unified workspace where different user roles can manage customer records, track services, and analyze performance using dashboards — all in one interface.

The screenshot shows the 'App Settings' interface for the 'Garage Management Application'. The left sidebar lists 'App Settings' with sub-items: 'App Details & Branding' (selected), 'App Options', 'Utility Items (Desktop Only)', 'Navigation Items', and 'User Profiles'. The main content area is titled 'App Details & Branding' and includes instructions: 'Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.' It is divided into two sections: 'App Details' and 'App Branding'. 'App Details' contains fields for 'App Name' (Garage Management Application), 'Developer Name' (Garage\_Management\_Application), and 'Description' (placeholder: Enter a description...). 'App Branding' includes an 'Image' upload button, a 'Primary Color Hex Value' dropdown set to '#0070D2', and 'Org Theme Options' with a checkbox 'Use the app's image and color instead of the org's custom theme' (unchecked). At the bottom, an 'App Launcher Preview' shows a blue square with 'GM' and the text 'Garage Management Appli...'.

The screenshot shows the 'Navigation Items' settings page. The left sidebar is the same as the previous screenshot, with 'Navigation Items' selected. The main content area is titled 'Navigation Items' and includes instructions: '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.' It features two panels: 'Available Items' and 'Selected Items'. 'Available Items' has a search bar 'Type to filter list...' and a list of items: Accounts, Action Hub, All Sites, Alternative Payment Methods, Analytics, App Launcher, Appointment Categories, and Appointment Invitations. 'Selected Items' shows a list of items that have been added to the navigation bar: Customer Details, Appointments, Service records, Billing details and feedback, Reports, and Dashboards. Arrows between the panels allow for moving items back and forth.



## MILESTONE 4: FIELDS CREATION

Creating appropriate fields ensures that every necessary detail is captured accurately in each record.

### ACTIVITY 1: Fields for Customer Details

#### Process:

- Open the Customer Details object in Object Manager.
- Click Fields & Relationships → New.
- Create fields:
- Phone Number (Data Type: Phone)
- Gmail (Data Type: Email)
- Set both fields as required.
- Save and verify.

Field Label	Data Type	Description
Phone Number	Phone	Customer's contact number
Gmail	Email	Email ID for communication

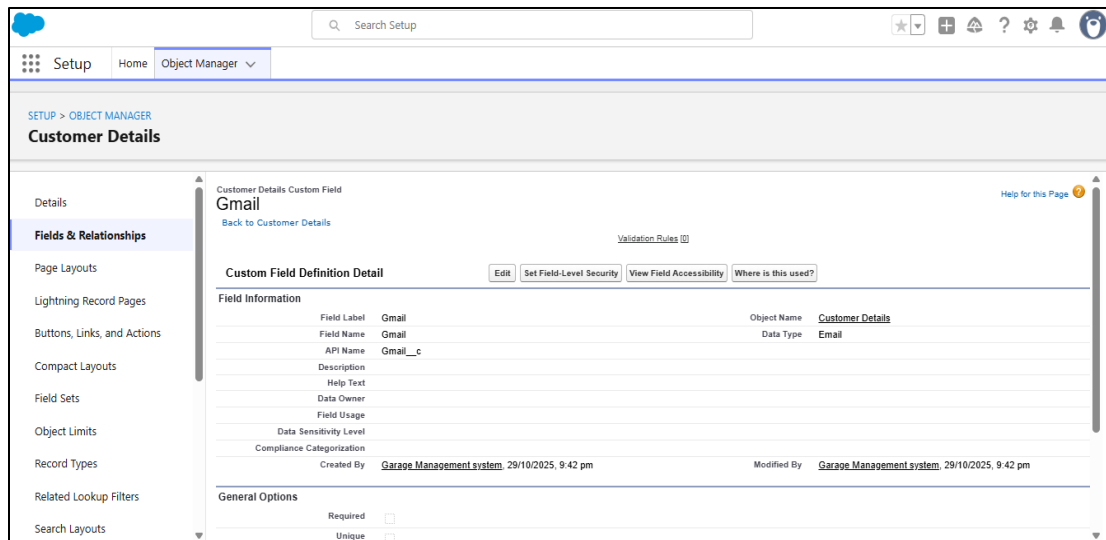
## Description:

These fields make communication easier and enable marketing or follow-up campaigns through phone or email.

The screenshot shows the Salesforce Setup interface for defining a custom field. The breadcrumb trail is **Setup > OBJECT MANAGER > Customer Details**. The left sidebar contains navigation options: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Search Layouts. The main content area is titled "Customer Details Custom Field Phone number" with a "Help for this Page" link. Below the title are tabs for "Edit", "Set Field-Level Security", "View Field Accessibility", and "Where is this used?". The "Field Information" section displays the following details:

Field Label	Phone number	Object Name	Customer Details
Field Name	Phone_number	Data Type	Phone
API Name	Phone_number__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system, 29/10/2025, 9:40 pm	Modified By	Garage Management system, 29/10/2025, 9:40 pm

The "General Options" section at the bottom includes a "Required" checkbox (currently unchecked) and a "Default Value" field.



## ACTIVITY 2: Lookup Relationships

### Process:

- Add lookup relationships to connect objects hierarchically:
- Appointment → Customer Details
- Service Records → Appointment
- Billing Details → Service Records
- Apply a filter: Appointment\_Date\_\_c < CreatedDate to ensure logical data flow.
- Save and verify.

Child Object	Parent Object	Relationship	Description
Appointment	Customer Details	Lookup	Links appointment to customer
Service Records	Appointment	Lookup	Connects service to appointment
Billing Details & Feedback	Service Records	Lookup	Connects billing to service

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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

Billing details and feedback Custom Field  
**Service records**  
[Back to Billing details and feedback](#)

[Validation Rules](#)

Custom Field Definition Detail
Edit
Set Field-Level Security
View Field Accessibility
Where is this used?

Field Information

Field Label	Service records	Object Name	Billing details and feedback
Field Name	Service_records	Data Type	Lookup
API Name	Service_records__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system, 29/10/2025, 9:57 pm	Modified By	Garage Management system, 29/10/2025, 9:57 pm

Lookup Options

Related To	Service records	Child Relationship Name	Billing_details_and_feedback
Related List Label	Billing details and feedback		

### ACTIVITY 3: Checkbox Fields

#### Process:

- For Appointment: Create checkboxes for Maintenance Service, Repairs, and Replacement Parts.
- For Service Records: Add a checkbox Quality Check Status.
- Set default as unchecked.

Object	Field	Purpose
Appointment	Maintenance Service	Marks maintenance requirement
Appointment	Repairs	Identifies repair needs
Appointment	Replacement Parts	Tracks spare parts usage
Service Records	Quality Check Status	Marks completion of inspection

#### Description:

These checkboxes simplify automation logic and are later used in triggers for service amount calculation.

SetupHomeObject Manager

Search Setup

Setup > OBJECT MANAGER

Appointment

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

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Record Types

Related Lookup Filters

Search Layouts

Appointment Custom Field

Maintenance service

Back to Appointment

Validation Rules

Custom Field Definition Detail

EditSet Field-Level SecurityView Field AccessibilityWhere is this used?

Field Information

Field Label	Maintenance service	Object Name	Appointment
Field Name	Maintenance_service	Data Type	Checkbox
API Name	Maintenance_service__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system: 30/10/2025, 7:04 am	Modified By	Garage Management system: 30/10/2025, 7:04 am

General Options

Default Value	Unchecked
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SetupHomeObject Manager

Search Setup

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

Appointment Custom Field

Repairs

Back to Appointment

Validation Rules

Custom Field Definition Detail

EditSet Field-Level SecurityView Field AccessibilityWhere is this used?

Field Information

Field Label	Repairs	Object Name	Appointment
Field Name	Repairs	Data Type	Checkbox
API Name	Repairs__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system: 30/10/2025, 7:05 am	Modified By	Garage Management system: 30/10/2025, 7:05 am

General Options

Default Value	Unchecked
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User

Setup > OBJECT MANAGER

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List View Button Layout

Restriction Rules

Scoping Rules

Custom Field Definition Detail

Edit

Set Field-Level Security

View Field Accessibility

Where is this used?

Field Information

Field Label	Replacement Parts	Object Name	Appointment
Field Name	Replacement_Parts	Data Type	Checkbox
API Name	Replacement_Parts__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system, 30/10/2025, 7:05 am	Modified By	Garage Management system, 30/10/2025, 7:05 am

General Options

Default Value	Unchecked
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Field Dependencies

New

Field Dependencies Help

No dependencies defined.

Validation Rules

New

Validation Rules Help

No validation rules defined.

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Always show me more records per related list

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Search Layouts

Service records Custom Field

Quality Check Status

Back to Service records

Validation Rules

Custom Field Definition Detail

Edit

Set Field-Level Security

View Field Accessibility

Where is this used?

Field Information

Field Label	Quality Check Status	Object Name	Service records
Field Name	Quality_Check_Status	Data Type	Checkbox
API Name	Quality_Check_Status__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system, 30/10/2025, 7:06 am	Modified By	Garage Management system, 30/10/2025, 7:06 am

General Options

Default Value	Unchecked
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## ACTIVITY 4: Date Field

### Process:

- Create a field in Appointment named Appointment Date with Date type.
- Mark as Required for validation.

### Description:

This ensures every appointment is properly dated and helps in reporting service timelines.

The screenshot shows the Salesforce Setup interface. The breadcrumb trail is **SETUP > OBJECT MANAGER**. The main heading is **Appointment**. The left sidebar contains a menu with **Fields & Relationships** selected. The main content area is titled **Appointment Custom Field** and **Appointment Date**. It includes a **Back to Appointment** link and a **Validation Rules** link. Below this is the **Custom Field Definition Detail** section with tabs for **Edit**, **Set Field-Level Security**, **View Field Accessibility**, and **Where is this used?**. The **Field Information** table lists the field details:

Field Label	Appointment Date	Object Name	Appointment
Field Name	Appointment_Date	Data Type	Date
API Name	Appointment_Date__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage_Management.system, 29/10/2025, 9:52 pm	Modified By	Garage_Management.system, 30/10/2025, 10:17 am

Below the table is the **General Options** section, which includes a **Required** checkbox that is checked and a **Default Value** field.

## ACTIVITY 5: Currency Fields

### Process:

- Add Service Amount (Currency, Read-Only) in Appointment.
- Add Payment Paid (Currency) in Billing Details and Feedback.
- Save and verify.

## Description:

These fields enable the garage to maintain financial clarity by tracking service charges and payments.

The screenshot shows the Salesforce Setup interface for a custom field named 'Service Amount' on the 'Appointment' object. The left sidebar contains navigation links: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Search Layouts. The main content area is titled 'Appointment' and 'Service Amount'. It includes a 'Back to Appointment' link and a 'Validation Rules (0)' link. The 'Custom Field Definition Detail' section has tabs for 'Edit', 'Set Field-Level Security', 'View Field Accessibility', and 'Where is this used?'. The 'Field Information' table lists: Field Label (Service Amount), Field Name (Service\_Amount), API Name (Service\_Amount\_\_c), Object Name (Appointment), and Data Type (Currency). Below this, there are fields for Description, Help Text, Data Owner, Field Usage, Data Sensitivity Level, and Compliance Categorization. The 'Created By' and 'Modified By' fields both show 'Garage Management system' with timestamps from 30/10/2025. The 'General Options' section shows the 'Required' checkbox is unchecked and the 'Default Value' field is empty.

Field Label	Service Amount	Object Name	Appointment
Field Name	Service_Amount	Data Type	Currency
API Name	Service_Amount__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system, 30/10/2025, 10:18 am	Modified By	Garage Management system, 30/10/2025, 10:18 am

**General Options**

Required ☐

Default Value

The screenshot shows the Salesforce Setup interface for a custom field named 'Payment Paid' on the 'Billing details and feedback' object. The left sidebar is identical to the first screenshot, with 'Fields & Relationships' selected. The main content area is titled 'Billing details and feedback' and 'Payment Paid'. It includes a 'Back to Billing details and feedback' link and a 'Validation Rules (0)' link. The 'Custom Field Definition Detail' section has tabs for 'Edit', 'Set Field-Level Security', 'View Field Accessibility', and 'Where is this used?'. The 'Field Information' table lists: Field Label (Payment Paid), Field Name (Payment\_Paid), API Name (Payment\_Paid\_\_c), Object Name (Billing details and feedback), and Data Type (Currency). Below this, there are fields for Description, Help Text, Data Owner, Field Usage, Data Sensitivity Level, and Compliance Categorization. The 'Created By' and 'Modified By' fields both show 'Garage Management system' with timestamps from 30/10/2025. The 'General Options' section shows the 'Required' checkbox is unchecked and the 'Default Value' field is empty.

Field Label	Payment Paid	Object Name	Billing details and feedback
Field Name	Payment_Paid	Data Type	Currency
API Name	Payment_Paid__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system, 30/10/2025, 10:19 am	Modified By	Garage Management system, 30/10/2025, 10:19 am

**General Options**

Required ☐

Default Value

## ACTIVITY 6: Text and Picklist Fields

Object	Field Name	Type	Description
Appointment	Vehicle Number Plate	Text	Stores vehicle ID
Billing Details & Feedback	Rating for Service	Text	Customer satisfaction rating
Service Records	Service Status	Picklist	Values: Started, Completed
Billing Details & Feedback	Payment Status	Picklist	Values: Pending, Completed

### Description:

These fields help standardize data input, simplify record categorization, and make reports more accurate.

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Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

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Related Lookup Filters

Search Layouts

Appointment Custom Field

Vehicle number plate

Back to Appointment

Validation Rules (1)

Custom Field Definition Detail

Edit

Set Field-Level Security

View Field Accessibility

Where is this used?

Field Information

Field Label	Vehicle number plate	Object Name	Appointment
Field Name	Vehicle_number_plate	Data Type	Text
API Name	Vehicle_number_plate__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system, 30/10/2025, 10:22 am	Modified By	Garage Management system, 30/10/2025, 10:22 am

General Options

Required

Unique

Setup

Home

Object Manager

Search Setup

Billing details and feedback

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Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

Billing details and feedback Custom Field

Rating for service

Back to Billing details and feedback

Validation Rules (1)

Custom Field Definition Detail

Edit

Set Field-Level Security

View Field Accessibility

Where is this used?

Field Information

Field Label	Rating for service	Object Name	Billing details and feedback
Field Name	Rating_for_service	Data Type	Text
API Name	Rating_for_service__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system, 30/10/2025, 10:23 am	Modified By	Garage Management system, 30/10/2025, 10:23 am

General Options

Required

Unique

Setup

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Restriction Rules

Scoping Rules

Service records Custom Field

Service Status

Back to Service records

Validation Rules

Custom Field Definition Detail

Edit

Set Field-Level Security

View Field Accessibility

Where is this used?

Field Information

Field Label	Service Status	Object Name	Service records
Field Name	Service_Status	Data Type	Picklist
API Name	Service_Status__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system, 30/10/2025, 10:26 am	Modified By	Garage Management system, 30/10/2025, 10:26 am

General Options

Required

Default Value

Picklist Options

Restrict picklist to the values defined in the value set

Setup

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Billing details and feedback

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Fields & Relationships

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Restriction Rules

Scoping Rules

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Payment Status

Back to Billing details and feedback

Validation Rules

Custom Field Definition Detail

Edit

Set Field-Level Security

View Field Accessibility

Where is this used?

Field Information

Field Label	Payment Status	Object Name	Billing details and feedback
Field Name	Payment_Status	Data Type	Picklist
API Name	Payment_Status__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Garage Management system, 30/10/2025, 10:30 am	Modified By	Garage Management system, 30/10/2025, 10:30 am

General Options

Required

Default Value

Picklist Options

Restrict picklist to the values defined in the value set

## ACTIVITY 7: Formula Field

### Process:

- Create a Formula Field in Service Records named Service Date.
- Set formula as CreatedDate.
- Type: Date.

### Description:

This automatically captures the creation date of each service record, ensuring consistent timestamping.

The screenshot shows the Salesforce Setup interface. The top navigation bar includes the Salesforce logo, a search bar, and various utility icons. The main navigation menu on the left lists options like Setup, Home, and Object Manager. The 'Object Manager' section is expanded, showing 'Service records' as the selected object. The left sidebar for 'Service records' includes links to Details, Fields & Relationships (which is highlighted), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Search Layouts. The main content area displays the 'Service records Custom Field' configuration for 'service date'. It includes a 'Back to Service records' link and a 'Help for this Page' icon. The 'Custom Field Definition Detail' section has tabs for Edit, Set Field-Level Security, View Field Accessibility, and Where is this used?. The 'Field Information' table lists the field's details: Field Label (service date), Field Name (service\_date), API Name (service\_date\_\_c), Description, Help Text, Data Owner, Field Usage, Data Sensitivity Level, and Compliance Categorization. The 'Created By' and 'Modified By' fields both show 'Garage Management system' with a timestamp of '30/10/2025, 10:35 am'. The 'Formula Options' section shows the 'Data Type' as 'Formula' and the 'Formula' as 'CreatedDate'.

Field Information	
Field Label	service date
Field Name	service_date
API Name	service_date__c
Description	
Help Text	
Data Owner	
Field Usage	
Data Sensitivity Level	
Compliance Categorization	
Created By	Garage Management system, 30/10/2025, 10:35 am
Modified By	Garage Management system, 30/10/2025, 10:35 am

Formula Options	
Data Type	Formula
Formula	CreatedDate

## **MILESTONE 5: VALIDATION RULES**

Validation rules are essential in Salesforce to maintain data integrity and prevent invalid or inconsistent records. In the Garage Management System, validation rules were implemented to ensure accurate record creation, logical data flow, and consistent customer feedback.

### **ACTIVITY 1: Appointment Object Validation**

#### **Objective:**

To ensure appointment dates and vehicle information are entered correctly.

#### **Process:**

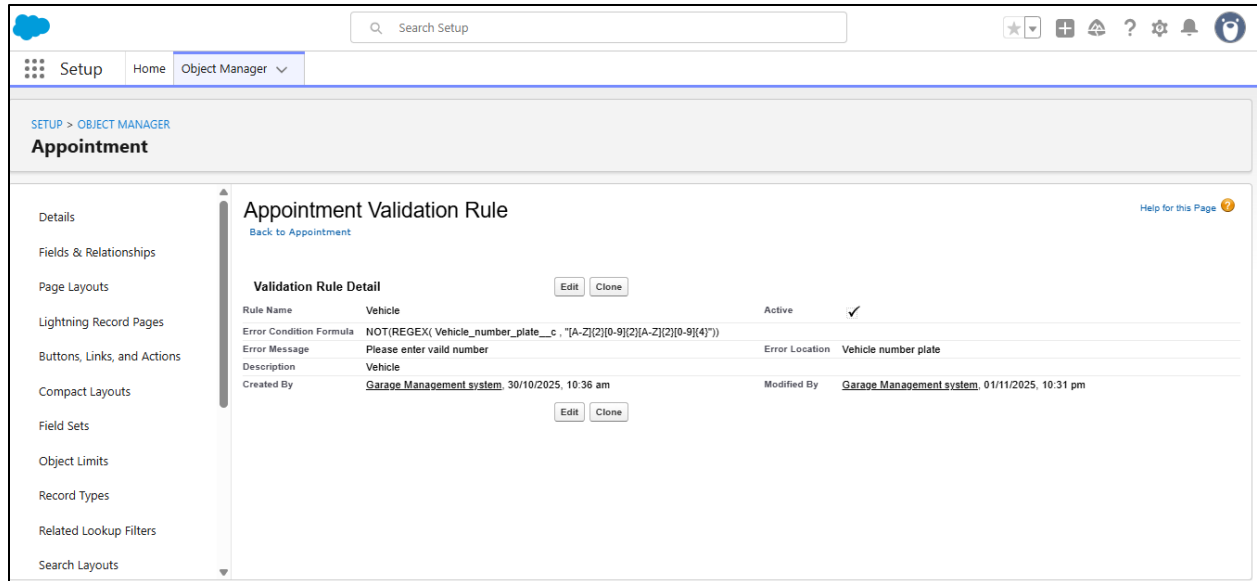
- Navigate to Setup → Object Manager → Appointment → Validation Rules → New.
- Create the following validation rules:
  1. Appointment Date Validation
    - Formula: `Appointment_Date__c > TODAY()`
    - Error Message: “Appointment date cannot be greater than today.”
  2. Vehicle Number Validation
    - Formula: `LEN(Vehicle_Number_Plate__c) <> 10`
    - Error Message: “Vehicle Number Plate must contain exactly 10 characters.”
- Activate both rules and test by creating records.



Validation Name	Formula	Error Message
Appointment Date Validation	Appointment_Date__c > TODAY()	Appointment date cannot be greater than today.
Vehicle Number Validation	LEN(Vehicle_Number_Plate__c) <> 10	Vehicle Number Plate must contain exactly 10 characters.

**Description:**

These validations prevent future-dated appointments and enforce proper formatting for vehicle registration numbers, ensuring high-quality and realistic data entries.



## ACTIVITY 2: Billing Details & Feedback Validation

### Objective:

To ensure the service rating given by customers falls within a valid range (1 to 5).

### Process:

- Navigate to Setup → Object Manager → Billing Details & Feedback → Validation Rules → New.
- Create the rule named `rating_should_be_less_than_5`.
- Formula: `OR(Rating__c < 1, Rating__c > 5)`
- Error Message: “Rating should be between 1 and 5.”
- Activate the rule.



## MILESTONE 6: DUPLICATE RULES

Duplicate rules help prevent data redundancy, ensuring that no two records store the same customer information.

### Objective:

To identify and stop creation of duplicate customer entries based on phone and email fields.

### Process:

- Go to Setup → Duplicate Management → Matching Rules.
- Create a Matching Rule for Customer Details Object using Phone and Email fields.
- Then, create a Duplicate Rule using this matching rule.
- Configure it to Alert User on duplication and Allow Save with Warning (optional).
- Test by entering duplicate records.

Rule Type	Object	Matching Criteria	Action
Matching Rule	Customer Details	Email, Phone	Identify duplicates
Duplicate Rule	Customer Details	Uses above rule	Alerts user on duplicate

## Description:

This rule ensures clean, reliable customer data, reducing confusion and maintaining a single source of truth for all client records.

The screenshot shows the Salesforce Setup interface. The left sidebar has a search bar with "matchi" and a navigation menu with "Data" > "Duplicate Management" > "Matching Rules" selected. The main content area is titled "Matching Rules" and shows the details for a rule named "Matching customer details".

**Matching Rule Detail**

Object	Customer Details
Rule Name	Matching customer details
Unique Name	Matching_customer_details
Description	
Matching Criteria	(Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone_number EXACT MatchBlank = FALSE)
Status	Active
Created By	Garage Management system, 30/10/2025, 10:46 am
Modified By	Garage Management system, 30/10/2025, 10:46 am

The screenshot shows the Salesforce Setup interface. The left sidebar has a search bar with "dupli" and a navigation menu with "Data" > "Duplicate Management" > "Duplicate Rules" selected. The main content area is titled "Duplicate Rules" and shows the details for a rule named "Customer Detail duplicate".

**Duplicate Rule Detail**

Rule Name	Customer Detail duplicate	Order	1 of 1 [Reorder]
Description	Customer Detail duplicate		
Object	Customer Details		
Record-Level Security	Enforce sharing rules		
Action On Create	Allow	Operations On Create	<input checked="" type="checkbox"/> Alert <input checked="" type="checkbox"/> Report
Action On Edit	Allow	Operations On Edit	<input type="checkbox"/> Alert <input type="checkbox"/> Report
Alert Text	Use one of these records?		
Active	<input checked="" type="checkbox"/>		
Matching Rule	<input checked="" type="checkbox"/> Matching customer details <input checked="" type="checkbox"/> Mapped	Matching Criteria	(Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone_number EXACT MatchBlank = FALSE)
Conditions			
Created By	Garage Management system, 30/10/2025, 10:49 am	Modified By	Garage Management system, 30/10/2025, 10:49 am

## MILESTONE 7: PROFILES

Profiles in Salesforce define what users can see, do, and edit within the system. Custom profiles were created for the Manager and Sales Person roles to suit their daily operations.

### ACTIVITY 1: Manager Profile

#### Objective:

To provide the manager with complete control over all custom objects.

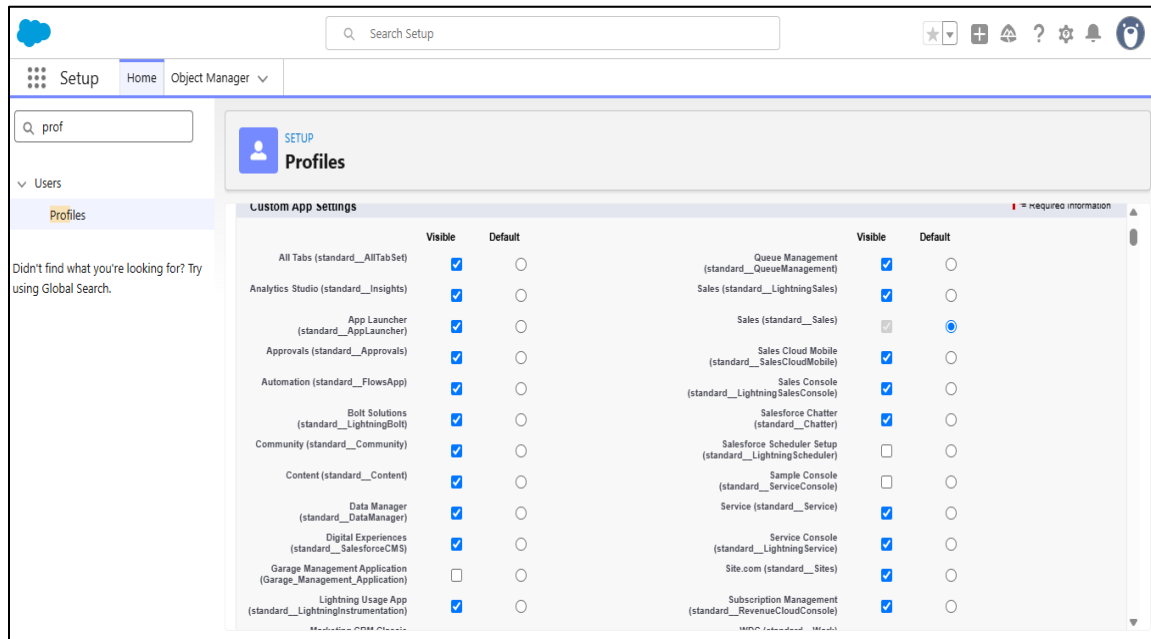
#### Process:

- Navigate to Setup → Profiles → Clone Standard User Profile.
- Rename the cloned profile as Manager Profile.
- Provide Create, Read, Edit, Delete permissions for all custom objects.
- Set Garage Management Application as the default app.
- Save and assign the profile to Manager users.

Profile	Base Profile	Access Level
Manager Profile	Standard User	Full CRUD on all custom objects

#### Description:

The Manager Profile allows managers to monitor and control all customer, appointment, and billing records for administrative oversight.



## ACTIVITY 2: Sales Person Profile

### Objective:

To restrict access while still allowing essential operations for sales users.

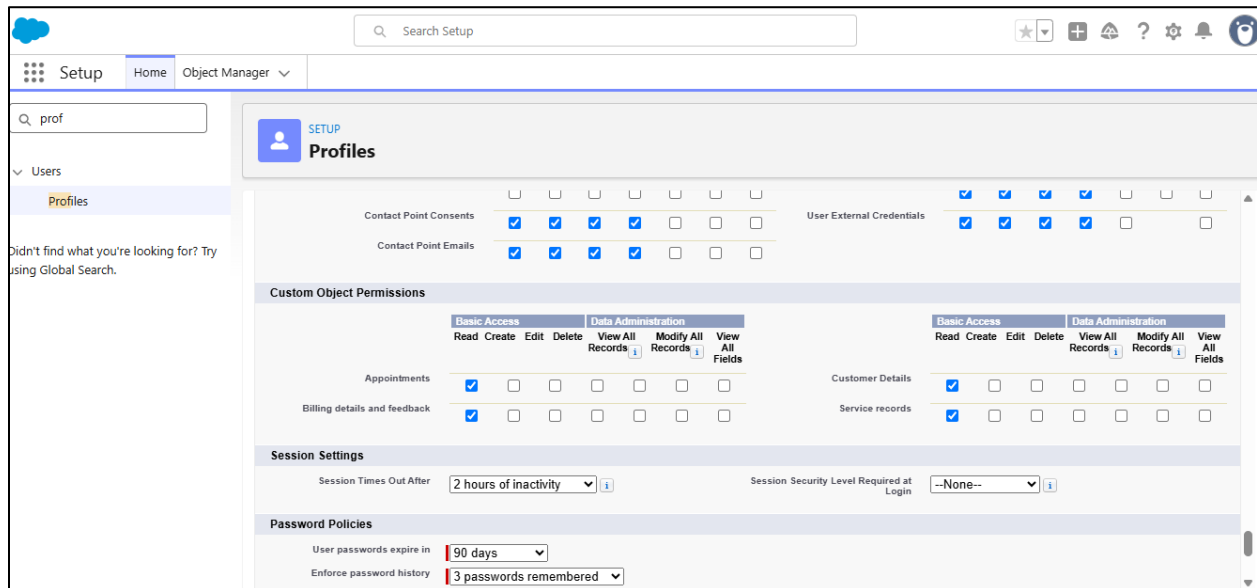
### Process:

- Clone Salesforce Platform User Profile and rename it Sales Person Profile.
- Grant Create and Edit permissions for Appointment, Service, and Billing objects only.
- Set Garage Management App as the default app.
- Save and assign to Sales team members.

Profile	Base Profile	Access Level
Sales Person Profile	Salesforce Platform User	Limited access – operational objects only

## Description:

This profile allows the sales team to focus on customer operations while restricting administrative permissions, maintaining system security.



The screenshot shows the Salesforce Setup interface for the 'Profiles' page. The left sidebar contains navigation links for 'Setup', 'Home', and 'Object Manager'. The main content area is titled 'Profiles' and displays a list of permissions for the 'Sales Person Profile'. The permissions are organized into sections: 'Contact Point Consents', 'Contact Point Emails', 'User External Credentials', 'Custom Object Permissions', 'Session Settings', and 'Password Policies'. The 'Custom Object Permissions' section is expanded, showing permissions for 'Appointments', 'Billing details and feedback', 'Customer Details', and 'Service records'. The 'Session Settings' section shows 'Session Times Out After' set to '2 hours of inactivity' and 'Session Security Level Required at Login' set to '--None--'. The 'Password Policies' section shows 'User passwords expire in' set to '90 days' and 'Enforce password history' set to '3 passwords remembered'.



## MILESTONE 8: ROLES & ROLE HIERARCHY

Roles determine record visibility and reporting structure. A simple hierarchy was designed to reflect the garage's chain of command.

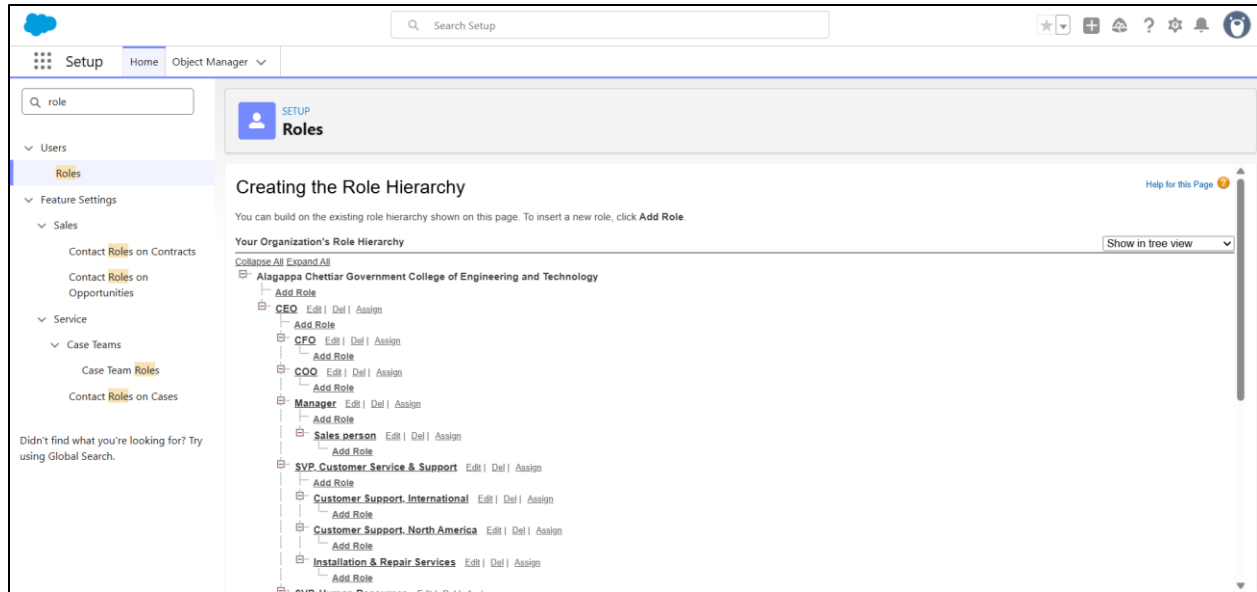
### Process:

- Go to Setup → Roles → Set Up Roles → Add Role.
- Create the following hierarchy:
  - CEO (Top)
  - Manager (Reports to CEO)
  - Sales Person (Reports to Manager)

Role Name	Reports To	Visibility
CEO	—	Full org-wide
Manager	CEO	Can see subordinate records
Sales Person	Manager	Can see own records

### Description:

This hierarchy ensures that managers can view all records created by salespersons under them, promoting structured data sharing and accountability.



## MILESTONE 9: USERS

### Objective:

To create user accounts reflecting real-world employees within the garage.

### Process:

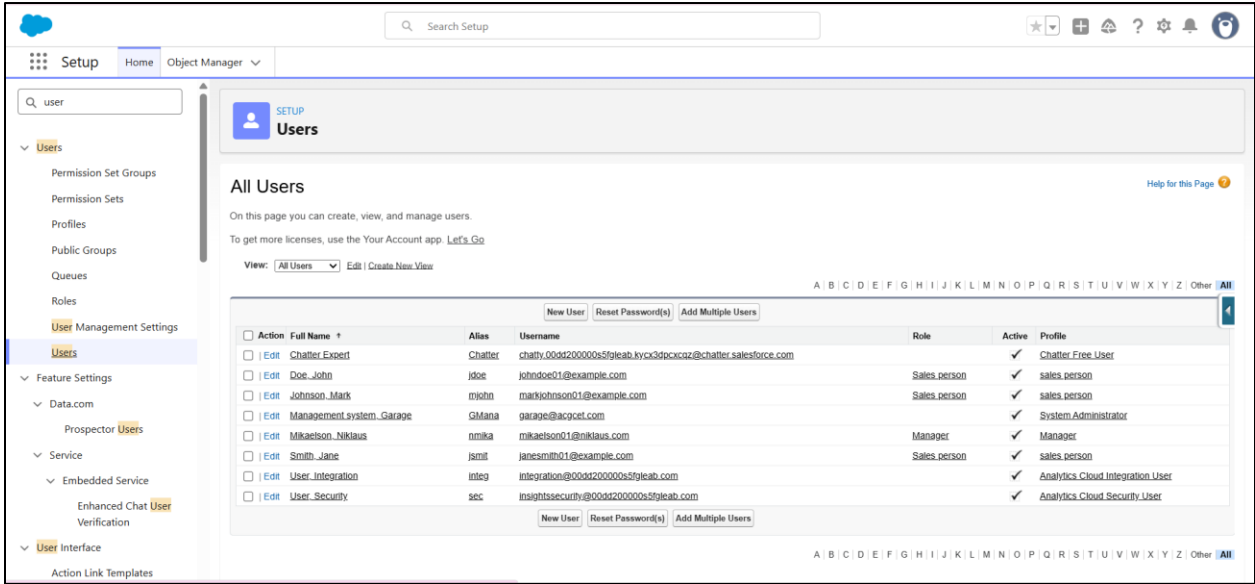
- Navigate to Setup → Users → New User.
- Enter details for each user, assign appropriate Role and Profile.

User Name	Role	Profile
Niklaus Mikaelson	Manager	Manager Profile

Jane Smith	Sales Person	Sales Person Profile
John Doe	Sales Person	Sales Person Profile
Mark Johnson	Sales Person	Sales Person Profile

Description:

This user setup ensures a real-world simulation of organizational roles with accurate access permissions.



## MILESTONE 10: PUBLIC GROUPS

Public Groups simplify record sharing and collaboration by grouping users based on function or role.

### Process:

- Navigate to Setup → Public Groups → New.
- Name: Sales Team
- Add members: Jane Smith, John Doe, and Mark Johnson.
- Save the group.

Group Name	Members	Purpose
Sales Team	All Sales Person Users	For sharing and collaboration

### Description:

This group makes sharing rules and report access easier to manage for all sales personnel collectively.

Setup

Home

Object Manager

users

Users

Permission Set Groups

Permission Sets

Profiles

Public Groups

Queues

Roles

User Management Settings

Users

Feature Settings

Data.com

Prospector Users

Didn't find what you're looking for? Try using Global Search.

Search Setup

Public Groups

sales team

Group

Label sales team

Group Name sales\_team

Grant Access Using Hierarchies

Description

Created By Garage Management system, 30/10/2025, 10:52 am

Modified By Garage Management system, 30/10/2025, 10:52 am

View All Users

Name	Type	Role
sales person		

Setup

Home

Object Manager

users

Users

Permission Set Groups

Permission Sets

Profiles

Public Groups

Queues

Roles

User Management Settings

Users

Feature Settings

Data.com

Prospector Users

Didn't find what you're looking for? Try using Global Search.

Search Setup

Roles

sales person

Role

Below is the list of users assigned to this role. Click Edit to modify the role name. Click Assign Users to Role to assign existing users to this role. Click New User to create a user for this role.

Hierarchy: Alagappa Chettiar Government College of Engineering and Technology > CEO > Manager > sales person

Users in sales person Role (3)

Role Detail

Label	sales person	Role Name	sales_person
This role reports to	Manager	Role Name as displayed on reports	
Modified By	Garage Management system, 30/10/2025, 10:45 am	Sharing Groups	Role, Role and Internal Subordinates
Opportunity Access	Users in this role can edit all opportunities associated with accounts that they own, regardless of who owns the opportunities		
Case Access	Users in this role can edit all cases associated with accounts that they own, regardless of who owns the cases		

Users in sales person Role

Action	Full Name	Alias	Username	Active
Edit	Mark Johnson	mjohn	markjohnson01@example.com	✓
Edit	John Doe	jdoo	john doe01@example.com	✓

## MILESTONE 11: SHARING SETTINGS

Sharing settings control record-level access. To secure service data while maintaining transparency for managers, selective sharing rules were configured.

### Process:

- Go to Setup → Sharing Settings.
- Set Service Records Object Organization-Wide Default (OWD) to Private.
- Create a Sharing Rule:
  - Criteria: Owned by Sales Person Role
  - Shared With: Manager Role
  - Access Level: Read/Write
- Save and test the rule.

Object	OWD Setting	Shared From	Shared To	Access
Service Records	Private	Sales Person Role	Manager Role	Read/Write

### Description:

This configuration ensures that while service data remains private to individual salespersons, their managers can still access and supervise all operations.

SetupHomeObject Manager

Q shari

Security

Guest UserSharing Rule Access Report

Sharing Settings

Didn't find what you're looking for? Try using Global Search.

SETUP

Sharing Settings

User Provisioning Request	Private	Private	✓
Waitlist	Private	Private	✓
Web Cart Document	Private	Private	✓
Work Order	Private	Private	✓
Work Plan	Private	Private	✓
Work Plan Template	Private	Private	✓
Work Step Template	Private	Private	✓
Work Type	Private	Private	✓
Work Type Group	Public Read/Write	Private	✓
Appointment	Public Read/Write	Private	✓
Billing details and feedback	Public Read/Write	Private	✓
Customer Details	Public Read/Write	Private	✓
Service records	Private	Private	✓

Other Settings

Manager Groups

Secure most user record access

Other Settings Help

SetupHomeObject Manager

Q shari

Security

Guest UserSharing Rule Access Report

Sharing Settings

Didn't find what you're looking for? Try using Global Search.

SETUP

Roles

sales person

Below is the list of users assigned to this role. Click Edit to modify the role name. Click Assign Users to Role to assign existing users to this role. Click New User to create a user for this role.

Hierarchy: Alagappa Chettiar Government College of Engineering and Technology > CEO > Manager > sales person

Users in sales person Role (3)

Role Detail

EditDelete

Label	sales person	Role Name	sales_person
This role reports to	Manager	Role Name as displayed on reports	
Modified By	Garage Management system, 30/10/2025, 10:45 am	Sharing Groups	Role, Role and Internal Subordinates
Opportunity Access	Users in this role can edit all opportunities associated with accounts that they own, regardless of who owns the opportunities		
Case Access	Users in this role can edit all cases associated with accounts that they own, regardless of who owns the cases		

Users in sales person Role

Assign Users to RoleNew User

Users in sales person Role Help

Action	Full Name	Alias	Username	Active
Edit	Mark Johnson	mjohn	markjohnson01@example.com	✓
Edit	John Doe	jdoe	johndoe01@example.com	✓
Edit	Jane Smith	jsmi	janesmith01@example.com	✓

## **MILESTONE 12: FLOWS**

Flows were built to automate repetitive tasks and improve efficiency.

### **ACTIVITY 1: Billing Amount Flow**

#### **Objective:**

To automatically update payment details and send a confirmation email once payment is marked as completed.

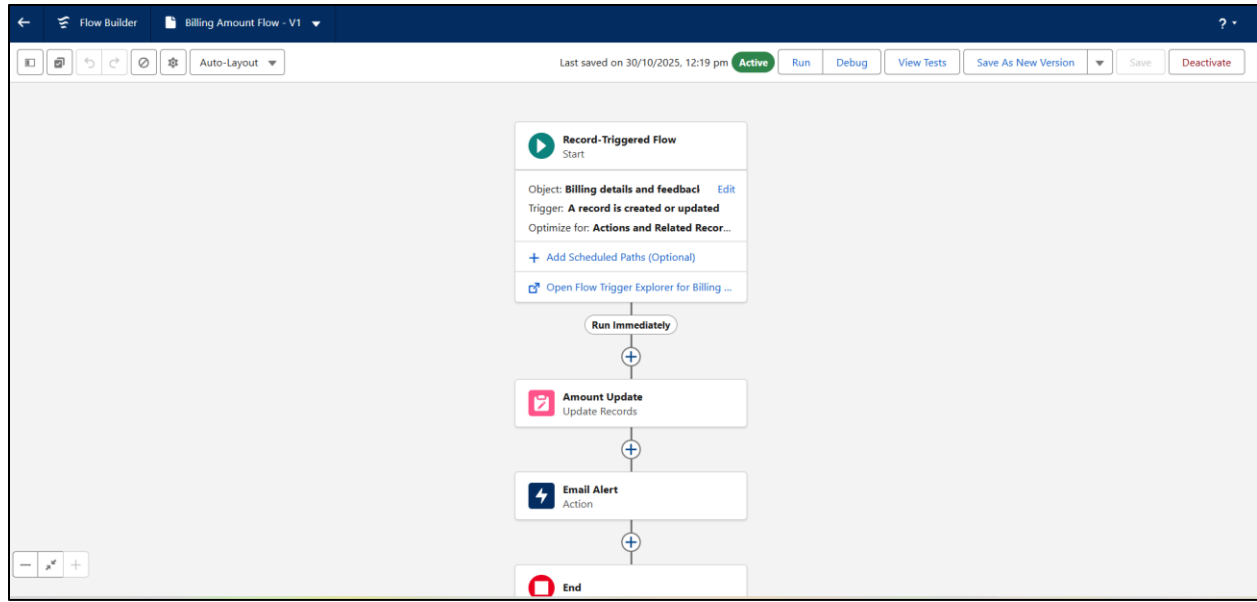
#### **Process:**

- Navigate to Setup → Flow → New Flow → Record-Triggered Flow.
- Object: Billing Details & Feedback.
- Trigger: When a record is updated and Payment\_Status\_\_c = "Completed".
- Actions:
  1. Update field Payment\_Paid\_\_c with relevant amount.
  2. Send an email to the customer confirming payment.

#### **Description:**

This automation eliminates manual follow-up and enhances customer experience through instant confirmation.





## ACTIVITY 2: Update Service Status Flow

### Objective:

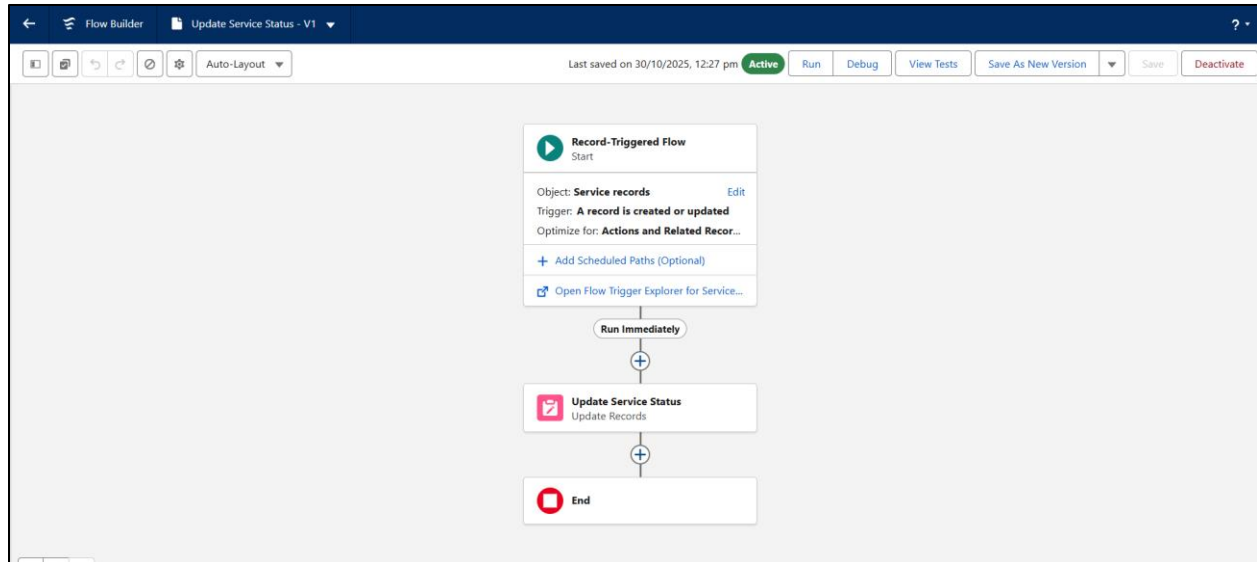
To auto-update service status when the quality check is completed.

### Process:

- Create another Record-Triggered Flow on Service Records.
- Trigger: When Quality\_Check\_Status\_\_c = TRUE.
- Action: Update Service\_Status\_\_c = "Completed".
- Save and activate.

### Description:

This automation ensures service stages are updated in real time, helping managers and staff track progress accurately.



## MILESTONE 13: APEX TRIGGER

### Objective:

To automatically calculate the total service cost based on selected service checkboxes.

### Process:

- Created an Apex Trigger named AmountDistribution on the Appointment Object.
- Built a handler class AmountDistributionHandler containing business logic.
- When checkboxes (Maintenance, Repairs, Replacement Parts) are selected, the trigger sums predefined costs and updates the Service\_Amount\_\_c field automatically.
- Tested successfully for multiple records.

Trigger Name	Object	Function
AmountDistribution	Appointment	Calculates total service cost

### Description:

This trigger automates cost calculation, reducing manual work and ensuring accurate billing.

The screenshot shows the Salesforce Developer Console in Google Chrome. The browser address bar displays the URL: `alagappachettiargovernme-a4-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The console title is "Developer Console - Google Chrome". Below the title bar, there is a menu bar with "File", "Edit", "Debug", "Test", "Workspace", and "Help". A tab titled "Saving: AmountDistribution.apxt" is open. Below the tab, there is a status bar showing "Code Coverage: None" and "API Version: 65". The main area displays the Apex trigger code for "AmountDistribution" on the "Appointment\_\_c" object, triggered before insert and before update. The code is as follows:

```

1 trigger AmountDistribution on Appointment__c (before insert, before update) {
2
3     if(trigger.isbefore && trigger.isinsert || trigger.isupdate){
4
5         AmountDistributionHandler.amountDist(trigger.new);
6
7     }
8
9 }

```

## **MILESTONE 14: REPORTS**

### **Objective:**

To create visual reports summarizing service and payment data for business analysis.

### **Process:**

- Create a Report Folder named Garage Management Folder.
- Share the folder with the Manager Role.
- Create a Custom Report Type:
  1. Primary Object: Customer Details
  2. Related Objects: Appointment → Service Records → Billing Details
- Create a Report named New Service Information Report.
- Fields Displayed: Customer Name, Appointment Date, Service Status, Payment Paid.
- Group data by Payment Status and Rating.
- Add a Line Chart visualization.

Garage Management Appl...

Customer Details

Appointments

Service records

Billing details and feedback

Reports

Dashboards

Search...

Star

+

🏠

?

⚙️

🔔

👤

Reports

Recent

1 item

Search recent reports...

New Report

New Folder

⚙️

REPORTS

Report Name

Description

Folder

Created By

Created On

Subscribed

Recent

New Service information Report

Garage Management Folder

Garage Management system

1/11/2025, 6:27 am

⌵

Created by Me

Private Reports

Public Reports

All Reports

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites

Garage Management Appl...

Customer Details

Appointments

Service records

Billing details and feedback

Reports

Dashboards

Search...

Star

+

🏠

?

⚙️

🔔

👤

Report: Service information

New Service information Report

Enable Field Editing

🔍

🔄

🔄

Edit

⌵

Total Records

Total Payment Paid

10

₹28,270

Rating for service

Payment Status →

Pending

Completed

Total

☐ 5

Sum of Payment Paid

₹0

₹25,000

₹25,000

☐ 4

Sum of Payment Paid

₹270

₹2,000

₹2,270

☐ 3

Sum of Payment Paid

₹1,000

₹0

₹1,000

Total

Sum of Payment Paid

₹1,270

₹27,000

₹28,270

Record Count

4

1

3

10

Details (10 Rows)

Click an intersection in the table above to filter details.

×

Customer Name

Appointment Date

Service Status

Payment Paid

1

Maria Gomez

29/10/2025

Completed

₹2,000

2

Sarah Lee

27/10/2025

Completed

₹8,000

3

Emily Wilson

31/10/2025

Started

₹8,000

4

Olivia Brown

30/10/2025

Completed

₹7,000

5

David Smith

30/10/2025

Completed

₹150

6

John Carter

26/10/2025

Completed

₹120

Row Counts

Detail Rows

Grand Total

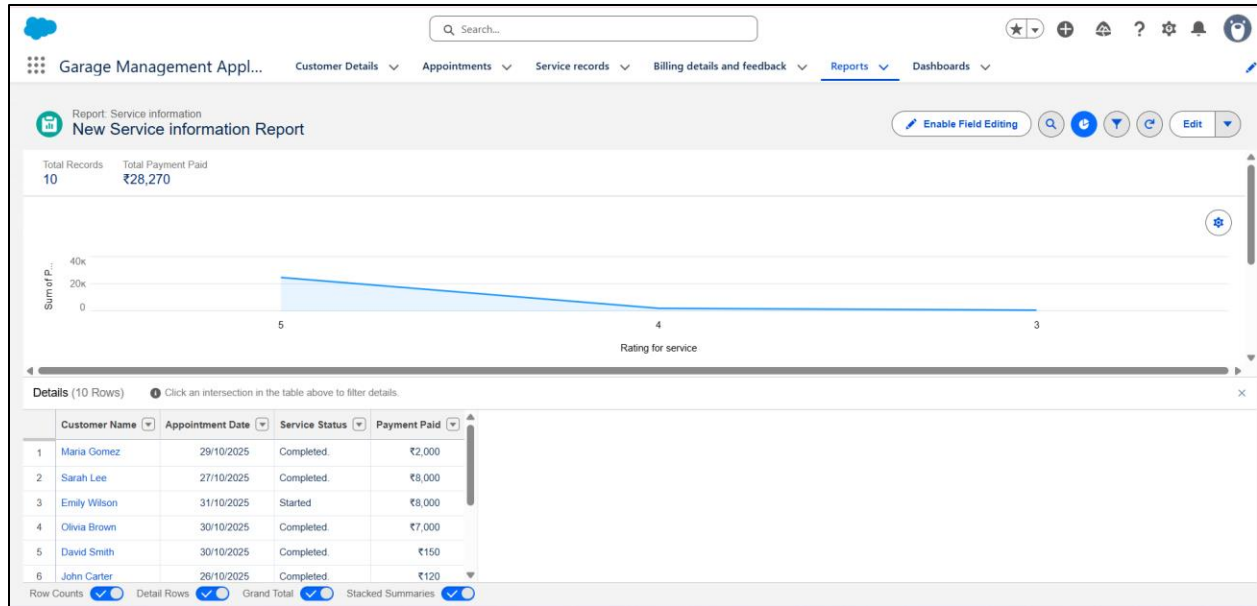
Stacked Summaries

✓

✓

✓

✓



## Description:

This report provides a clear overview of business performance, helping management assess service quality and financial outcomes.

## MILESTONE 15: DASHBOARDS

### Objective:

To visualize reports for management insights.

### Process:

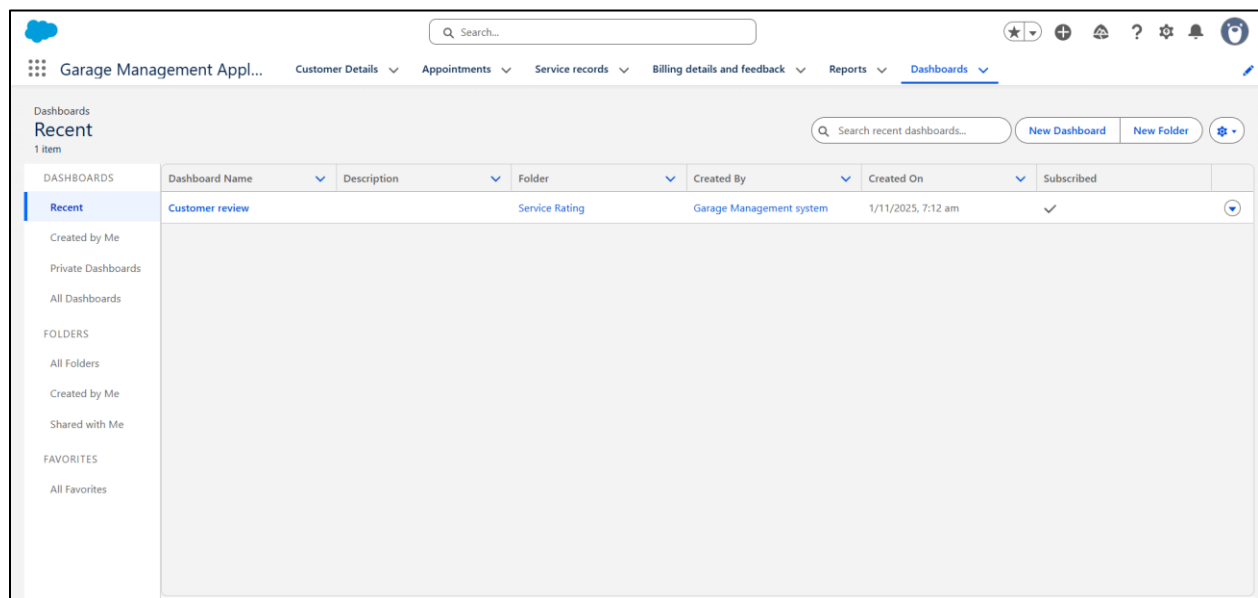
- Create a Dashboard Folder: Service Rating Dashboard.
- Add a dashboard: Garage Performance Dashboard.
- Add components from the Service Information Report.

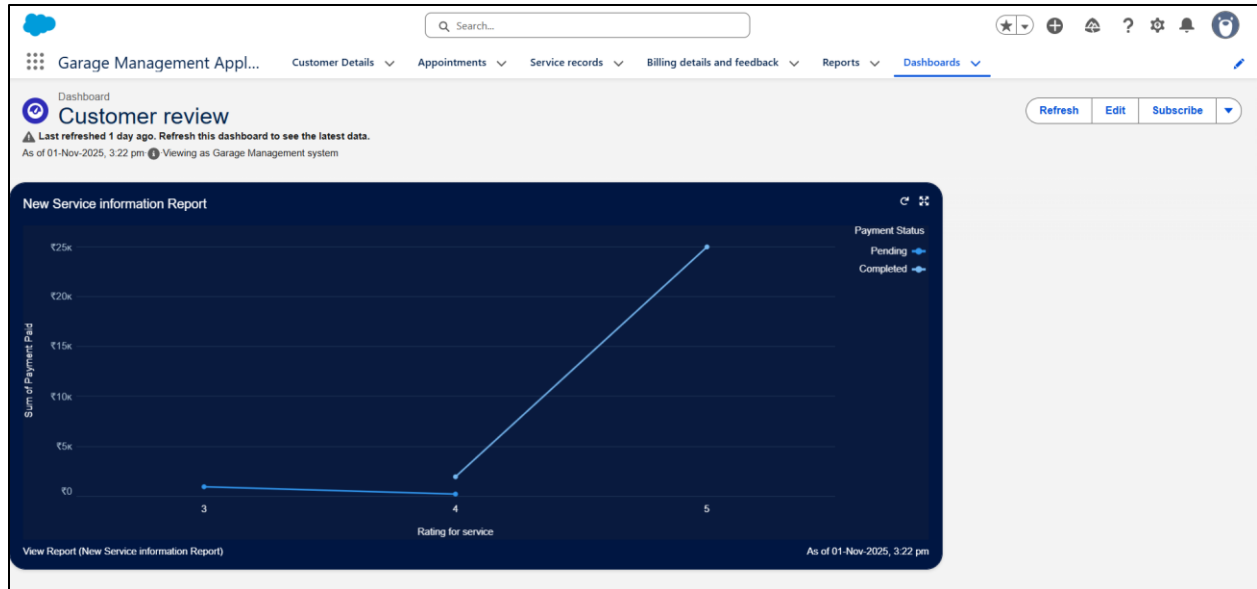
- Schedule weekly email delivery (every Monday) to managers.

Dashboard	Source Report	Shared With	Frequency
Garage Performance Dashboard	New Service Information Report	Managers	Weekly (Monday)

### Description:

The dashboard enables management to review garage performance trends at a glance, improving strategic decision-making.





## MILESTONE 16: USER ADOPTION & TESTING

### Objective:

To verify that all workflows, automations, and relationships function correctly.

### Process:

- Created a Customer Record.
- Created an Appointment linked to the customer — trigger auto-calculated Service Amount.
- Created a Service Record — once Quality Check was checked, Service Status auto-updated via Flow.
- Created Billing Details — marking Payment Status “Completed” auto-updated Payment Paid and sent a confirmation email.



- Verified data flow across all objects.

The screenshot shows a web browser window with the URL `alagappachettiargovernme-a4-dev-ed.develop.lightning.force.com/lightning/o/Customer_Details_c/new?count=2&nooverride=1&useRecordTypeCheck=1&navigationLocation=LIST_VIEW&ui...`. The application is titled "Garage Management Appl...". A modal window titled "New Customer Details" is open, displaying a form with the following fields:

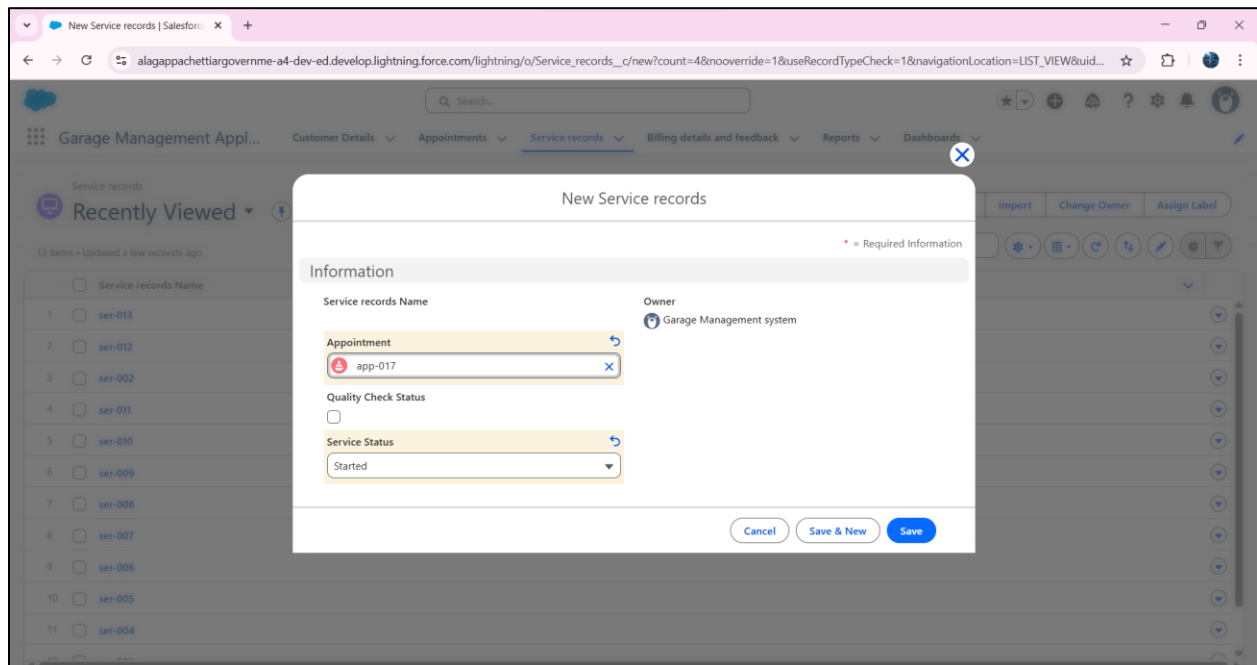
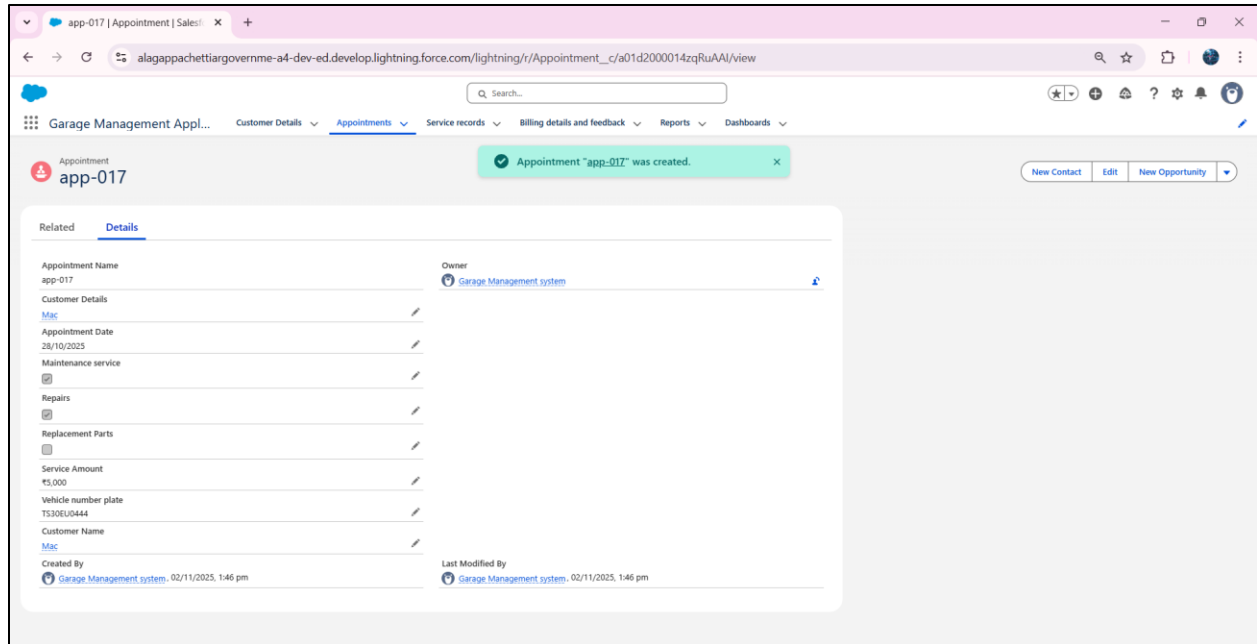
- Information** (Required Information):
  - \* Customer Name: John
  - Phone number: 555-1001
  - Gmail: mac@gmail.com
- Owner**: Garage Management system

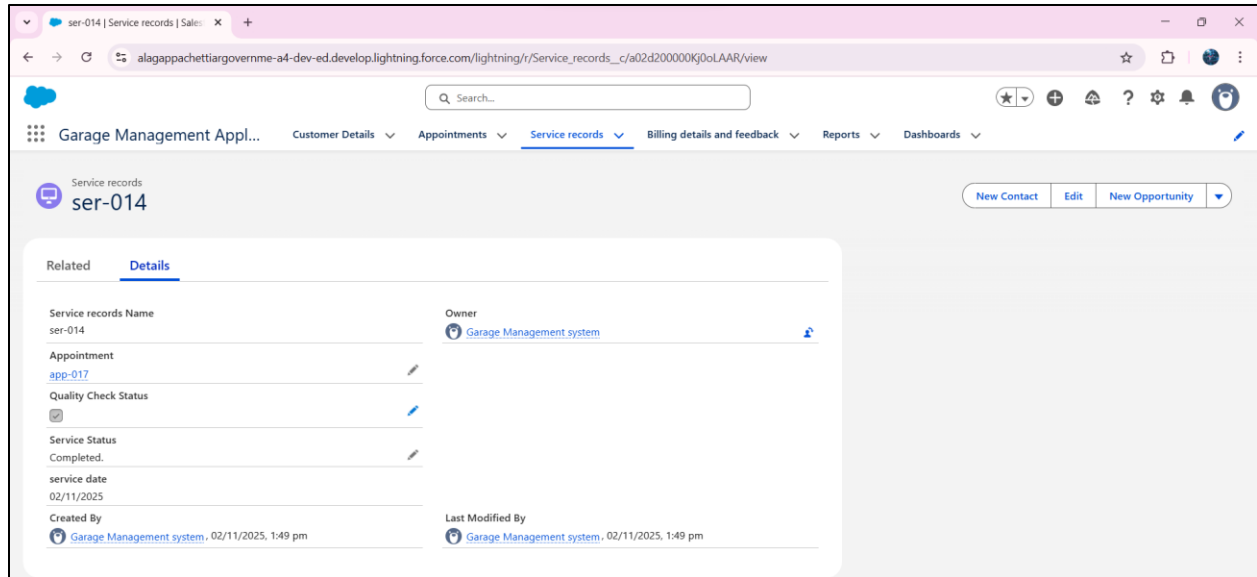
At the bottom of the modal are three buttons: "Cancel", "Save & New", and "Save". In the background, a table titled "Recently Viewed" lists 11 items, including names like Mac, Sophia Martinez, Daniel Thomas, Emily Wilson, Ethan Davis, Olivia Brown, David Smith, Maria Gomez, Alex Johnson, Sarah Lee, and John Carter.

The screenshot shows a web browser window with the URL `alagappachettiargovernme-a4-dev-ed.develop.lightning.force.com/lightning/o/Appointment_c/new?count=3&nooverride=1&useRecordTypeCheck=1&navigationLocation=LIST_VIEW&ui...`. The application is titled "Garage Management Appl...". A modal window titled "New Appointment" is open, displaying a form with the following fields:

- Information** (Required Information):
  - Appointment Name: Customer Details
  - \* Appointment Date: 28/10/2025
  - Maintenance service: ☒ Repairs
  - Replacement Parts: ☐
  - Service Amount:
  - \* Vehicle number plate: TS30EU0443
  - Customer Name: Mac
- Owner**: Garage Management system

At the bottom of the modal are three buttons: "Cancel", "Save & New", and "Save". In the background, a table titled "Recently Viewed" lists 14 items, including appointment IDs like app-015, app-014, app-011, app-013, app-010, app-009, app-008, app-007, app-006, app-005, app-004, app-003, app-002, and app-001.





## Description:

All automated processes worked seamlessly. Data linkage between objects was validated, and no errors were encountered, confirming system reliability and successful implementation.

## Conclusion

In conclusion, the Garage Management System (GMS) provides an efficient, reliable, and user-friendly solution for managing garage operations. It simplifies key processes such as vehicle service scheduling, inventory control, billing, and customer management. By automating daily tasks, the system reduces manual errors, improves time management, and enhances overall productivity. The successful implementation of this system demonstrates how technology can transform traditional garage operations into a more organized, data-driven, and customer-focused service environment.