



# **PROJECT OF SALESFORCE DEVELOPER**

## **GARAGE MANAGEMENT SYSTEM**

**To optimize customer details, appointment, service records, and billing & feedback for automotive garages.**

**By**

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# **PROJECT OVERVIEW**

The Garage Management System (GMS) project on Salesforce is a CRM solution aimed at transforming the way automotive garages manage customer relationships, vehicle service records, and day-to-day operations. With centralized customer profiles, service histories, and appointment scheduling, the system empowers garages to deliver more personalized and efficient customer service. Automated reminders and service notifications help enhance customer engagement, ensuring regular maintenance and timely service updates to boost customer satisfaction.

In addition to customer management, the GMS CRM includes comprehensive vehicle tracking and work order management, allowing technicians and advisors to access detailed service histories, track service progress, and assign tasks seamlessly. An integrated parts inventory module ensures that essential components are in stock, with automated reordering for low-stock items to prevent service delays. Technicians can use mobile access to view work orders and inventory on the go, optimizing workflow and reducing downtime.

Finally, the GMS CRM supports billing and invoicing, providing a streamlined system for generating service estimates, digital invoices, and online payment options. With built-in analytics and reporting, managers gain insights into customer trends, revenue, and operational efficiency, enabling data-driven decisions for business growth. The system is designed to scale with the garage, offering robust data security and compliance, making it a future-proof solution for modern garage management needs.

## OBJECTIVES

- **Enhance Customer Retention and Loyalty:** By providing personalized service reminders, streamlined appointment scheduling, and post-service follow-ups, the GMS CRM aims to build long-term customer relationships and increase repeat visits.
- **Optimize Resource Allocation & Technician Efficiency:** Efficient scheduling, real-time work order tracking, and inventory management help maximize technician productivity, reduce wait times, and ensure that resources are allocated effectively for each service job.
- **Increase Revenue through Data-Driven Upselling:** With insights into customer preferences and service history, the CRM enables garages to offer tailored service recommendations and upsell additional maintenance packages, driving revenue growth.

- **Reduce Operational Costs through Automation:** By automating routine tasks like appointment reminders, parts reordering, and invoicing, the GMS CRM minimizes manual workload, reduces errors, and cuts down operational costs.
- **Improve Business Insights and Strategic Planning:** Advanced reporting and analytics provide managers with valuable insights into service trends, technician performance, and financial metrics, supporting informed decision-making and strategic business growth.

## KEY FEATURES

- **Customer details:**
  - Store and manage customer details including contact information, service history, and preferences.
  - Access comprehensive service records for customer insights and tailored service.
- **Appointment:**
  - Automated reminders and notifications to reduce no-shows.
  - Integrated calendar to optimize working time.
- **Service records:**
  - Track detailed service information including service type, parts used, and associated costs.
  - Link service records to specific customer appointments for easy tracking and reference.
- **Billing details:**

- Generate and manage billing details, linking them to service records.
  - Track payment status and send timely payment reminders.
  - Automated invoice generation and email notifications for a streamlined payment process.
- **Feedback:**
    - Collect and manage customer feedback post-service.
    - Track ratings and comments to enhance service quality.
    - Analyze feedback trends for continuous improvement.

## DETAILED PROCESS

### Activity – 1

#### Salesforce account Creation & Activation

- Create a Developer Account by providing all the required details and Activate the account.
- Go to <https://developer.salesforce.com/signup>.

### Activity – 2

#### Object Creation

- Create all the required objects with the given label name and format.
- **Customer details Object**
  - Enter the label name >> Customer Details
  - Plural label name >> Customer Details
  - Enter Record Name Label and Format
  - Record Name >> Customer Name

- Data Type >> Text

The screenshot shows the 'Customer Details' object setup in the Salesforce Object Manager. The left sidebar lists various configuration options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The main 'Details' tab displays the following information:

Setting	Value
Description	
API Name	Customer_Details__c
Custom	✓
Singular Label	Customer Details
Plural Label	Customer Details
Enable Reports	✓
Track Activities	
Track Field History	
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

## - Appointment Object

- Enter the label name >> Appointment
- Plural label name >> Appointments
- Enter Record Name Label and Format
  - Record Name >> Appointment Name
  - Data Type >> Auto Number
  - Display Format >> app-{000}
  - Starting number >> 1

The screenshot shows the 'Appointment' object setup in the Salesforce Object Manager. The left sidebar lists various configuration options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The main 'Details' tab displays the following information:

Setting	Value
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

## - Service records Object

- Enter the label name >> Service records
- Plural label name >> Service records
- Enter Record Name Label and Format
- Record Name >> Service records Name
- Data Type >> Auto Number
- Display Format >> ser-{000}
- Starting number >> 1

The screenshot shows the Salesforce Setup interface under the Object Manager. A new object named 'Service records' is being created. The 'API Name' field is set to 'Service\_records\_\_c'. Other settings include 'Custom' for Singular Label ('Service records') and Plural Label ('Service records'). The object is marked as 'Deployed' and has 'Enable Reports' checked. The 'Edit' and 'Delete' buttons are visible at the top right.

## - Billing details & Feedback Object

- Enter the label name >> Billing details and feedback
- Plural label name >> Billing details and feedback
- Enter Record Name Label and Format
  - Record Name >> Billing details and feedback Name
  - Data Type >> Auto Number
  - Display Format >> bill-{000}
  - Starting number >> 1

The screenshot shows the Salesforce Setup interface under the Object Manager. A new object named 'Billing details and feedback' is being created. The 'API Name' field is set to 'Billing\_details\_and\_feedback\_\_c'. Other settings include 'Custom' for Singular Label ('Billing details and feedback') and Plural Label ('Billing details and feedback'). The object is marked as 'Deployed' and has 'Enable Reports' checked. The 'Edit' and 'Delete' buttons are visible at the top right.

## Activity – 3

### Custom Tabs Creation

- A tab is like a user interface that is used to build records for objects and to view the records in the objects.
- Create these Custom tabs for every Object by following below steps:

- Select Object (Customer Details) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) uncheck the include tab .
- Make sure that the Append tab to users' existing personal customizations is checked.

The screenshot shows the Salesforce Setup interface with the 'Tabs' section selected under 'User Interface'. The 'Custom Tabs' section is displayed, showing a table of custom object tabs. Each row includes an 'Action' column with 'Edit | Del' links, a 'Label' column, a 'Tab Style' column showing icons for each tab, and a 'Description' column which is currently empty. The tabs listed are 'Appointments', 'Billing details and feedback', 'Customer Details', and 'Service records'.

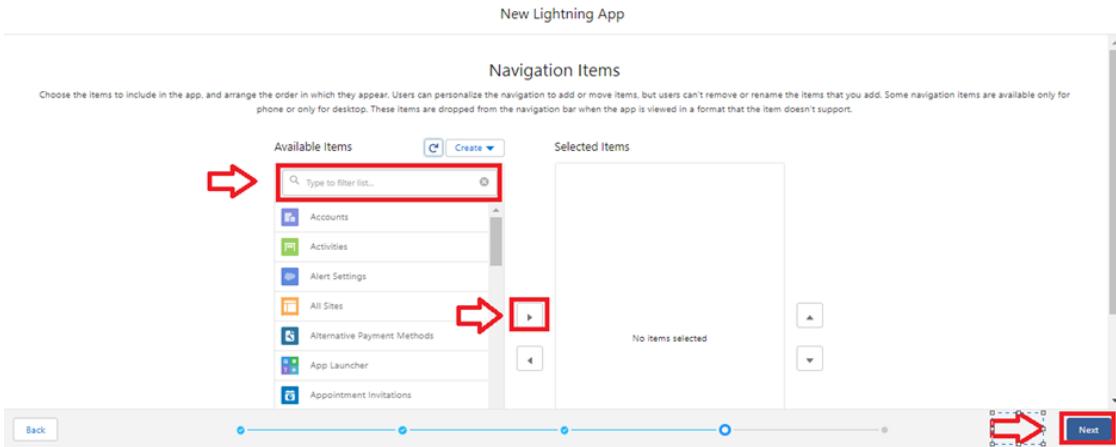
## Activity – 4

### Create a Lighting App

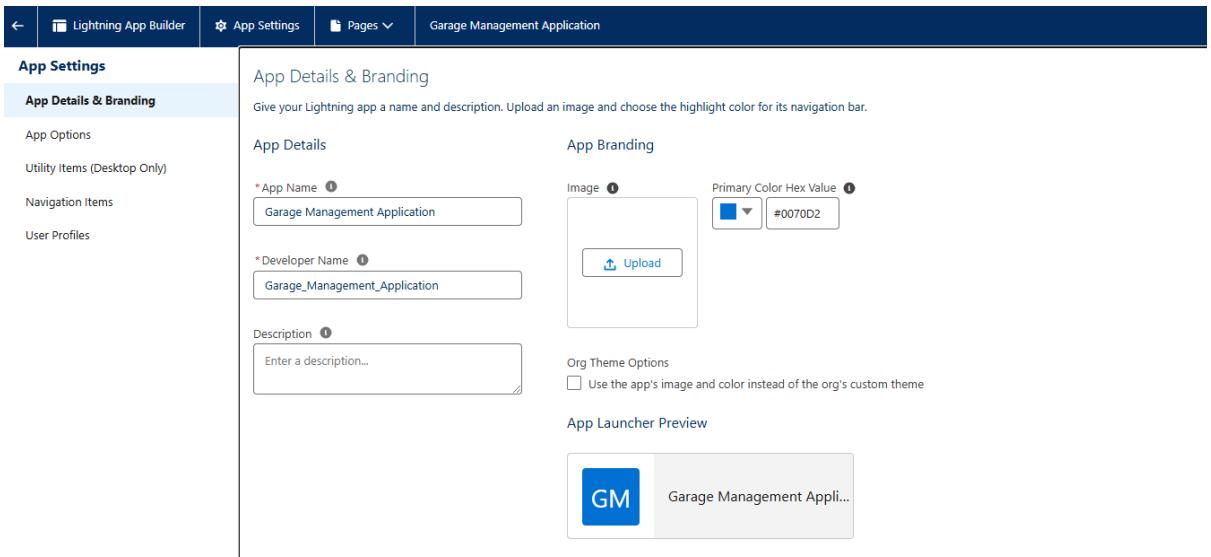
1. Fill the app name in app details as Garage Management Application >> Next >> (App option page) keep it as default >> Next >> (Utility Items) keep it as default >> Next.

The screenshot shows the 'New Lightning App' setup page. The 'App Details & Branding' section is visible. The 'App Name' field is highlighted with a red arrow. The 'Primary Color Hex Value' field (#007002) and 'Image' upload area are also shown. At the bottom right of the page, there is a 'Next' button, which is also highlighted with a red arrow.

2. To Add Navigation Items:



3. Select the items (Customer Details, Appointments, Service records, Billing details and feedback, Reports and Dashboards) from the search bar and move it using the arrow button >> Next.



## Activity – 5

### Field Creation for every object:

Create fields for each and every object as per shown in below images.

- Customer details object

Customer Details

**Fields & Relationships**  
8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address_c	Text Area(255)		
Created By	CreatedById	Lookup(User)		
Customer Name	Name	Text(80)		✓
Gmail	Gmail_c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Name	Name_c	Text(100)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone number	Phone_number_c	Phone		

## - Appointment object

Appointment

**Fields & Relationships**  
12 Items, Sorted by Field Label

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)		✓
Customer Name	Customer_Name_c	Text(80)		
Last Modified By	LastModifiedById	Lookup(User)		
Maintenance service	Maintenance_service_c	Checkbox		
Owner	OwnerId	Lookup(User,Group)		✓

## - Service records object

Service records

**Fields & Relationships**  
8 Items, Sorted by Field Label

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 details & Feedback object

The screenshot shows the Salesforce Object Manager interface for the 'Billing details and feedback' object. The left sidebar lists various setup categories like Page Layouts, Lightning Record Pages, etc. The main area displays the 'Fields & Relationships' section with a table. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data includes:

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)		

## Activity – 6

### Validation Rules

#### - For Appointment

- Enter the Rule name as " Vehicle ".
- Insert the Error Condition Formula as : -
- NOT(REGEX( Vehicle\_number\_plate\_\_c , "[A-Z]{2}[0-9]{2}[A-Z]{2}[0-9]{4}"))

The screenshot shows the Salesforce Object Manager interface for the 'Appointment' object. The left sidebar lists various setup categories. The main area displays the 'Validation Rules' section with a table. The table has columns for RULE NAME, ERROR LOCATION, ERROR MESSAGE, ACTIVE, and MODIFIED BY. The data includes:

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Vehicle	Vehicle number plate	Please enter valid number	✓	PANDETI NIKITHA, 7/12/2025, 10:17 PM

#### - For Billing details & Feedback

- Enter the Rule name as " rating\_should\_be\_less\_than\_5".
- Insert the Error Condition Formula as : -

- NOT( REGEX( Rating\_for\_service\_c , "[1-5]{1}" ))
- Enter the Error Message as "rating should be from 1 to 5", select the Error location as Field and select the field as "Rating for Service".

The screenshot shows the Salesforce Setup interface with the following details:

- Header:** Search Setup, Home, Object Manager
- Breadcrumbs:** SETUP > OBJECT MANAGER
- Section:** Billing details and feedback
- Table:** Validation Rules (1 Items, Sorted by Rule Name)
 

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
rating_should_be_less_than_5	Rating for service	rating should be from 1 to 5	✓	PANDETI NIKITHA, 7/12/2025, 10:21 PM
- Left sidebar:** 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.

## Activity – 7

### Duplication Rules

#### - Matching Rule:

- Give the Rule name : Matching customer details
- Unique name : is auto populated
- Define the matching criteria as:

Field	Matching Method
1. Gmail	Exact
2. Phone Number	Exact

- Create a matching rule for the Customer details Object with the given criteria.

**All Matching Rules**

Action	Rule Name	Object	Status	Description	Last Modified Date	Last Modified By
Del   Deactivate	Matching_customer_details	Customer Details	Active		7/12/2025	Var
Deactivate	Standard Account Matching Rule	Account	Active	Matching rule for account records. <a href="#">More info</a>	7/3/2025	OEPIC
Deactivate	Standard Contact Matching Rule	Contact	Active	Matching rule for contact records. <a href="#">More info</a>	7/3/2025	OEPIC
Deactivate	Standard Lead Matching Rule	Lead	Active	Matching rule for lead records. <a href="#">More info</a>	7/3/2025	OEPIC

**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	PANDETI NIKITHA, 7/12/2025, 10:25 PM
Modified By	PANDETI NIKITHA, 7/12/2025, 10:25 PM

### **-Duplicate Rules:**

Create a duplicate rule for the same customer details object which allows the duplication in input fields.

**Steps:**

- Give the Rule name as : Customer Detail duplicate.
- Select the matching rule : Matching customer details.

**Duplicate Rule Detail**

Rule Name	Description	Object	Matching Rule	Active	Last Modified By	Last Modified Date
Customer Detail duplicate	Customer Details	Customer Details	Matching customer details	✓	var	7/12/2025

**Matching Criteria**: (Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone\_number EXACT MatchBlank = FALSE)

Rule Name	Description	Object	Matching Rule	Active	Last Modified By	Last Modified Date
Customer Detail duplicate	Customer Details	Customer Details	Matching customer details	✓	var	7/12/2025
Standard Account Duplicate Rule	Identify accounts that duplicate other accounts.	Account	Standard Account Matching Rule	✓	QEPIIC	7/3/2025
Standard Contact Duplicate Rule	Identify contacts that duplicate other contacts and leads.	Contact	Standard Contact Matching Rule	✓	QEPIIC	7/3/2025
Standard Lead Duplicate Rule	Identify leads that duplicate other leads and contacts.	Lead	Standard Lead Matching Rule	✓	QEPIIC	7/3/2025

## Activity – 8

### Creating Profiles

#### - Manager Profile

**Clone Profile**

Enter the name of the new profile.

You must select an existing profile to clone from.

Existing Profile: Standard User
User License: Salesforce
Profile Name: Manager

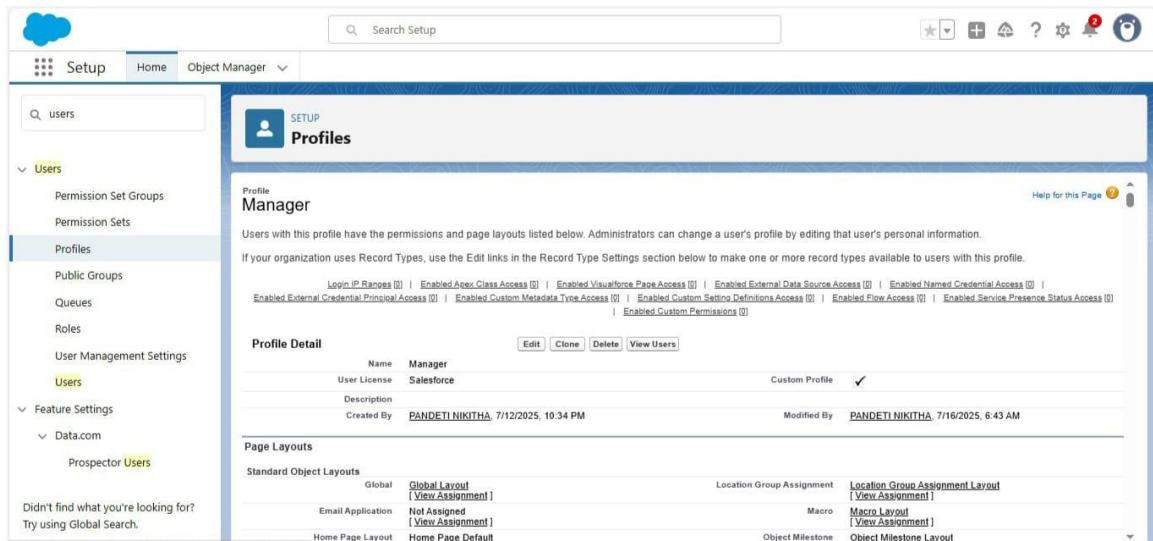
**Save** **Cancel**

Select the Custom App settings as default for the Garage management.



- Scroll down to Custom Object Permissions and Give access permissions for Appointments,Billing details and feedback , service records and customer details objects as mentioned in the below diagram.

- Changing the session times out after should be " 8 hours of inactivity".
  - Change the password policies as mentioned :
  - User passwords expire in should be " never expires ".
  - Minimum password length should be " 8 ".



## Sales Person Profile

- Select the Custom App settings as default for the GArage management.
  - Scroll down to Custom Object Permissions and Give access permissions for Appointments,Billing details and feedback , service records and customer details objects as mentioned in the below diagram.

The screenshot shows the Salesforce Setup interface with the 'Profiles' page selected. The left sidebar shows navigation options like 'Permission Set Groups', 'Permission Sets', 'Profiles', 'Public Groups', 'Queues', 'Roles', 'User Management Settings', and 'Users'. The main content area displays the 'Profile Detail' for the 'sales person' profile, which has a name of 'sales person', a user license of 'Salesforce Platform', and a custom profile status checked. It also lists 'Page Layouts' for standard object layouts like Global, Lead, Email Application, Location, and Home Page Layout.

The screenshot shows the 'Profiles' page in the Salesforce Setup interface. The left sidebar is identical to the previous screenshot. The main content area shows a grid of profiles with columns for Action, Profile Name, User License, and Custom status. The grid includes profiles like 'Identity User', 'Manager', 'Marketing User', 'Minimum Access - API Only Integrations', 'Minimum Access - Salesforce', 'Partner App Subscription User', 'Partner Community Login', 'Partner Community User', 'Read Only', 'sales person', and 'Salesforce API Only System Integrations'.

## Activity – 9

### Roles & Role Hierarchy

#### Manager Role:

- Click on Expand All and click on add role under whom this role works.
- Give Label as "Manager" and Role name gets auto populated.

#### Another Role:

- Click plus on CEO role, and click add role under manager.
- Give Label as "sales person" and Role name gets auto populated.

## Activity – 10

### Users

anyone who logs in to Salesforce. Users are employees at your company, such as sales reps, managers, and IT specialists, who need access to the company's records.

### Create Users:

Fill in the fields :

1. First Name : Niklaus
2. Last Name : Mikaelson
3. Alias : Give a Alias Name
4. Email id : Give your Personal Email id
5. Username : Username should be in this form: text@text.text
6. Nick Name : Give a Nickname
7. Role : Manager
8. User licence : Salesforce
9. Profiles : Manager

## Create Another Users:

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/>   Edit	Carrie_Nick	ncarr	nickcarrie@gmail.com	sales person	<input checked="" type="checkbox"/>	sales person
<input type="checkbox"/>   Edit	Chatter_Expert	Chatter	chatv.00dgk000000y0nuao.cb6kr0kpib@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/>   Edit	EPIC_OrgFarm	OEPIIC	epic.2536c8c9849e@orgfarm.salesforce.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/>   Edit	Michael_John	jmich	johm@agent.com	sales person	<input checked="" type="checkbox"/>	sales person
<input type="checkbox"/>   Edit	Mikaelson_Niklaus	nmika	mikaelson@agent.com		<input checked="" type="checkbox"/>	Manager
<input type="checkbox"/>   Edit	NIKITHA_PANDETI	var	varmanikitha595123@agenforce.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/>   Edit	User_Integration	integ	integration@00dgk0000006iy0nuao.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
<input type="checkbox"/>   Edit	User_Security	sec	insightssecurity@00dgk00000giy0nuag.com		<input checked="" type="checkbox"/>	Analytics Cloud Security User

## Activity – 11

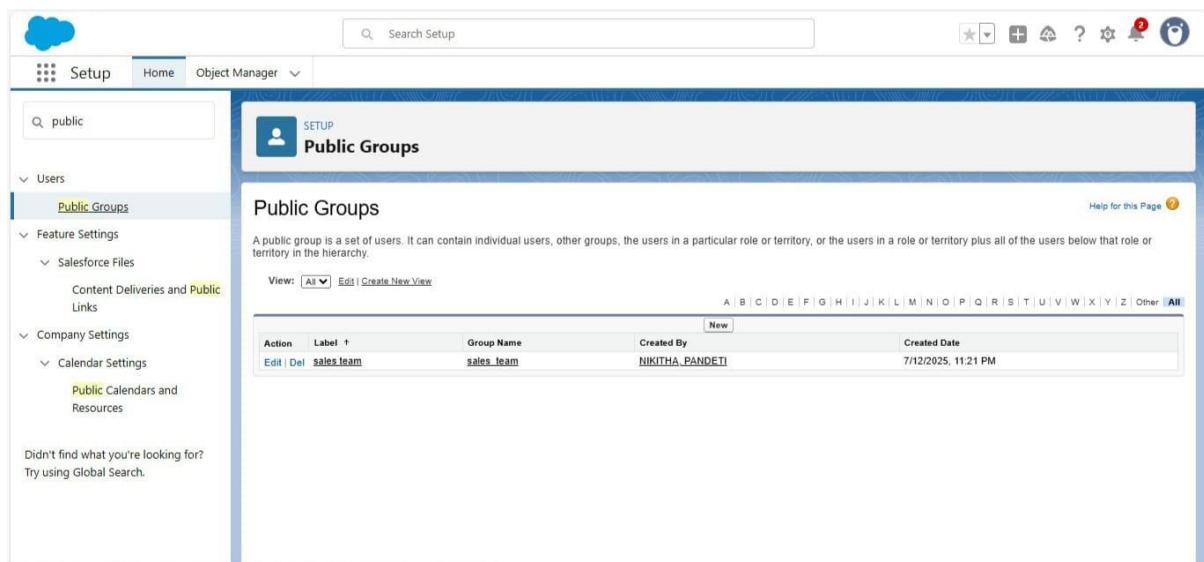
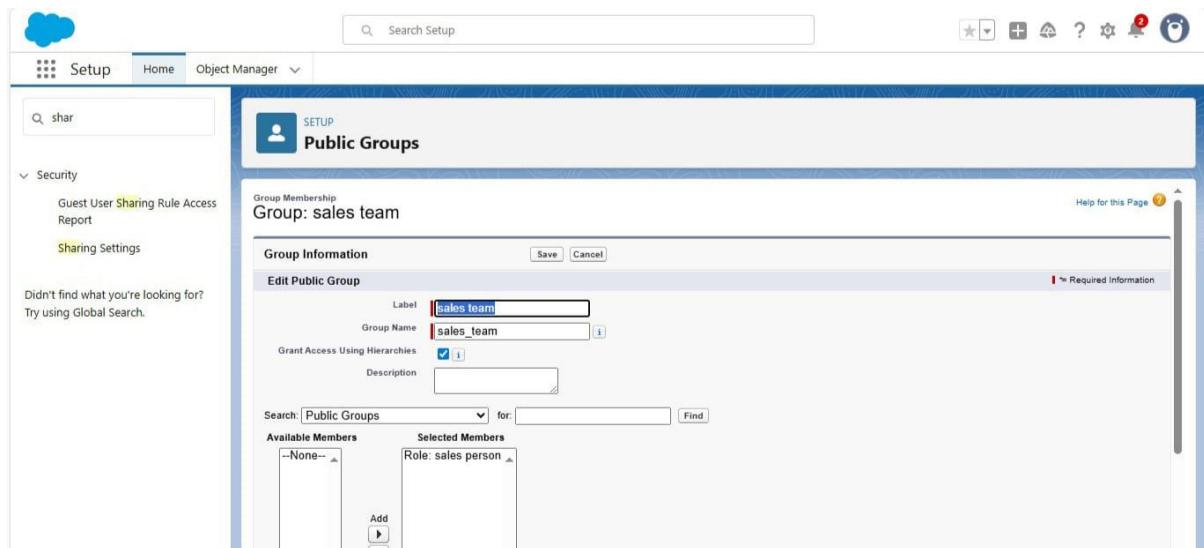
### Public Groups

#### - Creating New Public Groups

a valuable tool for Salesforce administrators and developers to streamline user management, data access, and security settings.

#### Steps:

1. Give the Label as "sales team".
2. Group name is autopopulated.
3. Search for Roles.
4. In Available Members select Sales person and click on add it will be moved to selected member.



## Activity – 12

**Sharing Settings:** control how records are accessed and shared within your organization. These settings are crucial for maintaining data security and privacy.

### Steps:

-Change the OWD setting of the Service records Object to private as shown in fig.

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	<input type="checkbox"/> <input style="width: 15px; height: 15px;" type="button" value="..."/>
Secure guest user record access	<input checked="" type="checkbox"/> <input style="width: 15px; height: 15px;" type="button" value="..."/>
Require permission to view record names in lookup fields	<input type="checkbox"/> <input style="width: 15px; height: 15px;" type="button" value="..."/>

- Scroll down a bit, Click new on Service records sharing Rules

No sharing rules specified.

1. Give the Label name as " Sharing setting"
2. Rule name is auto populated.
3. In step 3 : Select which records to be shared, members of " Roles " >> " Sales person"
4. In step 4: share with, select " Roles " >> " Manager "
5. In step 5 : Change the access level to " Read / write ".
6. Click on save.

Step 1: Rule Name

Label: sharing settings  
Rule Name: sharing\_settings

Step 2: Select your rule type

Rule Type: Based on record owner

Step 3: Select which records to be shared

Service records: owned by members of: Roles | Sales person

Step 4: Select the users to share with

Share with: Roles | Manager

Step 5: Select the level of access for the users

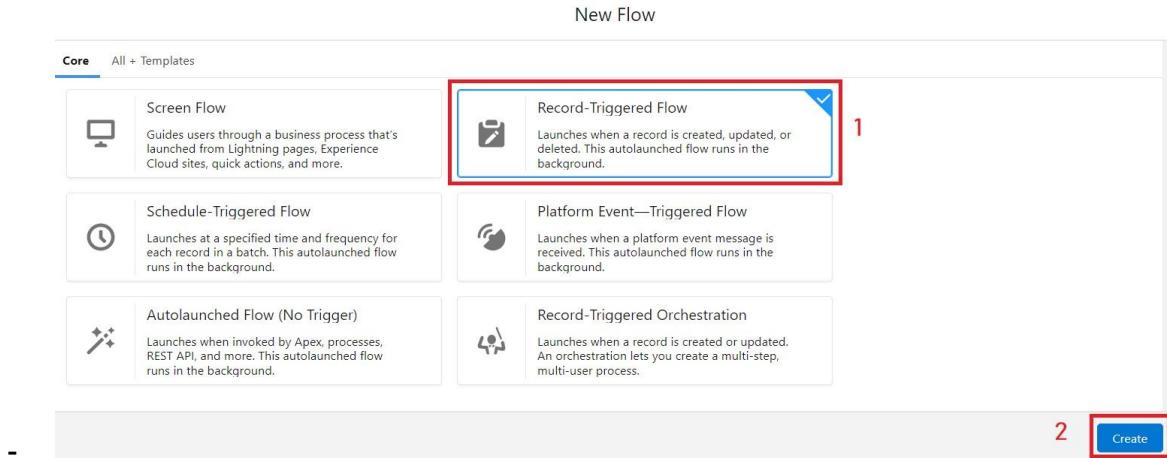
Access Level: Read/Write

Save Cancel

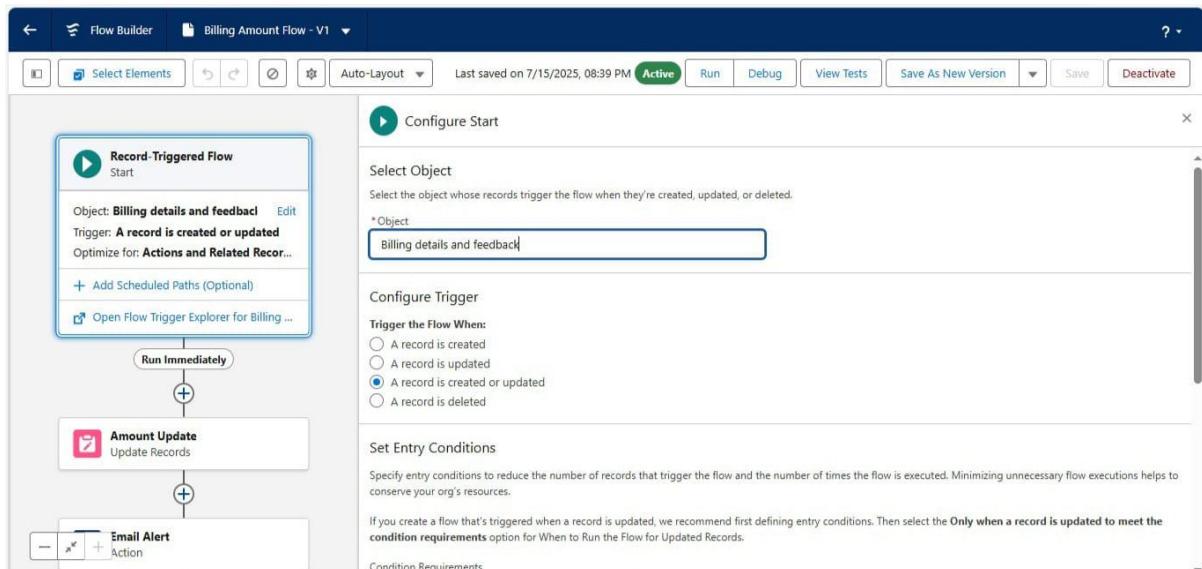
## Activity – 13

**Flows:** a powerful tool that allows you to automate business processes, collect and update data, and guide users through a series of screens or steps.

- **Record-Triggered Flow** Select the Record-triggered flow and Click on Create.



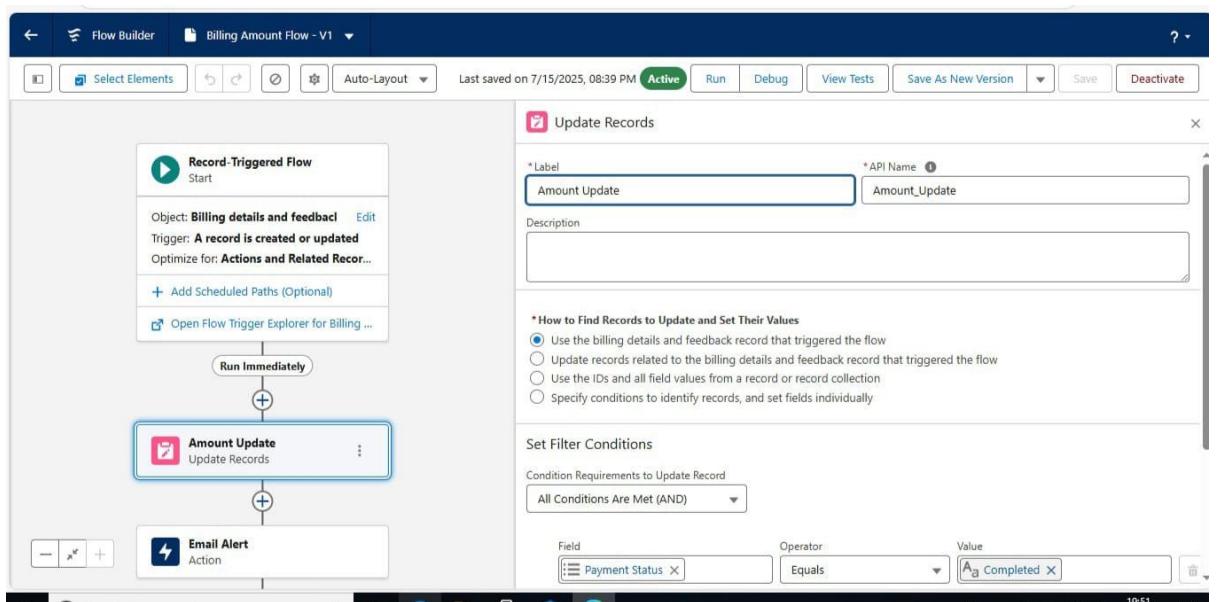
- Select the Object as "Billing details and feedback" in the Drop down list.
- Select the Trigger Flow when: "A record is Created or Updated".
- Select the Optimize the flow for: "Actions and Related Records" and Click on Done.



## - **Amount Update Flow**

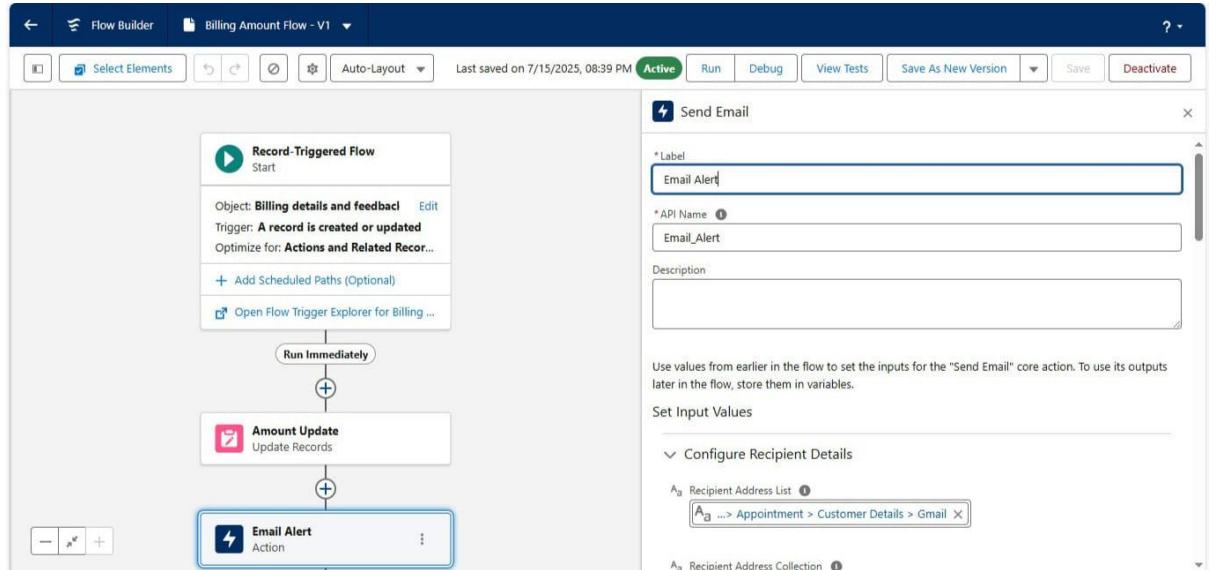
- Field : Payment\_Paid\_\_c
- Value :
 

```
{ !$Record.Service_records__r.Appointment__r.Service_Amount__c }
```



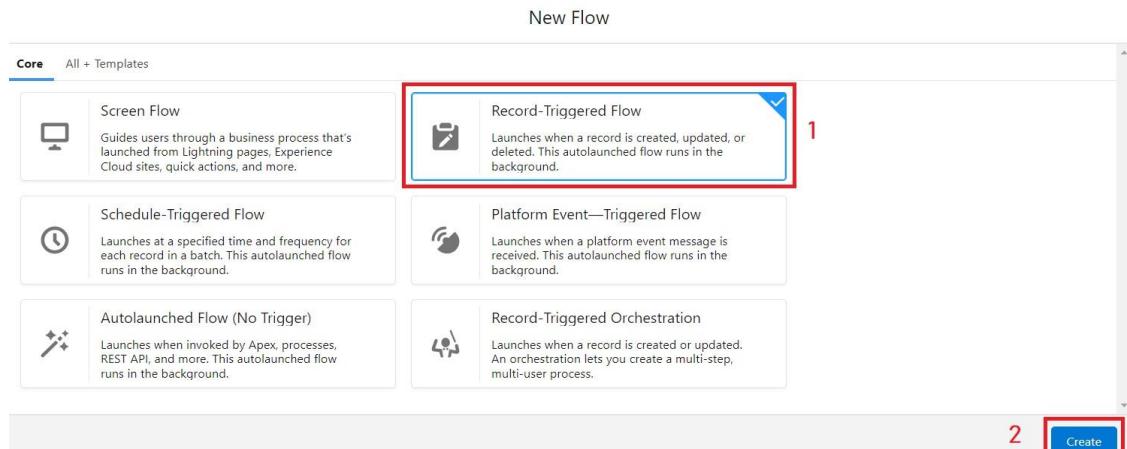
## - Email Alert Flow

- RecipientAddressList:  
`{ !$Record.Service_records__r.Appointment__r.Customer_Name__r.Gmail__c }`

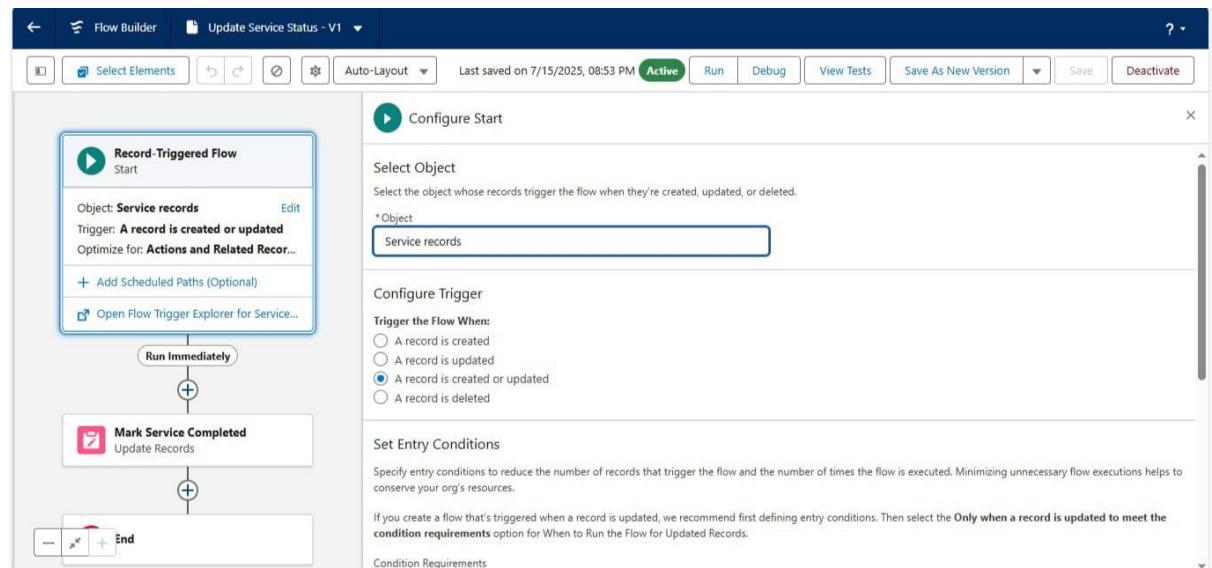


## Create Another Flow:

1. Select the Record-triggered flow and Click on Create.

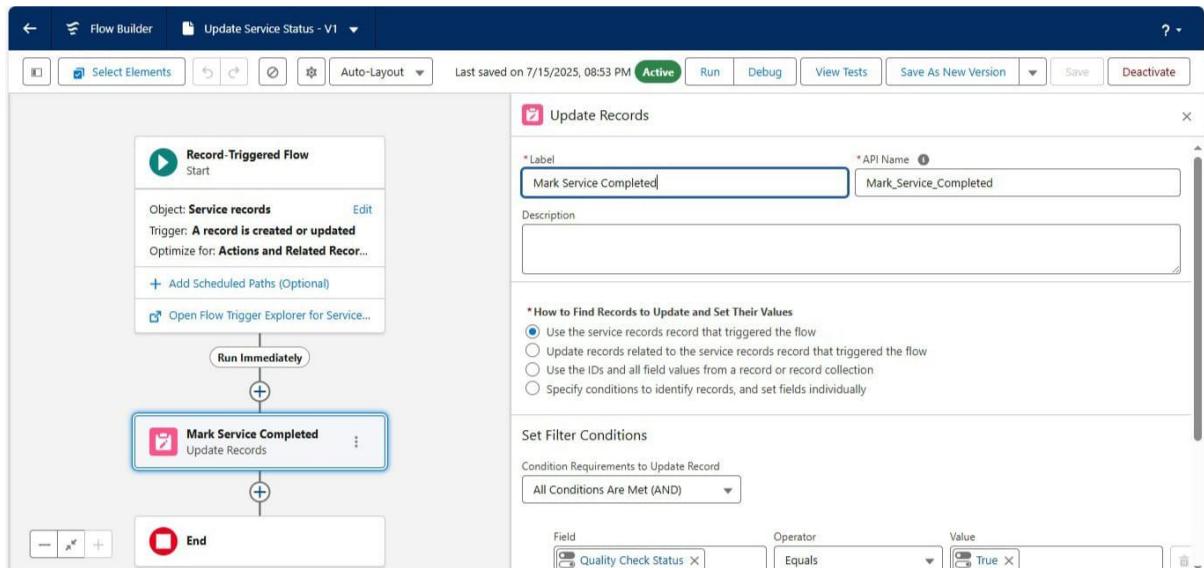


- 2.
3. Select the Object as "Service records" in the Drop down list.
  4. Select the Trigger Flow when: "A record is Created or Updated".
  5. Select the Optimise the flow for: "Actions and Related Records"



Set a filter condition : All Conditions are met (AND)

1. Field : Quality\_Check\_Status\_\_c
2. Operator : Equals
3. Value : True
4. And Set Field Values for the Billing details and feedback Record
5. Field : Service\_Status\_\_c
6. Value : Completed



## Activity – 14

### Triggers

1. Name the class as "AmountDistributionHandler".

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;
    }

}
}
}

```

Trigger Handler :

1. Name : AmountDistribution
2. sObject : Appointment\_\_c

Code:

```

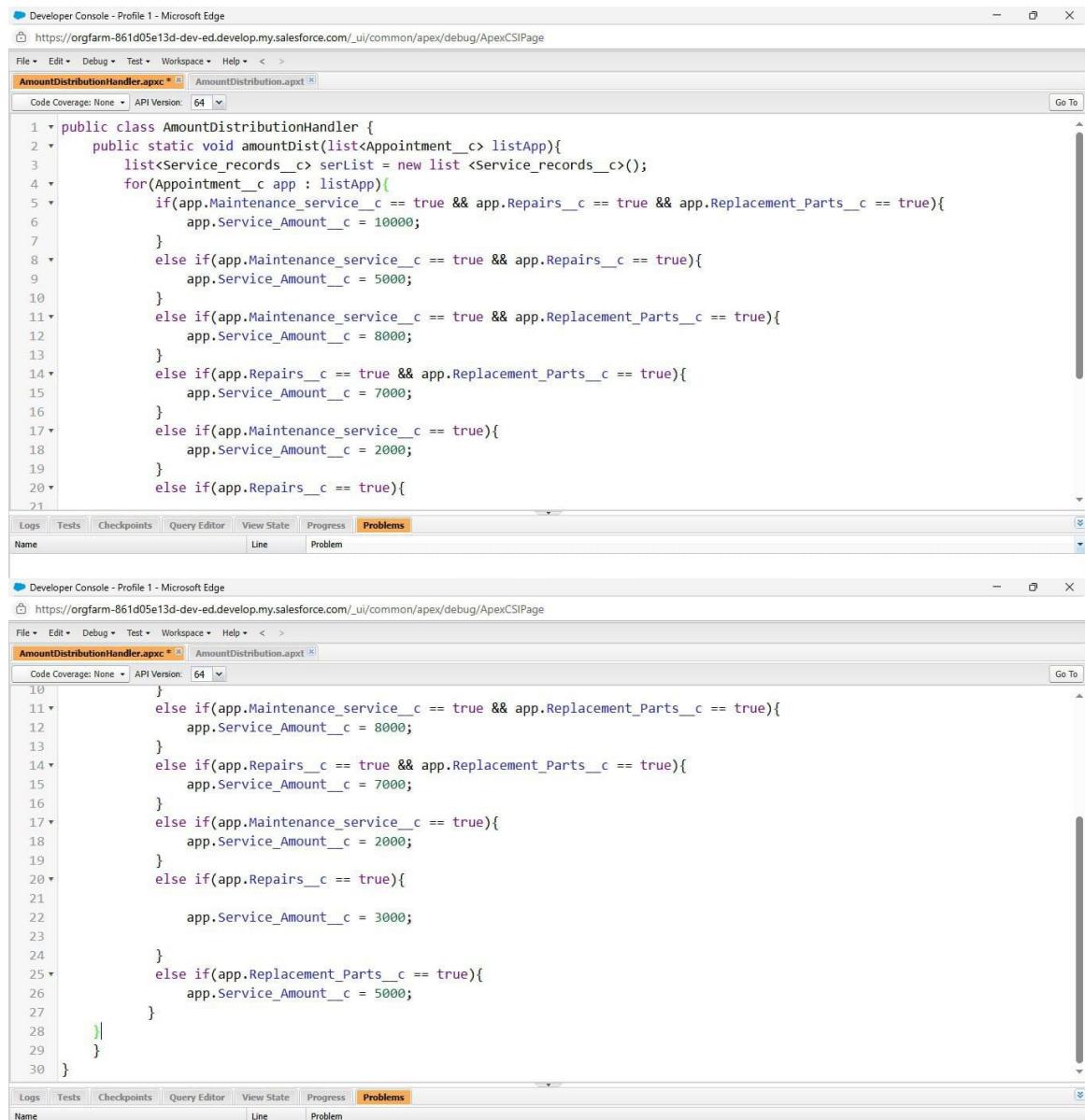
trigger AmountDistribution on Appointment__c (before insert, before
update) {

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

    }
}

```

## - AmountDistributionHandler.apxc (Class)



The screenshot shows two instances of the Salesforce Developer Console. Both windows have the URL [https://orgfarm-861d05e13d-dev-ed.develop.my.salesforce.com/\\_ui/common/apex/debug/ApexCSIPage](https://orgfarm-861d05e13d-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage) and the tab "AmountDistributionHandler.apxc". The top window displays lines 1 through 21 of the class code, while the bottom window displays lines 10 through 30. The code implements a method `amountDist` that calculates a service amount based on maintenance, repairs, and replacement parts flags. It uses a series of nested if statements to determine the appropriate service amount (10000, 5000, 8000, 7000, 2000, or 3000) and assigns it to the `app.Service_Amount_c` variable.

```
1 public class AmountDistributionHandler {  
2     public static void amountDist(list<Appointment__c> listApp){  
3         list<Service_records__c> serList = new list<Service_records__c>();  
4         for(Appointment__c app : listApp){  
5             if(app.Maintenance_service__c == true && app.Repairs__c == true && app.Replacement_Parts__c == true){  
6                 app.Service_Amount__c = 10000;  
7             }  
8             else if(app.Maintenance_service__c == true && app.Repairs__c == true){  
9                 app.Service_Amount__c = 5000;  
10            }  
11            else if(app.Maintenance_service__c == true && app.Replacement_Parts__c == true){  
12                app.Service_Amount__c = 8000;  
13            }  
14            else if(app.Repairs__c == true && app.Replacement_Parts__c == true){  
15                app.Service_Amount__c = 7000;  
16            }  
17            else if(app.Maintenance_service__c == true){  
18                app.Service_Amount__c = 2000;  
19            }  
20            else if(app.Repairs__c == true){  
21                app.Service_Amount__c = 3000;  
22            }  
23        }  
24        else if(app.Maintenance_service__c == true && app.Replacement_Parts__c == true){  
25            app.Service_Amount__c = 8000;  
26        }  
27        else if(app.Repairs__c == true && app.Replacement_Parts__c == true){  
28            app.Service_Amount__c = 7000;  
29        }  
30    }  
}
```

## - AmountDistribution.apxt (Trigger)

The screenshot shows the Salesforce Developer Console in Microsoft Edge. The URL is https://orgfarm-861d05e13d-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage. The trigger code in the editor is:

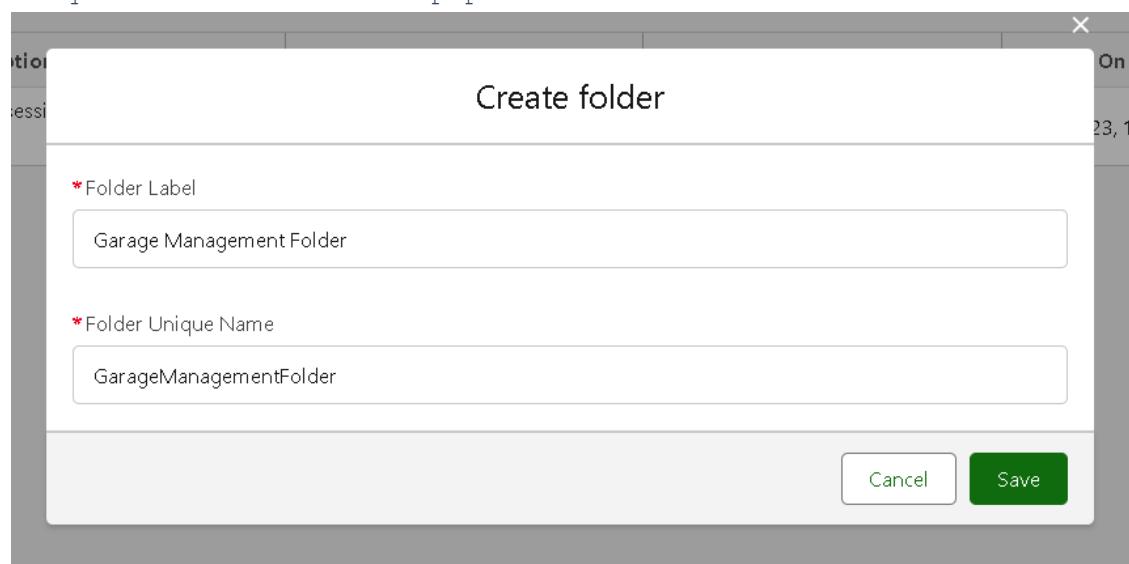
```
trigger AmountDistribution on Appointment__c (before insert, before update) {
    if(trigger.isbefore && trigger.isinsert || trigger.isupdate){
        AmountDistributionHandler.amountDist(trigger.new);
    }
}
```

The tabs at the bottom are Logs (selected), Tests, Checkpoints, Query Editor, View State, Progress, and Problems.

## Activity – 15

### Reports

- **Report Folder Creation**
- Give the Folder label as “Garage Management Folder”, Folder unique name will be auto populated.



The screenshot shows the Garage Management system interface. The top navigation bar includes links for Customer Details, Appointments, Service records, Billing details and feedback, Reports (selected), and Dashboards. The Reports section displays a grid of items under 'All Folders'. The columns are: Name, Created By, Created On, Last Modified By, and Last Modified Date. The data includes various reports like 'Einstein Bot Reports' and a folder named 'Garage Management Folder' created by PANDETI NIKITHA.

This screenshot shows the details of the 'Garage Management Folder'. The page title is 'Reports All Folders > Garage Management Folder'. The grid shows one item: 'New Service information Report' which is a sub-item of the folder. The columns include Name, Description, Folder, Created By, Created On, and Subscribed.

## - Sharing a folder:

- Select the share with as "roles", in name field search for "manager", give "view" as access for that role.

The screenshot shows the 'Share folder' dialog box overlaid on the main interface. The dialog box has fields for 'Share With' (set to 'Roles'), 'Names' (containing 'manager'), 'Access' (set to 'View'), and a 'Who Can Access' dropdown. A user named 'PANDETI NIKITHA' is listed with 'Manage' access. The 'Done' button is visible at the bottom right.

## - Report Types:

1. Select the Primary object as "Customer details".
2. Give the Report type Label as "Service information"
3. Report type Name is autopopulated.
4. Keep the Description as same.
5. Select Store in Category as "other Reports"
6. Select the deployment status as "Deployed", click on Next.

**Report Type Focus**

Specify what type of records (rows) will be the focus of reports generated by this report type.

Example: If reporting on "Contacts with Opportunities with Partners," select "Contacts" as the primary object.

Primary Object: Customer Details

**Identification**

Report Type Label: Service information

Report Type Name: Service\_information

Note: Description will be visible to users who create reports.

Description: Service information

Store in Category: Other Reports

**Deployment**

A report type with deployed status is available for use in the report wizard. While in development, report types are visible only to authorized administrators and their delegates.

Deployment Status:  Deployed

**Next** **Cancel**

7.

8. now , Click on Related object box.

9. Click on Select Object, choose Appointment Object as shown in fig.

New Custom Report Type  
Service information

Step 2. Define Report Records Set Step 2 of 2

Help for this Page

This report type will generate reports about Customer Details. You may define which related records from other objects are returned in report results by choosing a relationship to another object.

**A Customer Details**  
Primary Object

**B** Select Object:

--Select Object--  
Activities  
Appointments  
Duplicate Record Items

At one related "B" record.  
related "B" records.

Diagram: Two overlapping circles labeled A and B. Below them is a grid with two columns of bars, labeled A and B.

**Previous** **Save** **Cancel**

10.

## Step 2. Define Report Records Set

This report type will generate reports about Customer Details. You may define which related records from other objects are returned in report results by choosing a relationship to another object.

### A Customer Details

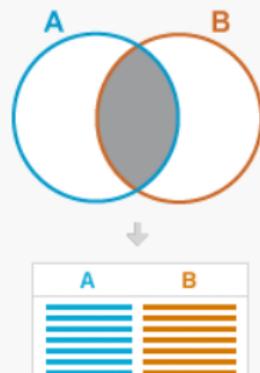
Primary Object

B Appointments

#### A to B Relationship:

- Each "A" record must have at least one related "B" record.
- "A" records may or may not have related "B" records.

(Click to relate another object)



11.

12. Again Click to relate another object.
13. And select the related object as " service records".
14. Repeat the process and select the related object as " Billing details and feedback".

## SETUP Report Types

This report type will generate reports about Customer Details. You may define which related records from other objects are returned in report results by choosing a relationship to another object.

### A Customer Details

Primary Object

B Appointments

#### A to B Relationship:

- Each "A" record must have at least one related "B" record.
- "A" records may or may not have related "B" records.

C Service records

#### B to C Relationship:

- Each "B" record must have at least one related "C" record.
- "B" records may or may not have related "C" records.

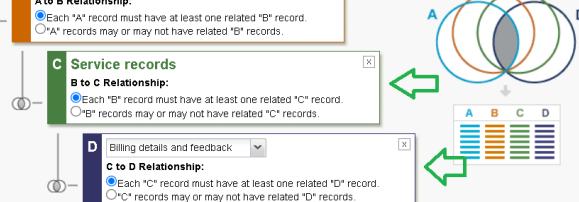
D Billing details and feedback

#### C to D Relationship:

- Each "C" record must have at least one related "D" record.
- "C" records may or may not have related "D" records.

Object Limit Reached

You can associate up to four objects to a custom report type.



Previous Save Cancel

15.

Search Setup

Setup Home Object Manager

Q repor

Feature Settings

- Analytics
- Reports & Dashboards
  - Access Policies
  - Historical Trending
  - Report Types**
  - Reporting Snapshots
  - Reports and Dashboards
  - Settings
- Security
  - Guest User Sharing Rule Access
  - Report

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

Details

Display La... Service information  
API Name Service\_information  
Description Service information  
Created By PANDETI NIKITHA, 16/07/25, 7:30 pm  
Store in C... other  
Deployem... Deployed  
Modified By PANDETI NIKITHA, 16/07/25, 7:30 pm

Fields

Source Object	Included Fields
Customer Details	11
Appointments	14
Service records	10
Billing details and feed...	10

Object Relationships

Customer Details (A)

... with at least one related record from Appointments (B)

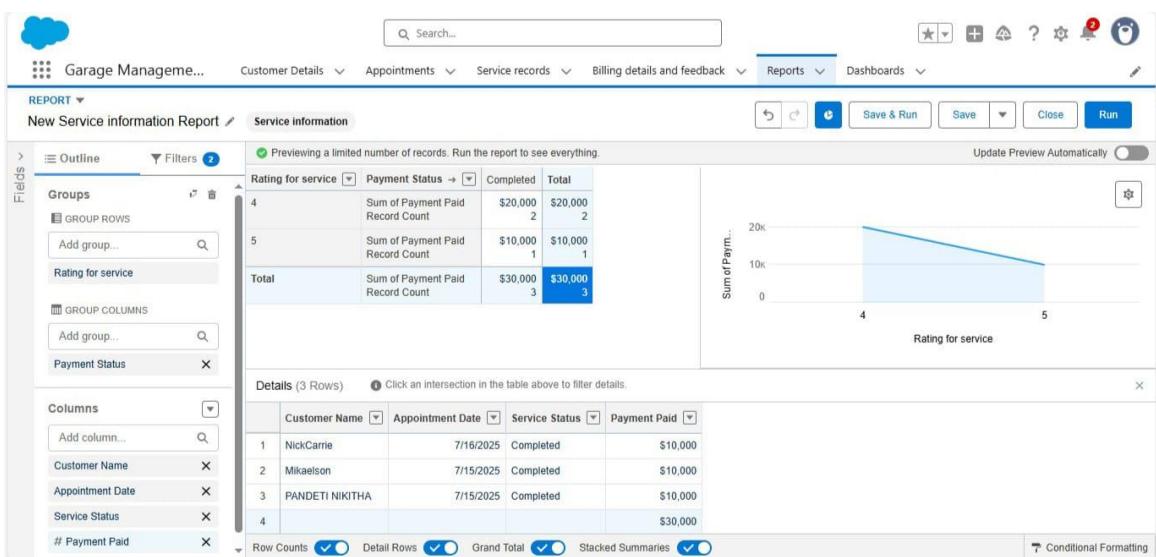
... with at least one related record from Service reco

... with at least one related record from Billing

A Venn diagram showing relationships between four objects: A, B, C, and D. Below it is a grid of colored bars representing data for each object.

## - New Service Information Report

- In column section.
  - o Customer name
  - o Appointment Date
  - o Service Status
  - o Payment paid
- In GROUP ROWS section.
  - o Rating for Service
- In GROUP COLUMN section.
  - o Payment Status
- Click on Add Chart , Select the Line Chart.



# Activity – 16

**DashBoard:** Dashboards help you visually understand changing business conditions so you can make decisions based on the real-time data you've gathered with reports.

## Create DashBoard Folder:

- The folder label as " Service Rating dashboard".

Dashboard Name	Description	Folder	Created By	Created On	Subscribed
Customer review		Service Rating dashboard	PANDETI NIKITHA	7/17/2025, 7:51 AM	✓

## Create Dashboard:

1. Give a Name and select the folder that created, and click on create.

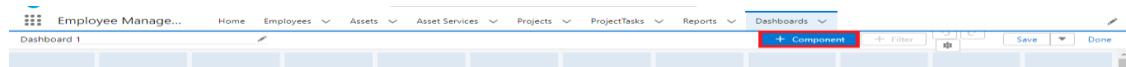
New Dashboard

\* Name  
Customer review

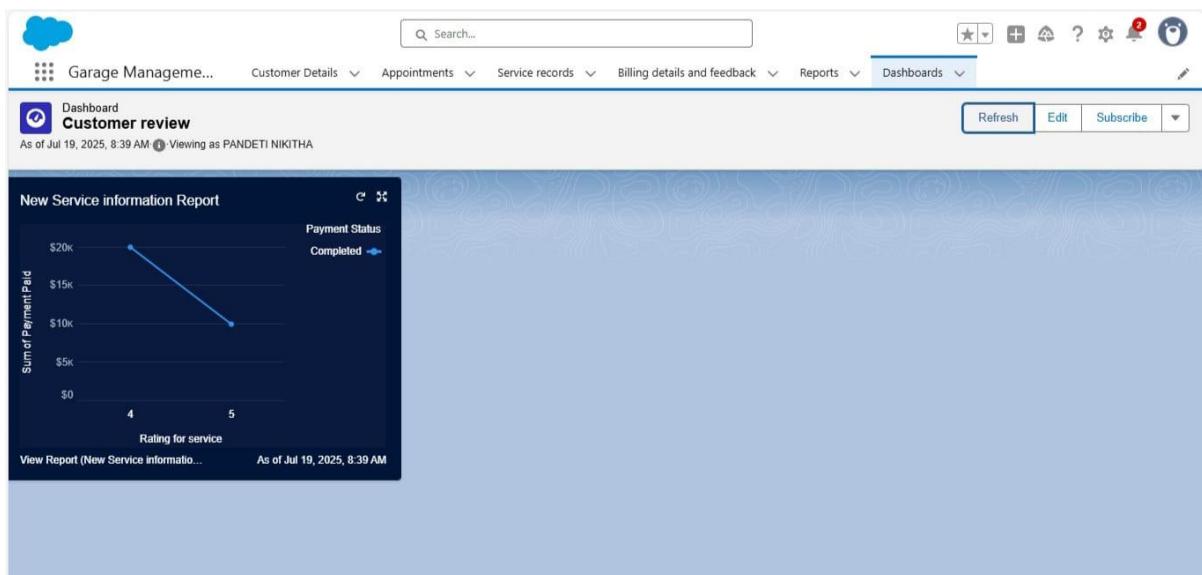
Description

Folder  
Service Rating

3. Select add component.



4. Select a Report and click on select.
5. Select the Line Chart. Change the theme.



6. Set the Frequency as " weekly ".
7. Set a day as monday.

The screenshot shows the "Edit Subscription" dialog box. It has sections for "Settings", "Recipients", and buttons for "Cancel" and "Save". Annotations include:

- A green arrow points to the "Weekly" button in the "Frequency" section.
- A green arrow points to the "Mon" button in the "Days" section.
- A green arrow points down to the "Save" button at the bottom right.

Schedule dashboard refreshes and subscribe to receive results.

**Settings**

Frequency

Days

Time

**Recipients**

Receive new results by email when dashboard is refreshed.

Send email to  
Me

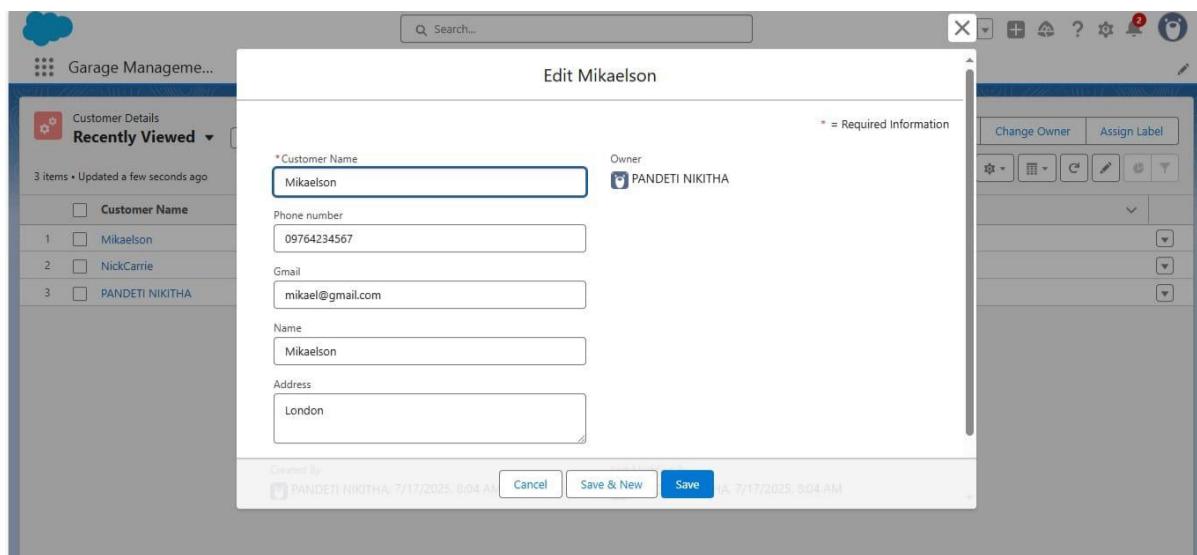
## Activity – 17

### User Adoption:-

#### -Creating Records

##### - Contact Details:

1. Click on the app launcher located at the left side of the screen.
2. Search for “**Garage Management**” and click on it.
3. Click on the “**Consumer details** tab”.
4. Click on new and fill the details as shown below figs, and click save.



##### - Appointment Details:

1. Click on the “**Appointment** tab”.
2. Enter the customer details as created, while entering Appointment Date enter the date less than the created date.
3. Match the validation while entering the vehicle number plate.

4. Select the services you need.
5. Click on save to see the Service Amount.

Garage Management...

Appointments Recently Viewed

3 items • Updated a few seconds ago

Appointment Name

app-006

Customer Details

Mikaelson

Appointment Date

7/15/2025

Maintenance service

Repairs

Service Amount

\$10,000

\*Vehicle number plate

APT2AB1238

Cancel Save & New Save

## - Service Record Details:

1. Click on the "Service record tab".
2. Enter the Appointment, and started is selected as default.
3. Click on save.

Garage Management...

Service records Recently Viewed

3 items • Updated a few seconds ago

Service records Name

ser-006

\*Appointment

app-006

Quality Check Status

Service Status

Completed

service date

7/17/2025

This field is calculated upon save

Created By

PANDETI NIKITHA, 7/17/2025, 8:05 AM

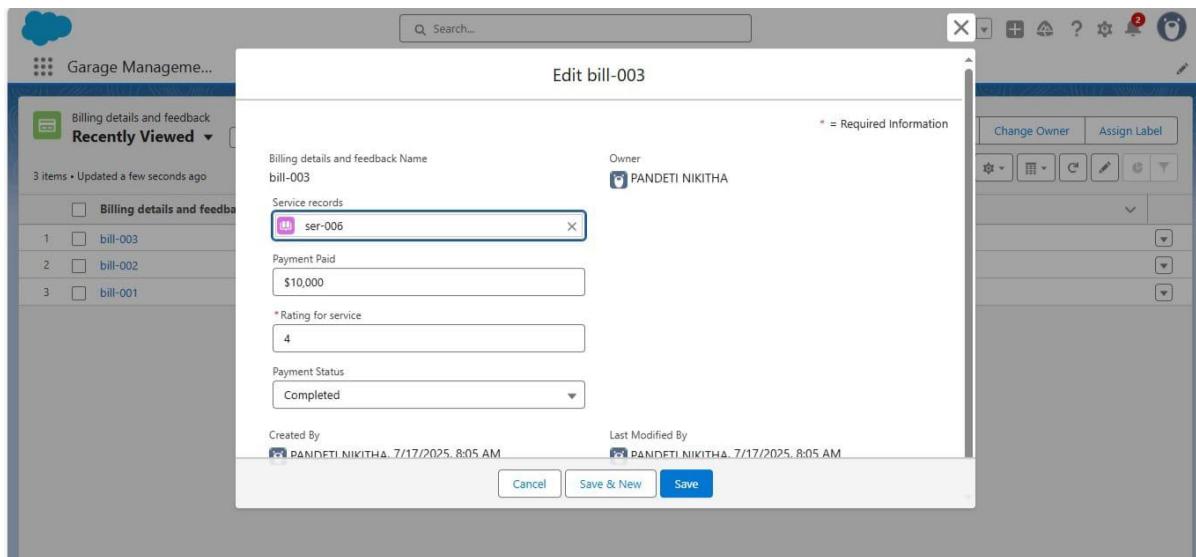
Last Modified By

PANDETI NIKITHA, 7/17/2025, 8:05 AM

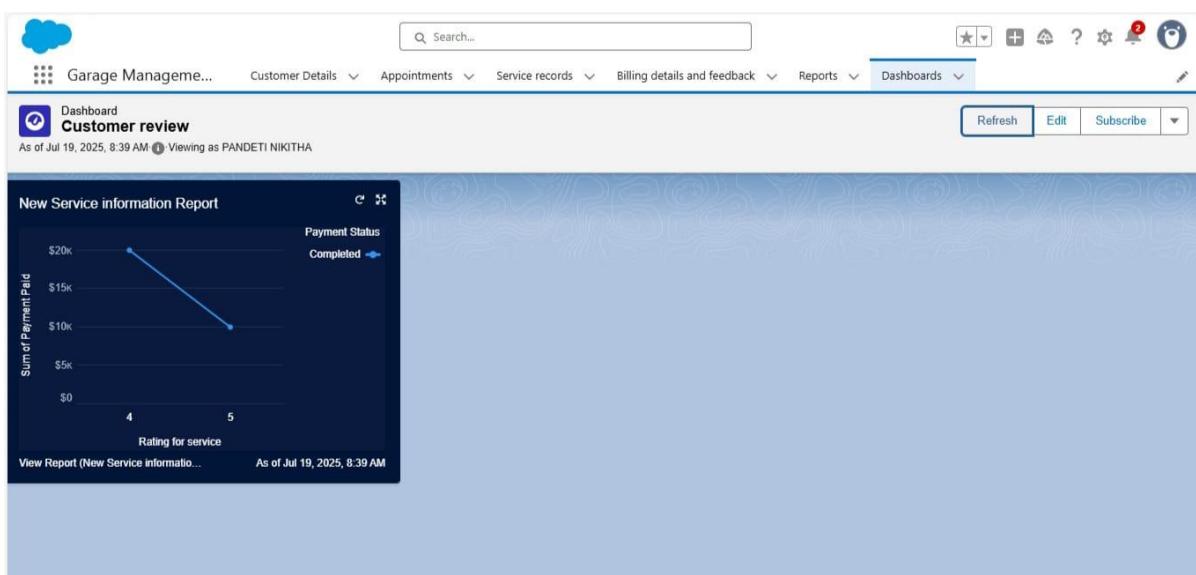
Cancel Save & New Save

## - Billing&Feedback Details:

1. Open the record and click on Quality check status as true.
2. Click on save.



## Final Output:



# CONCEPTS UTILIZED

(FOR OUR PROJECT IMPLEMENTATION)

- **What is SALESFORCE?**

Salesforce is like a digital hub that helps businesses stay connected with their customers. Imagine

having a central place where a company can keep track of every conversation, email, and sale, so no detail slips through the cracks. It's built to bring together sales, customer support, and marketing efforts, so everyone is on the same page.

With Salesforce, businesses can customize tools to fit their needs, automate repetitive tasks, and use built-in AI to get insights on what customers want. It's essentially a smart assistant for companies to build stronger, more personalized customer relationships.

### - **Objects**

Objects are database tables that permit you to store data that is specific to an organization.

#### Types:-

1. Standard Objects
  - Provided by salesforce
2. Custom Objects
  - Created by users as per their requirements and flexibilities.

### - **Tabs**

Tabs are navigation links that give users quick access to different objects, features, or data, like accounts, contacts, or dashboards, within the platform.

### - **Lightning App**

A Lightning App in Salesforce is a tool that lets users build easy-to-use, interactive apps to streamline work and improve how they interact with data.

### - **Fields**

Fields in Salesforce are like labelled blanks in a form where you fill in specific details like a person's name, phone number, or Gmail, so that all relevant information is organized and easy to find.

- **Validation & Duplication Rules**

- Validation rules in Salesforce are conditions that ensure data entered meets specific criteria before being saved, helping maintain data quality and accuracy.
- Duplication rules in Salesforce are settings that help prevent or manage duplicate records by identifying and blocking or alerting users about potential duplicates during data entry.

- **Profiles**

Profiles define what a user can see and do within the platform, acting like "permission sets" for different roles.

- **Role & Role Hierarchy**

Roles define a user's level of access to data and functions, creating a hierarchy that helps organizations manage who can see and edit information, ensuring everyone has the right permissions while still promoting collaboration across teams.

- **Users**

Users are people who can log in to the platform to manage customer information, track sales, and work with their teammates, helping them do their jobs better.

- **Public Groups**

Public groups in Salesforce are like team huddles that bring users together, making it easier to share information and collaborate on projects seamlessly.

- **Sharing Settings**

Sharing settings determine how and with whom you share data within your organization, ensuring the right people have access to the right information to collaborate effectively.

- **Flows**

Flows are powerful tools that allow users to automate complex business processes by visually designing step-by-step workflows that guide users or update records without needing to write code.

- **Apex Triggers**

APEX Triggers are custom pieces of code that automatically execute before or after specific events occur in the database, helping businesses automate tasks and enforce rules without needing manual input.

- **Reports**

Reports are tools that help businesses visualize and analyse their data, making it easier to understand trends and track performance at a glance.

- **Dashboard**

Dashboards are visual displays that summarize key metrics and data, helping businesses quickly see their performance and make informed decisions at a glance.

## **TEST AND VALIDATION**

- **Approach to Testing:**

For the Garage Management System, our testing strategy ensures everything works smoothly and meets user needs. We'll combine both automated and manual testing methods, including:

1. Functional Testing
2. Integration Testing
3. User Acceptance Testing (UAT)
4. Performance Testing

- **Unit Testing (Apex Classes & Triggers):**

Unit testing will focus on individual components, like Apex classes and triggers, to ensure they function correctly. Key elements include:

1. **Positive Tests:** To confirm expected functionality under normal conditions.
2. **Negative Tests:** To check how the system handles errors or unexpected inputs.
3. **Bulk Tests:** To ensure the system can handle large amounts of data without issues.

## CONCLUSION

In conclusion, the Salesforce Garage Management System is a powerful tool that makes running a service centre easier and more efficient. It combines features like online appointment scheduling, real-time updates on car repairs, and smart inventory management, all in one place. This means customers get faster service and clear communication, which helps keep them happy. For the staff, it reduces confusion and makes their jobs smoother.

Plus, the system gives managers valuable insights into performance, allowing them to spot trends and improve the business. Overall, this system helps garages provide excellent service and build strong relationships with their customers.

# Thank You