

Garage Management System

College: Emerald Heights College for Women

Team ID: NM2025TMID25123

Team Size: 4

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1. Introduction

The **Garage Management System (GMS)** is a digital tool designed to manage and streamline garage operations. It helps in handling customer details, vehicle records, job tracking, and billing efficiently. By reducing paperwork and errors, it saves time and improves accuracy. The system also ensures better service delivery and customer satisfaction. Overall, GMS enhances productivity and simplifies garage management.

1.1 Project Overview

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

1.2 Objectives of a Garage Management System:

- 1. Streamline Operations** – Automate routine tasks such as job scheduling, billing, inventory tracking, and service management to reduce manual errors and save time.
- 2. Enhance Customer Experience** – Provide customers with timely updates, transparent billing, and service history tracking to build trust and satisfaction.
- 3. Improve Resource Management** – Efficiently allocate mechanics, tools, and spare parts to maximize productivity and minimize downtime.
- 4. Maintain Service Records** – Store and manage complete vehicle service history for quick reference, warranty claims, and future maintenance.
- 5. Optimize Inventory Control** – Track spare parts and consumables in real-time to prevent stockouts and overstocking.

1.3 Student Outcomes

- 1. Technical Skills Development** – Gain hands-on experience in designing and developing a real-time management system using appropriate programming languages, databases, and tools.
- 2. Problem-Solving Ability** – Learn to analyze real-world challenges in garage operations and translate them into effective software solutions.
- 3. Database Management Knowledge** – Understand how to design, implement, and manage relational databases for storing and retrieving service, customer, and inventory records.

4. **Project Management Experience** – Develop skills in planning, organizing, and executing a project within deadlines using techniques like flowcharts, UML diagrams, and Gantt charts.
5. **Software Engineering Practices** – Apply concepts such as modular design, testing, debugging, and documentation to ensure system reliability.
6. **Teamwork and Collaboration** – Enhance the ability to work in teams, coordinate tasks, and communicate effectively to achieve project goals.

2. Creating Developer Account:

2.1 Creating a developer org in salesforce.

1. Go to <https://developer.salesforce.com/signup>
2. On the sign up form, enter the following details :

Build enterprise-quality apps fast to bring your ideas to life

- Build apps fast with drag and drop tools
- Customize your data model with clicks
- Go further with Apex code
- Integrate with anything using powerful APIs
- Stay protected with enterprise-grade security
- Customize UI with clicks or any leading-edge web framework

Sign up for your Salesforce Developer Edition
A full-featured copy of the Platform, for free

Complete the form to start your free trial. Our team will be in touch to help you make the most of your trial.

First Name*	Last Name*
<input type="text" value="Your first name"/>	<input type="text" value="Your last name"/>
Email*	
<input type="text" value="Your email address"/>	
Role*	
<input type="text" value="Your job role"/>	
Company*	
<input type="text" value="Company Name"/>	

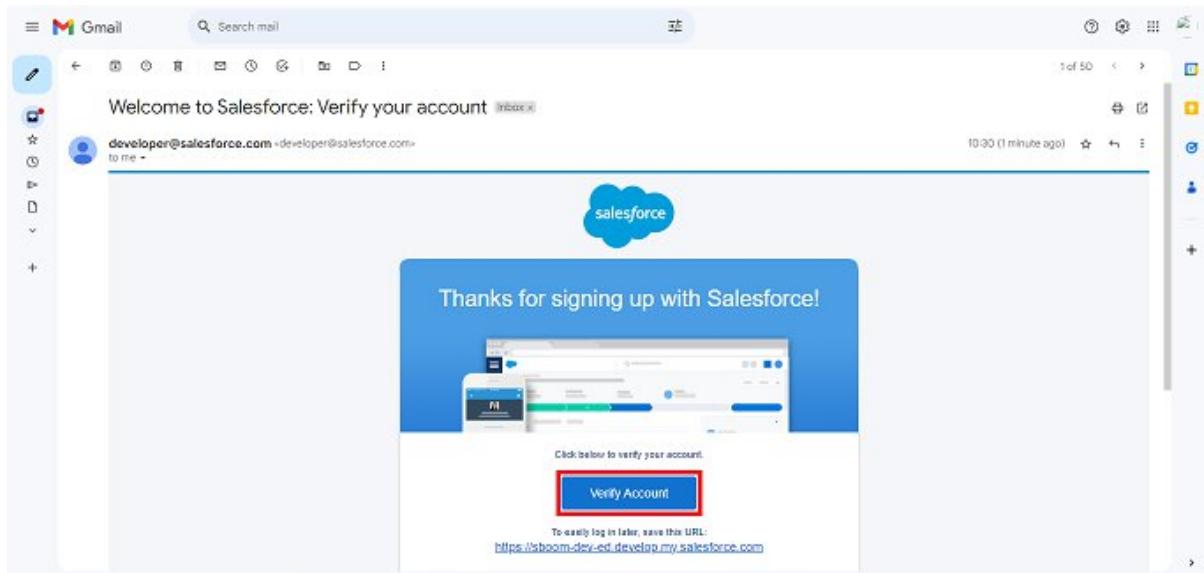
1. First name & Last name
2. Email
3. Role : Developer
4. Company : College Name
5. Country: India
6. Postal Code : pin code
7. Username: should be a combination of your name and company

This need not be an actual email id; you can give anything in the format: username@organization.com

Click on sign me up after filling these.

2.2 Account Activation

1. Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.



2. Click on Verify Account
3. Give a password and answer a security question and click on change password.

Change Your Password

Enter a new password for lead@sb.oom.
Make sure to include at least:

- 8 characters
- 1 letter
- 1 number

* New Password
..... Good

* Confirm New Password
..... Match

Security Question
▼ In what city were you born?

* Answer
asdfghjkl

Change Password

4. Then you will redirect to your salesforce setup page.

Setup Home

Service Setup Assistant

Multi-Factor Authentication Assistant

Release Updates

Lightning Experience Transition Assistant

Salesforce Mobile App

Lightning Usage

Optimizer

ADMINISTRATION

> Users

SETUP Home

Get Started with Einstein Bots

Launch an AI-powered bot to automate your digital connections.

Get Started

Mobile Publisher

Use the Mobile Publisher to create your own branded mobile app.

Learn More

Real-time Collaborative Docs

Transform productivity with collaborative docs, spreadsheets, and slides inside Salesforce.

Get Started

3.Create Customer DetailsObject

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
1. Enter the label name >> Customer Details
2. Plural label name >> Customer Details
3. Enter Record Name Label and Format
 - Record Name >> Customer Name
 - Data Type >> Text
2. Click on Allow reports and Track Field History,
3. Allow search >> Save.

3.1 Create Appointment Object

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
1. Enter the label name >> Appointment
2. Plural label name >> Appointments
3. Enter Record Name Label and Format
 - Record Name >> Appointment Name
 - Data Type >> Auto Number
 - Display Format >> app-{000}
 - Starting number >> 1
2. Click on Allow reports and Track Field History,
3. Allow search >> Save.

3.2 Create Service records Object

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.

1. Enter the label name >> Service records
 2. Plural label name >> Service records
 3. Enter Record Name Label and Format
 - Record Name >>Service records Name
 - Data Type >> Auto Number
 - Display Format >> ser-{000}
 - Starting number >> 1
2. Click on Allow reports and Track Field History,
 3. Allow search >> Save.

3.3 Create Billing details and feedback Object

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 1. Enter the label name >> Billing details and feedback
 2. Plural label name >> Billing details and feedback
 3. Enter Record Name Label and Format
 - Record Name >> Billing details and feedback Name
 - Data Type >> Auto Number
 - Display Format >> bill-{000}
 - Starting number >> 1
2. Click on Allow reports and Track Field History,
 3. Allow search >> Save.

4.Creating a Custom Tab

To create a Tab:(Customer Details)

1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)

2. 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 .
3. Make sure that the Append tab to users' existing personal customizations is checked.
4. Click save.

New Custom Object Tab

Step 1. Enter the Details

Help for this Page

Step 1 of 3

Choose the custom object for this new custom tab. Fill in other details.

Select an existing custom object or [create a new custom object now](#)

Object: Customer Details

Tab Style: Standard

(Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.

Splash Page Custom Link: None

Enter a short description.

Description:

Next Cancel



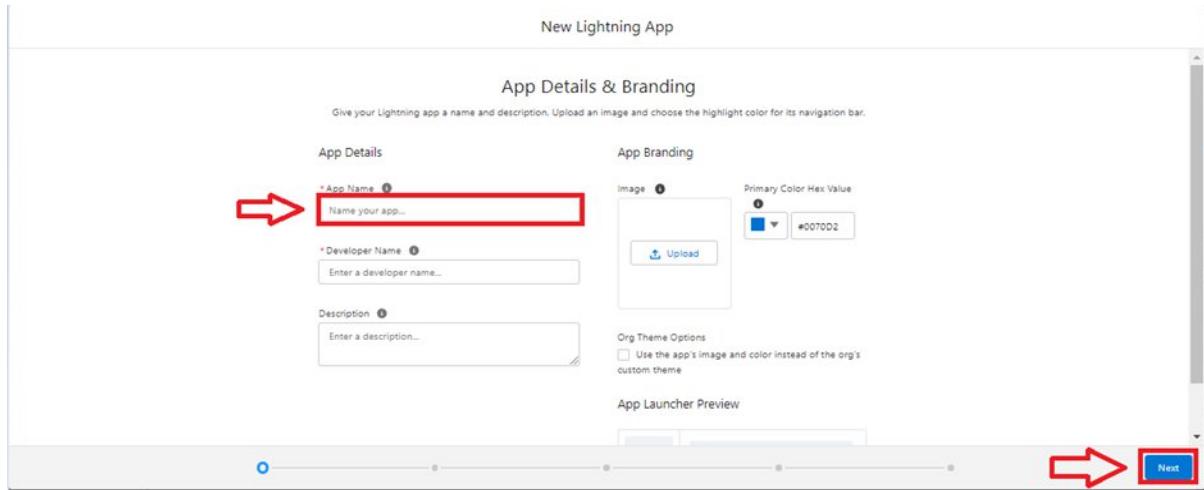
5.Create a Lightning App

To create a lightning app page:

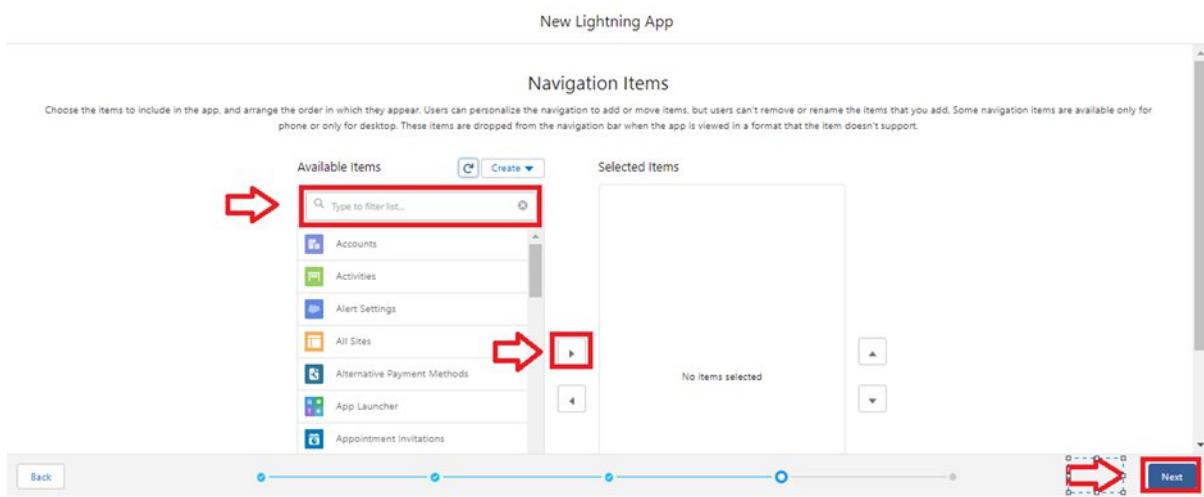
1. Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.

App Name	Developer Name	Description	Last Modified	App Type	V
All Tabs	AllTabSet	Build CRM Analytics dashboards and apps	04/12/2022, 10:13 am	Classic	
Analytics Studio	Insights	Discover and manage business solutions designed for your industry	04/12/2022, 10:13 am	Classic	
App Launcher	AppLauncher	App Launcher tabs	04/12/2022, 10:13 am	Classic	
Bolt Solutions	LightningBot	The Salesforce.com-Bolt Solutions app lets you access Bolt Solutions data on the go. Use it to view fe...	04/12/2022, 10:13 am	Lightning	
Chatter Desktop	Chatter/Desktop	Chatter Desktop is an Adobe AIR-based desktop application that lets Chatter users stay connecte...	28/12/2022, 4:04 pm	Connected (Managed)	
Chatter Mobile for BlackBerry	ChatterForBlackBerry	The Salesforce.com-Chatter Mobile app lets you access Chatter data on the go. Use it to view fe...	28/12/2022, 4:05 pm	Connected (Managed)	
College Management System	inAcadem	demo-app	08/12/2022, 4:16 pm	Lightning	
Community	Community	Salesforce CRM Communities	04/12/2022, 10:13 am	Classic	
Content	Content	Salesforce CRM Content	04/12/2022, 10:13 am	Classic	
Data Manager	Dashboarder	Use Data Manager to view limits, monitor usage, and manage records.	04/12/2022, 10:13 am	Lightning	

2. 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.

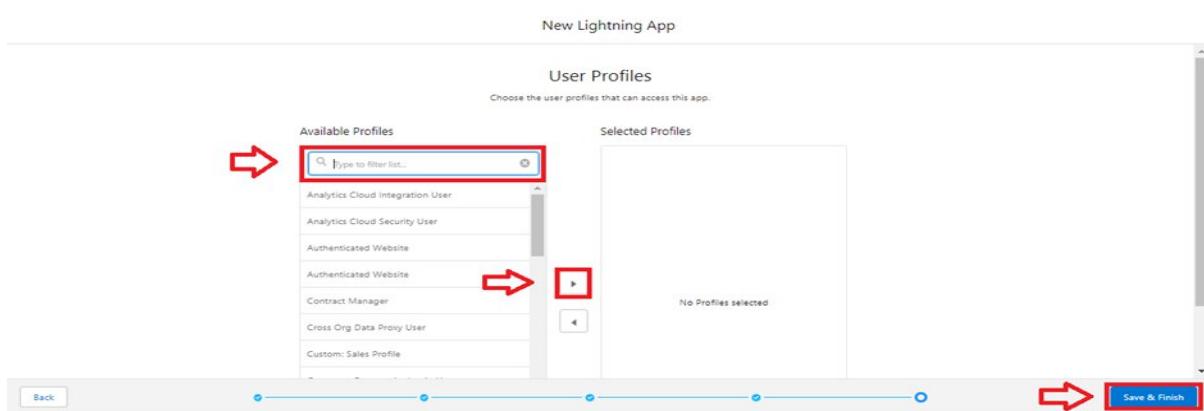


3. To Add Navigation Items:



4. 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.

5. To Add User Profiles:



Search profiles (System administrator) in the search bar >> click on the arrow button >> save & finish.

Creation of fields for the Customer Details object

1. To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Customer Details) in search bar >> click on the object.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Customer	Customer	Standard Object			
Customer Details	Customer_Details__c	Custom Object		05/10/2023	✓

2. Now click on “Fields & Relationships” >> New

Fields & Relationships				
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		✓
current Status	current_Status__c	Picklist		✓
Customer Name	Name	Text(80)		✓
Email Id	Email_Id__c	Email (Unique)		✓
Last Modified By	LastModifiedById	Lookup(User)		✓
Owner	OwnerId	Lookup(User,Group)		✓
Permanent Address	Permanent_Address__c	Text Area(255)		✓
Phone no	Phone_no__c	Phone		✓

3. Select Data Type as a “Phone”

The screenshot shows the Salesforce Setup interface for the 'Customer1' object. In the left sidebar, under 'Fields & Relationships', the 'Phone' data type is selected. A red arrow points to the 'Phone' option in the list, which is described as 'Allows users to enter any phone number. Automatically formats it as a phone number.'

4. Click on next.

The screenshot shows the 'Edit Customer1 Custom Field' page for the 'Phone no' field. The 'Field Label' is set to 'Phone no' and the 'Field Name' is 'Phone_no'. A red arrow points to the 'Field Label' input field. At the bottom right, there are 'Save' and 'Cancel' buttons, with a red arrow pointing to the 'Save' button.

5. Fill the Above as following:

- Field Label: Phone number
- Field Name : gets auto generated
- Click on Next >> Next >> Save and new.

Note: Follow the above steps for the remaining field for the same object.

2. To create another fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Customer Details) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Email” and Click on Next
4. Fill the Above as following:
 - Field Label : Gmail
 - Field Name : gets auto generated
 - Click on Next >> Next >> Save and new.

Creation of Lookup Fields

Creation of Lookup Field on Appointment Object :

1. Go to setup >> click on Object Manager >> type object name(Appointment) in the search bar >> click on the object.

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes 'SETUP', 'Home', 'Object Manager', and a search bar. Below the header, a table lists objects: Appointment (selected), Appointment Category, Appointment Invitation, and Appointment Invitee. The 'Appointment' row is highlighted with a red box. The right side of the screen displays the 'LAST MODIFIED' and 'DEPLOYED' status for each object.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Appointment	Appointment_c	Custom Object		24/08/2023	✓
Appointment Category	AppointmentCategory	Standard Object			
Appointment Invitation	AppointmentInvitation	Standard Object			
Appointment Invitee	AppointmentInvitee	Standard Object			

2. Now click on “Fields & Relationships” >> New

The screenshot shows the 'Fields & Relationships' section for the Appointment object. The left sidebar has links for 'Details', 'Fields & Relationships' (which is selected and highlighted in green), 'Page Layouts', and 'Lightning Record Pages'. The main area shows a table with two fields: 'Appointment Date' and 'Appointment Name'. A red box highlights the 'New' button at the top right of the table.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment Date	Appointment_Date_c	Date		
Appointment Name	Name	Auto Number		

3. Select “Look-up relationship” as data type and click Next.

The screenshot shows the 'Data Type' selection screen. It asks for the type of information the custom field will contain. A red arrow points to the 'Next' button at the top right. The 'Data Type' section contains several options: 'None Selected' (radio button), 'Auto Number' (radio button), 'Formula' (radio button), 'Roll-Up Summary' (radio button), 'Lookup Relationship' (radio button selected and highlighted with a red circle), and 'Master-Detail Relationship' (radio button).

4. Select the related object “ Customer Details” and click next.

5. Next >> Next >> Save.

Note: Make sure you complete Activity 4 Before continuing.

Creation of Lookup Field on Service records Object :

1. Go to setup >> click on Object Manager >> type object name(Service records) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select “Look-up relationship” as data type and click Next.
4. Select the related object “ Appointment ” and click next.
5. Make it a required field so click on Required.

6. Scroll down for Lookup Filter and click on Show filter settings.
7. Now add the filter criteria.
8. Field : Appointment: Appointment Date >> Operator : less than >> select field >> Appointment: Created Date
9. Filter type should be Required.

Field	Operator	Value / Field
Appointment: Appointment Date	less than	Appointment: Created Date

10. Error Message : Value does not match the criteria.
11. Enable the filter by click on Active.
12. Next >> Next >> Save.

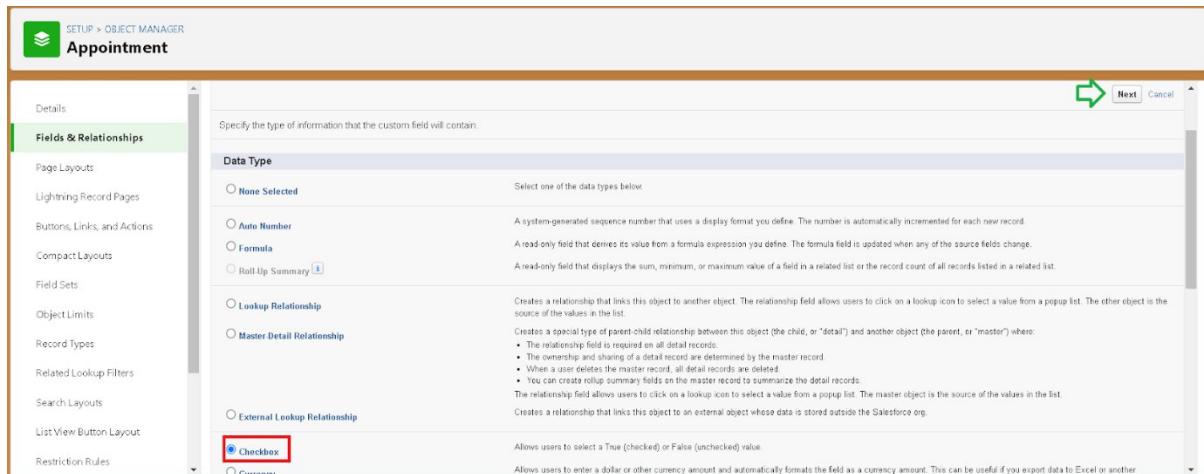
Creation of Lookup Field on Billing details and feedback Object :

1. Go to setup >> click on Object Manager >> type object name(Billing details and feedback) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select “Look-up relationship” as data type and click Next.
4. Select the related object “ Service records” and click next.
5. Next >> Next >> Save & new.

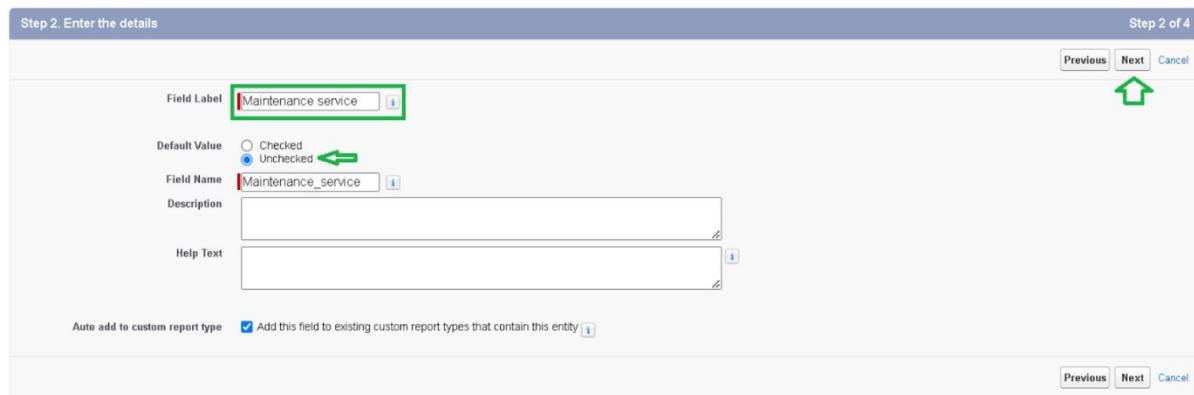
Creation of Checkbox Fields

Creation of Checkbox Field on Appointment Object :

1. Go to setup >> click on Object Manager >> type object name(Appointment) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select “Check box” as data type and click Next.



4. Give the Field Label : Maintenance service
5. Field Name : is auto populated
6. Default value : unchecked



Step 2. Enter the details Step 2 of 4

Field Label 

Default Value Checked Unchecked 

Field Name 

Description

Help Text

Auto add to custom report type Add this field to existing custom report types that contain this entity 

Previous Next Cancel 

7. Click on next >> next >> save.

Creation of Another Checkbox Field on Appointment Object :

1. Repeat the steps form 1 to 3.
2. Give the Field Label : Repairs
3. Field Nme : is auto populated
4. Default value : unchecked
5. Click on next >> next >> save.

Creation of Checkbox Field on Service records Object :

1. Go to setup >> click on Object Manager >> type object name(Service records) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select “Check box” as data type and click Next.
4. Give the Field Label : Quality Check Status
5. Field Name : is auto populated
6. Default value : unchecked
7. Click on next >> next >> save

Creation of date Fields

Creation of Date Field on Appointment Object :

1. Go to setup >> click on Object Manager >> type object name(Appointment) in the search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select “Date” as data type and click Next.
4. Give the Field Label : Appointment Date
5. Field Nme : is auto populated
6. Make it as a Required field by click on the Required option.
7. Click on next >> next >> save.

Appointment
New Custom Field

Help for this Page ?

Step 2. Enter the details Step 2 of 4

Previous Next Cancel

Field Label:

Field Name:

Description:

Help Text:

Required: Always require a value in this field in order to save a record

Auto add to custom report type: Add this field to existing custom report types that contain this entity

Default Value:



Creation of Currency Fields

Creation of Currency Field on Appointment Object :

1. Go to setup >> click on Object Manager >> type object name(Appointment) in the search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select “Currency” as data type and click Next.
4. Give the Field Label : Service Amount
5. Field Nme : is auto populated

Step 2. Enter the details Step 2 of 4

Field Label [i](#)

Please enter the length of the number and the number of decimal places. For example, a number with a length of 8 and 2 decimal places can accept values up to *12345678.90*.

Length <input type="text" value="18"/>	Decimal Places <input type="text" value="0"/>
Number of digits to the left of the decimal point	Number of digits to the right of the decimal point

Field Name [i](#)

Description

Help Text

Required Always require a value in this field in order to save a record

Auto add to custom report type Add this field to existing custom report types that contain this entity [i](#)

6. Click on next

7. Give read only for all the profiles in field level security for profile.

Appointment New Custom Field Step 3 of 4

Step 3. Establish field-level security

Field Label Service Amounts
Data Type Currency
Field Name Service_Amounts
Description

Select the profiles to which you want to grant edit access to this field via field-level security. The field will be hidden from all profiles if you do not add it to field-level security.

Field-Level Security for Profile	Visible	Read-Only
Analytics Cloud Integration User	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Analytics Cloud Security User	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Authenticated Website	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Authenticated Website	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Contract Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cross Org Data Proxy User	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

8. Click on next > > save.

Creation of Currency Field on Billing details and feedback Object :

1. Follow the same steps as mentioned above in Billing details and feedback Object.
2. Change the label name as mentioned.
3. Give the Field Label : Payment Paid
4. Field Nme : is auto populated

Creation of Text Fields

1. Go to setup >> click on Object Manager >> type object name(Appointment) in the search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.

3. Select “Text” as data type and click Next.
4. Give the Field Label : Vehicle number plate
5. Field Name : is auto populated
6. Length : 10
7. Make field as Required and Unique.

The screenshot shows the 'Step 2. Enter the details' configuration page for a new field. The field label is 'Vehicle number plate'. The length is set to 10. The field is marked as required and unique. Under 'Unique', the radio button for 'Treat "ABC" and "abc" as duplicate values (case insensitive)' is selected. There are other configuration options like 'External ID' and 'Auto add to custom report type'.

8. Click on next >> next >> save.

Creation of Text Fields in Billing details and feedback object :

1. Go to setup >> click on Object Manager >> type object name(Billing details and feedback) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select “text” as data type and click Next.
4. Give the Field Label : Rating for service
5. Field Name : is auto populated
6. Length : 1
7. Make field as Required.
8. Click on next >> next >> save

Creation of Picklist Fields

Creation of Picklist Fields in Service records object :

1. Go to setup >> click on Object Manager >> type object name(Service records) in search bar >> click on the object.

2. Click on fields & relationship >> click on New.
3. Select Data type as “Picklist” and click Next.
4. Enter Field Label as “Service Status”, under values select “Enter values, with each value separated by a new line” and enter values as shown below.
5. The values are: Started, Completed.

New Custom Field

Step 2. Enter the details Step 2 of 4

Field Label [i](#)

Values Use global picklist value set
 Enter values, with each value separated by a new line

Started
 Completed

Display values alphabetically, not in the order entered
 Use first value as default value [i](#)
 Restrict picklist to the values defined in the value set [i](#)

Field Name [i](#)

Description

6. Click Next.
7. Next >> Next >> Save.

Creation of Picklist Fields in Billing details and feedback object :

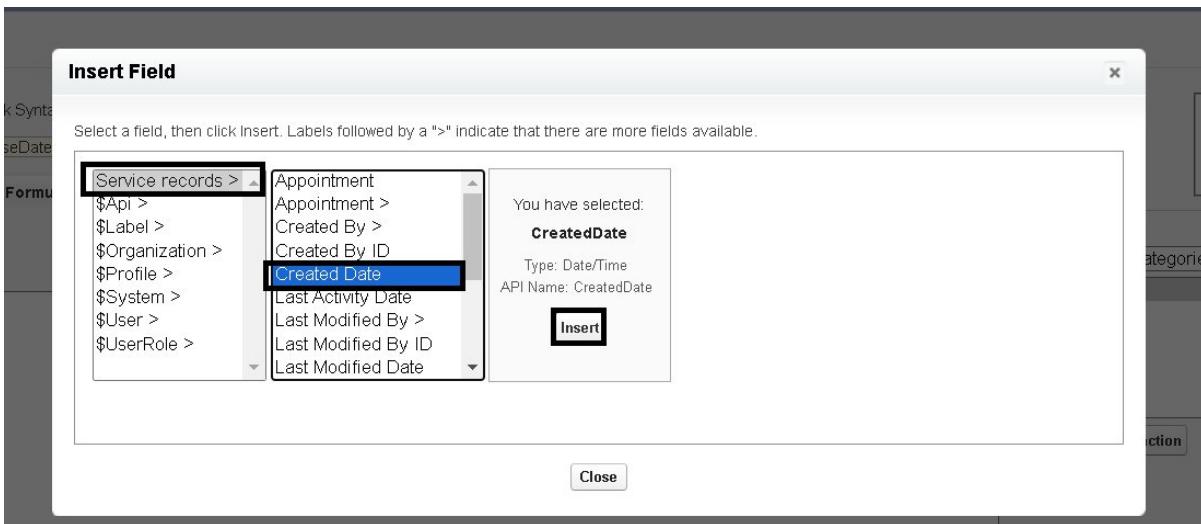
1. Go to setup >> click on Object Manager >> type object name(Billing details and feedback) in search bar >> click on the object.
2. Click on fields & relationship >> click on New.
3. Select Data type as “Picklist” and click Next.
4. Enter Field Label as “Payment Status”, under values select “Enter values, with each value separated by a new line” and enter values as shown below.
5. The values are: Pending, Completed.
6. Click Next.
7. Next >> Next >> Save.

Creating Formula Field in Service records Object

1. Go to setup >> click on Object Manager >> type object name(Service records) in search bar >> click on the object.
2. Click on fields & relationship >> click on New.
3. Select Data type as “Formula” and click Next.
4. Give Field Label and Field Name as “service date” and select formula return type as “Date” and click next.



5. Insert field formula should be : CreatedDate



6. click “Check Syntax” .
7. Click next >> next >> Save.

To create a validation rule to an Appointment Object

1. Go to the setup page >> click on object manager >> From drop down click edit for Appointment object.
2. Click on the validation rule >> click New.

Validation Rules					
RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY	
Vehicle	Vehicle number plate	Please enter valid number	<input checked="" type="checkbox"/>	project 2, 25/09/2023, 11:56 am	New

3. Enter the Rule name as " Vehicle ".
4. Insert the Error Condition Formula as :-

NOT(REGEX(Vehicle_number_plate__c , "[A-Z]{2}[0-9]{2}[A-Z]{2}[0-9]{4}"))

Validation Rule Edit
 Save Save & New Cancel

Rule Name

Active
Description

Error Condition Formula

Example: [More Examples...](#)

Display an error if Discount is more than 30%

If this formula expression is **true**, display the text defined in the Error Message area

Insert Field
Insert Operator ▾

Functions

-- All Function Categories -- ▾

ABS

ACOS

ADDMONTHS

AND

ASCII

ASIN

Insert Selected Function

ABS(number)
Returns the absolute value of a number, a number without its sign

[Help on this function](#)

Check Syntax

5. Enter the Error Message as "Please enter valid number ", select the Error location as Field and select the field as "Vehicle number plate", and click Save.



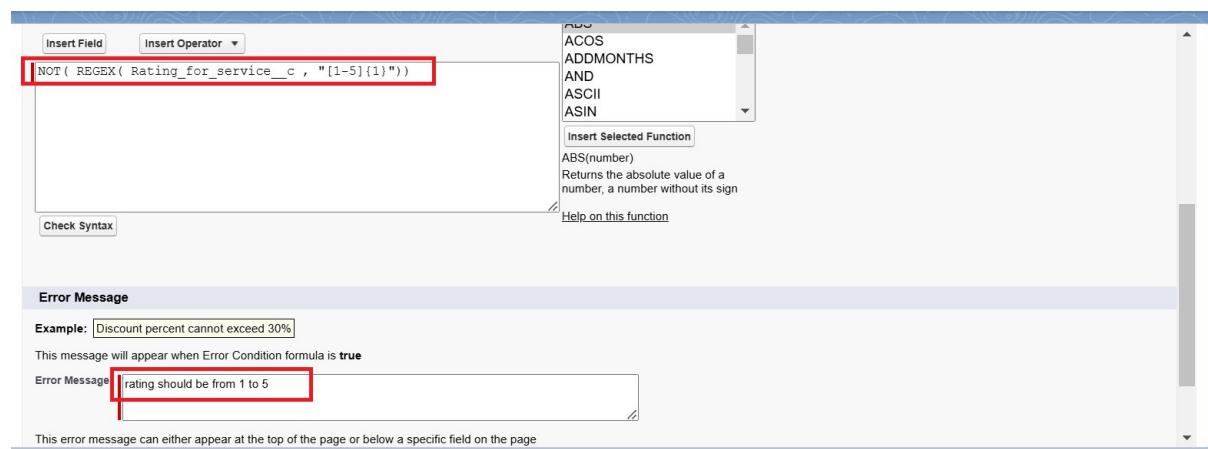
To create a validation rule to an Billing details and feedback Object

1. Go to the setup page >> click on object manager >> From drop down click edit for Billing details and feedback object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “ rating_should_be_less_than_5”.
4. Insert the Error Condition Formula as :-

NOT(REGEX(Rating_for_service__c , "[1-5]{1}"))



5. 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”, and click Save.

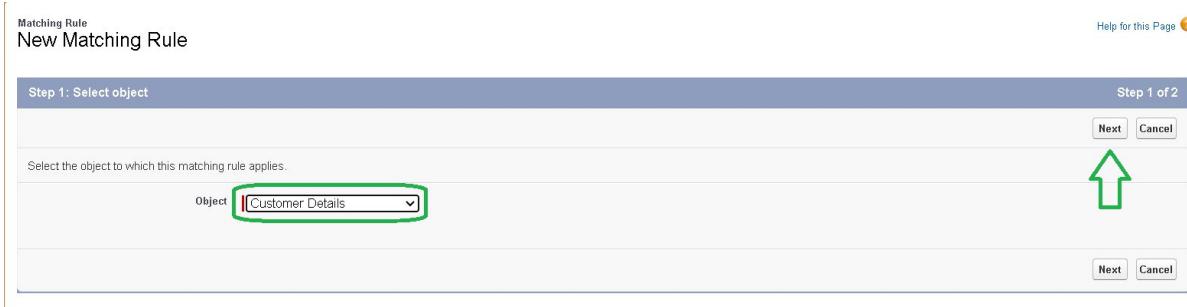


To create a matching rule to an Customer details Object

1. Go to quick find box in setup and search for matching Rule.
 2. Click on matching rule >> click on New Rule.

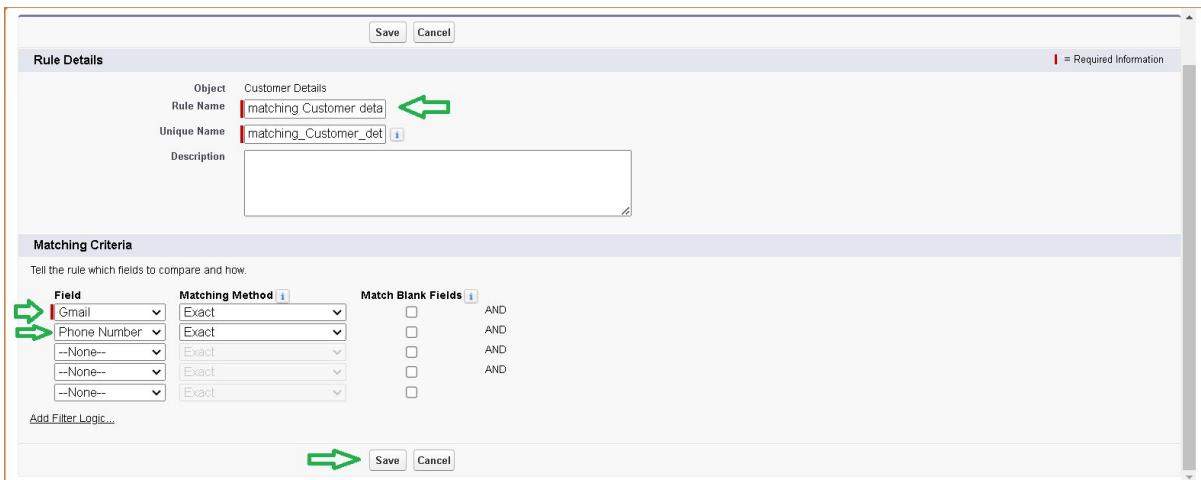


3. Select the object as Customer details and click Next.



4. Give the Rule name : Matching customer details
 5. Unique name : is auto populated
 6. Define the matching criteria as
 7.

Field	Matching Method
1. Gmail	Exact
2. Phone Number	Exact
 8. Click save.
 9. After Saving Click on Activate.



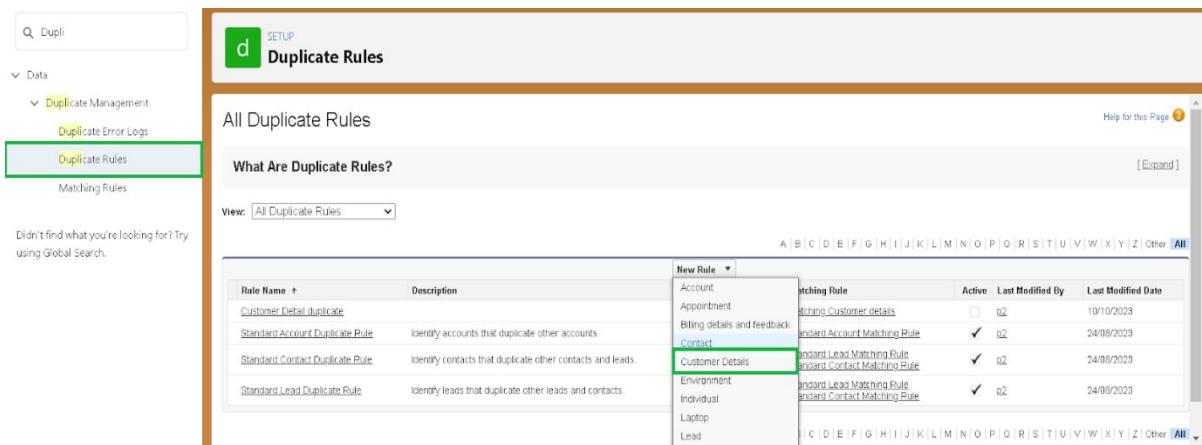
Matching Rule
matching Customer details

Help for this Page 

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	Inactive
Created By	project2, 25/09/2023, 10:15 am
Modified By	project2, 10/10/2023, 3:32 pm

To create a Duplicate rule to an Customer details Object

1. Go to quick find box in setup and search for Duplicate rules.
2. Click on Duplicate rule >> click on New Rule >> select customer details object.



The screenshot shows the 'Duplicate Rules' page in the Salesforce Setup. The left sidebar has a 'Duplicate Rules' item highlighted with a green box. The main area displays a table of existing duplicate rules, with one row for 'Customer Details' highlighted with a green box. The table columns include Rule Name, Description, Matching Rule, Active, Last Modified By, and Last Modified Date.

Rule Name	Description	Matching Rule	Active	Last Modified By	Last Modified Date
Customer Detail duplicate	Identify accounts that duplicate other accounts	Standard Account Matching Rule	<input checked="" type="checkbox"/>	project2	10/10/2023
Standard Contact Duplicate Rule	Identify contacts that duplicate other contacts and leads	Standard Lead Matching Rule	<input checked="" type="checkbox"/>	project2	24/09/2023
Standard Lead Duplicate Rule	Identify leads that duplicate other leads and contacts	Standard Contact Matching Rule	<input checked="" type="checkbox"/>	project2	24/09/2023
Laptop					
Lead					

3. Give the Rule name as : Customer Detail duplicate
4. Scroll a little in Matching rule section
5. Select the matching rule : Matching customer details
6. And Click on save.
7. After saving the Duplicate Rule, Click on Activate.

Edit Duplicate Rule
Customer Detail duplicate

Help for this Page 

Duplicate Rule Edit		
Save	Save & New	Cancel
Rule Details		
Rule Name	Customer Detail duplicate 	
Description	<input type="text"/>	
Object	Customer Details	
Record-Level Security	<input checked="" type="radio"/> Enforce sharing rules  <input type="radio"/> Bypass sharing rules	
Actions		
Specify what happens when a user tries to save a duplicate record.		
Action On Create	<input checked="" type="radio"/> Allow <input checked="" type="checkbox"/> Alert <input type="checkbox"/> Report	
Action On Edit	<input checked="" type="radio"/> Allow <input type="checkbox"/> Alert <input type="checkbox"/> Report	
Alert Text	Use one of these records? 	

Matching Rules

Define how duplicate records are identified.

Compare Customer Details With: Customer Details

Matching Rule: matching Customer details

Matching Criteria: (Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone_Number EXACT MatchBlank = FALSE)

Field Mapping: Mapping Selected

Add Rule Remove Rule

Conditions

Optionally, specify the conditions a record must meet for the rule to run.

Field	Operator	Value
--None--	--None--	

AND
AND
AND
AND

Add Filter Logic...

Save Save & New Cancel

Manager Profile

To create a new profile:

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Standard User) >> enter profile name (Manager) >> Save.

Setup Home Object Manager

Profiles

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

2. While still on the profile page, then click Edit.

Profile Manager

Help for this Page

Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information.

If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.

Login IP Ranges [0] | Enabled Apex Class Access [0] | Enabled Visualforce Page Access [0] | Enabled External Data Source Access [0] | Enabled Named Credential Access [0] | Enabled External Credential Principal Access [0] | Enabled Custom Metadata Type Access [0] | Enabled Custom Setting Definitions Access [0] | Enabled Flow Access [0] | Enabled Service Presence Status Access [0] | Enabled Custom Permissions [0]

Profile Detail

Name	Manager
User License	Salesforce
Description	
Created By	sunny_1, 13/06/2023, 2:40 pm
Modified By	sunny_1, 13/06/2023, 2:40 pm

Edit Clone Delete View Users

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

Data Manager (standard__DataManager)	<input checked="" type="checkbox"/>	<input type="radio"/>	(standard__ServiceConsole) Service (standard__Service)	<input type="checkbox"/>	<input checked="" type="radio"/>
Digital Experiences (standard__SalesforceCMS)	<input checked="" type="checkbox"/>	<input type="radio"/>	(standard__LightningService) Service Console	<input checked="" type="checkbox"/>	<input type="radio"/>
Garage Management Application (Garage_Management_Application)	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	Site.com (standard__Sites)	<input checked="" type="checkbox"/>	<input type="radio"/>
Laptop Hub (Laptop_Hub)	<input type="checkbox"/>	<input type="radio"/>	Subscription Management (standard__RevenueCloudConsole)	<input checked="" type="checkbox"/>	<input type="radio"/>

4. 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.

Custom Object Permissions									
	Basic Access				Data Administration				
	Read	Create	Edit	Delete	View All	Modify All	View All	Modify All	View All
Appointments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Billing details and feedback	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customer Details	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laptops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service records	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>						
SessionData	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Changing the session times out after should be “ 8 hours of inactivity”.
6. Change the password policies as mentioned :
7. User passwords expire in should be “ never expires ”.
8. Minimum password length should be “ 8 ”, and click save.

sales person Profile

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Salesforce Platform User) >> enter profile name (sales person) >> Save.
2. While still on the profile page, then click Edit.
3. Select the Custom App settings as default for the GArage management.
4. 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.

Custom Object Permissions									
	Basic Access				Data Administration				
	Read	Create	Edit	Delete	View All	Modify All	View All	Modify All	View All
Appointments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Billing details and feedback	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customer Details	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laptops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service records	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
SessionData	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. And click save.

Creating Manager Role

Creating Manager Role:

1. Go to quick find >> Search for Roles >> click on set up roles.

The screenshot shows the Salesforce Setup interface. In the top navigation bar, 'Setup' is selected. The left sidebar has sections like 'Users' and 'Feature Settings'. Under 'Sales', there are 'Contact Roles on Contracts' and 'Contact Roles on Opportunities'. Under 'Service', there is 'Case Teams'. A red box highlights the 'Roles' search bar and the 'Roles' link in the sidebar. The main content area is titled 'Understanding Roles' with a sub-section 'Sample Role Hierarchy'. A red box highlights the 'Territory-based Sample' role hierarchy diagram. The diagram shows a hierarchy from 'Executive Staff' down to 'Western Sales Rep', 'Eastern Sales Rep', and 'International Sales Rep'. Each role has associated permissions listed to its right. At the bottom right of the main content area, there is a 'Set Up Roles' button and a checkbox for 'Don't show this page again'.

2. Click on Expand All and click on add role under whom this role works.

The screenshot shows the 'Your Organization's Role Hierarchy' page. A red box highlights the 'Expand All' button. The tree view shows roles like 'Nick Enterprises', 'CEO', 'HR', 'Manager', 'On Site Emp', 'Remote Emp', and 'SVP'. Under 'Manager', a red box highlights the 'Add Role' button.

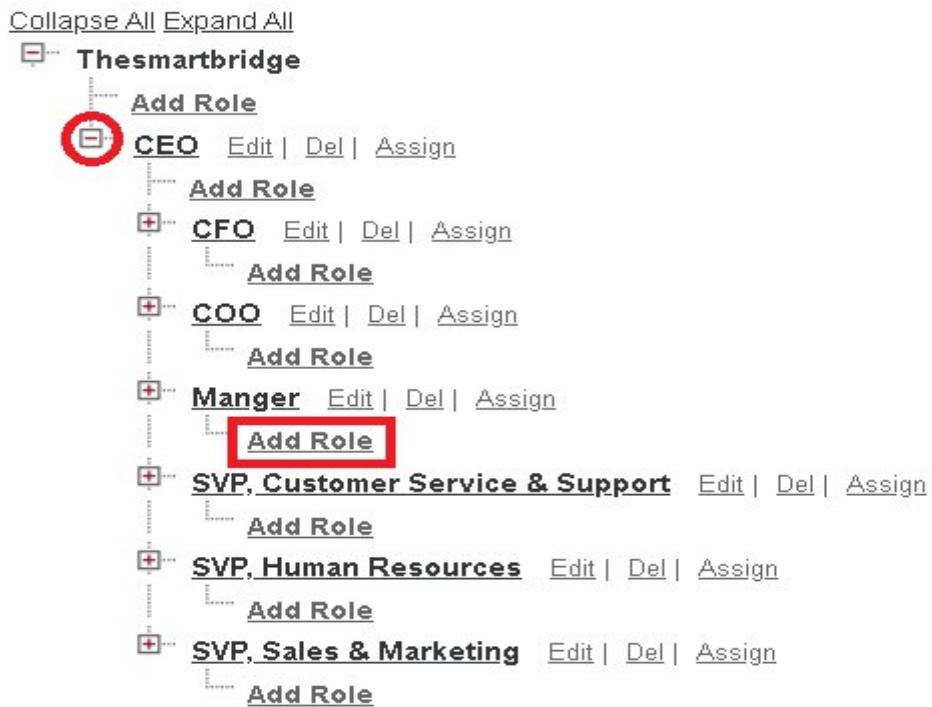
3. Give Label as "Manager" and Role name gets auto populated. Then click on Save.

The screenshot shows the 'Role Edit' page. The 'Label' field contains 'Manger' with a red arrow pointing to it. The 'Role Name' field also contains 'Manger'. The 'This role reports to' field contains 'CEO'. The 'Role Name as displayed on reports' field is empty. At the bottom, there is a 'Save' button with a red arrow pointing to it, along with 'Save & New' and 'Cancel' buttons.

Creating another roles

Creating another two roles under manager

1. Go to quick find >> Search for Roles >> click on set up roles.
2. Click plus on CEO role, and click add role under manager.



3. Give Label as “sales person” and Role name gets auto populated. Then click on Save.

Create User

1. Go to setup >> type users in quick find box >> select users >> click New user.
2. 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

3. Save.

Creating another users

1. Repeat the steps and create another user using
 - a. Role : sales person
 - b. User licence : Salesforce Platform
 - c. Profile : sales person

Note : create atleast 3 users with these permissions.

Creating New Public Group

1. Go to setup >> type users in quick find box >> select public groups >> click New.

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

Group Information

New Public Group

Label: Sales Team
Group Name: Sales_Team

Grant Access Using Hierarchies [i](#)

Search: Roles for: Find

Available Members	Selected Members
Role: Customer Support, North America	Role: Sales person
Role: Director, Channel Sales	
Role: Director, Direct Sales	
Role: Eastern Sales Team	
Role: Installation & Repair Services	
Role: Manager	
Role: Marketing Team	
Role: SVP, Customer Service & Support	
Role: SVP, Human Resources	
Role: SVP, Sales & Marketing	
Role: VP, International Sales	
Role: VP, Marketing	
Role: VP, North American Sales	
Role: Western Sales Team	

Add to Delegated Administration Groups

Creating Sharing settings

1. Go to setup >> type users in quick find box >> select Sharing Settings >> click Edit.
2. Change the OWD setting of the Service records Object to private as shown in fig.

Sharing Settings

Work Plan Template	Private	Private	<input checked="" type="checkbox"/>
Work Step Template	Private	Private	<input checked="" type="checkbox"/>
Work Type	Private	Private	<input checked="" type="checkbox"/>
Work Type Group	Public Read/Write	Private	<input checked="" type="checkbox"/>
Appointment	Public Read/Write	Private	<input checked="" type="checkbox"/>
Billing details and feedback	Public Read/Write	Private	<input checked="" type="checkbox"/>
Customer Details	Public Read/Write	Private	<input checked="" type="checkbox"/>
Environment	Public Read/Write	Private	<input checked="" type="checkbox"/>
Laptop	Public Read/Write	Private	<input checked="" type="checkbox"/>
Service records	Private	Private	<input checked="" type="checkbox"/>
SessionData	Public Read/Write	Private	<input checked="" type="checkbox"/>

User Visibility Settings

Portal User Visibility [i](#) Site User Visibility [i](#)

Other Settings

Standard Report Visibility [i](#) Manual User Record Sharing [i](#) Manager Groups [i](#)

Minimize the number of roles created, which improves performance by cutting down processing loads [i](#)

Grant site users access to related cases [i](#) Secure user record access [i](#) Require permission to view record names in lookup fields [i](#)

Save **Cancel**

3. Click on save and refresh.
4. Scroll down a bit, Click new on Service records sharing Rules.
- 5.

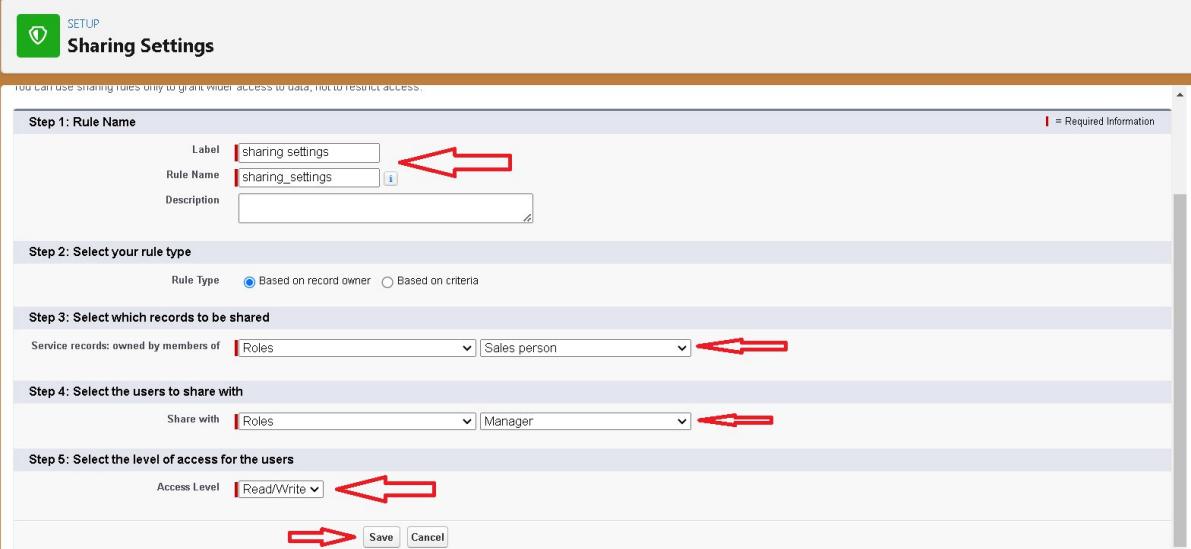
Service records Sharing Rules

New **Recalculate**

No sharing rules specified.

6. Give the Label name as " Sharing setting"
7. Rule name is auto populated.
8. In step 3 : Select which records to be shared, members of " Roles " >> " Sales person "

9. In step 4: share with, select “ Roles ” >> “ Manager ”
10. In step 5 : Change the access level to “ Read / write ”.
11. Click on save.



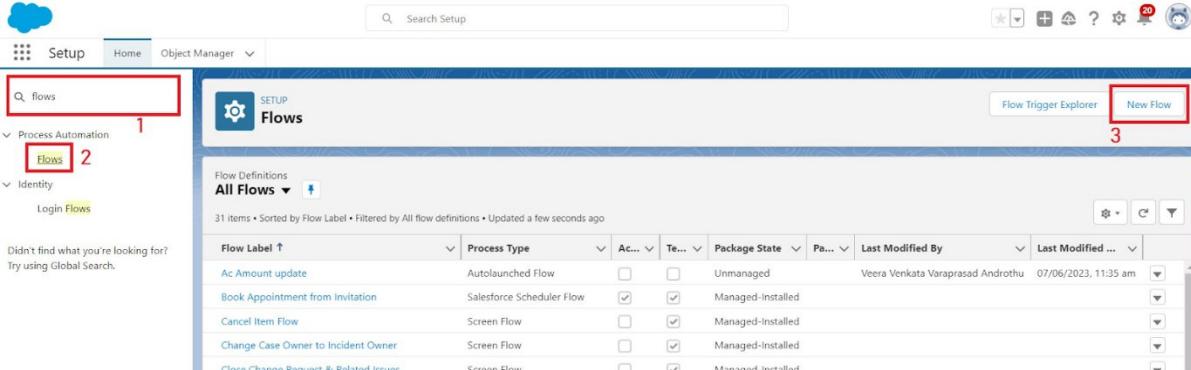
The screenshot shows the 'Sharing Settings' configuration page. It has five main sections:

- Step 1: Rule Name**: Contains fields for 'Label' (sharing settings) and 'Rule Name' (sharing_settings). A red arrow points to the 'Rule Name' field.
- Step 2: Select your rule type**: Shows 'Rule Type' set to 'Based on record owner'.
- Step 3: Select which records to be shared**: Shows 'Service records: owned by members of' dropdowns set to 'Roles' and 'Sales person'. A red arrow points to the 'Sales person' dropdown.
- Step 4: Select the users to share with**: Shows 'Share with' dropdowns set to 'Roles' and 'Manager'. A red arrow points to the 'Manager' dropdown.
- Step 5: Select the level of access for the users**: Shows 'Access Level' dropdown set to 'Read/Write'. A red arrow points to this dropdown.

At the bottom right are 'Save' and 'Cancel' buttons, with a red arrow pointing to the 'Save' button.

Create a Flow

1. Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow.



The screenshot shows the Salesforce Setup interface with the following steps highlighted:

1. The 'Search Setup' bar at the top has 'flows' typed into it.
2. The 'Process Automation' section on the left has 'Flows' selected.
3. The main 'Flows' page shows a table of flow definitions. The 'New Flow' button in the top right corner is highlighted with a red box.

Flow Label	Process Type	Ac...	Te...	Package State	Pa...	Last Modified By	Last Modified ...
Ac Amount update	Autolaunched Flow	<input type="checkbox"/>	<input type="checkbox"/>	Unmanaged		Veera Venkata Varaprasad Androthu	07/06/2023, 11:35 am
Book Appointment from Invitation	Salesforce Scheduler Flow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Cancel Item Flow	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Change Case Owner to Incident Owner	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Close Change Request & Related Issues	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			

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

New Flow

Core All + Templates

- Screen Flow
- Record-Triggered Flow **1**
- Schedule-Triggered Flow
- Platform Event—Triggered Flow
- Autolaunched Flow (No Trigger)
- Record-Triggered Orchestration

Create **2**

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

Configure Start

Select Object

Select the object whose records trigger the flow when they're created, updated, or deleted.

*Object **Billing details and feedback**

Configure Trigger

*Trigger the Flow When:

- A record is created
- A record is updated
- A record is created or updated **4**
- A record is deleted

Set Entry Conditions

Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.

If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the **Only when a record is updated to meet the condition requirements** option for When to Run the Flow for Updated Records.

Condition Requirements

None

***Optimize the Flow for:**

Fast Field Updates

Update fields on the record that triggers the flow to run. This high-performance flow runs *before* the record is saved to the database.

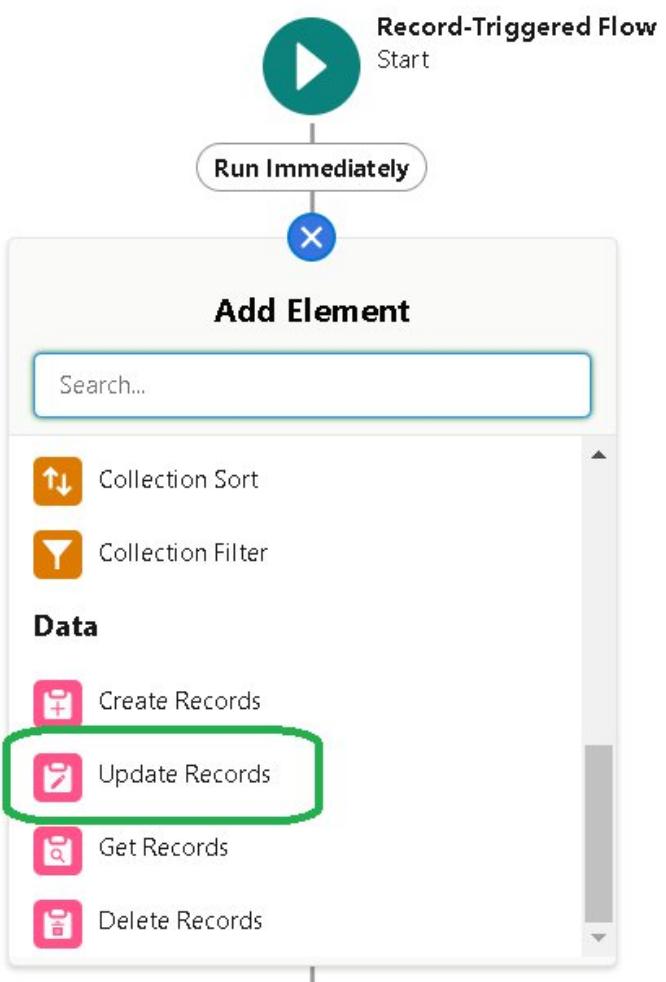
Actions and Related Records **3**

Update any record and perform actions, like send an email. This more flexible flow runs *after* the record is saved to the database.

Include a Run Asynchronously path to access an external system after the original transaction for the triggering record is successfully committed

Done **4**

6. Under the Record-triggered Flow Click on “+” Symbol and In the Drop down List select the “Update records Element”.



7. Give the Label Name : Amount Update
8. Api name : is auto populated

Edit Update Records

Update Salesforce records using values from the flow.

*Label	*API Name
Amount Update	Amount_Update
Description	
<p>* How to Find Records to Update and Set Their Values</p> <ul style="list-style-type: none"> <input checked="" type="radio"/> Use the billing details and feedback record that triggered the flow <input type="radio"/> Update records related to the billing details and feedback record that triggered the flow <input type="radio"/> Use the IDs and all field values from a record or record collection <input type="radio"/> Specify conditions to identify records, and set fields individually 	

Set Filter Conditions

Condition Requirements to Update Record

All Conditions Are Met (AND) ▾

Cancel Done

Set Filter Conditions

Condition Requirements to Update Record

All Conditions Are Met (AND) ▾

Field	Operator	Value
Payment_Status__c	Equals	Completed

+ Add Condition

Set Field Values for the Billing details and feedback Record

Field	Value
Payment_Paid__c	\$Record > Service records > Appointment > Service A...

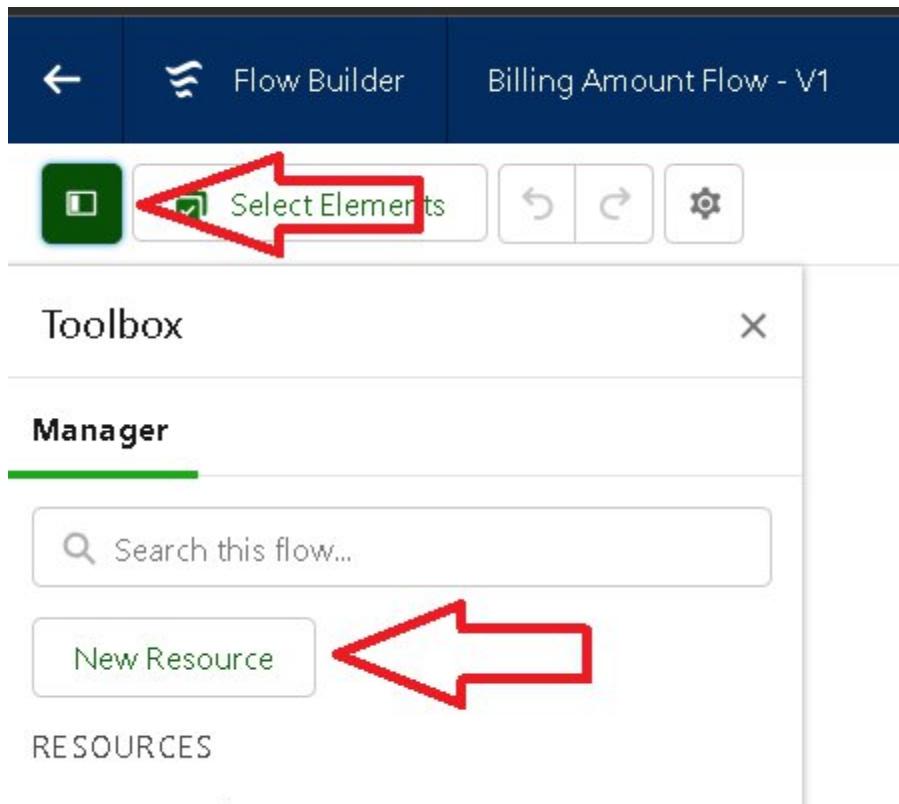
+ Add Field

Cancel Done

9. Set a filter condition : All Conditions are met(AND)
10. Field : Payment_Status__c
11. Operator : Equals
12. Value : Completed
13. And Set Field Values for the Billing details and feedback Record

14. Field : Payment_Paid__c
15. Value : {!\$Record.Service_records__r.Appointment__r.Service_Amount__c}
16. Click On Done.

17. Before creating another Element. Create a New Resource form Toolbox form top left.



18. Click on the New Resource, And select Variable.
19. Select the resource type as text template.
20. Enter the API name as "alert".
21. Change the view as Rich Text ? View to Plain Text.
22. In body field paste the syntax that given below.

Dear {!\$Record.Service_records__r.Appointment__r.Customer_Name__r.Name},

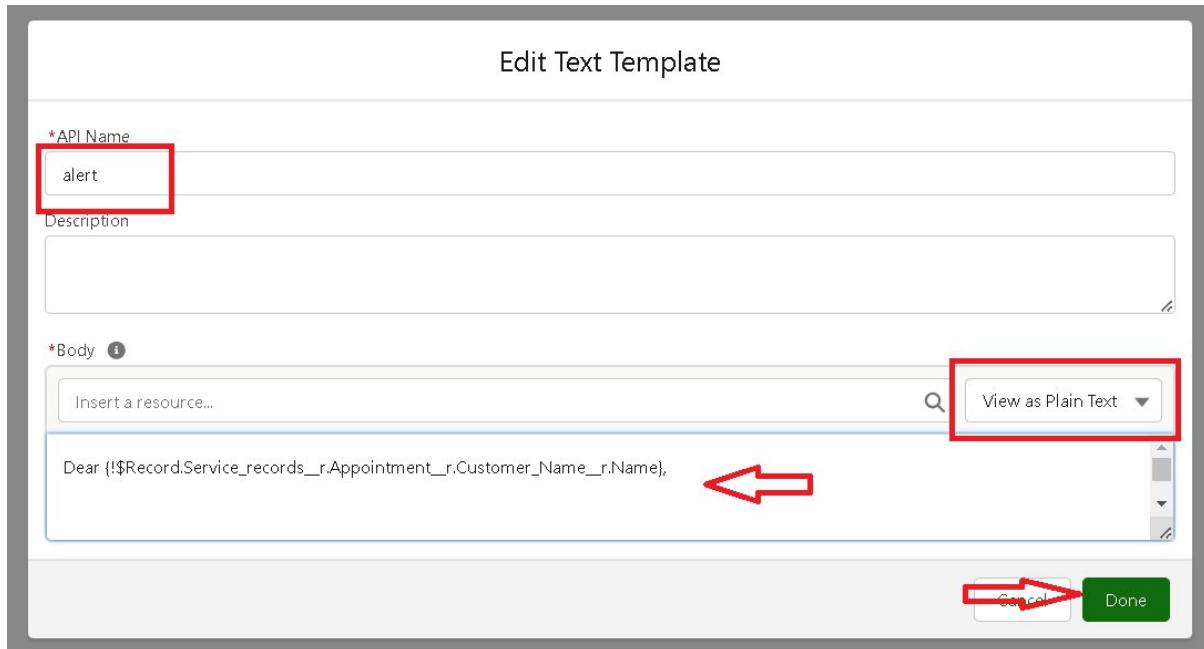
I hope this message finds you well. I wanted to take a moment to express my sincere gratitude for your recent payment for the services provided by our garage management

team. Your prompt payment is greatly appreciated, and it helps us continue to provide top-notch services to you and all our valued customers.

Amount paid : {!\$Record.Payment_Paid__c}

Thank you for Coming .

23. Click done.



24. Now Click on Add Element , select Action.
25. Their action bar will be opened in that search for “ send email ” and click on it.
26. Give the label name as “ Email Alert”
27. API name will be auto populated.
28. Enable the body in set input values for the selected action.
29. Select the text template that created , Body : {!alert}
30. Include recipient address list select the email form the record.

31. RecipientAddressList:

{!\$Record.Service_records__r.Appointment__r.Customer_Name__r.Gmail__c}

32. Include subject as " Thank You for Your Payment - Garage Management".

33. Click done.

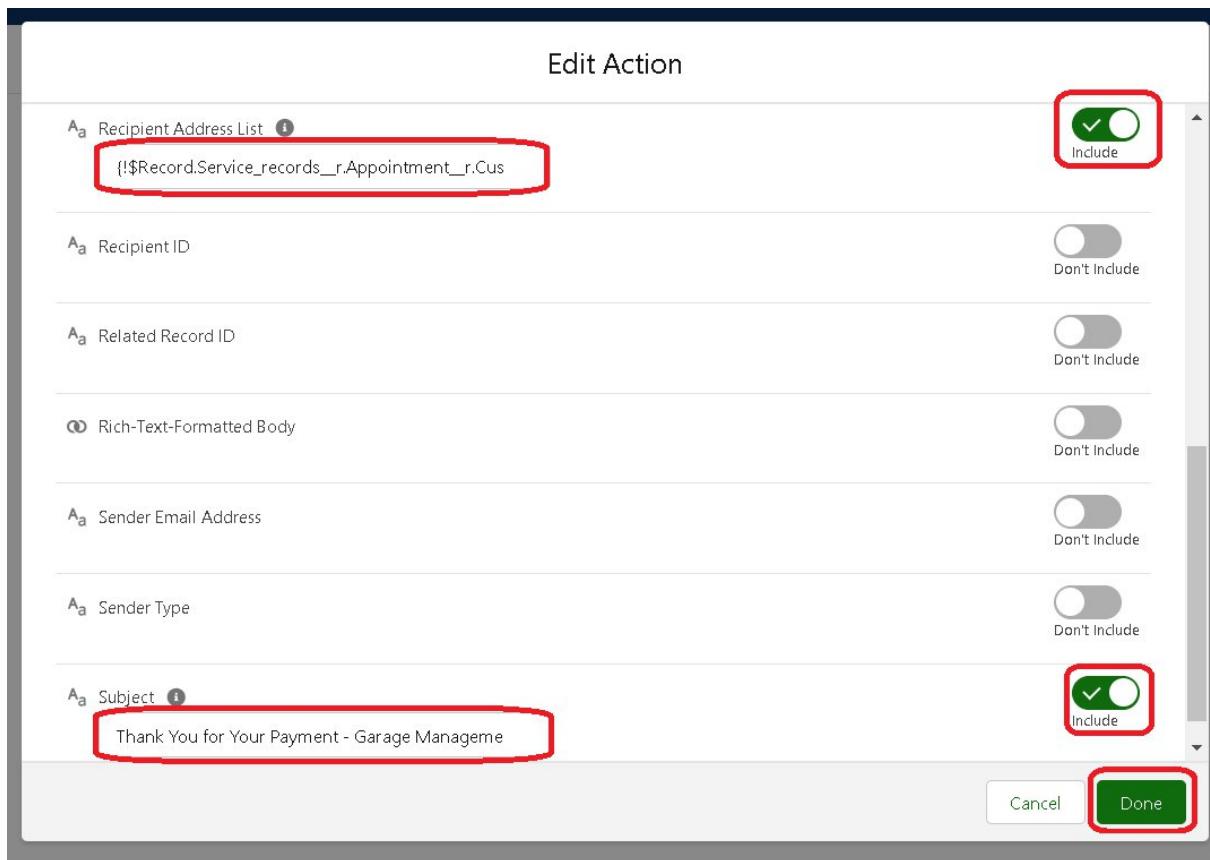
Edit Action

Use values from earlier in the flow to set the inputs for the "Send Email" core action. To use its outputs later in the flow, store them in variables.

*Label	* API Name
Email Alert	Email_Alert
Description	

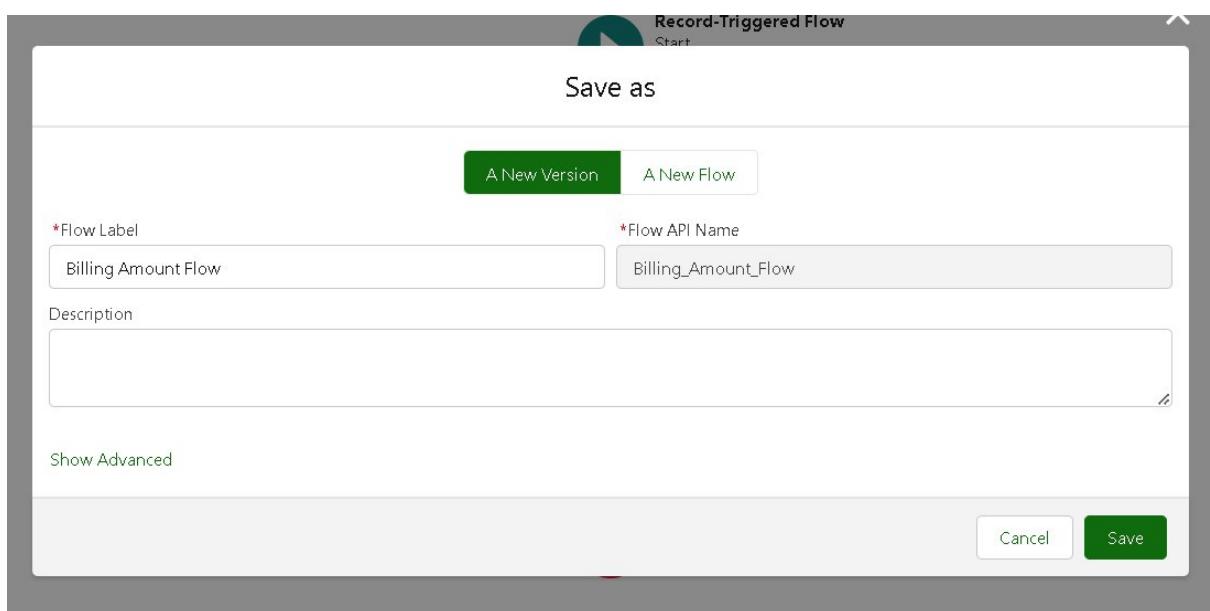
Set Input Values for the Selected Action

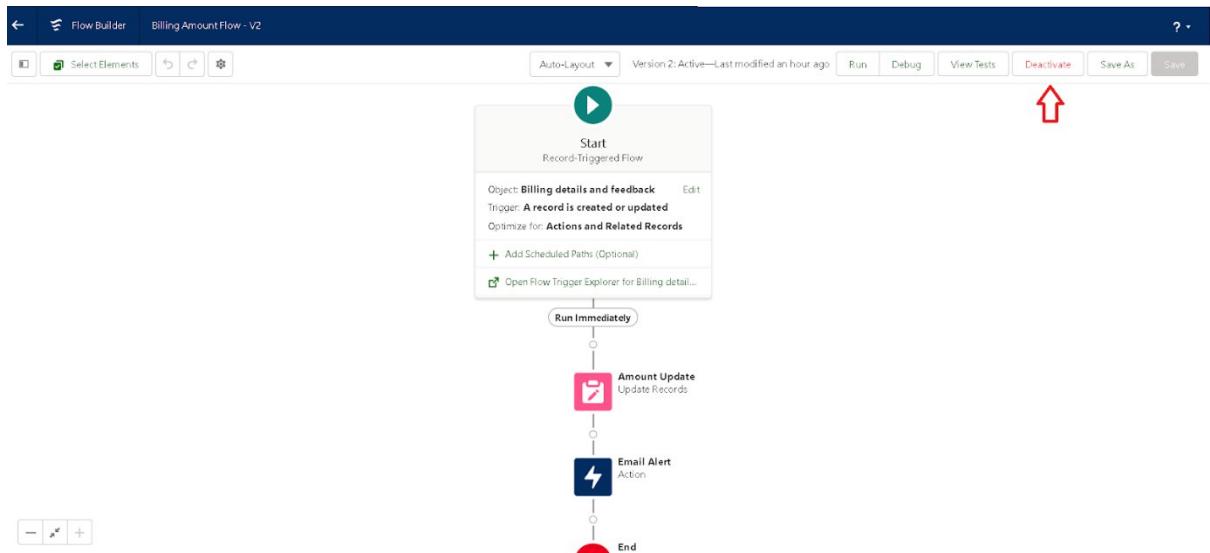
A_a Body <small>i</small>	<input checked="" type="checkbox"/> Include
{!alert}	
A_a Email Template ID	<input type="checkbox"/> Don't Include
⌚ Log Email on Send	<input type="checkbox"/> Don't Include



34. Click on save. Give the Flow label , Flow Api name will be autopopulated.

35. And click save, and click on activate.





Create another Flow

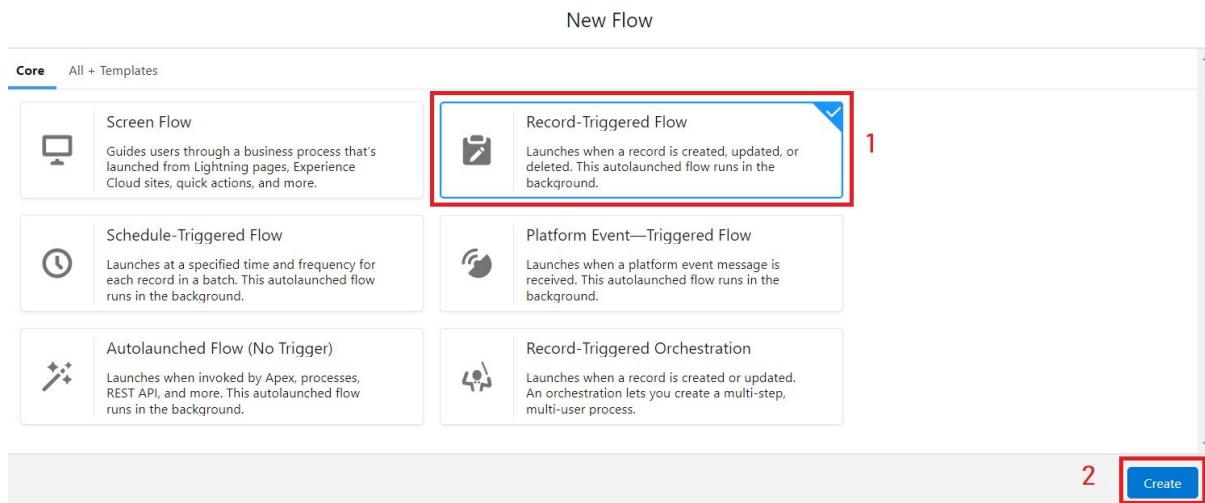
1. Go to setup ? type Flow in quick find box ? Click on the Flow and Select the New Flow.

The screenshot shows the Salesforce Setup interface with the following steps highlighted:

1. Search bar with 'flows' entered.
2. 'Flows' link in the sidebar under Process Automation.
3. 'New Flow' button in the top right corner of the main Flows grid.

Flow Label	Process Type	Ac...	Te...	Package State	Pa...	Last Modified By	Last Modified ...
Ac Amount update	Autolaunched Flow	<input type="checkbox"/>	<input type="checkbox"/>	Unmanaged		Veera Venkata Varaprasad Androthu	07/06/2023, 11:35 am
Book Appointment from Invitation	Salesforce Scheduler Flow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Cancel Item Flow	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Change Case Owner to Incident Owner	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Close Change Request & Related Issues	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			

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



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**" and Click on Done.
6. Under the Record-triggered Flow Click on "+" Symbol and In the Drop down List select the "**Update records Element**".
7. Set a filter condition : All Conditions are met(AND)
8. Field : **Quality_Check_Status__c**
9. Operator : **Equals**
10. Value : **True**
11. And Set Field Values for the Billing details and feedback Record
12. Field : **Service_Status__c**
13. Value : **Completed**

Set Filter Conditions

Condition Requirements to Update Record

All Conditions Are Met (AND) ▾

Field	Operator	Value
Quality_Check_Status_c	Equals	<input checked="" type="checkbox"/> True X Delete

+ Add Condition

Set Field Values for the Service record Record

Field	Value
Service_Status_c	← Completed Delete

+ Add Field

14. Click On **Done**.

15. Click on **save**

16. Given the Flow label as **Update Service Status** , Flow Api name will be auto populated.

17. And click save, and click on **activate**.

Apex handler

UseCase : This use case works for Amount Distribution for each Service the customer selected for there Vehicle.

1. Login to the respective trailhead account and navigate to the gear icon in the top right corner.
2. Click on the Developer console. Now you will see a new console window.
3. In the toolbar, you can see FILE. Click on it and navigate to new and create New apex class.
4. Name the class as “AmountDistributionHandler ”.

```

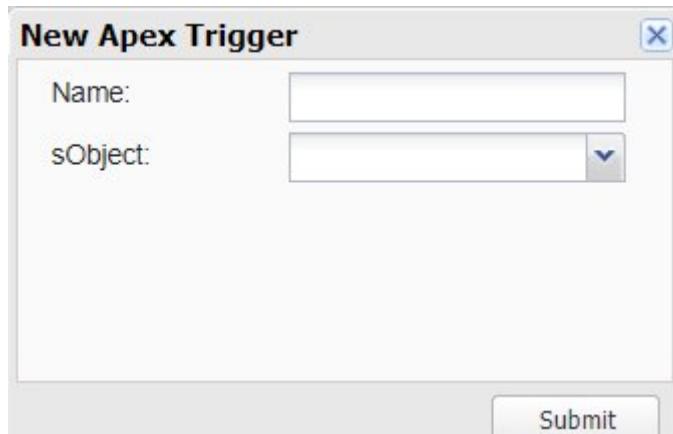
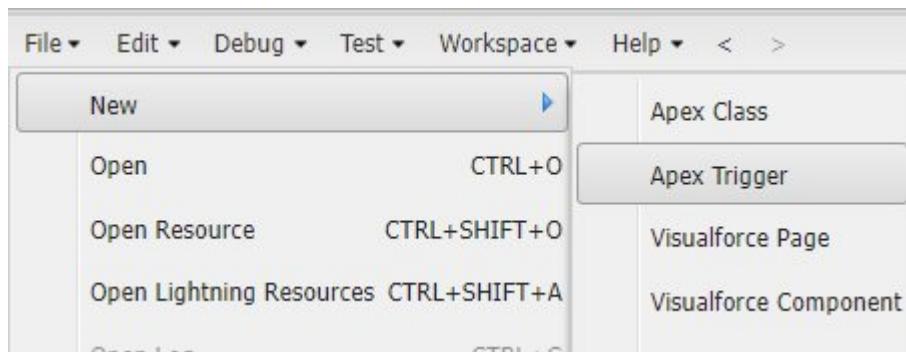
1 * public class AmountDistributionHandler {
2
3     public static void amountDist(list<Appointment__c> listApp){
4         list<Service_records__c> serList = new list <Service_records__c>();
5
6         for(Appointment__c app : listApp){
7             if(app.Maintenance_service__c == true && app.Repairs__c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

```

Trigger Handler :

How to create a new trigger :

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



Syntax For creating trigger :

The syntax for creating trigger is :

Trigger [trigger name] on [object name](Before/After event)

```
{  
}
```

In this project , trigger is called whenever the particular records sum exceed the threshold i.e minimum business requirement value. Then the code in the trigger will get executed.

1. Handler for the Appointment Object

The screenshot shows the Salesforce IDE interface with the file 'AmountDistribution.apxt' open. The code editor displays the following Apex trigger:

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

Code:

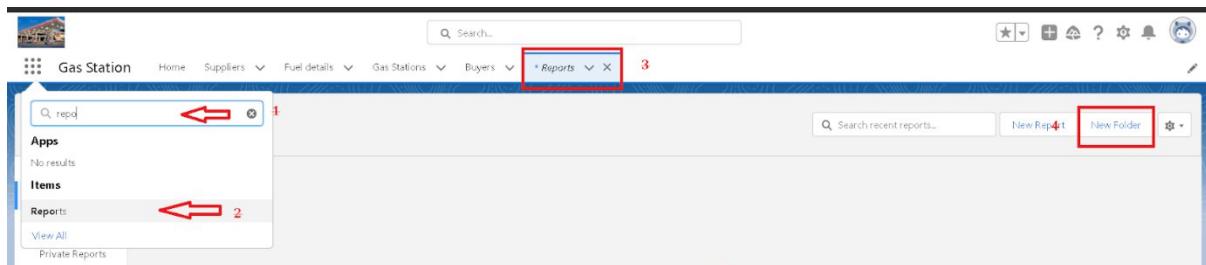
```
trigger AmountDistribution on Appointment__c (before insert, before update) {

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

    }
}
```

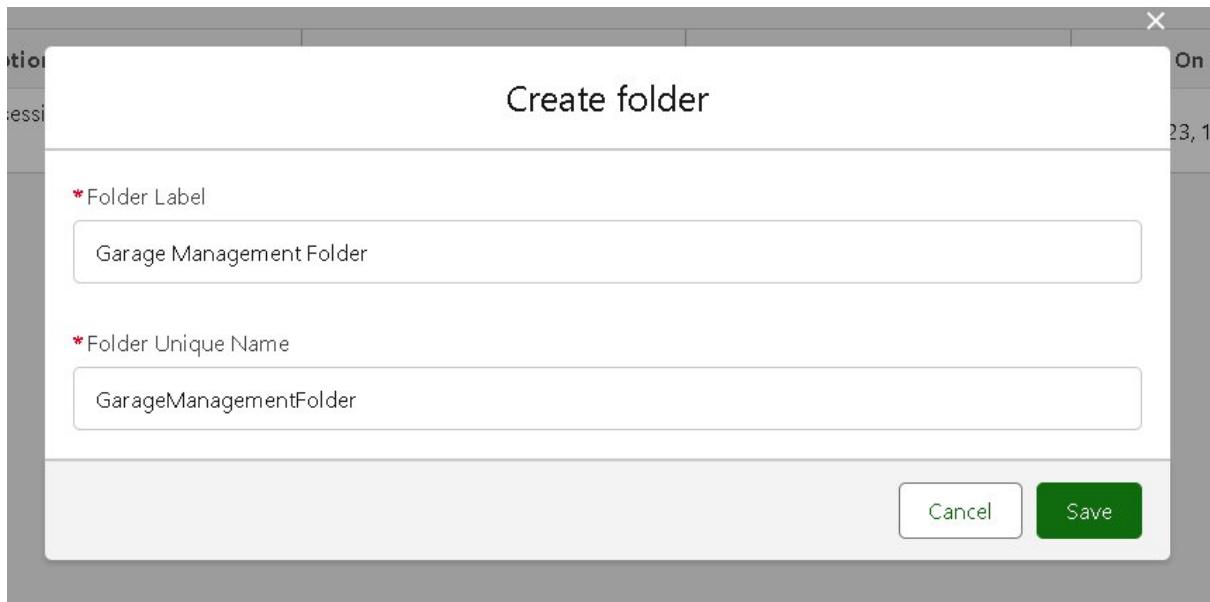
create a report folder

1. Click on the app launcher and search for reports.
2. Click on the report tab, click on new folder.



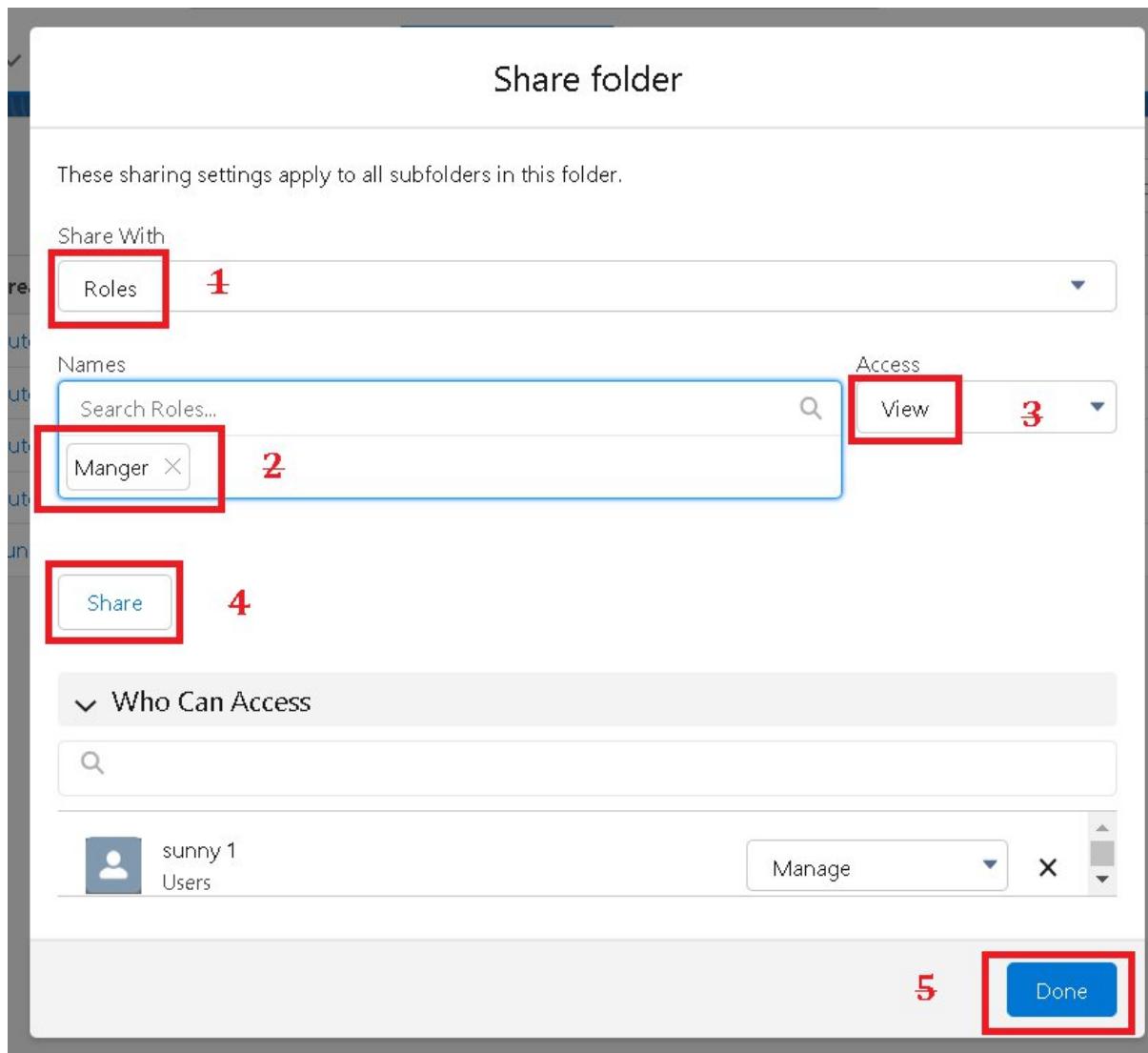
3. Give the Folder label as “Garage Management Folder”, Folder unique name will be auto populated.

4. Click save.



Sharing a report folder

1. Go to the app >> click on the reports tab.
2. Click on the All folder , click on the Drop down arrow for Garage Management folder, and Click on share.
3. Select the share with as “roles”, in name field search for “manager”, give “view” as access for that role.
4. Then click share, and click on Done.



Create Report Type

1. Go to setup >> type users in quick find box >> select Report Type >> click on Continue.
2. Click on new custom report type.

Action	Label	Description	Category	Deployed	Created By Alias	Created Date
Edit Del	Bot Metrics Daily Summer '23	Einstein Bot metrics aggregated by day.	Other Reports	✓	autoproc	28/09/2023
Edit Del	Bot Metrics Hourly Summer '23	Einstein Bot metrics aggregated by hour.	Other Reports	✓	autoproc	28/09/2023
Edit Del	Screen Flows	Find out which flows get executed and how long users take to complete each flow screen.	Other Reports	✓	autoproc	24/09/2023
Edit Del	Session Metrics Summer '23	Einstein Bot session metrics	Other Reports	✓	autoproc	28/09/2023

3. Select the Primary object as “ Customer details” .
4. Give the Report type Label as “ Service information ”
5. Report type Name is autopopulated.
6. Keep the Description as same.
7. Select Store in Category as “ other Reports ”
8. 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.

Identification

Primary Object	Customer Details
Report Type Label	Service information
Report Type Name	Service_information
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	<input type="radio"/> In Development <input checked="" type="radio"/> Deployed
-------------------	---

Next **Cancel**

9. now , Click on Related object box.
10. Click on Select Object, choose Appointment Object as shown in fig.

New Custom Report Type
Service information

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 Select Object

- Select Object--
- Activities
- Appointments**
- Duplicate Record Items

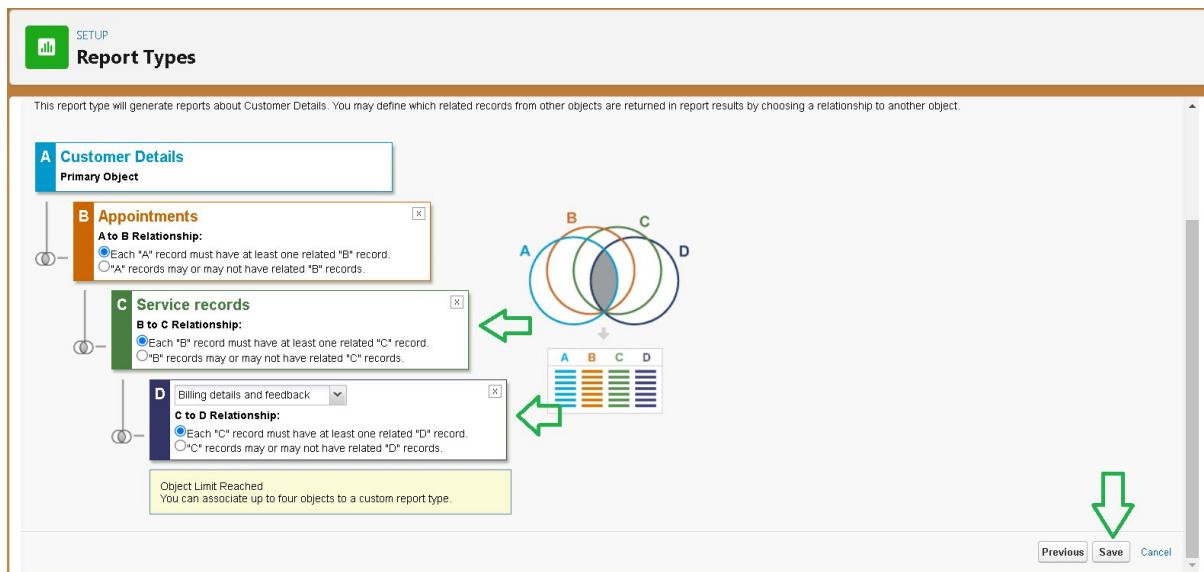
Help for this Page

Step 2 of 2

Previous **Save** **Cancel**

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

14. And click on save.



creating records

To create a record in the follow objects follow these steps

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.

The screenshot shows the 'New Customer Detail' form. At the top, it says 'New Customer Detail' and includes a note '* = Required Information'. The form has a 'Information' section containing fields for 'Customer Name' (Mac), 'Phone number' (5678765567), and 'Gmail' (mac@gmail.com). The 'Owner' field is populated with 'Annapurna SmartBridge'. At the bottom of the form are three buttons: 'Cancel', 'Save & New', and a larger blue 'Save' button.

Now, Create the Appointment Record

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.

The screenshot shows the Garage Management System interface with the "Appointments" tab selected. The form is titled "Appointment app-016". The fields include:

- Appointment Name: app-016
- Customer Details: Mac
- * Appointment Date: 13/11/2024
- Maintenance service:
- Repairs:
- Replacement Parts:
- Service Amount: (empty input field)
- * Vehicle number plate: TS30EU0443

At the bottom, it shows "Created By: Annapurna SmartBridge, 18/11/2024, 3:28 pm" and "Last Modified By: Annapurna SmartBridge, 18/11/2024, 3:28 pm". There are "Cancel" and "Save" buttons.

Now, Create a service Record

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

Service Record Name
ser-010

Owner
 Annapurna SmartBridge

* Appointment
 X

Quality Check Status

Service Status
 ▼

service date
18/11/2024
This field is calculated upon save

Created By
 Annapurna SmartBridge, 18/11/2024, 4:32 pm

Cancel Save Last Modified By
 Annapurna SmartBridge, 18/11/2024, 4:34 pm

6. Now automatically Service status will be moved to completed.

Related Details

Service Record Name ser-010	Owner  Annapurna SmartBridge
Appointment app-016	Edit
Quality Check Status <input checked="" type="checkbox"/>	Edit
Service Status Completed	Edit
service date 18/11/2024	
Created By  Annapurna SmartBridge, 18/11/2024, 4:32 pm	Last Modified By  Annapurna SmartBridge, 18/11/2024, 4:34 pm

Conclusion

The Garage Management System (GMS) serves as an efficient solution to overcome the challenges faced by automotive service centers. By automating key operations such as service scheduling, inventory management, billing, and record keeping, it reduces manual effort and improves overall productivity. The system not only enhances customer satisfaction through transparent and timely services but also provides garages with valuable insights for better decision-making. For students, the project offers an opportunity to apply technical, analytical, and project management skills to a real-world scenario, preparing them for professional challenges. Thus, the GMS stands as a reliable, user-friendly, and scalable tool that contributes to both academic learning and industry needs.

Future Scope

The Garage Management System can be further enhanced with advanced features to meet growing industry needs and customer expectations. Some possible future improvements include:

1. **Mobile Application Integration** – Allow customers to book services, track progress, and receive updates through a mobile app.
2. **Online Payment & E-Invoicing** – Enable secure digital payments and generate automated e-bills for convenience.
3. **Customer Feedback System** – Collect reviews and ratings to improve service quality and customer satisfaction.
4. **AI-Based Predictive Maintenance** – Use machine learning to predict vehicle maintenance needs based on service history and usage patterns.
5. **Multi-Branch Support** – Extend the system to manage operations across multiple garage branches with centralized control.
6. **Cloud Deployment** – Host the system on the cloud for easy accessibility, scalability, and data security.