

Report : Garage Management System

1. Project Description :

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.

2. Short Description :

A Garage Management System (GMS) is a software solution designed to streamline and automate the operations of a garage or automotive service center. It helps manage day-to-day tasks such as vehicle maintenance, repair tracking, inventory control, customer service, billing, and scheduling. With features like job tracking, invoicing, parts management, and service history logging, a GMS improves efficiency, reduces errors, and enhances customer satisfaction.

3. Salesforce :

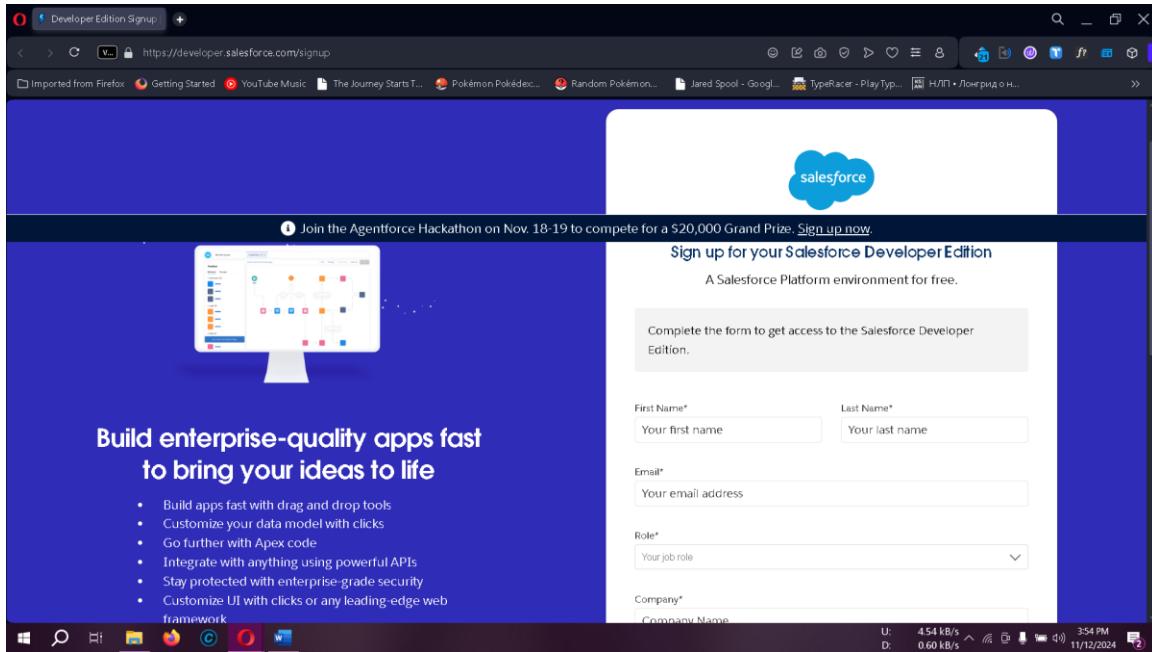
Are you new to Salesforce? Not sure exactly what it is, or how to use it? Don't know where you should start on your learning journey? If you've answered yes to any of these questions, then you're in the right place. This module is for you.

3.1 Creating Developer Account:

To start working with Salesforce CRM, a developer account is essential. Follow these steps to create an account:

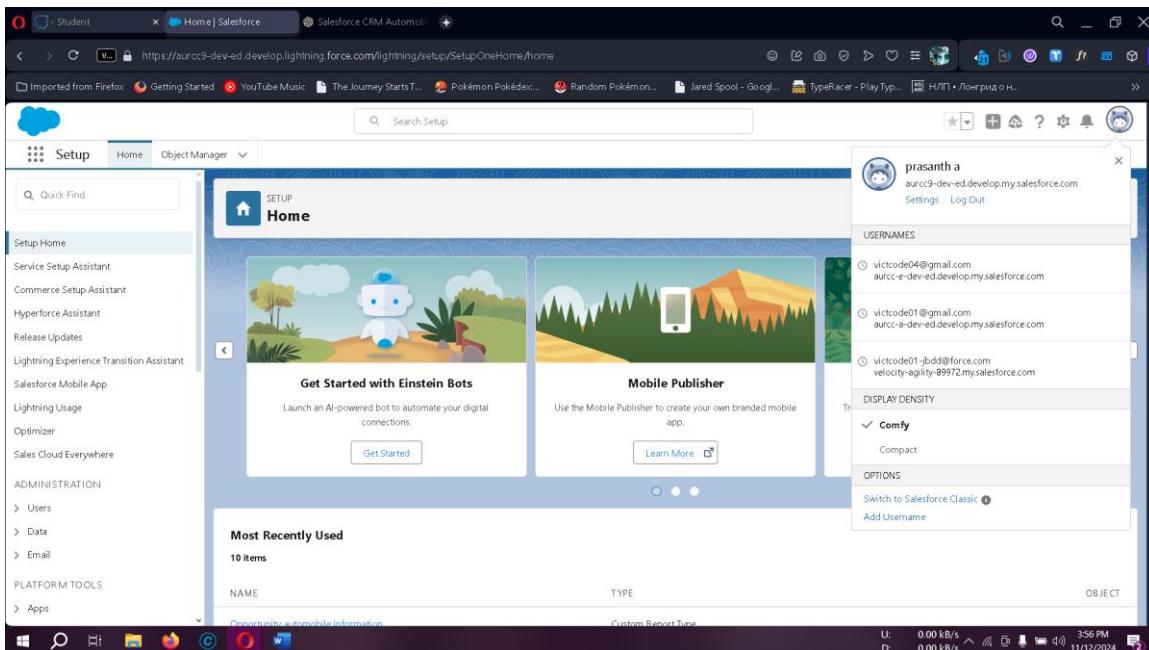
1. **Sign-Up Process**
 - o Go to [Salesforce Developer Sign-Up](#).
 - o Enter your **First and Last Name**, **Email**, and set **Role** as "Developer."
 - o Input your **Company** (College Name), **Country** (India), **Postal Code**, and **Username** (formatted as username@organization.com).

- Click **Sign Me Up** after filling out the form



3.2 Account Activation :

- Open the inbox of the email used for registration, locate the Salesforce verification email, and click **Verify Account**.
- Set a password, choose a security question, and log into your Salesforce account to access the setup page.



4. Object :

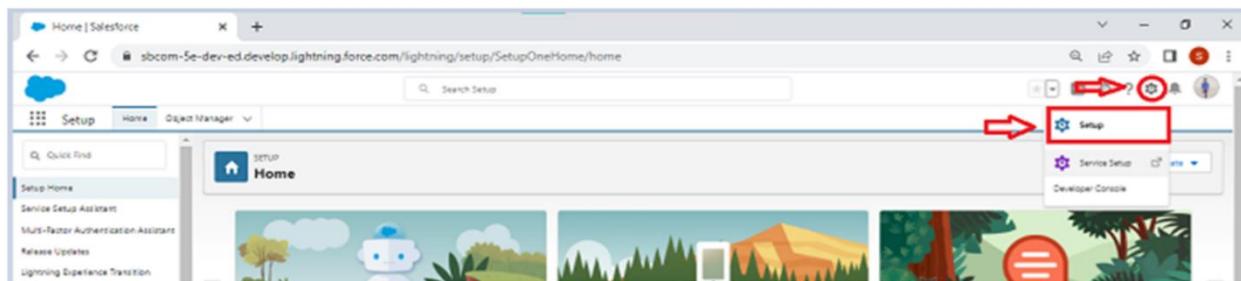
Salesforce objects are database tables that permit you to store data that is specific to an organization. What are the types of Salesforce objects.

Salesforce objects are of two types:

1. **Standard Objects** : Provided by salesforce.com such as users, contracts, reports, dashboards, etc.
2. **Custom Objects** : Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. They are the heart of any application and provide a structure for sharing data.

To Navigate to Setup page:

Click on gear icon ? click setup.



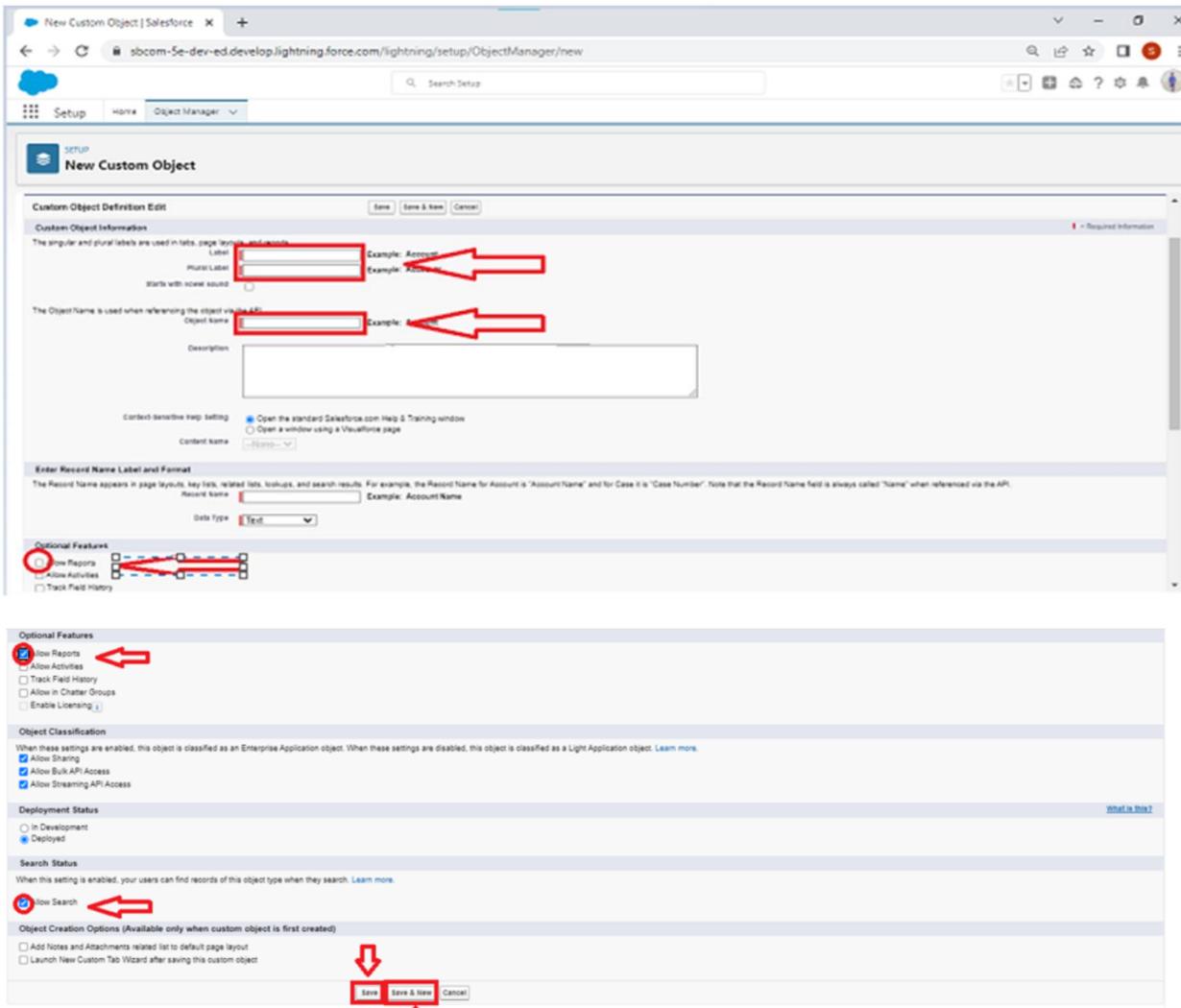
To create an object:

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



2. On Custom object defining page:

3. Enter the label name, plural label name, click on Allow reports, Allow search.



4. Click on Save .

4.1 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.

4.2 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.

4.3 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.

4.4 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.

5. Tabs :

A tab is like a user interface that is used to build records for objects and to view the records in the objects.

Types of Tabs:

1. Custom Tabs :

Custom object tabs are the user interface for custom applications that you build in salesforce.com. They look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.

2. Web Tabs :

Web Tabs are custom tabs that display web content or applications embedded in the salesforce.com window. Web tabs make it easier for your users to quickly access content and applications they frequently use without leaving the salesforce.com application.

3. Visualforce Tabs :

Visualforce Tabs are custom tabs that display a Visualforce page. Visualforce tabs look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.

4. Lightning Component Tabs :

Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app.

5. Lightning Page Tabs :

Lightning Page Tabs let you add Lightning Pages to the mobile app navigation menu.

Lightning Page tabs don't work like other custom tabs. Once created, they don't show up on the All Tabs page when you click the Plus icon that appears to the right of your current tabs. Lightning Page tabs also don't show up in the Available Tabs list when you customise the tabs for your apps.

5.1 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)

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

- Header:** The top navigation bar shows 'Tabs | Salesforce' and the URL 'sbcom-5e-dev-ed.lightning.force.com/lightning/setup/CustomTabs/home'.
- Left Sidebar:** The sidebar includes 'Setup' (highlighted with a red box), 'Home', 'Dashboards', 'Quick Find Bar' (highlighted with a red box), 'User Interface', 'Rename Tabs And Labels', and 'Tabs' (highlighted with a red box).
- Central Content:** The main area is titled 'Custom Tabs' under 'Custom Object Tabs'. It contains a table with columns: Action, Label, Tab Style, and Description.
- Action Column:** Contains 'Edit / Del' links for each row.
- Label Column:** Lists labels such as 'Activities', 'Allocations', 'Currencies', 'Goals', 'Jobs', 'Lists', 'Color Codes', 'Codes', 'Categories', 'Records', 'Reservations', 'Status', 'Schedules', and 'Students'.
- Tab Style Column:** Shows icons representing different tab styles: Deck, Chess piece, Jewel, Keyline, Phone, Camera, Desk, Computer, Highway sign, Highway sign, Highway sign, Highway sign, and Phone.
- Description Column:** Provides descriptions for each tab, such as 'created to setup with student activity/junction object', 'This tab is related to Hotel Reservation App', 'This tab is related to College Management System', and 'This tab is related to Hotel Reservation App'.
- Buttons:** At the top right of the table area are 'Save' and 'Cancel' buttons, both highlighted with red boxes.

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.

The screenshot shows the 'New Custom Object Tab' configuration page with the following details:

- Title:** Step 1. Enter the Details
- Subtitle:** Choose the custom object for this new custom tab. Fill in other details.
- Object Selection:** A dropdown menu labeled 'Object' is set to 'Customer Details'.
- Tab Style Selection:** A dropdown menu labeled 'Tab Style' is currently empty.
- Splash Page Custom Link:** A dropdown menu labeled 'Splash Page Custom Link' is set to 'None'.
- Description:** A text input field labeled 'Enter a short description.' with the placeholder 'Description'.
- Buttons:** 'Next' and 'Cancel' buttons at the bottom right.



Step 3. Add to Custom Apps Step 3 of 3

Choose the custom apps for which the new custom tab will be available. You may also examine or alter the visibility of tabs from the detail and edit pages of each Custom App.

Custom App	<input type="checkbox"/> Include Tab
Platform (standard_Platform)	<input type="checkbox"/>
Sales (standard_Sales)	<input type="checkbox"/>
Service (standard_Service)	<input type="checkbox"/>
Marketing (standard_Marketing)	<input type="checkbox"/>
Sample Console (standard_ServiceConsole)	<input type="checkbox"/>
High Volume Customer Portal User	<input type="checkbox"/>
Authenticated Website User	<input type="checkbox"/>
App Launcher (standard_AppLauncher)	<input type="checkbox"/>
	<input type="checkbox"/>
Analytics Studio (standard_Insights)	<input type="checkbox"/>
Sales Console (standard_LightningSalesConsole)	<input type="checkbox"/>
Service Console (standard_LightningService)	<input type="checkbox"/>
Sales (standard_LightningSales)	<input type="checkbox"/>
Lightning Usage App (standard_LightningInstrumentation)	<input type="checkbox"/>
Digital Experiences (standard_SalesforceCMS)	<input type="checkbox"/>
Queue Management (standard_QueueManagement)	<input type="checkbox"/>
Bot Solutions (standard_LightningBot)	<input type="checkbox"/>
Data Manager (standard_DataManager)	<input type="checkbox"/>
Salesforce Scheduler Setup (standard_LightningScheduler)	<input type="checkbox"/>
<input checked="" type="checkbox"/> Append tab to users' existing personal customizations	<input type="checkbox"/>

→ ↓

Previous Save Cancel

5.2 Creating Remaining Tabs :

1. Now create the Tabs for the remaining Objects, they are “ Appointments, Service records,Billing details and feedback”.
2. Follow the same steps as mentioned in Activity -1 .

6. The Lightning App :

An app is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps give your users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar. Lightning apps let you brand your apps with a custom colour and logo. You can even include a utility bar and Lightning page tabs in your Lightning app. Members of your org can work more efficiently by easily switching between apps.

6.1 Create a lightning app :

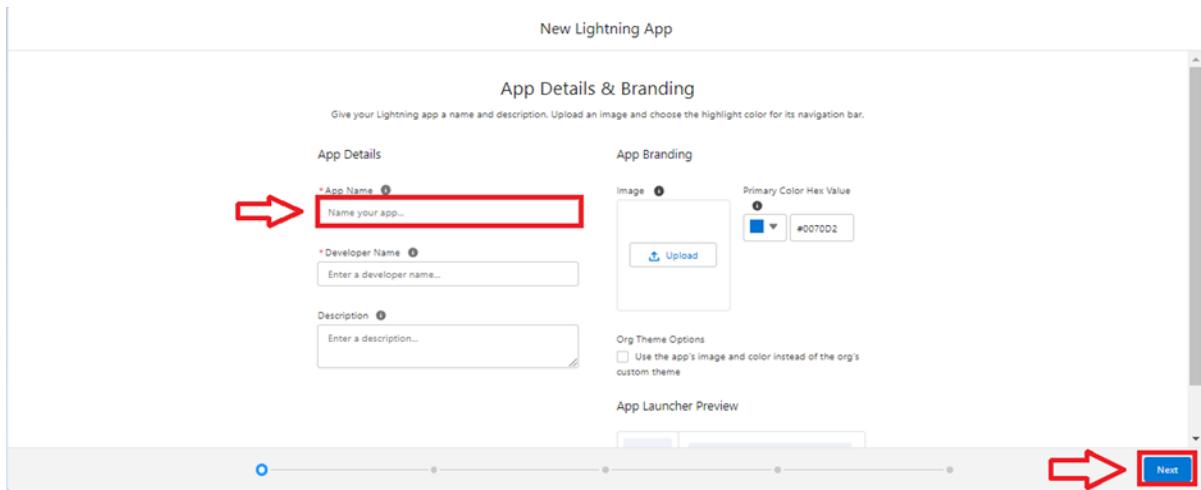
To create a lightning app page:

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

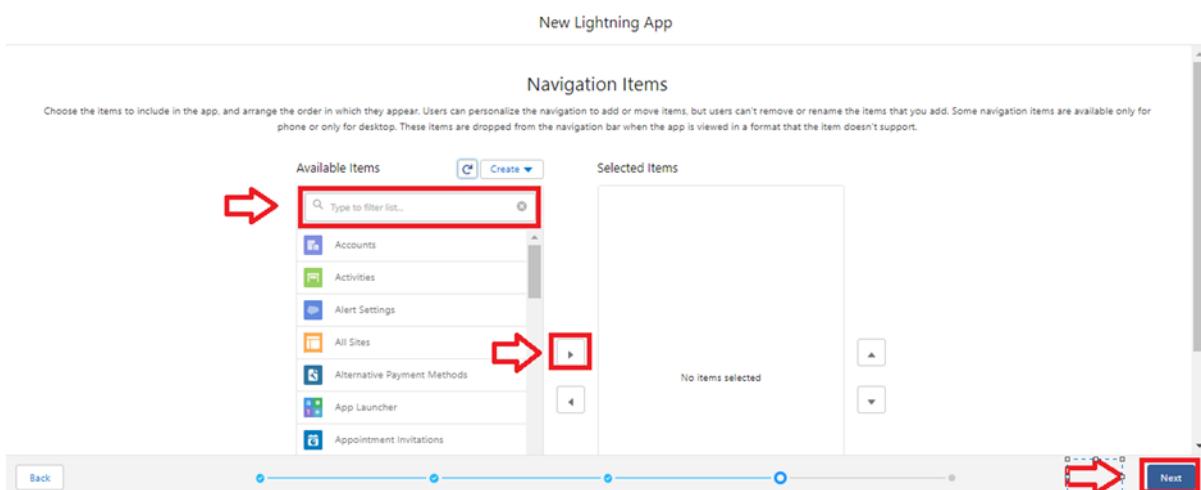
The screenshot shows the Salesforce App Manager interface. At the top, there's a search bar with "app manager" typed in, and a red box highlights it. Below the search bar is a navigation menu with "Setup", "Home", and "Object Manager". A red box highlights the "Apps" option in the menu. To the right of the menu, there's a button labeled "New Lightning App" with a red box around it. Below the menu, there's a section titled "Clone (Appspot.Beta)" with a red box around it. The main area displays a table of existing apps with columns for "App Name", "Developer Name", "Description", "Last Modified", "App Type", and "V...". The table contains 13 rows of data, with the last row being partially cut off. The "App Name" column includes entries like "All Tabs", "Analytics Studio", "App Launcher", etc.

App Name	Developer Name	Description	Last Modified	App Type	V...
1 All Tabs	ApfTabSet		04/12/2022, 10:13 am	Classic	
2 Analytics Studio	Insights	Build CRM Analytics dashboards and apps	04/12/2022, 10:13 am	Classic	
3 App Launcher	AppLauncher	App Launcher fast	04/12/2022, 10:13 am	Classic	
4 Bots Solutions	LightningBots	Discover and manage business solutions designed for your industry	04/12/2022, 10:16 am	Lightning	
5 Chatter Desktop	Chatter/Desktop	Chatter Desktop is an Adobe AIR-based desktop application that lets Chatter users stay connected...	29/12/2022, 4:04 pm	Connected (Managed)	
6 Chatter Mobile for BlackBerry...	Chatter_for BlackBerry...	The Salesforce.com Chatter Mobile app lets you access Chatter data on the go. Use it to view feed...	29/12/2022, 4:05 pm	Connected (Managed)	
7 College Management System	hadeeri	demo app	08/12/2022, 4:19 pm	Lightning	
8 Community	Community	Salesforce CRM Communities	04/12/2022, 10:13 am	Classic	
9 Content	Content	Salesforce CRM Content	04/12/2022, 10:13 am	Classic	
10 Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes	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.

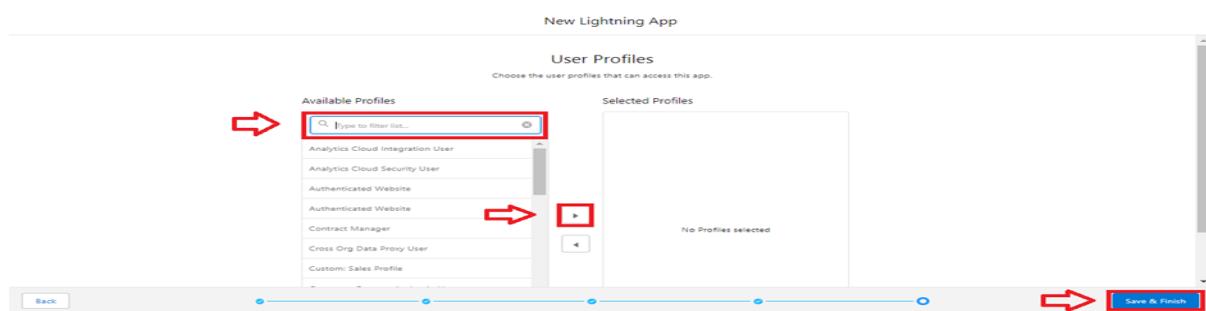


3. To Add Navigation Items ;



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.

7. Fields :

When we talk about Salesforce, Fields represent the data stored in the columns of a relational database. It can also hold any valuable information that you require for a specific object. Hence, the overall searching, deletion, and editing of the records become simpler and quicker.

Types of Fields

1. Standard Fields
2. Custom Fields

Standard Fields:

As the name suggests, the Standard Fields are the predefined fields in Salesforce that perform a standard task. The main point is that you can't simply delete a Standard Field until it is a non-required standard field. Otherwise, users have the option to delete them at any point from the application freely. Moreover, we have some fields that you will find common in every Salesforce application. They are,

- Created By
- Owner
- Last Modified
- Field Made During object Creation

Custom Fields:

On the other side of the coin, Custom Fields are highly flexible, and users can change them according to requirements. Moreover, each organiser or company can use them if necessary. It means you need not always include them in the records, unlike Standard fields. Hence, the final decision depends on the user, and he can add/remove Custom Fields of any given form.

7.1 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__c	Customer_Details__c	Custom Object		05/10/2023	✓

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

Customer1

Fields & Relationships

Field Label	Field Name	Data Type	Controlling Field	Indexed
Created By	CreatedBy	Lookup(User)		
current Status	current_Status__c	Picklist		
Customer Name	Name	Text(80)	✓	
Email id	Email_id_c	Email (Unique)	✓	
Last Modified By	LastModifiedBy	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)	✓	
Permanent Address	Permanent_Address__c	Text Area(255)		
Phone no	Phone_no_c	Phone		

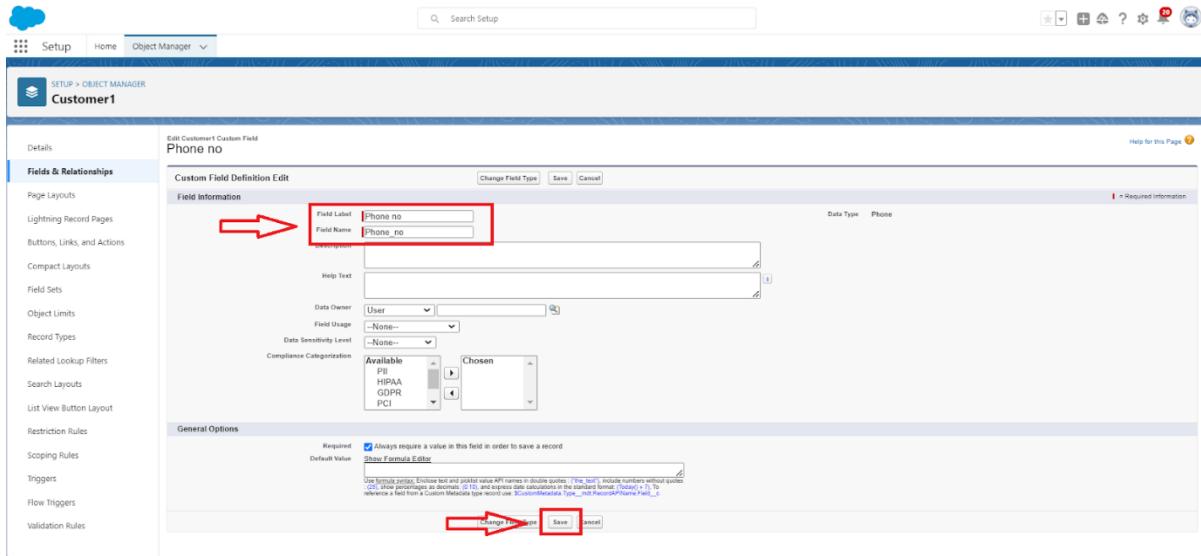
3. Select Data Type as a “Phone”

Customer1

Fields & Relationships

Field Type	Description
Currency	Allows users to enter a dollar or other currency amount and automatically formats the item as a currency amount. This can be useful if you export data to Excel or another spreadsheet.
Date	Allows users to enter a date or pick a date from a popup calendar.
Date/Time	Allows users to enter a date and time, or pick a date from a popup calendar. When users click a date in the pop-up, that date and the current time are entered into the Date/Time field.
Email	Allows users to enter an email address, which is validated to ensure proper format. If this field is specified for a contact or lead, users can choose the address when clicking Send an Email. Note that custom email addresses cannot be used for emails.
Geolocation	Allows users to define locations. Includes latitude and longitude components, and can be used to calculate distance.
Number	Allows users to enter any number. Leading zeros are removed.
Percent	Allows users to enter a percentage number, for example, '10' and automatically adds the percent sign to the number.
Phone	Allows users to enter any phone number. Automatically formats it as a phone number.
Picklist	Allows users to select a value from a list you define.
Picklist (Multi-Select)	Allows users to select multiple values from a list you define.
Text	Allows users to enter any combination of letters and numbers.
Text Area	Allows users to enter up to 256 characters on separate lines.
Text Area (Long)	Allows users to enter up to 131,072 characters on separate lines.
Text Area (Rich)	Allows users to enter formatted text, add images and links. Up to 131,072 characters on separate lines.
Text (Encrypted)	Allows users to enter any combination of letters and numbers and store them in encrypted form.
Time	Allows users to enter a local time. For example, '2:40 PM', '14:40', '14:40:00', and '14:40:50:000' are all valid times for this field.
URL	Allows users to enter any valid website address. When users click on the field, the URL will open in a separate browser window.

4. Click on next.



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.

7.2 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. At the top, there are tabs for Setup, Home, and Object Manager. The main area is titled "Object Manager" with a subtitle "7 Items. Sorted by Label". A search bar at the top right contains the text "app". Below the search bar are buttons for "Schema Builder" and "Create". A red box highlights the first row in the table, which corresponds to the "Appointment" 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" page for the "Appointment" object. On the left, there's a sidebar with "Details", "Fields & Relationships" (which is highlighted with a red box), "Page Layouts", and "Lightning Record Pages". The main area shows a table of fields. A red box highlights the "New" button at the top right of the table header. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED.

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

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

The screenshot shows the "Data Type" selection screen. It asks to specify the type of information the custom field will contain. There are several options: "None Selected", "Auto Number", "Formula", "Roll-Up Summary", "Lookup Relationship" (which is circled in red), and "Master-Detail Relationship". The "Lookup Relationship" option is described as creating a relationship that links the object to another object via a relationship field. The "Next" button is highlighted with a red arrow.

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.

Lookup Options

Related To	Appointment	Child Relationship Name	Service_records
Related List Label	Service records		
Required	<input checked="" type="checkbox"/> Always require a value in this field in order to save a record		
What to do if the lookup record is deleted?	<input type="radio"/> Clear the value of this field. You can't choose this option if you make this field required. <input checked="" type="radio"/> Don't allow deletion of the lookup record that's part of a lookup relationship.		

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.

Lookup Filter

Optional, create a filter to limit the records available to users in the lookup field. [Tell me more!](#)

Filter Criteria	<input type="button" value="Insert Suggested Criteria"/>	<input type="button" value="Clear Filter Criteria"/>															
<table border="1"> <tr> <td>Field</td> <td>Operator</td> <td>Value / Field</td> </tr> <tr> <td>Appointment: Appointment Date</td> <td>less than</td> <td>Field</td> </tr> <tr> <td>Appointment: Created Date</td> <td></td> <td><input type="button" value="Clear"/></td> </tr> <tr> <td>All</td> <td><input type="button" value="None"/></td> <td><input type="button" value="Value"/></td> </tr> <tr> <td colspan="3">Begin typing to search for a field...</td> </tr> </table>			Field	Operator	Value / Field	Appointment: Appointment Date	less than	Field	Appointment: Created Date		<input type="button" value="Clear"/>	All	<input type="button" value="None"/>	<input type="button" value="Value"/>	Begin typing to search for a field...		
Field	Operator	Value / Field															
Appointment: Appointment Date	less than	Field															
Appointment: Created Date		<input type="button" value="Clear"/>															
All	<input type="button" value="None"/>	<input type="button" value="Value"/>															
Begin typing to search for a field...																	
<input type="button" value="Add Filter Logic..."/>																	
Filter Type	<input checked="" type="radio"/> Required. The user-entered value must match filter criteria. If it doesn't, display this error message on save: Value does not exist or does not match filter criteria. <input type="button" value="Reset to default message"/>																
<input type="radio"/> Optional. The user can remove the filter or enter values that don't match criteria.																	
Lookup Window Text	<input type="text" value="Add this informational message to the lookup window."/>																
Active	<input checked="" type="checkbox"/> Enable this filter.																

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.

7.3 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.

Specifying the type of information the custom field will contain:

Data Type

- None Selected
- Auto Number
- Formula
- Roll Up Summary
- Lookup Relationship
- Master-Detail Relationship
- Checkbox
- External Lookup Relationship
- Currency

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

Step 2. Enter the details

Field Label: Maintenance service

Default Value: Checked Unchecked

Field Name: Maintenance_service

Description:

Help Text:

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

Step 2 of 4

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.
6. Follow the same and create another checkbox with given names
7. Give the Field Label : Replacement Parts
8. Field Nme : is auto populated
9. Default value : unchecked
10. 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 Nme : is auto populated
6. Default value : unchecked
7. Click on next >> next >> save

7.4 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

Step 2. Enter the details

Field Label: [\[i\]](#)

Field Name: [\[i\]](#)

Description:

Help Text:

Required: Always require a value in this field in order to save a record Add this field to existing custom report types that contain this entity [\[i\]](#)

Auto add to custom report type:

Default Value: [Show Formula Editor](#)

Step 2 of 4

Previous [Next](#) Cancel

7.5 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

This screenshot shows the 'Step 2. Enter the details' screen for creating a new custom field. The field label is set to 'Service Amount'. The length is 18 and the decimal places are 0. The field name is 'Service_Amount'. There is a description and help text section, both of which are currently empty. Under the 'Required' section, there is a checkbox for 'Always require a value in this field in order to save a record' which is unchecked. Below that, there is a checkbox for 'Add this field to existing custom report types that contain this entity' which is checked. At the top right, it says 'Step 2 of 4' and has 'Previous', 'Next', and 'Cancel' buttons.

6. Click on next
7. Give read only for all the profiles in field level security for profile.

This screenshot shows the 'Step 3. Establish field-level security' screen. It lists the field details: Field Label: Service Amounts, Data Type: Currency, Field Name: Service_Amounts, and Description: (empty). Below this, it says '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.' A table follows, showing field-level security settings for various profiles. The 'Visible' column has checkboxes for all profiles. The 'Read-Only' column has checkboxes for most profiles, except for 'Analytics Cloud Integration User' which has a green box around its checkbox. A green arrow points to this specific checkbox. At the top right, it says 'Step 3 of 4' and has 'Previous', 'Next', and 'Cancel' buttons.

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 Name : is auto populated

7.6 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' screen for creating a new field. The field label is 'Vehicle number plate'. The length is set to 10. The field is marked as required and unique. The unique setting includes an option to treat 'ABC' and 'abc' as duplicate values (case insensitive). There are also options for external ID and auto add to custom report type.

Setting	Value
Field Label	Vehicle number plate
Length	10
Field Name	Vehicle_number_plate
Description	[Empty]
Help Text	[Empty]
Required	<input checked="" type="checkbox"/> Always require a value in this field in order to save a record
Unique	<input checked="" type="checkbox"/> Do not allow duplicate values <input type="radio"/> Treat "ABC" and "abc" as duplicate values (case insensitive) <input type="radio"/> Treat "ABC" and "abc" as different values (case sensitive)
External ID	<input type="checkbox"/> Set this field as the unique record identifier from an external system
Auto add to custom report type	<input checked="" type="checkbox"/> Add this field to existing custom report types that contain this entity

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 and Unique.
8. Click on next >> next >> save

7.7 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

Field Label: Service Status

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

Started
Completed

Display values alphabetically, not in the order entered
Use first value as default value
 Restrict picklist to the values defined in the value set

Field Name: Service_Status

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.

7.8 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.

Step 2. Choose output type

Field Label

Field Name ↑

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

Formula Return Type

None Selected Select one of the data types below.

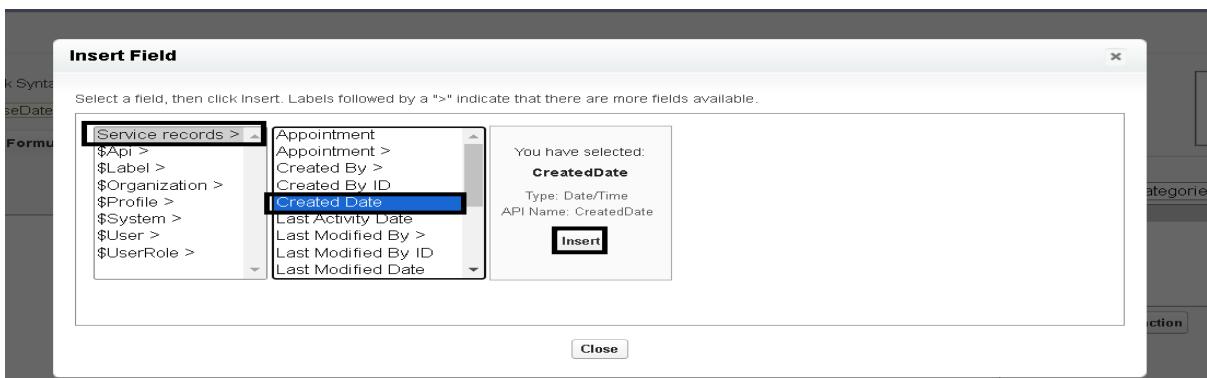
Checkbox
Calculate a boolean value
Example: `TODAY() > CloseDate`

Currency
Calculate a dollar or other currency amount and automatically format the field as a currency amount.
Example: `Gross Margin = Amount - Cost`

Date
Calculate a date, for example, by adding or subtracting days to other dates.
Example: `Reminder Date = CloseDate - 7`

Date/Time
Calculate a datetime, for example, by adding a number of hours or days to another datetime.
Example: `Next = NOW() + 1`

5. Insert field formula should be : CreatedDate



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

8. Validation Rule :

Validation rules are applied when a user tries to save a record and are used to check if the data meets specified criteria. If the criteria are not met, the validation rule triggers an error message and prevents the user from saving the record until the issues are resolved.

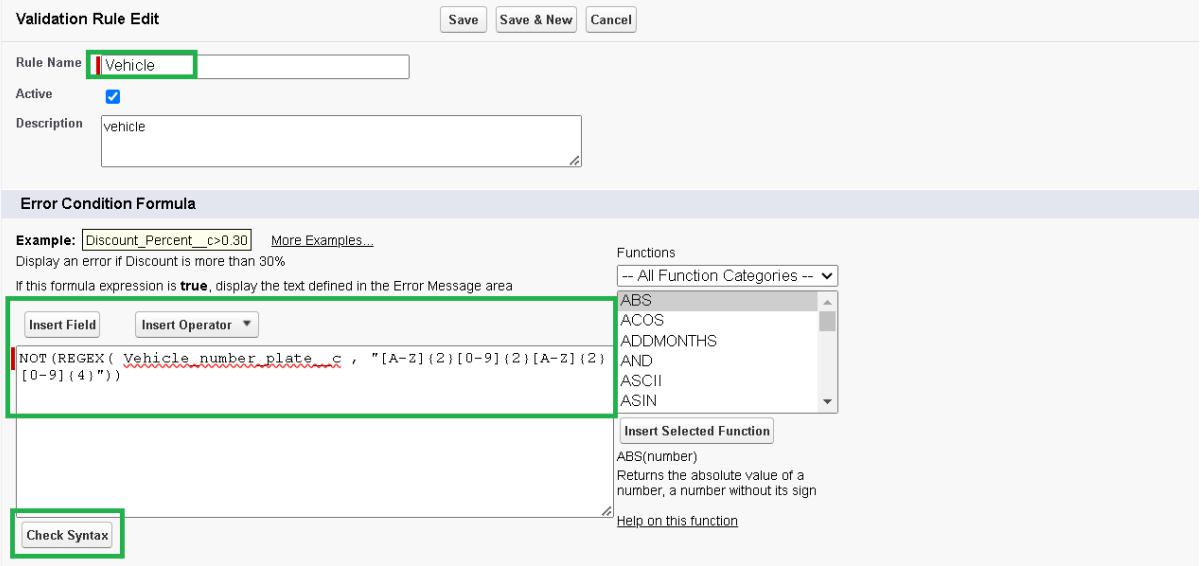
8.1 To create a validation rule to an appointment Object

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.

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Vehicle	Vehicle number plate	Please enter valid number	✓	project 2, 25/09/2023, 11:56 am

3. Enter the Rule name as “ Vehicle ”.

4. Insert the Error Condition Formula as :-
 $\text{NOT}(\text{REGEX}(\text{ Vehicle_number_plate_c }, "[\text{A-Z}]\{\text{2}\}[\text{0-9}]\{\text{2}\}[\text{A-Z}]\{\text{2}\}[\text{0-9}]\{\text{4}\}))$



Validation Rule Edit

Save Save & New Cancel

Rule Name Vehicle

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

NOT (REGEX (Vehicle_number_plate_c , "[A-Z](2)[0-9](2)[A-Z](2)[0-9](4)"))

Functions -- All Function Categories -- ABS ACOS ADDMONTHS AND ASCII ASIN

ABS(number)
 Returns the absolute value of a number, a number without its sign
[Help on this function](#)

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.



Error Message

Example: Discount percent cannot exceed 30%

This message will appear when Error Condition formula is true

Error Message Please enter valid number

This error message can either appear at the top of the page or below a specific field on the page

Error Location Top of Page Field Vehicle number plate 

Save Save & New Cancel

8.2 To create a validation rule to an Service records Object :

1. Go to the setup page >> click on object manager >> From drop down click edit for Service records object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “ service_status_note ”.
4. Insert the Error Condition Formula as :-
 $\text{NOT}(\text{ISPICKVAL}(\text{ Service_Status_c }, \text{"Completed}))$

Validation Rule Edit

Save Save & New Cancel

Rule Name: service_status_note

Active:

Description:

Error Condition Formula

Example: Discount_Percent_c>0.30 More Examples..

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

NOT(ISPICKVAL(Service_Status_c , "Completed"))

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 “still it is pending”, select the Error location as Field and select the field as “Service status”, and click Save.

Error Message

Example: Discount percent cannot exceed 30%

This message will appear when Error Condition formula is true

Error Message: still it is pending

This error message can either appear at the top of the page or below a specific field on the page

Error Location: Top of Page Field Service Status

 Save Save & New Cancel

8.3 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}"))

Validation Rule Edit

Rule Name: service_status_note

Active:

Description:

Error Condition Formula

Example: Discount_Percent_c>0.30 More Examples...

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

NOT(ISPICKVAL(Service_Status__c , "Completed"))

Functions

- 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 “rating should be from 1 to 5”, select the Error location as Field and select the field as “Rating for Service”, and click Save.

Error Message

Example: Discount percent cannot exceed 30%

This message will appear when Error Condition formula is true

Error Message: still it is pending

This error message can either appear at the top of the page or below a specific field on the page

Error Location: Top of Page Field | Service Status

Save Save & New Cancel

9. Duplicate rule :

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.

Setup Home Object Manager

Q matching

All Matching Rules

What Are Matching Rules?

Action Rule Name + Object Status Description Last Modified Date Last Modified By

New Rule

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

Matching Rule

New Matching Rule

Help for this Page

Step 1: Select object Step 1 of 2

Select the object to which this matching rule applies.

Object: Customer Details

Next Cancel



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.

Rule Details

Object	Customer Details
Rule Name	<input type="text" value="matching Customer data"/>
Unique Name	<input type="text" value="matching_Customer_det"/>
Description	<input type="text"/>

Matching Criteria

Tell the rule which fields to compare and how.

Field	Matching Method	Match Blank Fields	Logic
<input type="text" value="Gmail"/>	Exact	<input type="checkbox"/>	AND
<input type="text" value="Phone Number"/>	Exact	<input type="checkbox"/>	AND
<input type="text" value="--None--"/>	Exact	<input type="checkbox"/>	AND
<input type="text" value="--None--"/>	Exact	<input type="checkbox"/>	AND
<input type="text" value="--None--"/>	Exact	<input type="checkbox"/>	AND

[Add Filter Logic...](#)

Save **Cancel**

Matching Rule
matching Customer details Help for this Page 

Matching Rule Detail

	Edit	Delete	Clone	Activate 
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	project_2, 25/09/2023, 10:15 am			
Modified By	project_2, 10/10/2023, 3:32 pm			

9.1 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 'Data' section with 'Duplicate Management' expanded, showing 'Duplicate Rules' (which is highlighted with a green border) and 'Matching Rules'. The main area is titled 'All Duplicate Rules' and contains a table of existing rules. One rule, 'Customer Detail duplicate', is highlighted with a green border. The table columns include 'Rule Name', 'Description', 'Matching Rule', 'Active', 'Last Modified By', and 'Last Modified Date'. A navigation bar at the bottom includes letters from A to Z and a 'All' link.

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.

The screenshot shows the 'Edit Duplicate Rule' page for 'Customer Detail duplicate'. The top bar has 'Edit Duplicate Rule' and the rule name. Below it are 'Save', 'Save & New', and 'Cancel' buttons. A note says 'I = Required Information'. The page is divided into sections: 'Rule Details' and 'Actions'. In 'Rule Details', the 'Rule Name' field is filled with 'Customer Detail duplicate' (highlighted with a green arrow). The 'Object' is set to 'Customer Details'. Under 'Record-Level Security', the 'Enforce sharing rules' option is selected. In the 'Actions' section, there are three rows: 'Action On Create' (Allow, Alert checked, Report unchecked), 'Action On Edit' (Allow, Alert unchecked, Report unchecked), and 'Alert Text' (a text input field containing '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

Optional: specify the conditions a record must meet for the rule to run.

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

Add Filter Logic...

Save Save & New Cancel

10. Profiles :

A profile is a group/collection of settings and permissions that define what a user can do in salesforce. Profile controls “Object permissions, Field permissions, User permissions, Tab settings, App settings, Apex class access, Visualforce page access, Page layouts, Record Types, Login hours & Login IP ranges. You can define profiles by the user's job function. For example System Administrator, Developer, Sales Representative.

Types of profiles in salesforce

1. Standard profiles:

By default salesforce provides below standard profiles.

- Contract Manager
- Read Only
- Marketing User
- Solutions Manager
- Standard User
- System Administrator.

We cannot deleted standard ones

Each of these standard ones includes a default set of permissions for all of the standard objects available on the platform.

2. Custom Profiles:

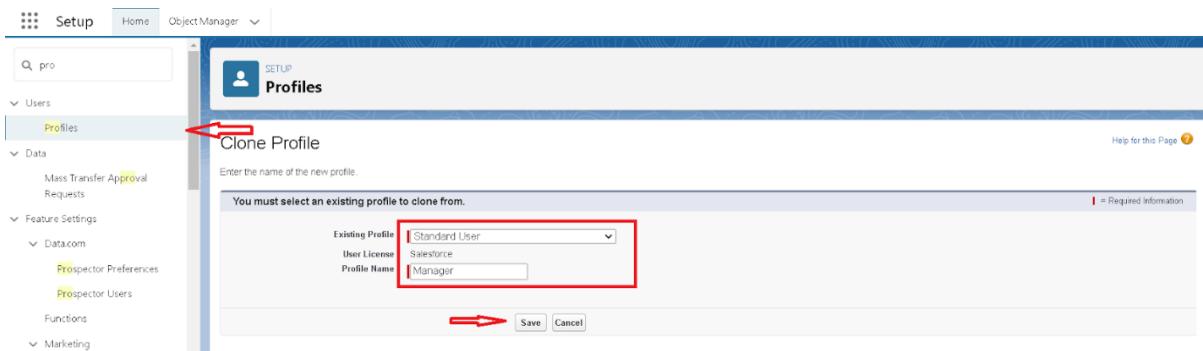
Custom ones defined by us.

They can be deleted if there are no users assigned with that particular one.

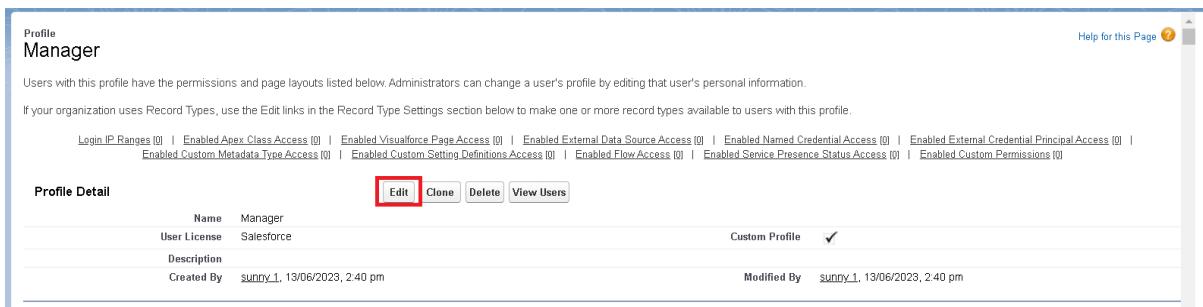
10.1 Manager Profile :

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.



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
Appointments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" 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"/>
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"/>
Environments	<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"/>
Service records	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" 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"/>

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.

10.2 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
Appointments	<input checked="" 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"/>
Customer Details	<input checked="" 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"/>
Laptops	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SessionData	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. And click save.

11. Role & Role Hierarchy :

A role in Salesforce defines a user's visibility access at the record level. Roles may be used to specify the types of access that people in your Salesforce organization can have to data. Simply put, it describes what a user could see within the Salesforce organization.

11.1 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. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The left sidebar has sections for 'Users' (with 'Roles' highlighted) and 'Feature Settings' (with 'Sales' and 'Service' sections). The main content area is titled 'Understanding Roles' and displays a 'Sample Role Hierarchy' diagram. The diagram shows a hierarchy from 'Executive Staff' down to 'Sales Reps'. Each node has a brief description of its permissions. At the bottom right of the main content area is a 'Set Up Roles' button, which is also highlighted with a red box.

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. It features a hierarchical tree structure. The root node is 'Nick Enterprises'. Under it are 'CEO', 'HR', 'Manager', 'On Site Emp', 'Remote Emp', and 'SVP'. Each node has an 'Edit | Del | Assign' button and an 'Add Role' button. The 'Expand All' button at the top left is highlighted with a red box.

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

The screenshot shows the 'Role Edit' dialog box. It has fields for 'Label' (containing 'Manger'), 'Role Name' (containing 'Manger'), and 'This role reports to' (containing 'CEO'). At the bottom are 'Save' and 'Save & New' buttons, with 'Save' highlighted by a red arrow.

11.2 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.

12. Users :

A user is 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. Every user in Salesforce has a user account. The user account identifies the user, and the user account settings determine what features and records the user can access.

12.1 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

New User

User Edit

General Information

Required Information

Save Save & New Cancel

First Name: Niklaus

Last Name: Mikaelson

Alias: nmika

Email: (empty)

Username: Mikaelson@Niklaus

Nickname: nik

Title: (empty)

Company: (empty)

Department: (empty)

Division: (empty)

Role: Manager

User License: Salesforce

Profile: Manager

Active:

Marketing User:

Offline User:

Knowledge User:

Flow User:

Service Cloud User:

Site.com Contributor User:

Site.com Publisher User:

WDC User:

Data.com User Type: --None--

3. Save.

12.2 Creating another users :

1. Repeat the steps and create another user using
 1. Role : sales person
 2. User licence : Salesforce Platform
 3. Profile : sales person

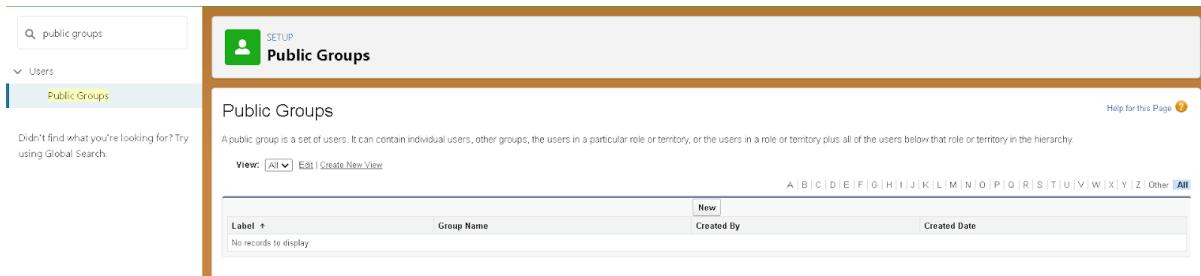
Note : create atleast 3 users with these permissions.

13. Public groups :

Public groups are a valuable tool for Salesforce administrators and developers to streamline user management, data access, and security settings. By creating and using public groups effectively, you can maintain a secure and organized Salesforce environment while ensuring that users have appropriate access to the resources they need.

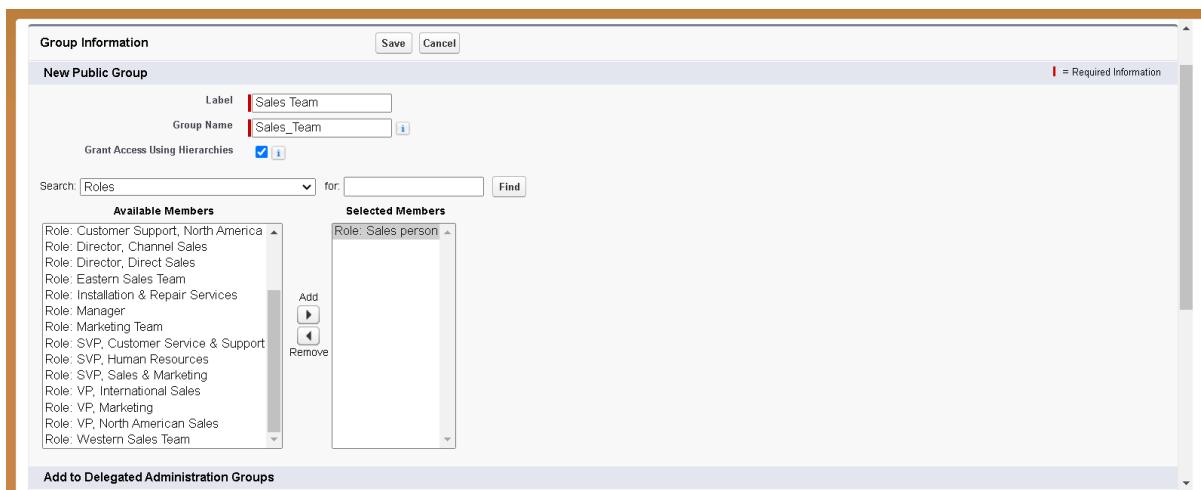
13.1 Creating new public group :

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



The screenshot shows the 'Public Groups' page in the Salesforce Setup. The search bar at the top contains 'public groups'. The main area displays a table with no records found. The columns are labeled 'Label', 'Group Name', 'Created By', and 'Created Date'. Navigation links for letters A through Z and 'All' are visible at the bottom of the table.

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



The screenshot shows the 'Group Information' dialog for creating a new public group. The 'Label' field is set to 'Sales Team' and the 'Group Name' field is set to 'Sales_Team'. The 'Grant Access Using Hierarchies' checkbox is checked. The 'Available Members' list on the left shows various roles such as Customer Support, Director, Sales Manager, etc. The 'Selected Members' list on the right shows 'Role: Sales person'. There are 'Add' and 'Remove' buttons between the two lists. A 'Save' button is at the top right.

14. Sharing Setting :

Salesforce allows you to configure sharing settings to control how records are accessed and shared within your organization. These settings are crucial for maintaining data security and privacy. Salesforce provides a variety of tools and mechanisms to define and enforce sharing rules, such as:

Organization-Wide Default (OWD) Settings:

These settings define the default level of access for all objects within your Salesforce org.

OWD settings include Private, Public Read-Only, Public Read/Write, and Controlled by Parent.

OWD settings can be configured for each standard and custom object.

Role Hierarchy:

Salesforce uses a role hierarchy to determine record access.

Users at higher levels in the hierarchy have greater access to records owned by or shared with users lower in the hierarchy.

The role hierarchy is often used in combination with OWD settings to grant different levels of access.

Profiles and Permission Sets:

Profiles and permission sets allow administrators to specify object-level and field-level permissions for users.

Profiles are typically used to grant general object and field access, while permission sets can be used to extend those permissions to specific users.

Sharing Rules:

Sharing rules are used to extend access to records for users who meet specific criteria.

They can be used to grant read-only or read-write access to records owned by other users.

Manual Sharing:

Administrators and record owners can manually share specific records with other users or groups.

14.1 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.

The screenshot shows the 'Sharing Settings' page in Salesforce Setup. Under 'Sharing Settings', there is a table where rows represent different objects. The 'Service records' row has its 'OWD' dropdown set to 'Private', which is highlighted with a red box. Other objects like 'Work Plan Template', 'Work Step Template', etc., have their OWD set to 'Public Read/Write'. Below the table are sections for 'User Visibility Settings' and 'Other Settings'. At the bottom are 'Save' and 'Cancel' buttons.

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

The screenshot shows the 'Service records Sharing Rules' page. At the top, there is a header with 'Service records Sharing Rules', a 'New' button (which is highlighted with a red arrow), and a 'Recalculate' button. Below the header, it says '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.

This screenshot provides a step-by-step guide for creating a sharing rule. It shows the 'Sharing Settings' page with several steps highlighted by red arrows:

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

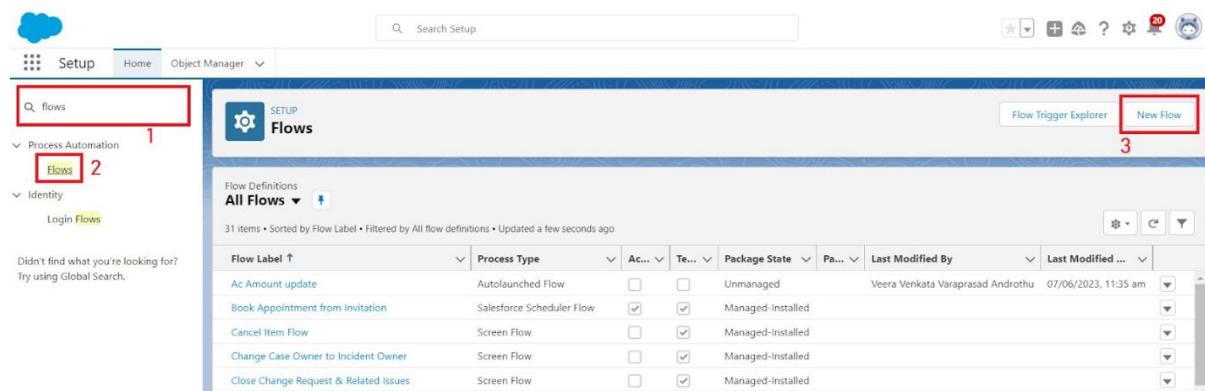
At the bottom are 'Save' and 'Cancel' buttons.

15. Flows :

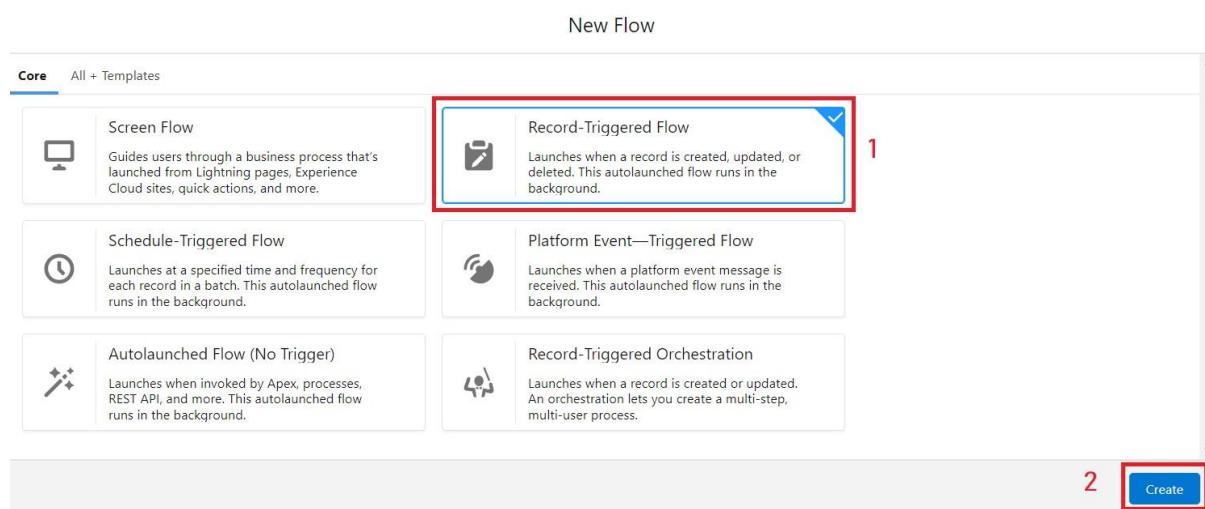
In Salesforce, a flow is a powerful tool that allows you to automate business processes, collect and update data, and guide users through a series of screens or steps. Flows are built using a visual interface and can be created without any coding knowledge.

Create a flow

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

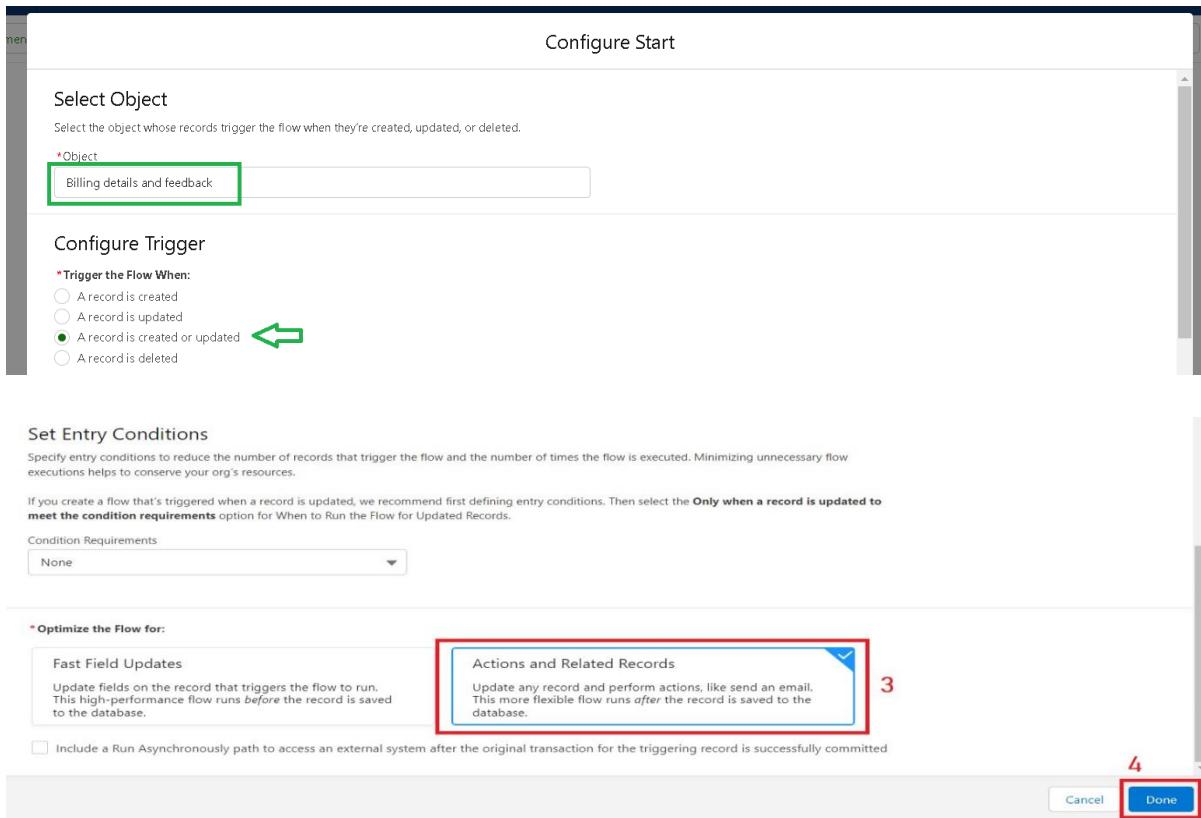


2. Select the Record-triggered flow and Click on Create.

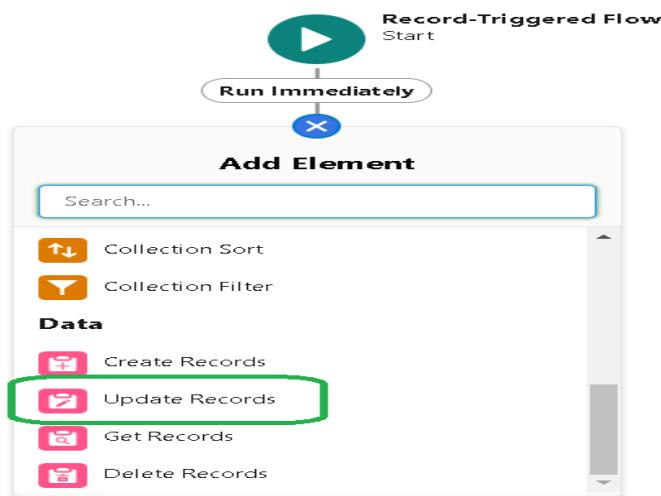


3. Select the Object as “Billing details and feedback”in the Drop down list.
4. Select the Trigger Flow when: “A record is Created or Updated”.

5. Select the Optimize the flow for: “Actions and Related Records” and Click on Done.



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

*How to Find Records to Update and Set Their Values

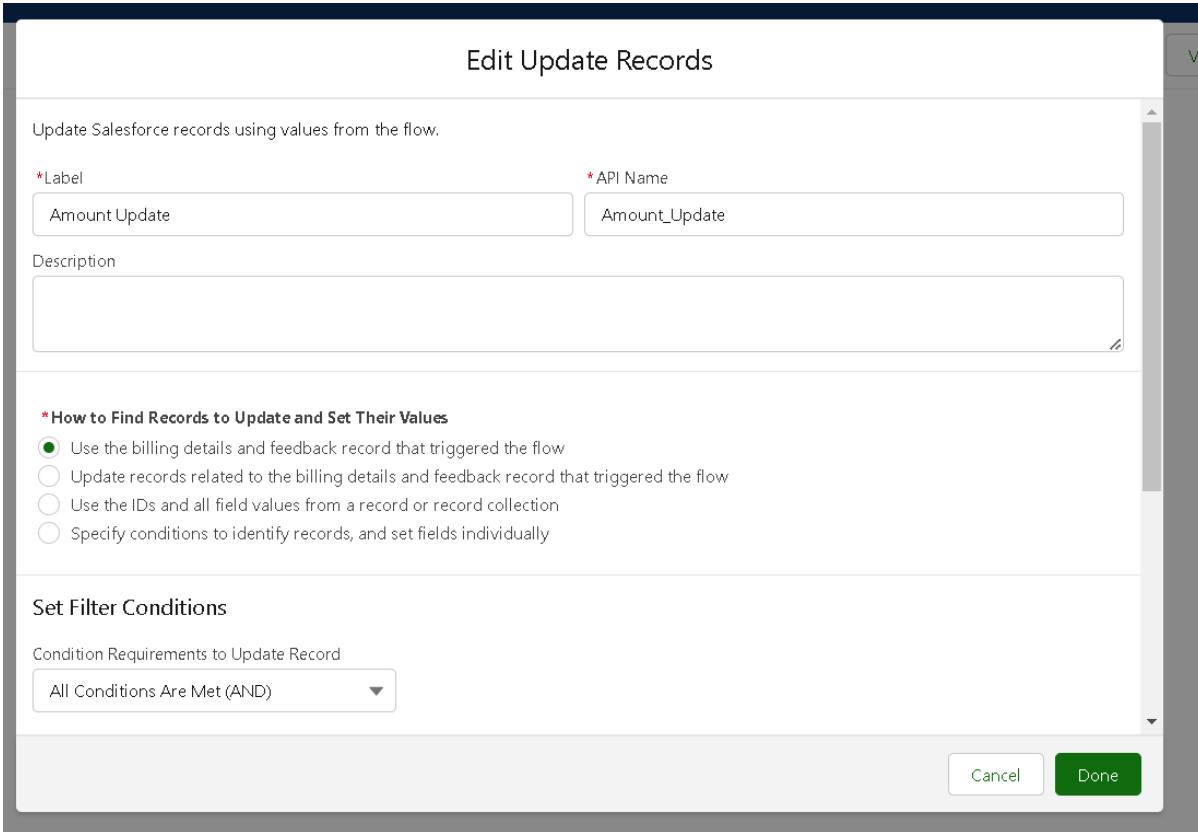
- Use the billing details and feedback record that triggered the flow
- Update records related to the billing details and feedback record that triggered the flow
- Use the IDs and all field values from a record or record collection
- Specify conditions to identify records, and set fields individually

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

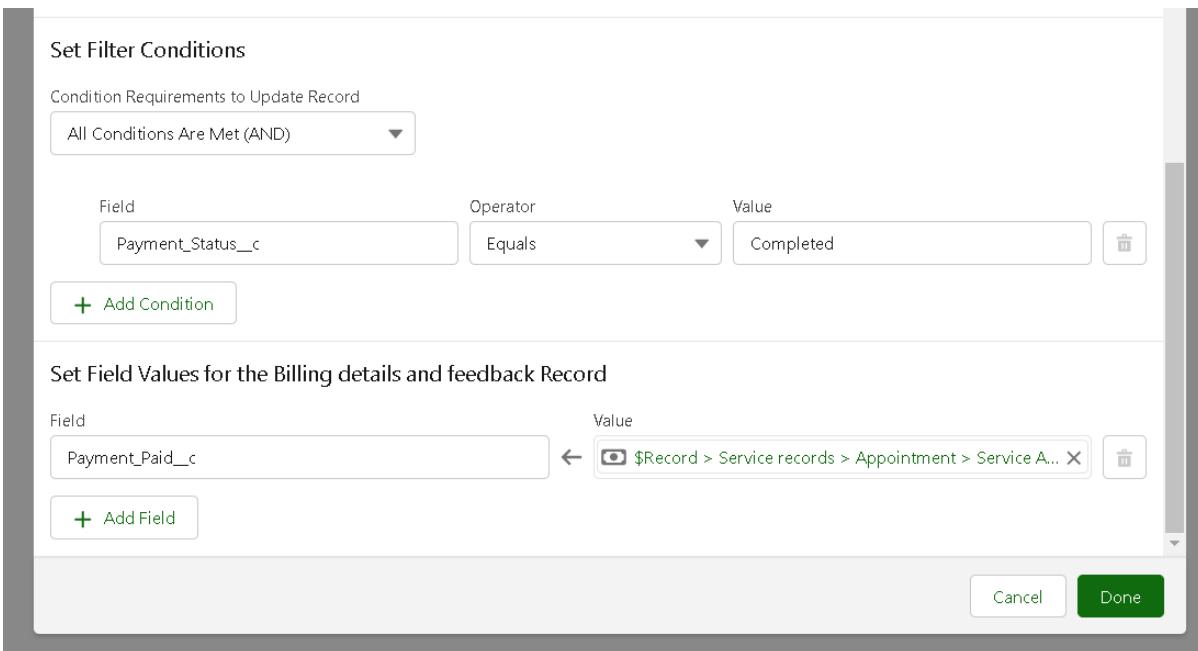
+ Add Condition

Set Field Values for the Billing details and feedback Record

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

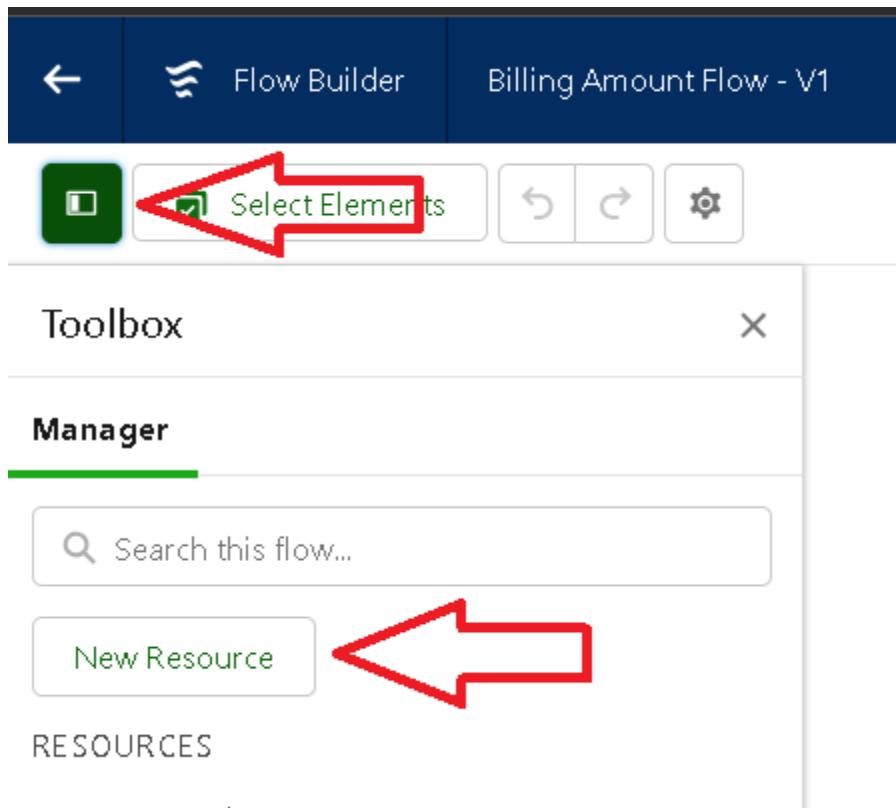
+ Add Field

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 },

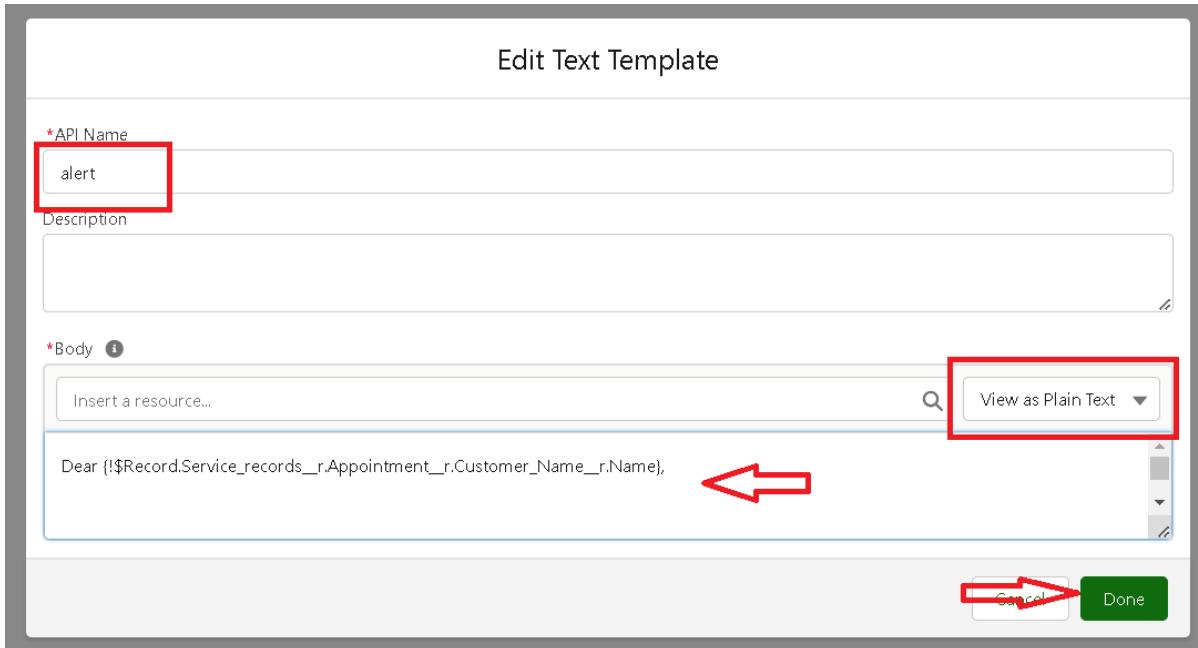
I hope this message finds you well. I wanted to take a moment to express my sincere gratitude for your recent payment for the services provided by our garage

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.

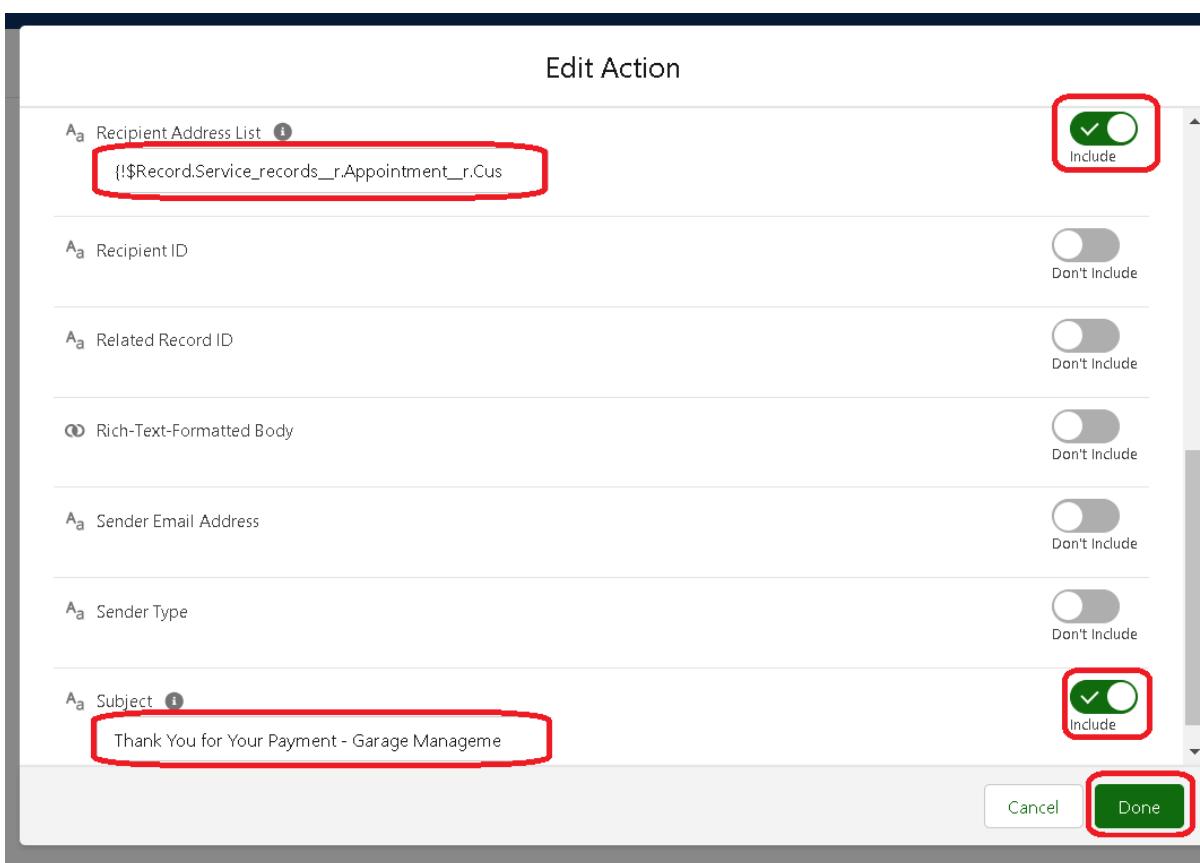
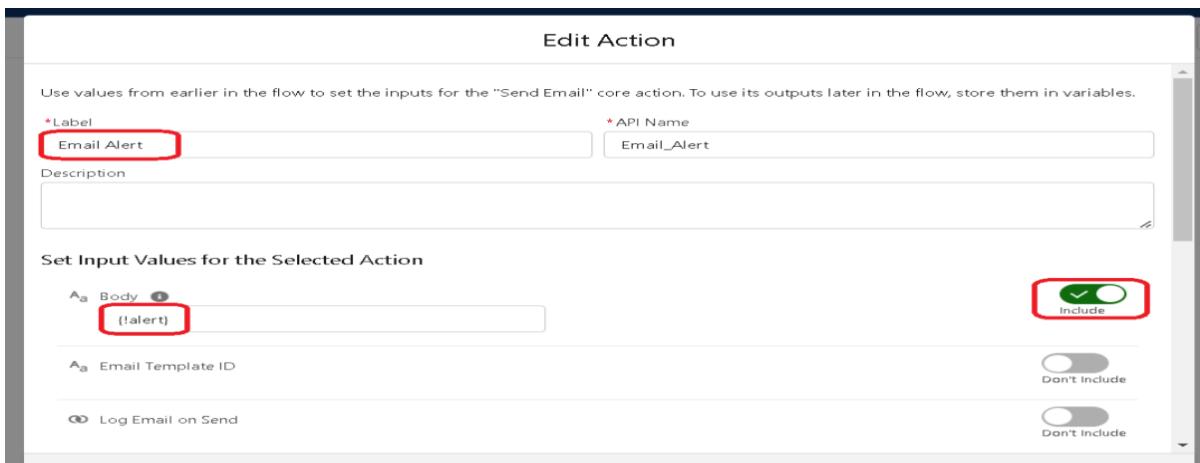
Amount paid : { !\$Record.Payment_Paid__c }

Thank you for Coming .

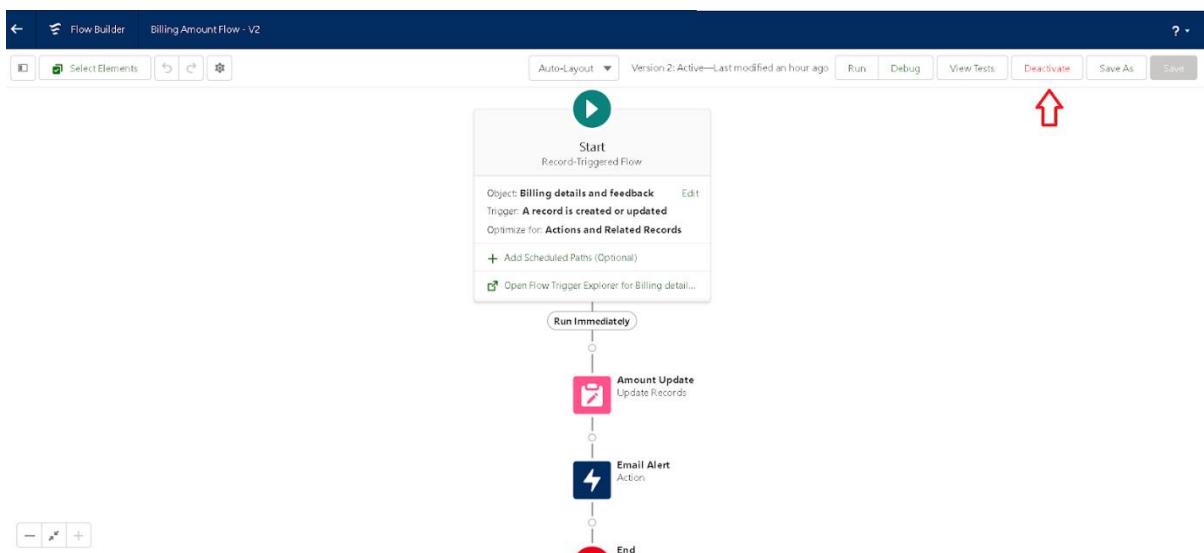
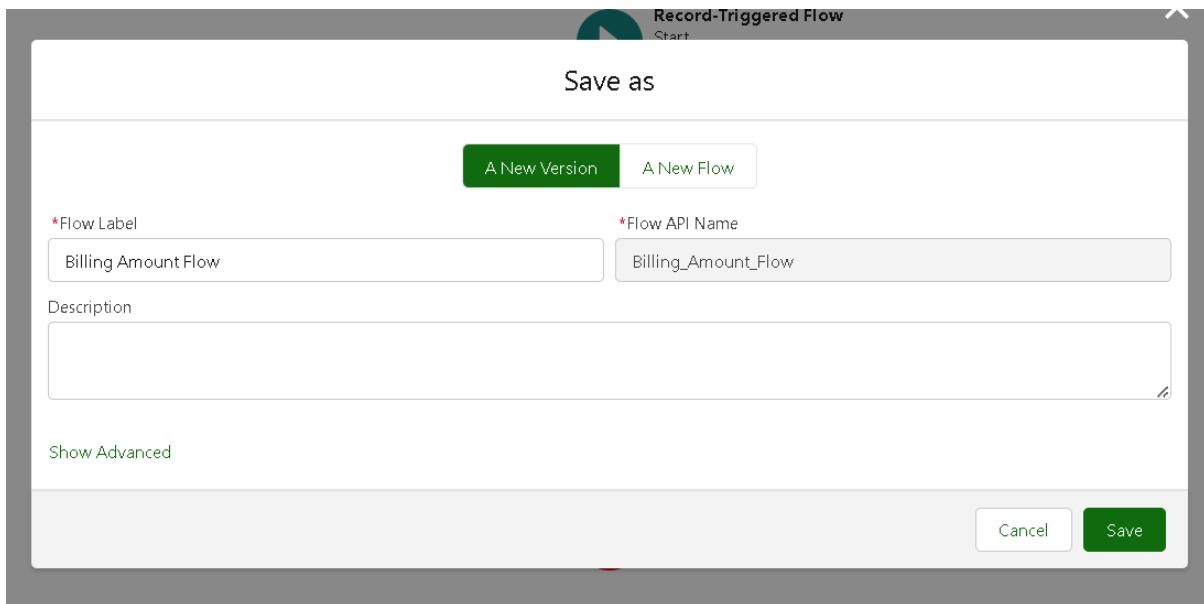
23. Click done.



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.



34. Click on save. Give the Flow label , Flow Api name will be autopopulated.
35. And click save, and click on activate.



16. Apex Trigger :

Apex can be invoked by using triggers. Apex triggers enable you to perform custom actions

before or after changes to Salesforce records, such as insertions, updates, or deletions. A trigger is Apex code that executes before or after the following types of operations:

- insert
- update
- delete
- merge

- upsert
- undelete

For example, you can have a trigger run before an object's records are inserted into the database, after records have been deleted, or even after a record is restored from the Recycle Bin.

You can define triggers for top-level standard objects that support triggers, such as a Contact or an Account, some standard child objects, such as a CaseComment, and custom objects. To define a trigger, from the object management settings for the object whose triggers you want to access, go to Triggers.

There are primarily two types of Apex Triggers:

Before Trigger: This type of trigger in Salesforce is used either to update or validate the values of a record before they can be saved into the database. So, basically, the before trigger validates the record first and then saves it. Some criteria or code can be set to check data before it gets ready to be inserted into the database.

After Trigger: This type of trigger in Salesforce is used to access the field values set by the system and affect any change in the record. In other words, the after trigger makes changes to the value from the data inserted in some other record.

16.1 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 +    }  
23     }  
24  
25 +}
```

```
12 +     }  
13 +    }  
14 +    else if(app.Maintenance_service__c == true && app.Replacement_Parts__c == true){  
15         app.Service_Amount__c = 8000;  
16     }  
17 +     else if(app.Repairs__c == true && app.Replacement_Parts__c == true){  
18         app.Service_Amount__c = 7000;  
19     }  
20 +     else if(app.Maintenance_service__c == true){  
21         app.Service_Amount__c = 2000;  
22     }  
23 +     else if(app.Repairs__c == true){  
24         app.Service_Amount__c = 3000;  
25     }  
26 +     else if(app.Replacement_Parts__c == true){  
27         app.Service_Amount__c = 5000;  
28     }  
29 }  
30 }
```

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;  
            }  
        }  
    }
```

```

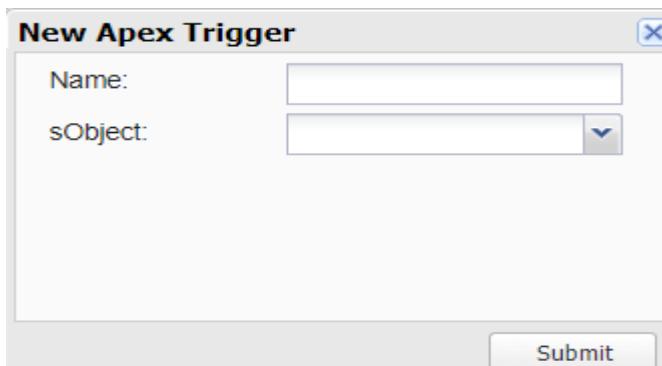
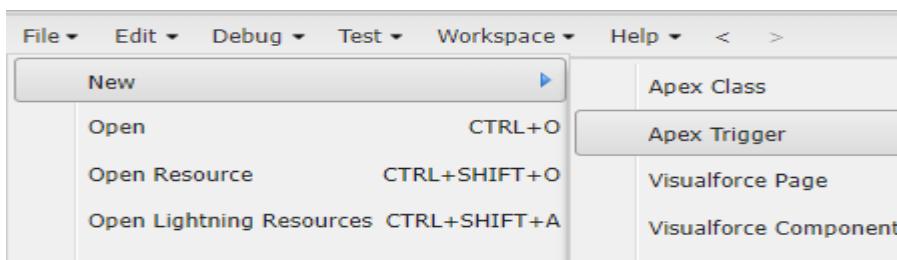
        }
        else if(app.Repairs__c == true){
            app.Service_Amount__c = 3000;
        }
        else if(app.Replacement_Parts__c == true){
            app.Service_Amount__c = 5000;
        }
    }
}
}
}

```

Trigger Handler :

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 :

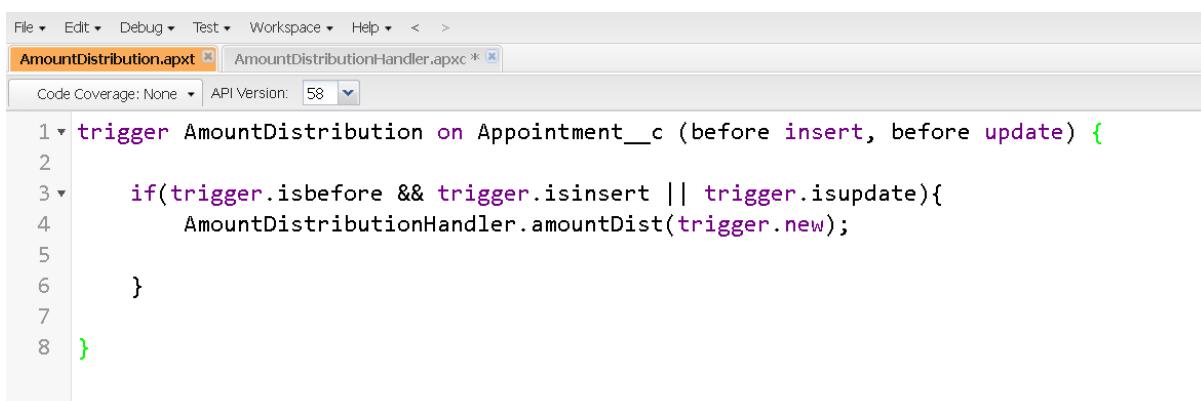
The syntax for creating trigger is :

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



```
File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >
AmountDistribution.apxt AmountDistributionHandler.apxc *
Code Coverage: None API Version: 58
1 trigger AmountDistribution on Appointment__c (before insert, before update) {
2
3     if(trigger.isbefore && trigger.isinsert || trigger.isupdate){
4         AmountDistributionHandler.amountDist(trigger.new);
5     }
6
7
8 }
```

Code:

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

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

    }
}
```

17. Reports :

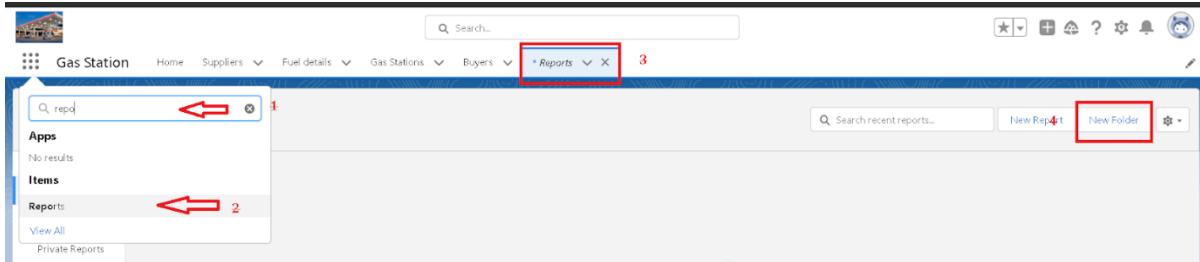
Reports give you access to your Salesforce data. You can examine your Salesforce data in almost infinite combinations, display it in easy-to-understand formats, and share the resulting insights with others. Before building, reading, and sharing reports, review these reporting basics.

Types of Reports in Salesforce

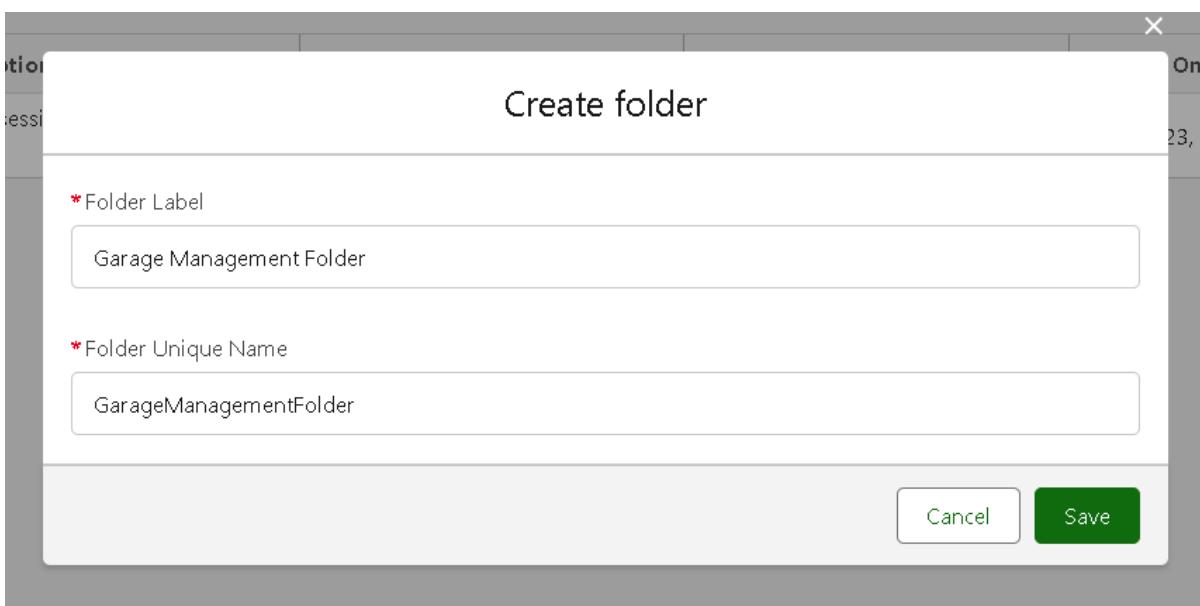
1. Tabular
2. Summary
3. Matrix
4. Joined Reports

17.1 create a report folder :

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

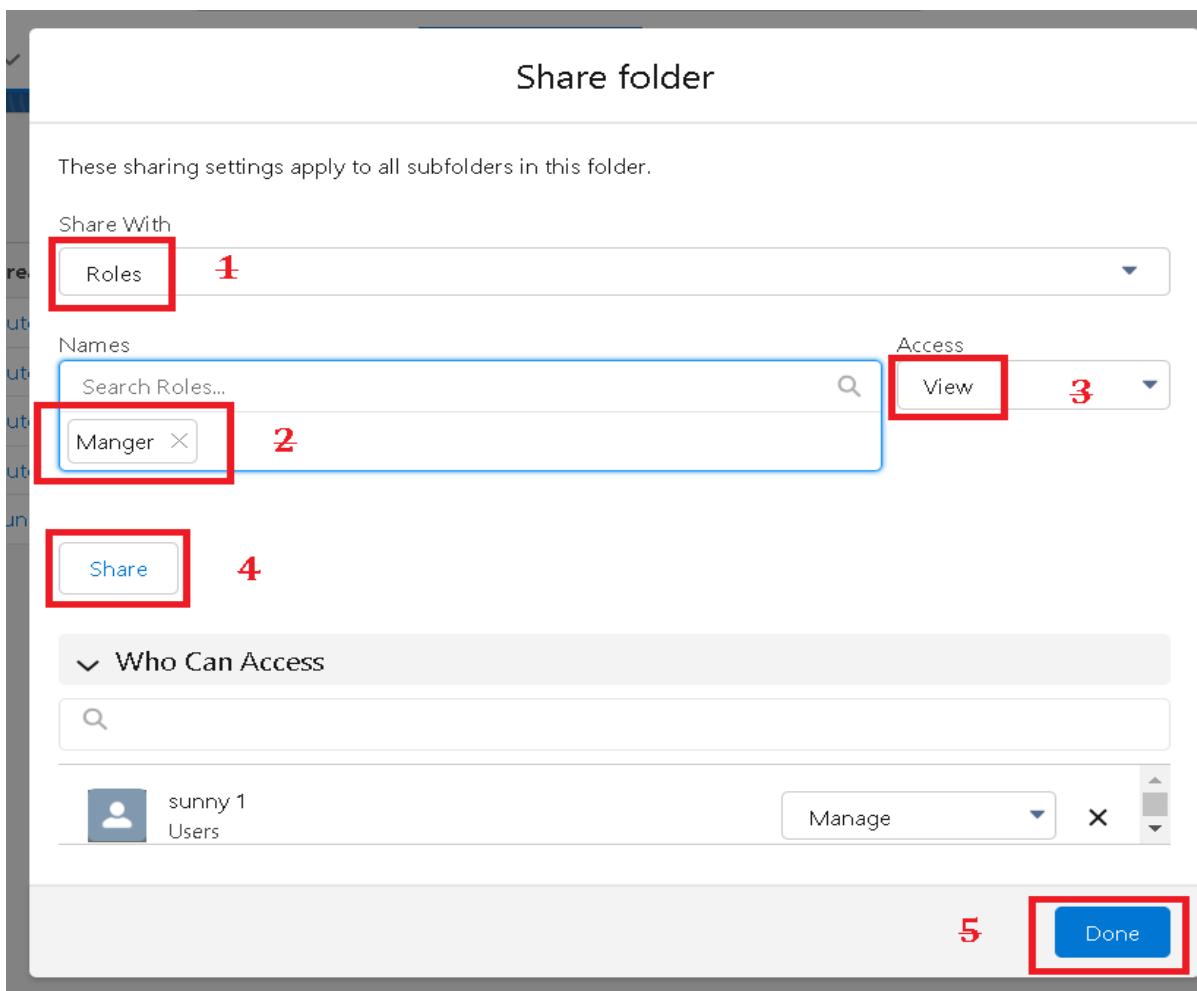


3. Give the Folder label as “Garage Management Folder”, Folder unique name will be auto populated.
4. Click save.



17.2 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.



17.3 Create a 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.

The screenshot shows the Salesforce Setup interface with the 'Report Types' page selected. The sidebar on the left has a 'Reports & Dashboards' section with a 'Report Types' link, which is highlighted with a green arrow. The main content area displays a list of 'All Custom Report Types' with various columns like Action, Label, Description, Category, Deployed, Created By Alias, and Created Date. A green arrow points to the 'New Custom Report Type' button at the top right of the list.

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.

The screenshot shows the 'New Custom Report Type' configuration page. It includes sections for 'Report Type Focus' (specifying the primary object as 'Customer Details'), 'Identification' (setting the report type label to 'Service information', name to 'Service_information', and description to 'Service information'), 'Deployment' (selecting 'Deployed' as the deployment status), and a 'Related Objects' section (which is partially visible). A green arrow points to each of the highlighted fields: Primary Object, Report Type Label, Description, Store in Category, Deployment Status, and the Next button.

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 Step 2 of 2

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 least one related "B" record.
related "B" records.

Previous Save Cancel

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

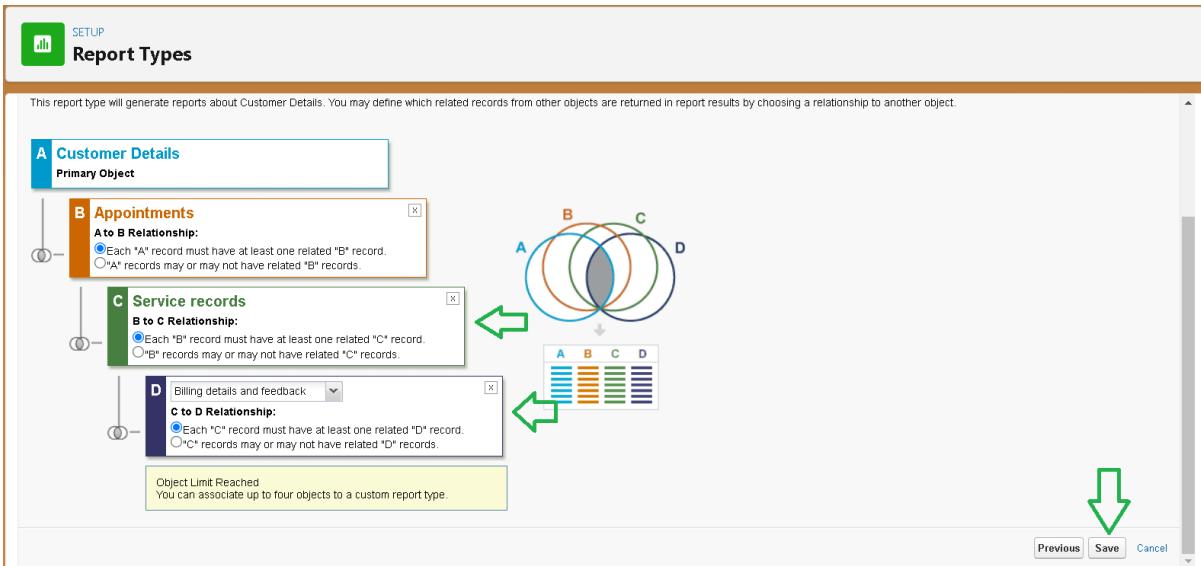
A to B Relationship:
 Each "A" record must have at least one related "B" record.
 "A" records may or may not have related "B" records.

Click to relate another object

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

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.



17.4 Create report :

**Note : Before creating report, create latest “10” records in every object.
Try to fill every field in each record for better experience.**

1. Go to the app >> click on the reports tab
2. Click New Report.

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	Employee's working on projects report		Private Reports	Employee Project	5/6/2023, 9:33 am	
Created by Me	Assets assigned to Employees		Private Reports	Employee Project	5/6/2023, 9:36 am	

3. Select the Category as other reports, search for Service Information, select that report, click on it. And click on start report.

The screenshot shows the 'Create Report' interface. On the left, there's a sidebar with categories like Leads, Campaigns, Activities, Contracts and Orders, etc., and a 'Other Reports' section highlighted. The main area shows a search bar and a list of report types. One entry, 'Service information', is selected and highlighted with a green arrow. To the right, the 'Details' pane shows the report's name ('Service information'), category ('Custom'), and a 'Start Report' button. Below that are sections for 'Description' (Service information), 'Created By You' (No Reports Yet), and 'Created By Others' (No Reports Yet).

4. Their outline pane is opened already, select the fields that mentioned below in column section.
 - a. Customer name
 - b. Appointment Date
 - c. Service Status
 - d. Payment paid
5. Remove the unnecessary fields.
6. Select the fields that mentioned below in GROUP ROWS section.
Rating for Service
7. Select the fields that mentioned below in GROUP ROWS section.
Payment Status
8. Click on Add Chart , Select the Line Chart.
9. Click on save, Give the report Name : New Service information Report
10. Report unique Name is auto populated.
11. Select the folder the created and Click on save.

The screenshot shows the report preview. At the top, there are buttons for Save & Run, Save, Close, and Run. The preview area shows a line chart titled 'Sum of Payment Paid' vs 'Rating for service'. Below the chart is a table with columns 'Rating for service', 'Payment Status', 'Completed', and 'Total'. The table data is as follows:

Rating for service	Payment Status	Completed	Total
4	Sum of Payment Paid Record Count	₹15,000 4	₹15,000 4
5	Sum of Payment Paid Record Count	₹5,000 2	₹5,000 2
Total	Sum of Payment Paid Record Count	₹20,000 6	₹20,000 6

Below the table is a detailed view table with columns 'Customer Name', 'Appointment Date', 'Service Status', and 'Payment Paid'. The data is as follows:

Customer Name	Appointment Date	Service Status	Payment Paid
meghana	11/10/2023	Completed	₹8,000
nushi	08/09/2023	Completed	₹3,000
shivam	12/10/2023	Completed	₹2,000
shivam	12/10/2023	Completed	₹2,000
nushi	08/09/2023	Completed	₹3,000

Save Report

*Report Name
New Service information Report

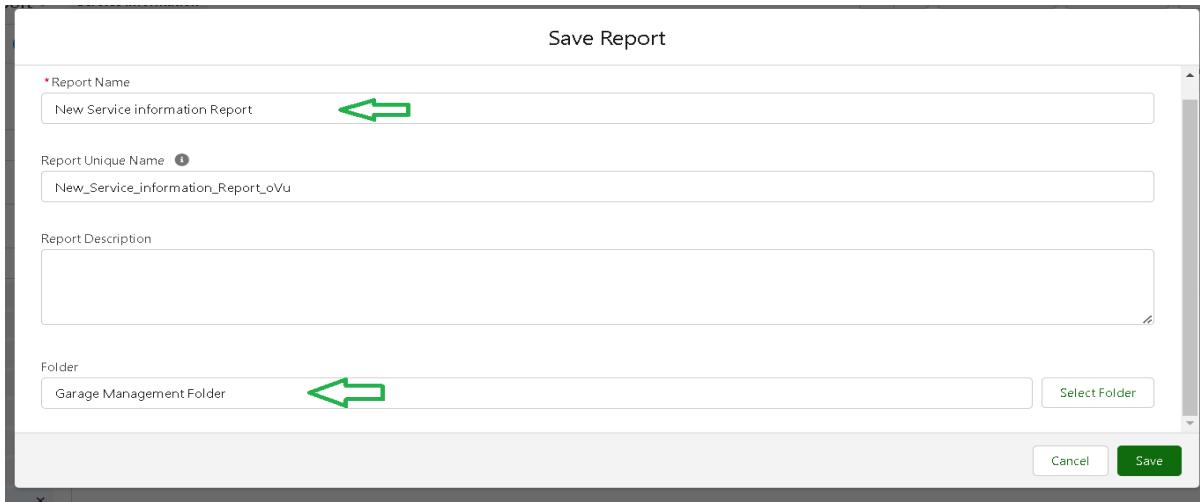
Report Unique Name ⓘ
New_Service_information_Report_oVu

Report Description

Folder
Garage Management Folder

Select Folder

Cancel Save



18. Dashboards :

Dashboards help you visually understand changing business conditions so you can make decisions based on the real-time data you've gathered with reports. Use dashboards to help users identify trends, sort out quantities, and measure the impact of their activities. Before building, reading, and sharing dashboards, review these dashboard basics.

18.1 Create a dashboard folder :

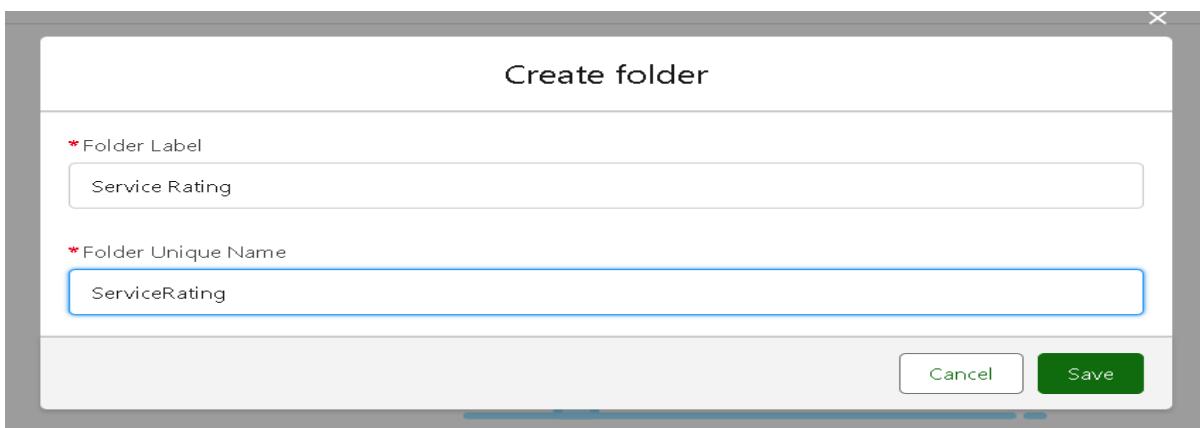
1. Click on the app launcher and search for dashboard.
2. Click on dashboard tab.
3. Click new folder, give the folder label as “Service Rating dashboard”.
4. Folder unique name will be auto populated.
5. Click save.

Create folder

*Folder Label
Service Rating

*Folder Unique Name
ServiceRating

Cancel Save



6. Follow the same steps, from milestone 15, and activity 2, and provide the sharing settings for the folder that just created.

18.2 Creation Dashboard :

1. Go to the app >> click on the Dashboards tabs.
2. Give a Name and select the folder that created, and click on create.

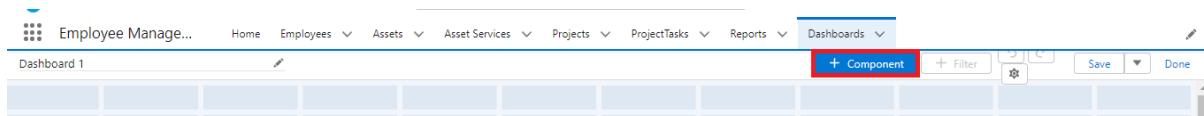
New Dashboard

* Name
Customer review

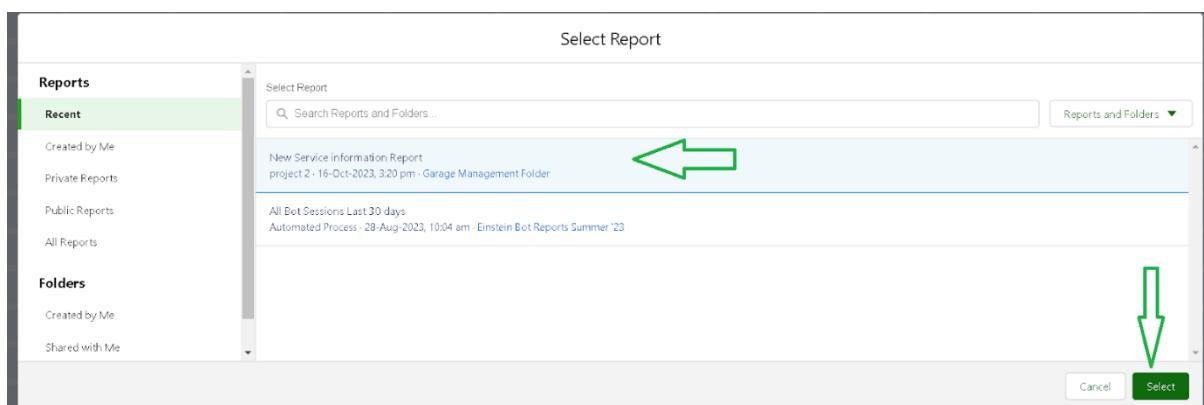
Description

Folder
Service Rating

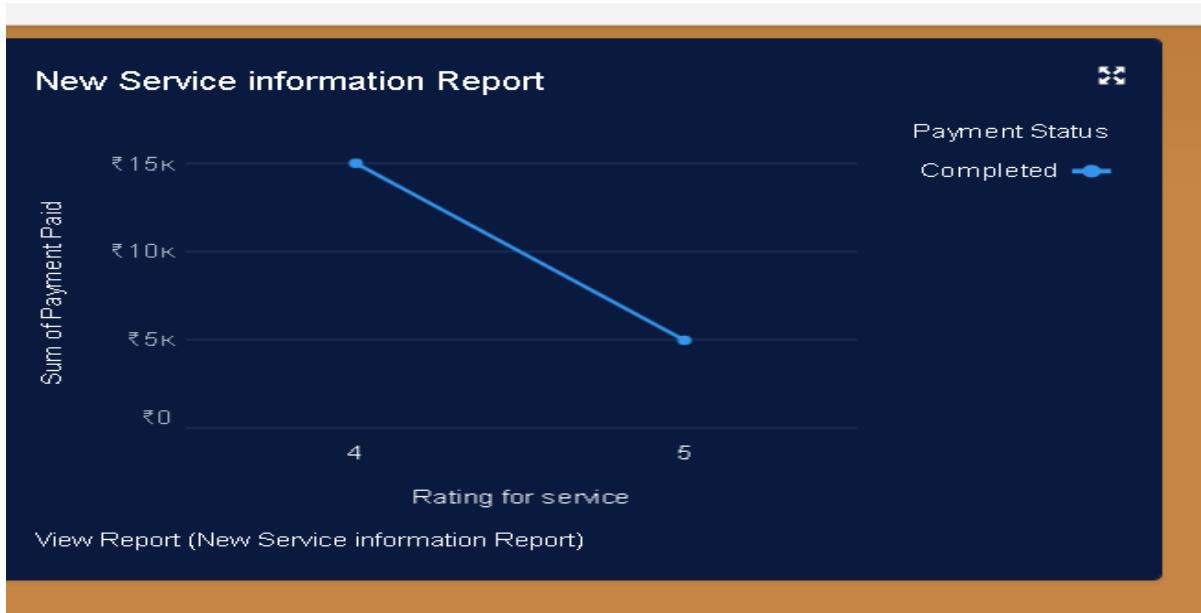
3. Select add component.



4. Select a Report and click on select.



5. Select the Line Chart. Change the theme.
6. Click Add then click on Save and then click on Done.
7. Preview is shown below.



8. After that Click on Subscribe on top right.
9. Set the Frequency as “ weekly ”.
10. Set a day as monday.
11. And Click on save.

The figure shows the "Edit Subscription" dialog box. It has sections for "Settings", "Recipients", and buttons for "Cancel" and "Save". Green arrows highlight three areas: 1) The "Frequency" dropdown where "Weekly" is selected. 2) The "Days" dropdown where "Mon" is selected. 3) The "Save" button at the bottom right.

Edit Subscription

Schedule dashboard refreshes and subscribe to receive results.

Settings

Frequency: Daily Weekly Monthly

Days: Sun Mon Tue Wed Thu Fri Sat

Time: 3:00 pm

Recipients

Receive new results by email when dashboard is refreshed. (i)

Send email to:
Me

Edit Recipients

Cancel Save