

Garage Management system

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. The **Garage Management System (GMS)** is a comprehensive software solution designed to streamline and optimize the operations of automotive repair facilities, service centers, and garages. It provides an array of features tailored to meet the needs of mechanics, service advisors, and business owners, ensuring smoother workflows and higher customer satisfaction.

- **Appointment Scheduling:**
 - Simplifies the booking process for customers.
 - Enables staff to manage daily schedules efficiently, reducing downtime and improving resource allocation.
- **Vehicle Management:**
 - Maintains detailed records of vehicles, including service history, repairs, and maintenance schedules.
 - Tracks vehicle status during servicing for better communication with customers.
- **Customer Relationship Management (CRM):**
 - Stores customer details and preferences.
 - Sends service reminders, follow-ups, and promotional offers to build loyalty.
- **Inventory and Spare Parts Management:**
 - Tracks spare parts stock levels, automates reorder processes, and prevents stockouts.
 - Ensures that mechanics always have the necessary tools and parts on hand.
- **Billing and Invoicing:**
 - Generates professional invoices quickly and accurately.
 - Supports multiple payment methods, discounts, and tax calculations.
- **Work Order Management:**
 - Creates detailed work orders with a list of tasks, estimated costs, and timelines.
 - Helps staff prioritize jobs and ensures timely completion.
- **Reporting and Analytics:**
 - Provides insights into key performance indicators like revenue, job completion rates, and customer feedback.

- Helps identify trends and areas for improvement.

Salesforce

Introduction:

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.

Welcome to Salesforce! Salesforce is game-changing technology, with a host of productivity-boosting features, that will help you sell smarter and faster. As you work toward your badge for this module, we'll take you through these features and answer the question, "What is Salesforce, anyway?".

What Is Salesforce?

Salesforce is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers.

Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.

So what does that really mean? Well, before Salesforce, your contacts, emails, follow-up tasks, and prospective deals might have been organized something like this:

<https://youtu.be/r9EX3IGde5k>

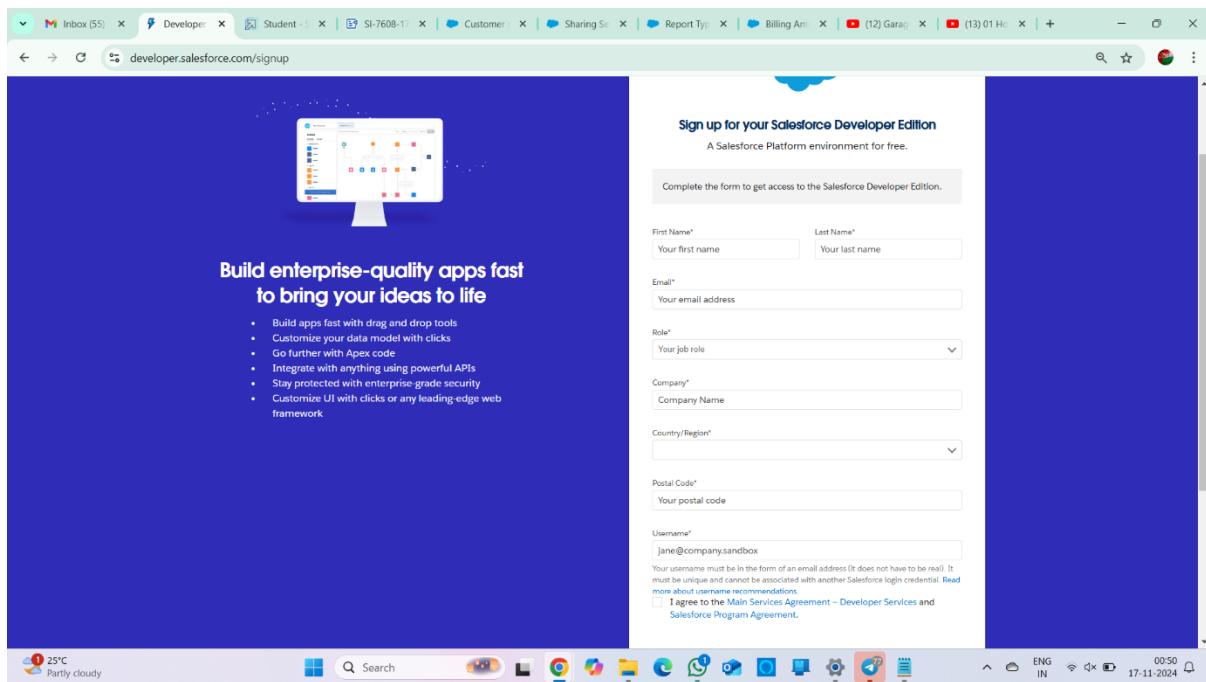
Creating Developer Account:

Creating a developer org in salesforce.

1. Go to <https://developer.salesforce.com/signup>
2. On the sign up form, enter the following details :
 1. First name & Last name
 2. Email
 3. Role : Developer
 4. Company : College Name
 5. County : India
 6. Postal Code : pin code
 7. Username : should be a combination of your name and company

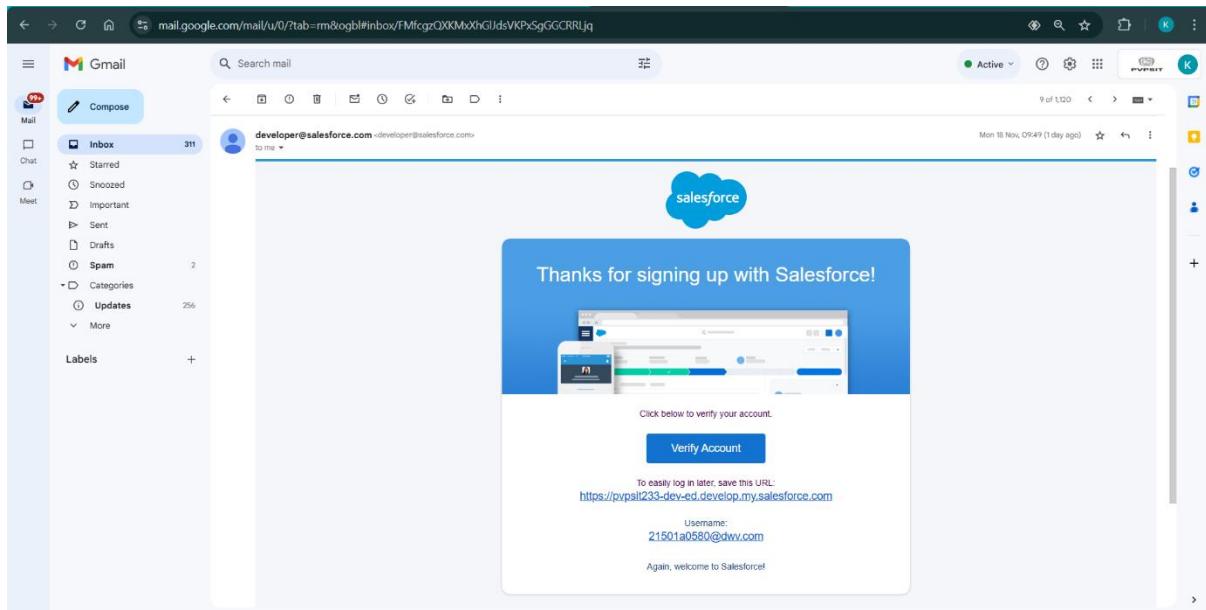
This need not be an actual email id, you can give anything in the format :
username@organization.com

Click on sign me up after filling these.



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.



OBJECT

What Is an 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:** Standard objects are the kind of objects that are 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.

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.

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.

The screenshot shows the 'Custom Object Definition Edit' page for creating a new custom object named 'Appointment'. Key settings include:

- Custom Object Information:** Label: Appointment, Plural Label: Appointments.
- Enter Record Name Label and Format:** Record Name: Appointment Name, Data Type: Auto Number, Display Format: app-{000}, Starting Number: 1.
- Optional Features:** Allow Reports (checked), Allow Activities, Track Field History (checked), Allow in Chatter Groups, Enable Licensing.
- Deployment Status:** Deployed.
- Search Status:** Allow Search (checked).
- Object Creation Options:** Add Notes and Attachments selected (not default page layout), Launch New Custom Tab Wizard after saving this custom object.

Create Service records Object

To create an object:

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

New Custom Object

! Permissions for this object are disabled for all profiles by default. You can enable object permissions in permission sets or by editing custom profiles. [Tell me more](#) [Don't show this message again](#)

Custom Object Definition Edit

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.

Label	<input type="text" value="Service records"/>	Example:	Account
Plural Label	<input type="text" value="Service records"/>	Example:	Accounts
Starts with vowel sound	<input type="checkbox"/>		

The Object Name is used when referencing the object via the API.

Object Name	<input type="text" value="Service_records"/>	Example:	Account
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Description

Context-Sensitive Help Setting

<input checked="" type="radio"/> Open the standard Salesforce.com Help & Training window
<input type="radio"/> Open a window using a Visualforce page

Content Name

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name	<input type="text" value="Service_recordsName"/>	Example:	Account Name
Date Type	<input type="text" value="Auto Number"/>	Warning:	If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.
Display Format	<input type="text" value="SER-{000}"/>	Example:	A-{000}
Starting Number	<input type="text" value="1"/>		

Optional Features

<input checked="" type="checkbox"/> Allow Reports
<input type="checkbox"/> Allow Activities
<input checked="" type="checkbox"/> Track Field History
<input type="checkbox"/> Allow in Chatter Groups
<input type="checkbox"/> Enable Licensing

Object Classification

When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object. [Learn more](#).

<input checked="" type="checkbox"/> Allow Sharing
<input checked="" type="checkbox"/> Allow Bulk API Access
<input checked="" type="checkbox"/> Allow Streaming API Access

Deployment Status

<input type="checkbox"/> In Development
<input checked="" type="checkbox"/> Deployed

Search Status

When this setting is enabled, your users can find records of this object type when they search. [Learn more](#).

<input checked="" type="checkbox"/> Allow Search
--

Object Creation Options (Available only when custom object is first created)

<input type="checkbox"/> Add Notes and Attachments related list to default page layout
<input type="checkbox"/> Launch New Custom Tab Wizard after saving this custom object

[Save](#) [Save & New](#) [Cancel](#)

Create Billing details and feedback Object

To create an object:

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

New Custom Object

Permissions for this object are disabled for all profiles by default. You can enable object permissions in permission sets or by editing custom profiles. [Tell me more](#) [Don't show this message again](#)

Custom Object Definition Edit

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.

Label	<input type="text" value="Billing details and feedback"/> Example: Account
Plural Label	<input type="text" value="Billing details and feedback"/> Example: Accounts
Starts with vowel sound	<input type="checkbox"/>

The Object Name is used when referencing the object via the API.

Object Name	<input type="text" value="Billing_details_and_feedback"/> Example: Account
Description	<input type="text"/>

Context-Sensitive Help Setting

<input checked="" type="radio"/> Open the standard Salesforce.com Help & Training window
<input type="radio"/> Open a window using a Visualforce page

Content Name

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name	<input type="text" value="Billing details and feedback"/> Example: Account Name
Date Type	<input type="text" value="Auto Number"/> <small>Warning: If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.</small>
Display Format	<input type="text" value="bill-(000)"/> Example: A-(000)
Starting Number	<input type="text" value="1"/>

Optional Features

<input checked="" type="checkbox"/> Allow Reports
<input type="checkbox"/> Allow Activities
<input checked="" type="checkbox"/> Track Field History
<input type="checkbox"/> Allow in Chatter Groups
<input type="checkbox"/> Enable Licensing

Object Classification

When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object. [Learn more](#).

<input checked="" type="checkbox"/> Allow Sharing
<input checked="" type="checkbox"/> Allow Bulk API Access
<input checked="" type="checkbox"/> Allow Streaming API Access

Deployment Status

<input type="radio"/> In Development
<input checked="" type="radio"/> Deployed

Search Status

When this setting is enabled, your users can find records of this object type when they search. [Learn more](#).

<input checked="" type="checkbox"/> Allow Search
--

Object Creation Options (Available only when custom object is first created)

<input type="checkbox"/> Add Notes and Attachments related list to default page layout
<input type="checkbox"/> Launch New Custom Tab Wizard after saving this custom object

Save **Save & New** **Cancel**

Tabs

What is Tab : 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.

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.

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 .

The screenshot shows the Salesforce Setup interface with the 'Custom Tabs' page open. The page title is 'Tabs' under the 'SETUP' tab. A search bar at the top right contains 'Search Setup'. On the left, there's a sidebar with 'User Interface' and 'Tabs' selected. The main content area has a heading 'Custom Tabs' with a sub-section 'Custom Object Tabs'. A table lists four tabs:

Action	Label	Tab Style	Description
Edit Del	Appointments	Airplane	
Edit Del	Billing details and feedback	Airplane	
Edit Del	Customer Details	Airplane	
Edit Del	Service records	Airplane	

Below this are sections for 'Web Tabs' and 'Visualforce Tabs', both of which are currently empty.

The Lightning App

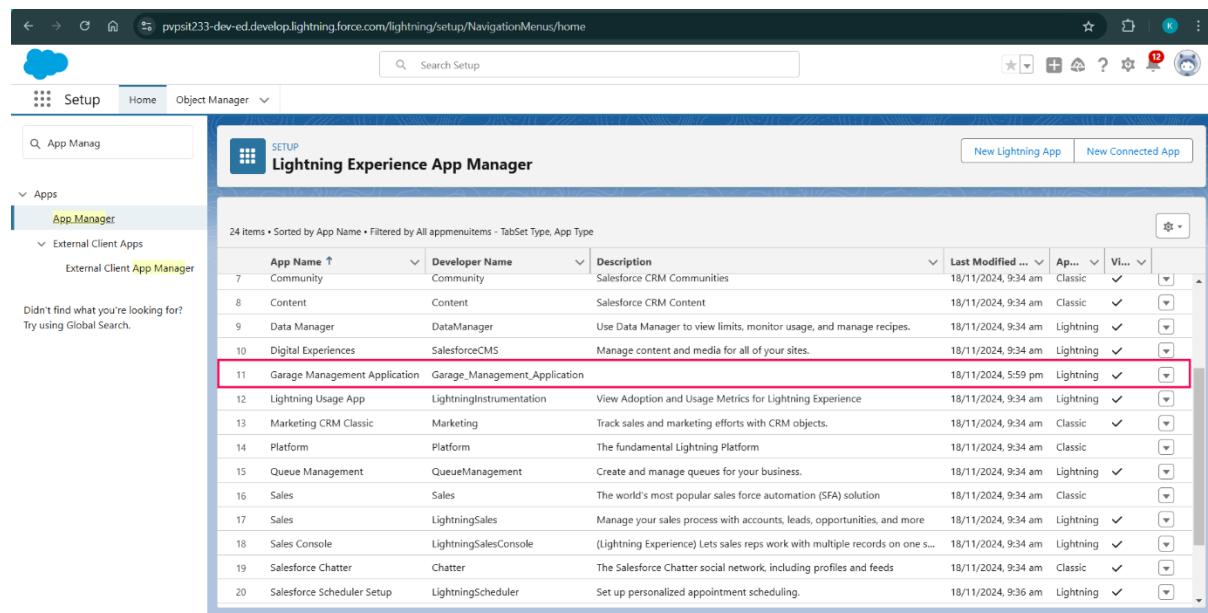
An app is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps give your users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar.

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.

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.
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.



The screenshot shows the Salesforce Setup interface under the 'App Manager' section. The left sidebar shows 'External Client Apps' and 'App Manager'. The main area is titled 'Lightning Experience App Manager' and displays a list of 24 apps. The 'Garage Management Application' (App Name: Garage_Management_Application, Developer Name: GarageManagement) is highlighted with a red border. Other visible apps include Community, Content, Data Manager, Digital Experiences, Lightning Usage App, Marketing CRM Classic, Platform, Queue Management, Sales, Sales Console, Salesforce Chatter, and Salesforce Scheduler Setup. The table includes columns for App Name, Developer Name, Description, Last Modified, Type, and Status.

App Name	Developer Name	Description	Last Modified	Type	Status
Community	Community	Salesforce CRM Communities	18/11/2024, 9:34 am	Classic	✓
Content	Content	Salesforce CRM Content	18/11/2024, 9:34 am	Classic	✓
Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	18/11/2024, 9:34 am	Lightning	✓
Digital Experiences	SalesforceCMS	Manage content and media for all of your sites.	18/11/2024, 9:34 am	Lightning	✓
Garage Management Application	Garage_Management_Application	(Lightning Experience) Lets sales reps work with multiple records on one screen.	18/11/2024, 5:59 pm	Lightning	✓
Lightning Usage App	LightningInstrumentation	View Adoption and Usage Metrics for Lightning Experience	18/11/2024, 9:34 am	Lightning	✓
Marketing CRM Classic	Marketing	Track sales and marketing efforts with CRM objects.	18/11/2024, 9:34 am	Classic	✓
Platform	Platform	The fundamental Lightning Platform	18/11/2024, 9:34 am	Classic	✓
Queue Management	QueueManagement	Create and manage queues for your business.	18/11/2024, 9:34 am	Lightning	✓
Sales	Sales	The world's most popular sales force automation (SFA) solution	18/11/2024, 9:34 am	Classic	✓
Sales	LightningSales	Manage your sales process with accounts, leads, opportunities, and more.	18/11/2024, 9:34 am	Lightning	✓
Sales Console	LightningSalesConsole	(Lightning Experience) Lets sales reps work with multiple records on one screen.	18/11/2024, 9:34 am	Lightning	✓
Salesforce Chatter	Chatter	The Salesforce Chatter social network, including profiles and feeds	18/11/2024, 9:34 am	Classic	✓
Salesforce Scheduler Setup	LightningScheduler	Set up personalized appointment scheduling.	18/11/2024, 9:34 am	Lightning	✓

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

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.
2. Now click on “Fields & Relationships” >> New
3. Select Data Type as a “Phone”
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:
5. Field Label : Gmail
6. Field Name : gets auto generated
7. Click on Next >> Next >> Save and new.

The screenshot shows the Salesforce Object Manager interface for the 'Customer Details' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, and Fields & Relationships. The main area displays a table of fields and relationships, with columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed status. Key fields shown include 'Created By', 'Customer Name', 'Gmail', 'Last Modified By', 'Owner', and 'Phone number'.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Customer Name	Name	Text(80)		✓
Gmail	Gmail__c	Email		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone number	Phone_number__c	Phone		✓

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.
2. Now click on “Fields & Relationships” >> New
3. Select “Look-up relationship” as data type and click Next.
4. Select the related object “ Customer Details” and click next.
5. Next >> Next >> Save.

Note: Make sure you complete Activity 4 Before continuing.

The screenshot shows the Salesforce Object Manager interface for the 'Appointment' object. The left sidebar lists various setup options. The main area displays a table of fields and relationships, with columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed status. Key fields shown include 'Appointment Date', 'Appointment Name', 'Created By', 'Customer Details', 'Last Modified By', 'Maintenance service', 'Owner', 'Repairs', 'Replacement Parts', 'Service Amount', and 'Vehicle number plate'.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment Date	Appointment_Date__c	Date		
Appointment Name	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Customer Details	Customer_Details__c	Lookup(Customer Details)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Maintenance service	Maintenance_service__c	Checkbox		
Owner	Ownerid	Lookup(User,Group)		✓
Repairs	Repairs__c	Checkbox		
Replacement Parts	Replacement_Parts__c	Checkbox		
Service Amount	Service_Amount__c	Currency(18, 0)		
Vehicle number plate	Vehicle_number_plate__c	Text(10) (Unique Case Insensitive)		

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.
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

- Click on next >> next >> save.

Creation of Another Checkbox Field on Appointment Object :

- Repeat the steps from 1 to 3.
- Give the Field Label : Repairs
- Field Nme : is auto populated
- Default value : unchecked
- Click on next >> next >> save.
- Follow the same and create another checkbox with given names
- Give the Field Label : Replacement Parts
- Field Nme : is auto populated
- Default value : unchecked
- Click on next >> next >> save.

The screenshot shows the Salesforce Object Manager interface for the 'Appointment' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, and Field Sets. The main content area is titled 'Fields & Relationships' and displays a table of fields. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment Date	Appointment_Date_c	Date		
Appointment Name	Name	Auto Number		
Created By	CreatedById	Lookup(User)	✓	
Customer Details	Customer_Details_c	Lookup(Customer Details)	✓	
Last Modified By	LastModifiedById	Lookup(User)		
Maintenance service	Maintenance_service_c	Checkbox		
Owner	OwnerId	Lookup(User,Group)	✓	
Repairs	Repairs_c	Checkbox		
Replacement Parts	Replacement_Parts_c	Checkbox		
Service Amount	Service_Amount_c	Currency(18, 0)		
Vehicle number plate	Vehicle_number_plate_c	Text(10) (Unique Case Insensitive)	✓	

Creation of Checkbox Field on Service records Object :

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

The screenshot shows the Salesforce Setup interface under 'Object Manager'. The object selected is 'Service records'. The left sidebar lists various setup categories like Page Layouts, Lightning Record Pages, etc. The main area displays the 'Fields & Relationships' section for the 'Service records' object. The table lists the following fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment	Appointment_c	Lookup(Appointment)		✓
Created By	CreatedBy	Lookup(User)		
Last Modified By	LastModifiedBy	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Quality Check Status	Quality_Check_Status_c	Checkbox		
service date	service_date_c	Formula (Date)		
Service records Name	Name	Auto Number		✓
Service Status	Service_Status_c	Picklist		

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.

The screenshot shows the Salesforce Setup interface under 'Object Manager'. The object selected is 'Appointment'. The left sidebar lists various setup categories like Page Layouts, Lightning Record Pages, etc. The main area displays the 'Fields & Relationships' section for the 'Appointment' object. The table lists the following fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment Date	Appointment_Date_c	Date		
Appointment Name	Name	Auto Number		
Created By	CreatedBy	Lookup(User)		✓
Customer Details	Customer_Details_c	Lookup(Customer Details)		✓
Last Modified By	LastModifiedBy	Lookup(User)		
Maintenance service	Maintenance_Service_c	Checkbox		
Owner	OwnerId	Lookup(User,Group)		✓
Repairs	Repairs_c	Checkbox		
Replacement Parts	Replacement_Parts_c	Checkbox		
Service Amount	Service_Amount_c	Currency(18, 0)		
Vehicle number plate	Vehicle_number_plate_c	Text(10) (Unique Case Insensitive)		

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

The screenshot shows the Salesforce Object Manager interface for the 'Appointment' object. The left sidebar lists various configuration options like Details, Page Layouts, Lightning Record Pages, etc. The main content area is titled 'Fields & Relationships' and displays a table of existing fields. The table columns are: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The table data includes:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment Date	Appointment_Date_c	Date		
Appointment Name	Name	Auto Number		
Created By	CreatedById	Lookup(User)		
Customer Details	Customer_Details_c	Lookup(Customer Details)		
Last Modified By	LastModifiedById	Lookup(User)		
Maintenance service	Maintenance_service_c	Checkbox		
Owner	OwnerId	Lookup(User,Group)		
Repairs	Repairs_c	Checkbox		
Replacement Parts	Replacement_Parts_c	Checkbox		
Service Amount	Service_Amount_c	Currency(18, 0)		
Vehicle number plate	Vehicle_number_plate_c	Text(10) (Unique Case Insensitive)		

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

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Billing details and feedback Name	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Payment Paid	Payment_Paid__c	Currency(18, 0)		
Payment Status	Payment_Status__c	Picklist		
Rating for service	Rating_for_service__c	Text(1)		
Service records	Service_records__c	Lookup(Service records)		✓

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.
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

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Billing details and feedback Name	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		✓
Last Modified By	LastModifiedById	Lookup(User)		✓
Owner	OwnerId	Lookup(User,Group)		✓
Payment Paid	Payment_Paid__c	Currency(18, 0)		✓
Payment Status	Payment_Status__c	Picklist		✓
Rating for service	Rating_for_service__c	Text(1)		✓
Service records	Service_records__c	Lookup(Service records)		✓

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.
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.

Billing details and feedback

Fields & Relationships

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Billing details and feedback Name	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Payment Paid	Payment_Paid__c	Currency(18, 0)		
Payment Status	Payment_Status__c	Picklist		
Rating for service	Rating_for_service__c	Text(1)		
Service records	Service_records__c	Lookup(Service records)		✓

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.

Service records

Fields & Relationships

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment	Appointment__c	Lookup(Appointment)		✓
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Quality Check Status	Quality_Check_Status__c	Checkbox		
service date	service_date__c	Formula (Date)		
Service records Name	Name	Auto Number		✓
Service Status	Service_Status__c	Picklist		

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.

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.
3. Enter the Rule name as “ Vehicle ”.
4. Insert the Error Condition Formula as : -
1. NOT(REGEX(Vehicle_number_plate__c , "[A-Z]{2}[0-9]{2}[A-Z]{2}[0-9]{4}"))
6. 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.

The screenshot shows the Salesforce Object Manager interface for the 'Appointment' object. On the left, there's a sidebar with various setup options like Details, Fields & Relationships, Page Layouts, etc. The main area is titled 'Validation Rules' and shows one item: 'Vehicle'. The table details are as follows:

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Vehicle	Vehicle number plate	Please enter valid number	✓	21501A0580 KATRAGADDA BHARATH SATYA PRAVEEN, 18/11/2024, 6:31 pm

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 : -
1. NOT(ISPICKVAL(Service_Status__c , "Completed"))

6. 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.

The screenshot shows the Salesforce Object Manager Validation Rules page for the 'Service records' object. The left sidebar lists various setup options like Details, Fields & Relationships, Page Layouts, etc. The main area displays a table titled 'Validation Rules' with one item listed:

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
service_status_note	Service Status	still it is pending	✓	21501A0580 KATRAGADDA BHARATH SATYA PRAVEEN, 18/11/2024, 6:29 pm

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}"))`

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.

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
rating_should_be_less_than_5	Rating for service	rating should be from 1 to 5	✓	21501A0580 KATRAGADDA BHARATH SATYA PRAVEEN, 18/11/2024, 6:32 pm

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.
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
7. Field Matching Method
8. Click save.
9. After Saving Click on Activate.

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.
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 Salesforce Setup interface for Duplicate Rules. The left sidebar has 'Data' expanded, with 'Duplicate Rules' selected. The main area displays a 'Customer Detail duplicate' rule. The rule details are as follows:

- Rule Name:** Customer Detail duplicate
- Description:** Customer Details
- Object:** Customer Details
- Record-Level Security:** Enforce sharing rules
- Action On Create:** Allow
- Action On Edit:** Allow
- Alert Text:** Use one of these records?
- Active:** ✓
- Matching Rule:** Matching customer details (Merged)
- Conditions:** Created By 21501A0580 KATRAGADDA BHARATH SATYA PRAVEEN, 18/11/2024, 6:35 pm
- Operations On Create:** Alert ✓ Report
- Operations On Edit:** Alert Report
- Matching Criteria:** (Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone number EXACT MatchBlank = FALSE)
- Created By:** 21501A0580 KATRAGADDA BHARATH SATYA PRAVEEN, 18/11/2024, 6:35 pm

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.

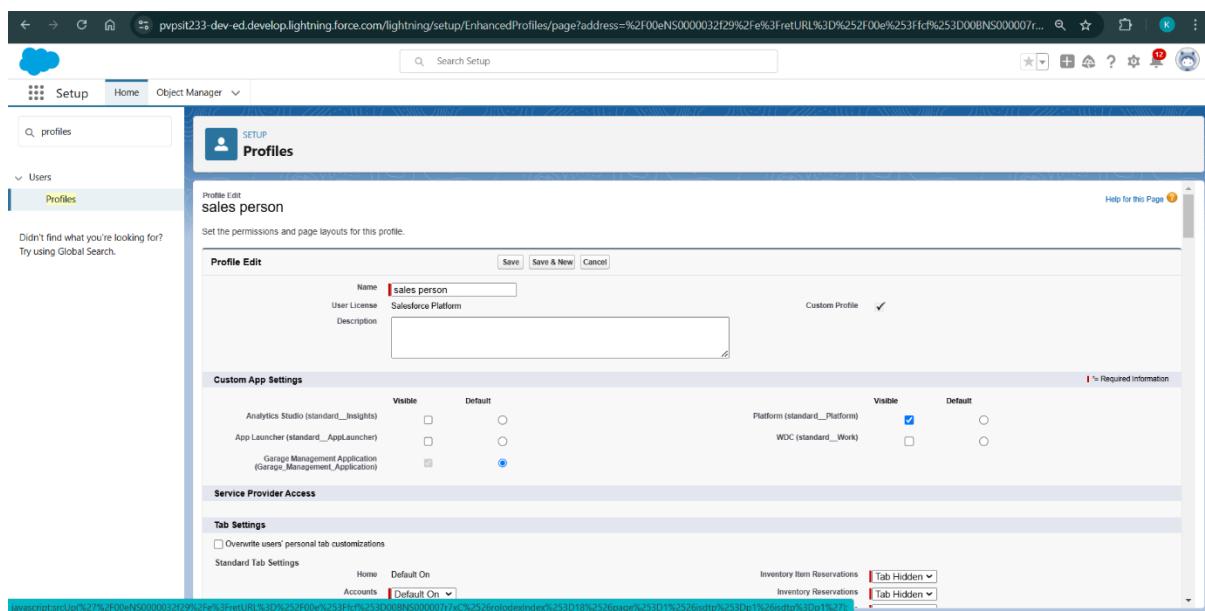
Manager Profile

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.
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.
5. And click save.



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.

Creating Manager Role

- a. Go to quick find >> Search for Roles >> click on set up roles.
- b. Click on Expand All and click on add role under whom this role works.
- c. Give Label as "Manager" and Role name gets auto populated. Then click on Save.

The screenshot shows the Salesforce Setup Roles page. The left sidebar under 'Users' has 'Roles' selected. The main content area displays the 'Manager' role details. The 'Role Detail' section shows the role reports to 'CEO'. The 'Users in Manager Role' table lists one user: Niklaus Mikaelson (alias nmika, username 21501a0580@prp.in, active). The URL in the address bar is pvsit233-dev-ed.lightning.force.com/lightning/setup/Roles/page?address=%2F00ENS0000D0tAL%3Fsetupid%3DRoles.

Creating another roles

- Go to quick find >> Search for Roles >> click on set up roles.
- Click plus on CEO role, and click add role under manager.
- Give Label as “sales person” and Role name gets auto populated. Then click on Save.

The screenshot shows the Salesforce Setup Roles page. The left sidebar under 'Users' has 'Roles' selected. The main content area displays the 'sales person' role details. The 'Role Detail' section shows the role reports to 'Manager'. The 'Users in sales person Role' table lists three users: SalesPersonA (alias sa, username sa@gmail.com), SalesPersonB (alias sb, username sb@gmail.com), and SalesPersonC (alias sc, username sc@gmail.com), all marked as active. The URL in the address bar is pvsit233-dev-ed.lightning.force.com/lightning/setup/Roles/page?address=%2F00ENS0000D0tBx%3Fsetupid%3DRoles.

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.

Create User

1. Go to setup >> type users in quick find box >> select users >> click New user.
2. Fill in the fields
 - a. First Name : Niklaus
 - b. Last Name : Mikaelson
 - c. Alias : Give a Alias Name
 - d. Email id : Give your Personal Email id
 - e. Username : Username should be in this form: text@text.text
 - f. Nick Name : Give a Nickname
 - g. Role : Manager
 - h. User licence : Salesforce
 - i. Profiles : Manager

3. Save.

User Detail

Name	Niklaus Mikaelson	Role	Manager
Alias	nmika	User License	Salesforce
Email	21501a0580@populac.in [Verify]	Profile	Manager
Username	21501a0580@vpip.in	Active	<input checked="" type="checkbox"/>
Nickname	Nik	Marketing User	<input type="checkbox"/>
Title		Offline User	<input type="checkbox"/>
Company		Knowledge User	<input type="checkbox"/>
Department		Flow User	<input type="checkbox"/>
Division		Service Cloud User	<input type="checkbox"/>
Address		Site.com Contributor User	<input type="checkbox"/>
Time Zone	(GMT+05:30) India Standard Time (Asia/Kolkata)	Site.com Publisher User	<input type="checkbox"/>
Locale	English (India)	WDC User	<input type="checkbox"/>
Language	English	Mobile Push Registrations	<input type="checkbox"/> View
Delegated Approver		Data.com User Type	<input type="checkbox"/> Edit
Manager		Accessibility Mode (Classic Only)	<input type="checkbox"/> Edit
Receive Approval Request Emails	Only if I am an approver	Debug Mode	<input type="checkbox"/> Edit
Federation ID		High-Contrast Palette on Charts	<input type="checkbox"/> Edit
App Registration: One-Time Password Authenticator	Edit	Load Lightning Pages While Scrolling	<input checked="" type="checkbox"/> Edit
App Registration: Salesforce Authenticator	Edit	Salesforce CRM Content User	<input checked="" type="checkbox"/> Edit
Security Key (2F or WebAuthn)	Edit	Receive Salesforce CRM Content Email Alerts	<input checked="" type="checkbox"/> Edit

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.

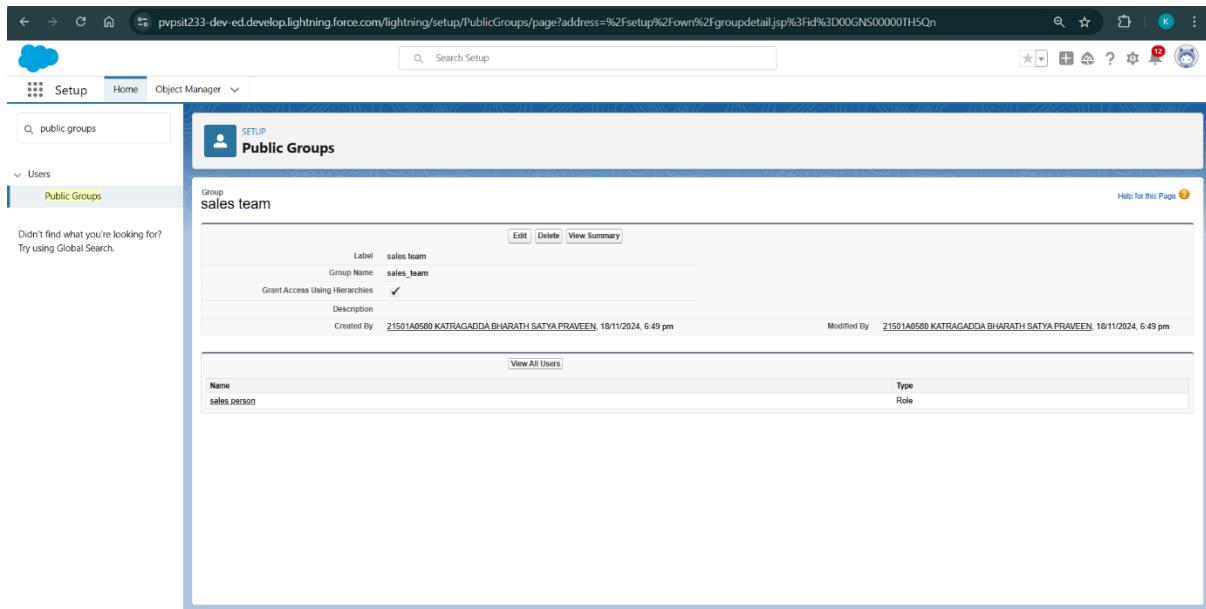
The screenshot shows the Salesforce Setup interface with the URL pvpst233-dev-ed.lightning.force.com/lightning/setup/ManageUsers/page?address=%2F005NS000004e96P%3Fnoredirect%3D1%26isUserEntityOverride%3D1. The main page title is "User SalesPerson A". The left sidebar is expanded to show the "Users" section, which includes "Permission Set Groups", "Permissions Sets", "Profiles", "Public Groups", "Queues", "Roles", "User Management Settings", and "Users". The "Users" section is currently selected. The right pane displays the "User Detail" for "SalesPerson A". The "User Detail" section includes fields for Name (SalesPerson A), Alias (sa), Email (sa@gmail.com), Username (sa@gmail.com), Nickname (User17319357202475038871), Title (User17319357202475038871), Company (Company), Department (Department), Division (Division), Address (Address), Time Zone (Time Zone (GMT+05:30) India Standard Time (Asia/Kolkata)), Locale (Locale (English (India))), Language (Language (English)), Delegated Approver (Delegated Approver), Manager (Manager), and Receive Approval Request Emails (Only if I am an approver). The "Role" section shows "salesperson" assigned. The "User License" section shows "Salesforce Platform". The "Profile" section shows "sa salesperson". The "Active" status is checked. The "Marketing User" checkbox is checked. The "Offline User" checkbox is unchecked. The "Knowledge User" checkbox is unchecked. The "Flow User" checkbox is unchecked. The "Service Cloud User" checkbox is unchecked. The "Site.com Contributor User" checkbox is unchecked. The "Site.com Publisher User" checkbox is unchecked. The "WDC User" checkbox is unchecked. The "Mobile Push Registrations" section shows "Data.com User Type" selected. The "Accessibility Mode (Classic Only)" checkbox is unchecked. The "Debug Mode" checkbox is unchecked. The "High-Contrast Palette on Charts" checkbox is unchecked. The "Load Lightning Pages While Scrolling" checkbox is checked. The "Salesforce CRM Content User" checkbox is checked. The "Receive Salesforce CRM Content Email Alerts" checkbox is checked.

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.

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.



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.

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.

3. Click on save and refresh.
4. Scroll down a bit, Click new on Service records sharing Rules.
5. Give the Label name as “ Sharing setting”
6. Rule name is auto populated.
7. In step 3 : Select which records to be shared, members of “ Roles ” >> “ Sales person”
8. In step 4: share with, select “ Roles ” >> “ Manager ”
9. In step 5 : Change the access level to “ Read / write ”.
10. Click on save.

The screenshot shows the 'Sharing Settings' page in the Salesforce Setup. The left sidebar has 'Sharing' selected under 'Security'. The main area lists several sharing rule categories: 'Service Appointment Sharing Rules', 'Service Appointment Attendee Sharing Rules', 'Service Contract Sharing Rules', 'Service Resource Sharing Rules', 'Service Territory Sharing Rules', 'Shift Sharing Rules', and 'Shipment Sharing Rules'. Under 'Service Resource Sharing Rules', there is a table with one row:

Action	Criteria	Shared With	Access Level
Edit Del	Owner in Role_sales person	Role_Manager	ReadWrite

Flows

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”. Give the Label Name : Amount Update
7. Api name : is auto populated
8. Set a filter condition : All Conditions are met(AND)
9. Field : Payment_Status__c

10. Operator : Equals
11. Value : Completed
12. And Set Field Values for the Billing details and feedback Record
13. Field : Payment_Paid__c
14. Value : {\$Record.Service_records__r.Appointment__r.Service_Amount__c}
15. Click On Done.Before creating another Element. Create a New Resource form Toolbox form top left.
16. Click on the New Resource, And select Variable.
17. Select the resource type as text template.
18. Enter the API name as “ alert”.
19. Change the view as Rich Text ? View to Plain Text.
20. In body field paste the syntax that given below.

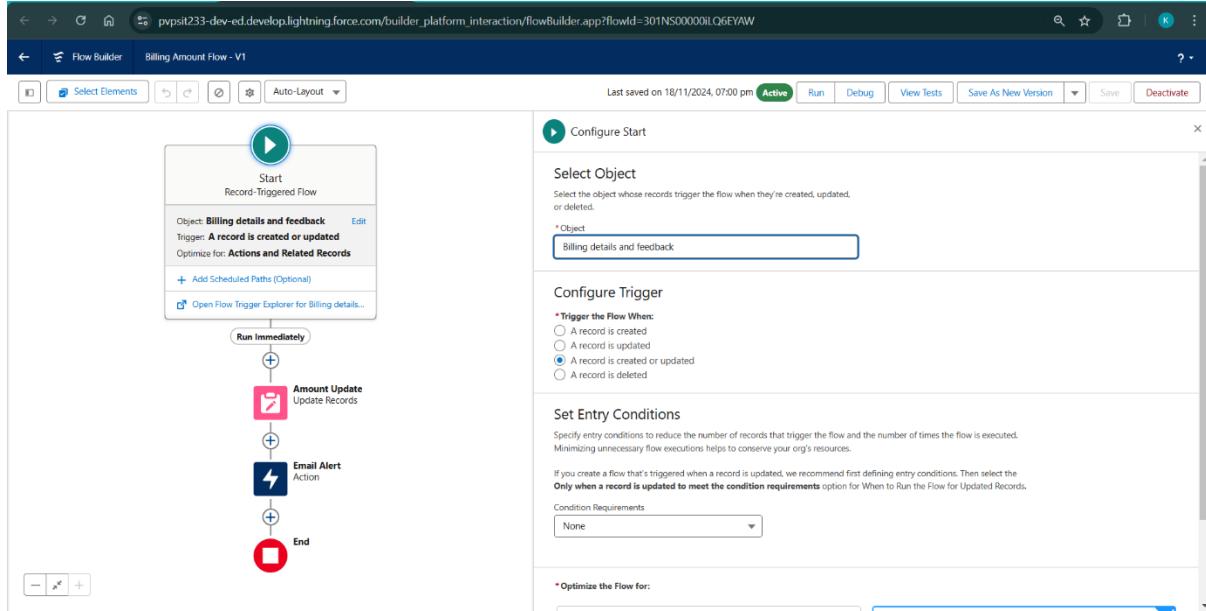
Dear {\$Record.Service_records__r.Appointment__r.Customer_Name__r.Name},

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.



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:

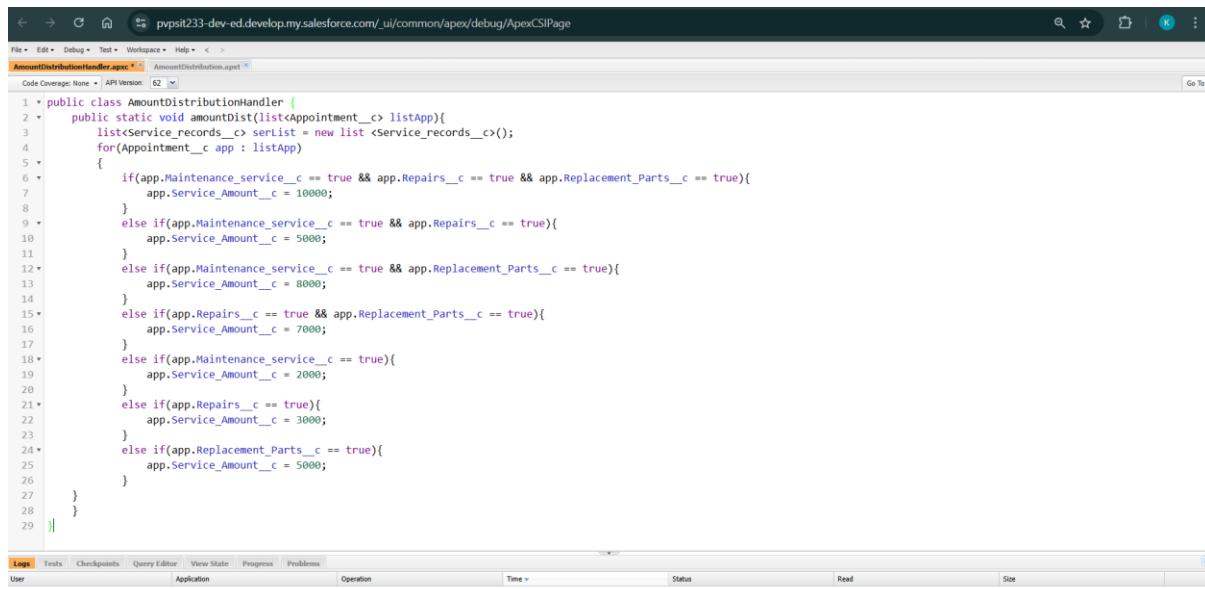
Before Trigger: This type of trigger in Salesforce is used either to update or validate the values of a record before they can be saved into the database. So, basically, the before trigger validates the record first and then saves it. Some criteria or code can be set to check data before it gets ready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

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”.



The screenshot shows the Salesforce Developer Console interface. The title bar reads "pvpst233-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage". The main area is a code editor for "AmountDistributionHandler.apc". The code is as follows:

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

Below the code editor, there is a navigation bar with tabs: Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The "Logs" tab is selected. A status bar at the bottom shows "User Application Operation Time Status Read Size".

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 :

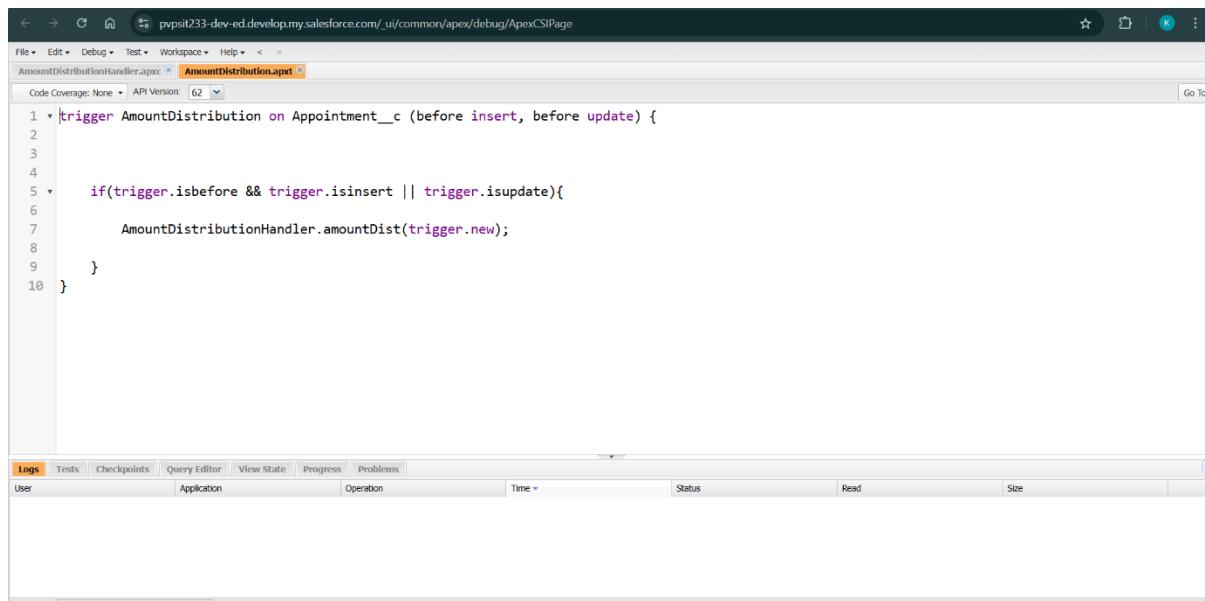
Trigger [trigger name] on [object name](Before/After event)

{ }

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.

Code:

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



Reports

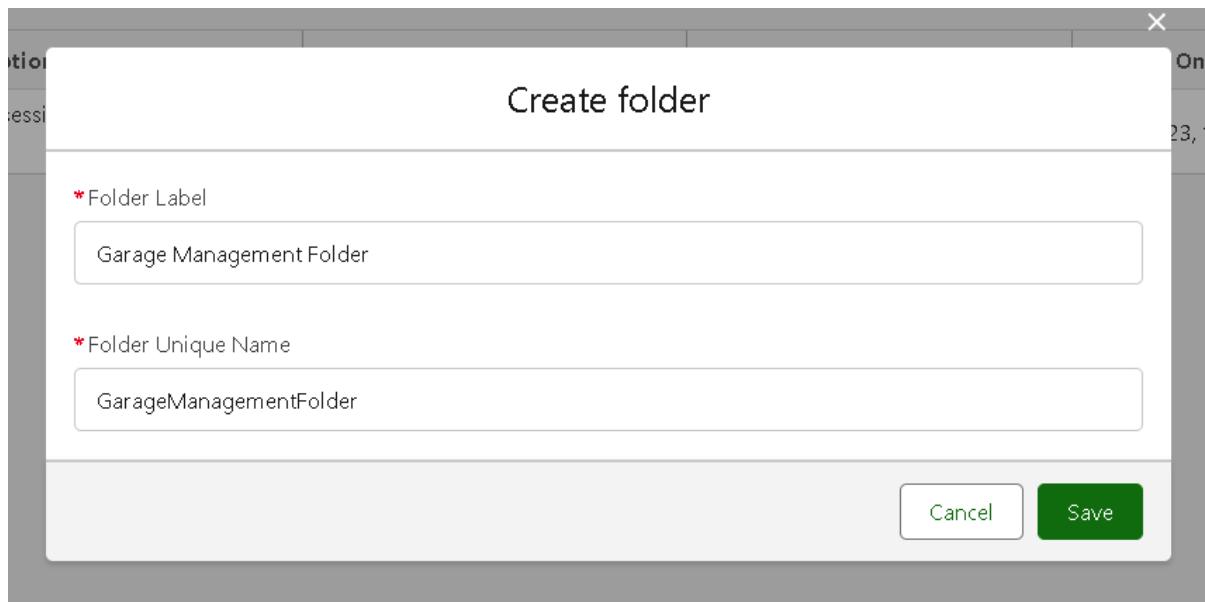
Reports give you access to your Salesforce data. You can examine your Salesforce data in almost infinite combinations, display it in easy-to-understand formats, and share the resulting insights with others. Before building, reading, and sharing reports, review these reporting basics.

Types of Reports in Salesforce

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

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.



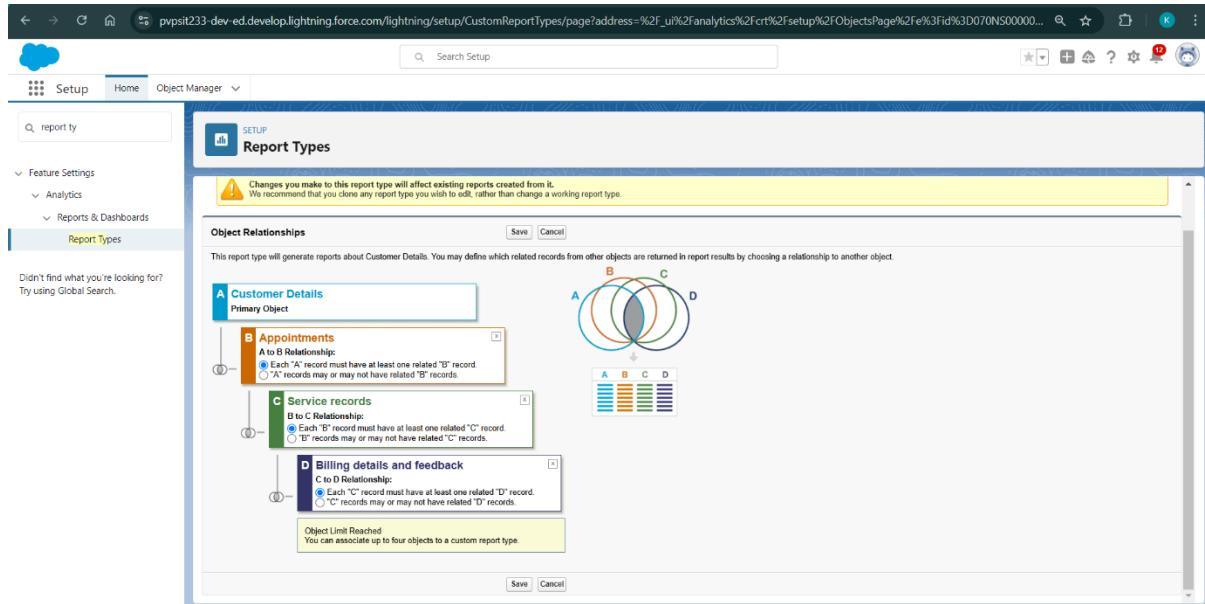
Sharing a report folder

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.
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.

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



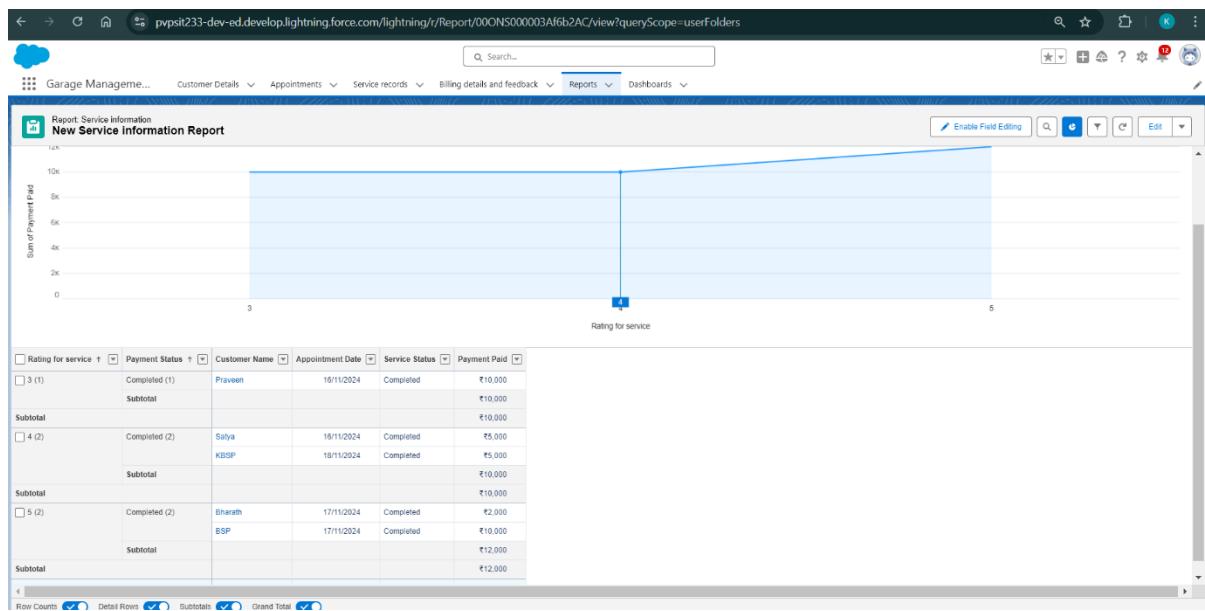
Create Report

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.
3. Select the Category as other reports, search for Service Information, select that report, click on it. And click on start report.
4. Their outline pane is opened already, select the fields that mentioned below in column section.
 1. Customer name
 2. Appointment Date
 3. Service Status
 4. Payment paid

5. Remove the unnecessary fields.
6. Select the fields that mentioned below in GROUP ROWS section.
 1. Rating for Service
7. Select the fields that mentioned below in GROUP ROWS section.
 1. 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.



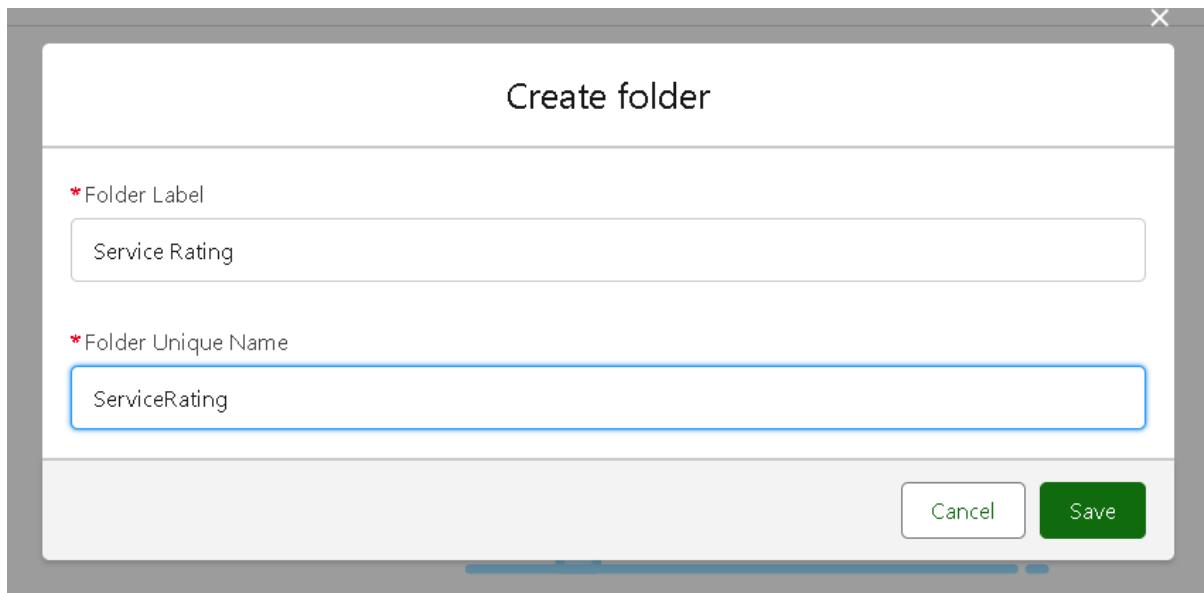
Dashboards

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.

Create Dashboard Folder

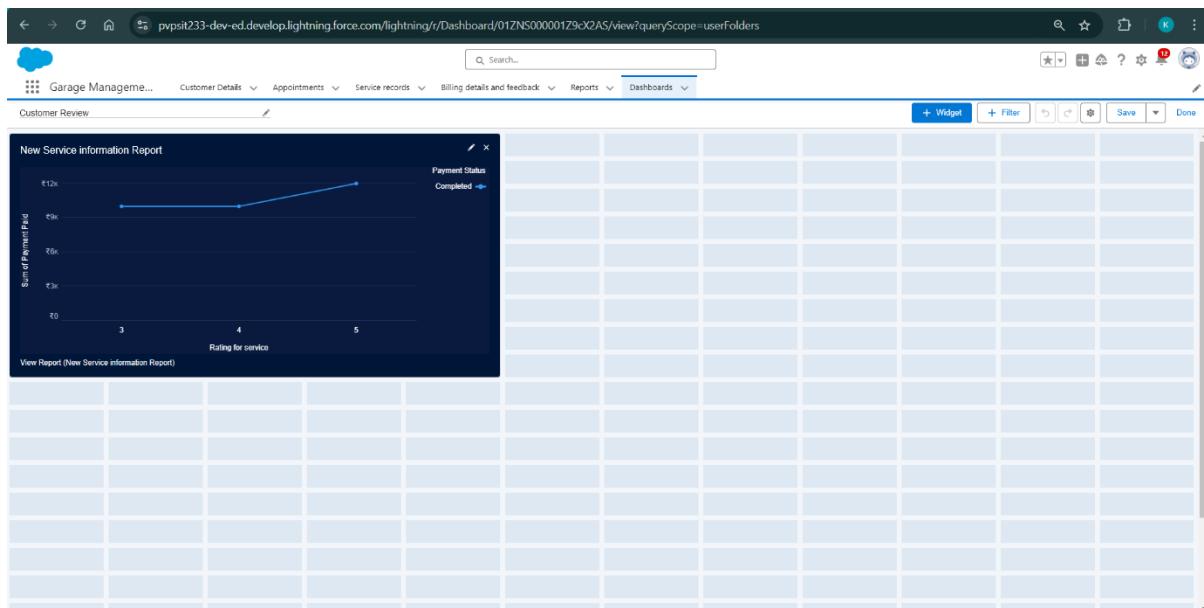
1. Click on the app launcher and search for dashboard.
2. Click on dashboard tab.
3. Click new folder, give the folder label as “ Service Rating dashboard”.
4. Folder unique name will be auto populated.
5. Click save.

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



Create 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.
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.



Subscription:

1. After that Click on Subscribe on top right.
2. Set the Frequency as “ weekly ”.
3. Set a day as monday.
4. And Click on save.

