# 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 m 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.

# **Features of a Comprehensive Garage Management System**

### 1. Appointment Scheduling

- **Streamlined Booking:** Simplifies the booking process for customers, enabling hassle-free appointment scheduling.
- Efficient Resource Allocation: Helps staff manage daily schedules effectively, reducing downtime and maximizing resource utilization.

#### 2. Vehicle Management

- **Service History Tracking:** Maintains detailed records of vehicles, including service history, repairs, and maintenance schedules.
- **Status Updates:** Tracks vehicle status during servicing to enhance communication with customers and improve transparency.

#### 3. Customer Relationship Management (CRM)

- **Customer Profiles:** Stores customer details and preferences, enabling personalized service delivery.
- **Automated Notifications:** Sends service reminders, follow-ups, and promotional offers to foster customer loyalty.

#### 4. Inventory and Spare Parts Management

- Stock Monitoring: Tracks spare parts stock levels to ensure availability.
- Automated Reordering: Prevents stock outs by automating the reorder process.
- Mechanic Support: Ensures tools and parts are readily available for mechanics to complete jobs efficiently.

# 5. Billing and Invoicing

- **Professional Invoicing:** Quickly generates accurate and professional invoices.
- Payment Flexibility: Supports multiple payment methods, applies discounts, and calculates taxes seamlessly.

#### 6. Work Order Management

- Detailed Work Orders: Creates comprehensive work orders, including tasks, costs, and timelines.
- **Prioritization:** Assists staff in prioritizing tasks, ensuring timely job completion.

#### 7. Reporting and Analytics

- **Performance Insights:** Tracks key performance indicators like revenue, job completion rates, and customer feedback.
- **Trend Analysis:** Identifies trends and highlights areas for improvement to optimize business performance.

#### What Is Salesforce?

Salesforce is a comprehensive customer success platform designed to help businesses streamline their processes for sales, customer service, marketing, analytics, and customer engagement. It empowers you to manage your business operations seamlessly from anywhere by leveraging cloud-based tools.

With Salesforce's standard features and products, you can:

- Manage customer and prospect relationships
- Collaborate efficiently with employees and partners
- Securely store and organize data in the cloud

#### Why Salesforce?

Before tools like Salesforce, businesses often relied on scattered systems such as spreadsheets, emails, and manual task tracking to manage contacts, follow-ups, and deals. Salesforce consolidates all these operations into one unified platform.

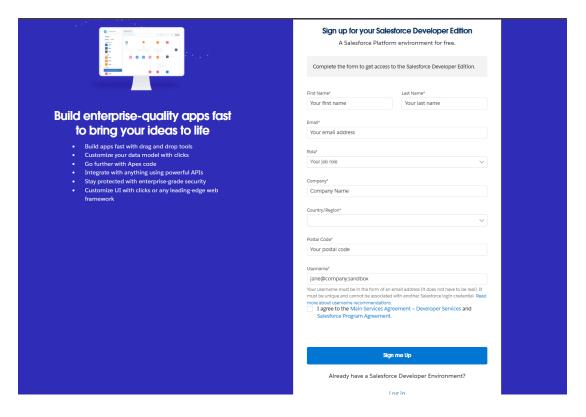
For a better understanding, you can check this quick video explanation: Salesforce Overview

# **Creating a Salesforce Developer Account**

Follow these steps to create a Salesforce Developer Org for hands-on practice:

- 1. Go to Salesforce Developer Signup.
- 2. Fill in the sign-up form with the following details:
  - **First Name & Last Name**
  - **Email** (use a valid email for activation)
  - Role: Developer
  - Company: Use your college name
  - Country: India
  - **Zip code**: Your area pin code
  - **Username**: Create a unique username in the format username@organization.com
    - Note: This doesn't have to be a real email ID. Example: john.doe@mycollege.com
- 3. After filling in the details, click "Sign Me Up".
- 4. Check your email for the activation link and follow the instructions to complete the setup.

Once your account is ready, you'll have full access to Salesforce's developer environment to practice and build applications.



# **Object**

# What Is an Object in Salesforce?

In Salesforce, **objects** are database tables that allow you to store data specific to an organization. They serve as the building blocks for data management in Salesforce.

# **Types of Salesforce Objects**

Salesforce objects are categorized into two types:

### 1. Standard Objects

- These are pre-defined objects provided by Salesforce.
- Examples include: Users, Contracts, Reports, Dashboards, Accounts, etc.

### 2. Custom Objects

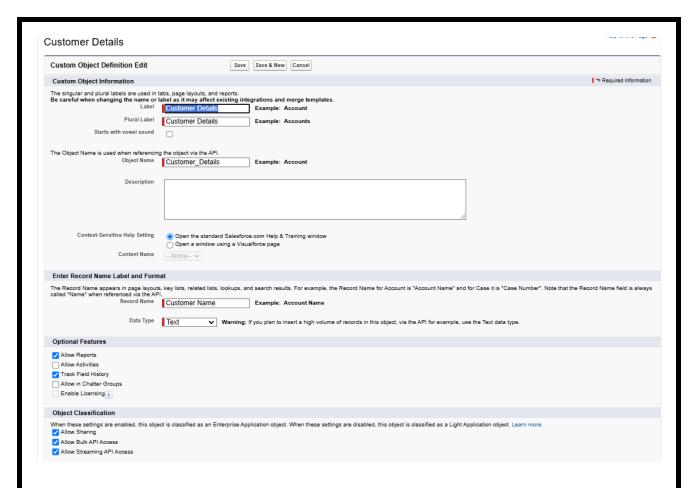
- These are objects created by users to store information unique to their organization.
- Custom objects form the heart of any application and provide a structured way to share and manage data.

### **How to Create Custom Objects in Salesforce**

#### 1. Create Customer Details Object

Follow these steps to create the "Customer Details" object:

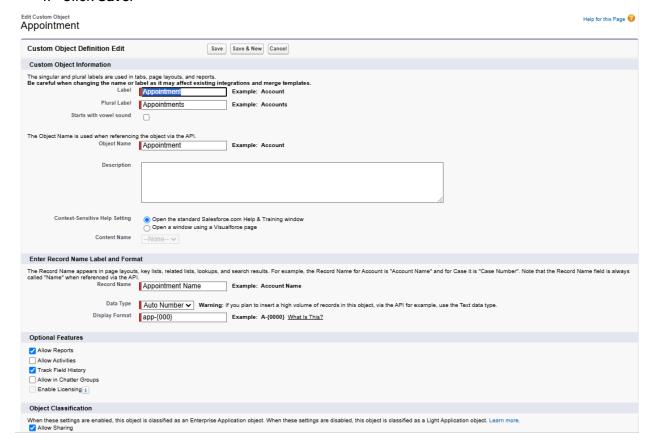
- 1. Go to Setup → Object Manager → Create → Custom Object.
- 2. Enter the following details:
  - Label Name: Customer Details
  - Plural Label Name: Customer Details
     Record Name Label: Customer Name
  - **Data Type**: Text
- 3. Enable the following options:
  - Allow Reports
  - Track Field History
  - Allow Search
- 4. Click Save.



### 2. Create Appointment Object

Steps to create the "Appointment" object:

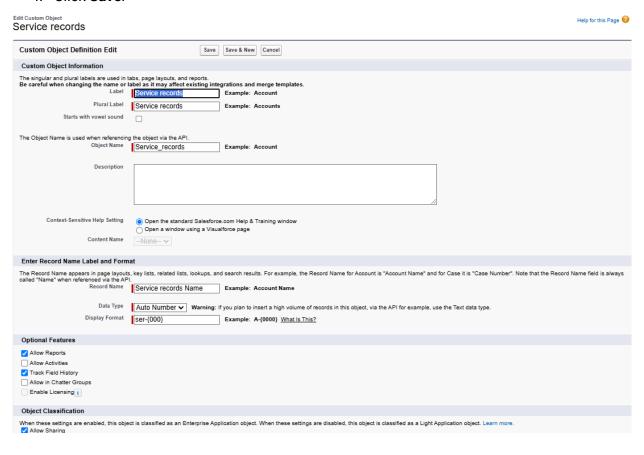
- 1. Go to Setup → Object Manager → Create → Custom Object.
- 2. Enter the following details:
  - Label Name: Appointment
  - Plural Label Name: Appointments
  - Record Name Label: Appointment Name
  - Data Type: Auto NumberDisplay Format: app-{000}
  - Starting Number: 1
- 3. Enable the following options:
  - Allow Reports
  - Track Field History
  - Allow Search
- 4. Click Save.



# 3. Create Service Records Object

Steps to create the "Service Records" object:

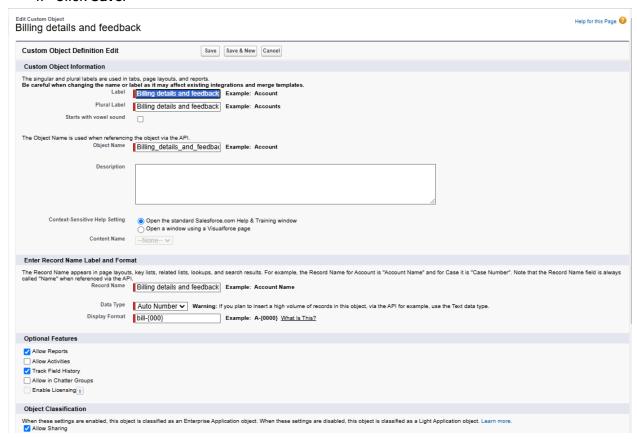
- 1. Go to Setup → Object Manager → Create → Custom Object.
- 2. Enter the following details:
  - Label Name: Service Records
  - Plural Label Name: Service Records
  - Record Name Label: Service Records Name
  - Data Type: Auto NumberDisplay Format: ser-{000}
  - Starting Number: 1
- 3. Enable the following options:
  - Allow Reports
  - Track Field History
  - Allow Search
- 4. Click Save.



### 4. Create Billing Details and Feedback Object

Steps to create the "Billing Details and Feedback" object:

- 1. Go to Setup → Object Manager → Create → Custom Object.
- 2. Enter the following details:
  - Label Name: Billing Details and Feedback
  - Plural Label Name: Billing Details and Feedback
  - Record Name Label: Billing Details and Feedback Name
  - Data Type: Auto NumberDisplay Format: bill-{000}
  - Starting Number: 1
- 3. Enable the following options:
  - Allow Reports
  - Track Field History
  - Allow Search
- 4. Click Save.



# **Tabs**

### What Is a Tab in Salesforce?

A **tab** in Salesforce is a user interface element that allows you to create, view, and manage records for objects. Tabs provide quick access to data and functionality within Salesforce.

# **Types of Tabs in Salesforce**

#### 1. Custom Tabs

- Custom tabs display data from custom objects.
- They behave like standard Salesforce tabs such as Accounts, Contacts, and Opportunities.
- Use Case: Ideal for custom applications you build on Salesforce.

#### 2. Web Tabs

- Web tabs display web content or applications within the Salesforce window.
- Use Case: Provide users quick access to frequently used websites or external apps without leaving Salesforce.

#### 3. sales force Tabs

- sales force tabs display salesforce pages.
- These tabs look and function like standard Salesforce tabs.
- Use Case: Ideal for custom sales force page implementations.

#### 4. Lightning Component Tabs

- Lightning Component tabs allow you to include Lightning components in the navigation menu for Lightning Experience and the mobile app.
- Use Case: Display custom Lightning components for specific business needs.

#### 5. **Lightning Page Tabs**

- Lightning Page tabs let you add Lightning Pages to the navigation menu.
- Important Note: Lightning Page tabs don't appear on the All Tabs page or in the Available Tabs list when customizing tabs for apps.
- Use Case: Integrate Lightning Pages into mobile or desktop navigation.

#### **How to Create Custom Tabs in Salesforce**

#### 1. Create a Custom Tab for "Customer Details"

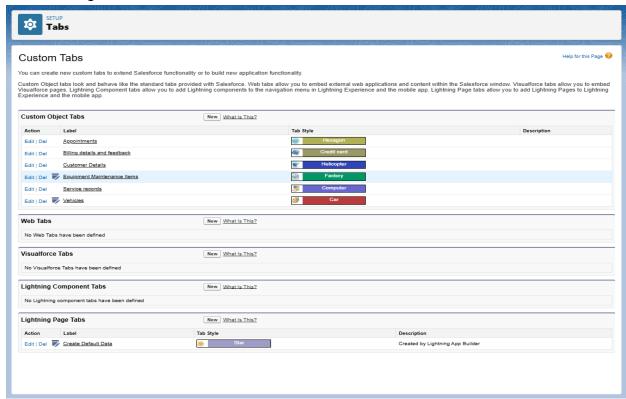
Follow these steps:

- Go to Setup → Type "Tabs" in the Quick Find bar → Click on Tabs → Click New under "Custom Object Tabs".
- 2. Select the object: Customer Details.
- 3. Choose the **Tab Style** → Click **Next**.
- 4. Add to Profiles Page: Keep the default settings → Click Next.
- 5. Add to Custom App: Uncheck "Include Tab".
- 6. Ensure "Append tab to users' existing personal customizations" is checked.
- 7. Click Save.

### 2. Create Tabs for Remaining Objects

Follow the same steps as above to create tabs for the following objects:

- Appointments
- Service Records
- Billing Details and Feedback



# **Lightning App**

# What Is a Lightning App?

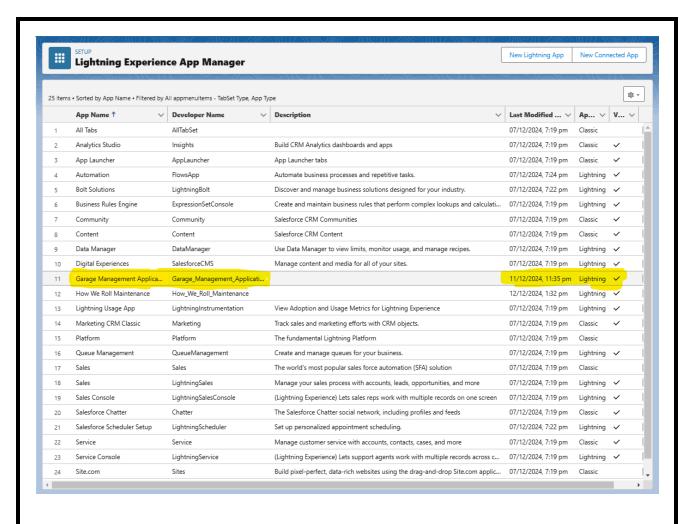
A **Lightning App** in Salesforce is a collection of objects, tabs, and other items designed to fulfill a specific purpose. It allows users to access everything they need in one place via the **navigation bar**.

### **Key Features of Lightning Apps:**

- Custom branding with logos and colors.
- Ability to include a **Utility Bar** and **Lightning Page Tabs**.
- Enhanced productivity with easy app switching.

# **Steps to Create a Lightning App**

- Go to Setup → Type "App Manager" in the Quick Find bar → Select App Manager → Click New Lightning App.
- 2. Fill out App Details:
  - **App Name**: Garage Management Application
  - Click Next.
- 3. App Options Page: Keep the default settings → Click Next.
- 4. **Utility Items**: Keep the default settings → Click **Next**.
- 5. Add Navigation Items:
  - Search and add the following items:
    - Customer Details
    - Appointments
    - Service Records
    - Billing Details and Feedback
    - Reports
    - Dashboards
  - Use the arrow button to move the items → Click **Next**.
- 6. Add User Profiles:
  - Search for the **System Administrator** profile in the search bar.
  - Use the arrow button to add it.
- 7. Click Save & Finish.



# **Fields**

#### Fields in Salesforce

In Salesforce, **Fields** represent the data stored in the columns of a relational database. Fields hold valuable information for specific objects, making the searching, editing, and deletion of records simpler and quicker.

# **Types of Fields**

#### 1. Standard Fields

 Predefined fields provided by Salesforce for every object (e.g., Name, Created Date).

#### 2. Custom Fields

User-defined fields created for specific business requirements.

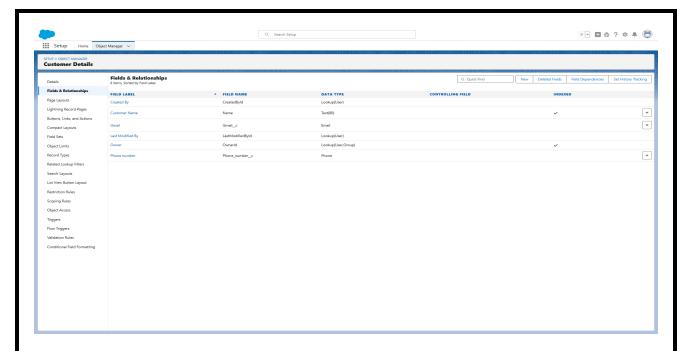
# **Creation of Fields for Customer Details Object**

#### 1. Phone Number Field

- 1. Go to **Setup** → Click on **Object Manager**.
- 2. Search for **Customer Details** → Click on the object.
- 3. Go to Fields & Relationships → Click New.
- 4. Select **Phone** as the Data Type → Click **Next**.
- 5. Fill in the following details:
  - **Field Label**: Phone Number
  - **Field Name**: Auto-generated
- 6. Click Next → Next → Save & New.

### 2. Gmail Field

- 1. Follow Steps 1 & 2 above.
- 2. Go to Fields & Relationships → Click New.
- 3. Select **Email** as the Data Type → Click **Next**.
- 4. Fill in the following details:
  - Field Label: Gmail
  - **Field Name**: Auto-generated
- 5. Click Next → Next → Save & New.



# **Creation of Lookup Fields**

#### 1. Lookup Field on Appointment Object

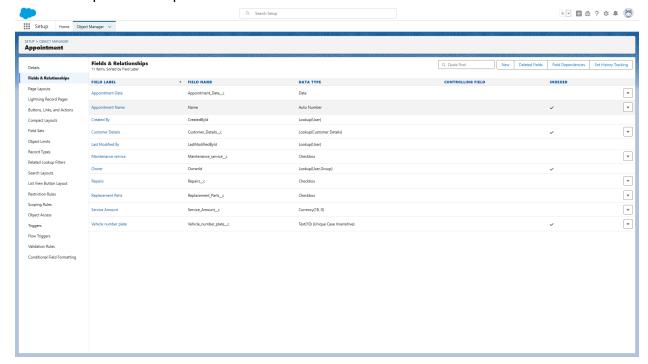
- 1. Go to **Setup** → **Object Manager** → Search for **Appointment**.
- 2. Go to Fields & Relationships → Click New.
- 3. Select **Lookup Relationship** as the Data Type → Click **Next**.
- 4. Select Customer Details as the related object → Click Next.
- 5. Complete the steps → Click **Save**.

### 2. Lookup Field on Service Records Object

- 1. Go to **Setup** → **Object Manager** → Search for **Service Records**.
- Go to Fields & Relationships → Click New.
- 3. Select **Lookup Relationship** as the Data Type → Click **Next**.
- 4. Select **Appointment** as the related object → Click **Next**.
- 5. Make it a required field by selecting **Required**.
- 6. Add a **Lookup Filter**:
  - Field: Appointment: Appointment Date
  - **Operator**: Less Than
  - Select Field: Appointment: Created Date
  - **Filter Type**: Required
  - Error Message: Value does not match the criteria.
- 7. Enable the filter by checking **Active** → Click **Next** → **Save**.

### 3. Lookup Field on Billing Details and Feedback Object

- 1. Go to **Setup** → **Object Manager** → Search for **Billing Details and Feedback**.
- Go to Fields & Relationships → Click New.
- 3. Select **Lookup Relationship** as the Data Type → Click **Next**.
- 4. Select Service Records as the related object → Click Next.
- 5. Complete the steps → Click Save & New.



### **Creation of Checkbox Fields**

#### 1. Checkbox Fields on Appointment Object

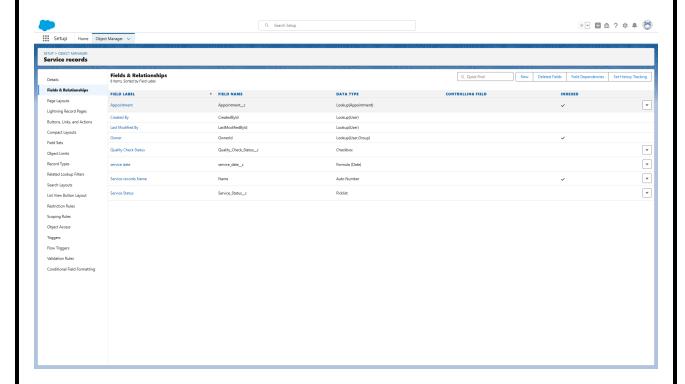
- 1. Go to **Setup** → **Object Manager** → Search for **Appointment**.
- 2. Go to Fields & Relationships → Click New.
- 3. Select **Checkbox** as the Data Type → Click **Next**.

Create the following fields one at a time:

- Maintenance Service: Default Value Unchecked
- Repairs: Default Value Unchecked
- Replacement Parts: Default Value Unchecked

# 2. Checkbox Field on Service Records Object

- 1. Follow Steps 1-2 above for **Service Records**.
- 2. Select **Checkbox** as the Data Type → Click **Next**.
- 3. Field Label: Quality Check Status
- 4. Default Value: Unchecked
- 5. Click Next → Next → Save.



### **Creation of Date Fields**

### 1. Date Field on Appointment Object

- 1. Go to **Setup** → **Object Manager** → Search for **Appointment**.
- 2. Go to Fields & Relationships → Click New.
- Select Date as the Data Type → Click Next.
- 4. Field Label: Appointment Date
- 5. Make it a **Required** field.
- 6. Click Next → Next → Save.

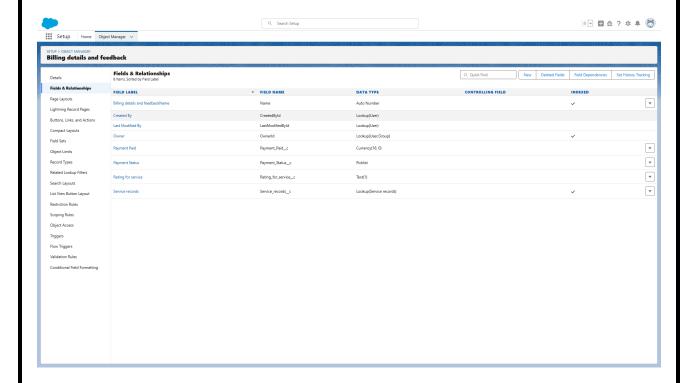
# **Creation of Currency Fields**

### 1. Currency Field on Appointment Object

- 1. Go to **Setup** → **Object Manager** → Search for **Appointment**.
- 2. Go to Fields & Relationships → Click New.
- Select Currency as the Data Type → Click Next.
- 4. Field Label: Service Amount
- 5. Set **Read-Only** for all profiles at the field level.
- 6. Click Next → Save.

### 2. Currency Field on Billing Details and Feedback Object

- 1. Follow the steps above for **Billing Details and Feedback**.
- 2. Field Label: Payment Paid
- 3. Click Save.



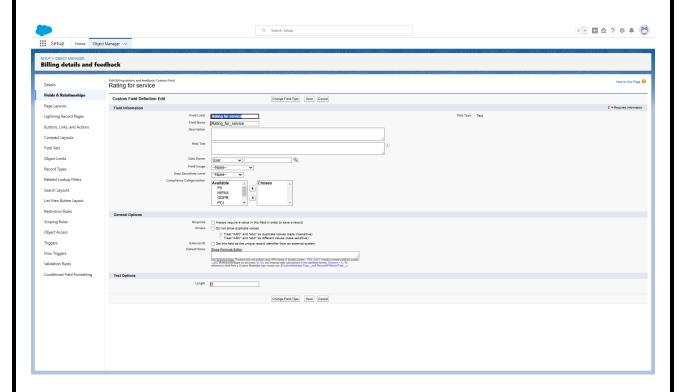
### **Creation of Text Fields**

#### 1. Text Field on Appointment Object

- 1. Go to **Setup** → **Object Manager** → Search for **Appointment**.
- 2. Go to Fields & Relationships → Click New.
- 3. Select **Text** as the Data Type → Click **Next**.
- 4. Field Label: Vehicle License plate
- 5. Length: 10
- 6. Set field as **Required** and **Unique**.
- 7. Click Next → Save.

### 2. Text Field on Billing Details and Feedback Object

- 1. Follow Steps 1-2 for Billing Details and Feedback.
- 2. Field Label: Rating for Service
- 3. Length: 1
- 4. Set field as Required and Unique.
- 5. Click Save.



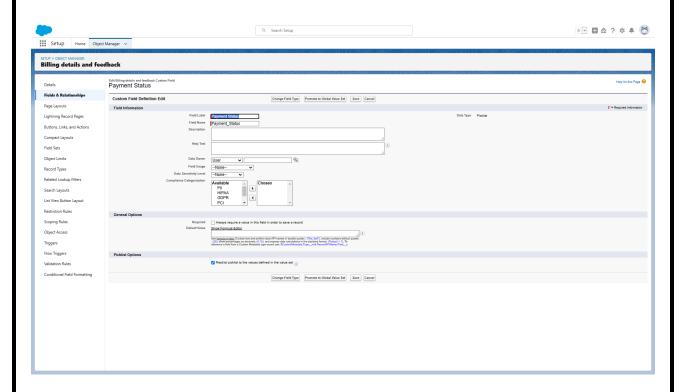
### **Creation of Picklist Fields**

### 1. Picklist Field on Service Records Object

- 1. Go to Setup → Object Manager → Search for Service Records.
- 2. Go to Fields & Relationships → Click New.
- 3. Select **Picklist** as the Data Type → Click **Next**.
- 4. Field Label: Service Status
- 5. Enter Values:
  - Started
  - Completed
- 6. Click Next → Save.

### 2. Picklist Field on Billing Details and Feedback Object

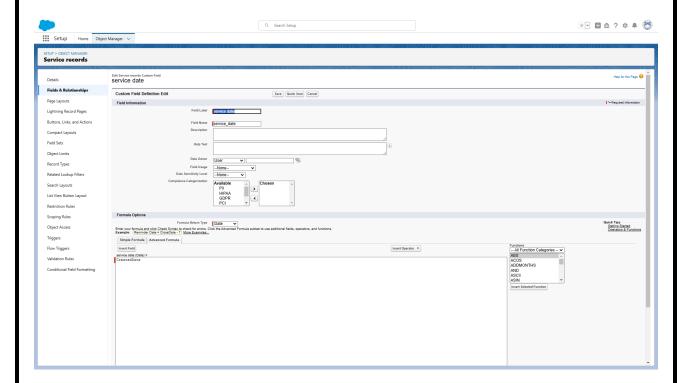
- 1. Follow Steps 1-3 above for **Billing Details and Feedback**.
- 2. Field Label: Payment Status
- 3. Enter Values:
  - Pending
  - Completed
- 4. Click Next → Save.



### **Creation of Formula Fields**

# 1. Formula Field on Service Records Object

- 1. Go to **Setup** → **Object Manager** → Search for **Service Records**.
- 2. Go to Fields & Relationships → Click New.
- 3. Select **Formula** as the Data Type → Click **Next**.
- 4. Field Label: Service Date5. Formula Return Type: Date
- 6. Insert Formula: CreatedDate
- 7. Click Check Syntax → Next → Save.

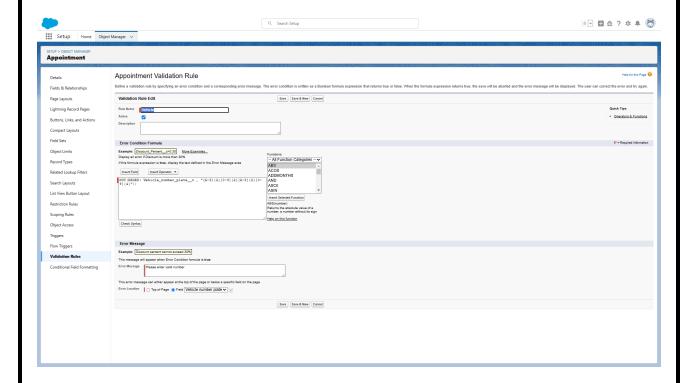


# Validation rule

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.

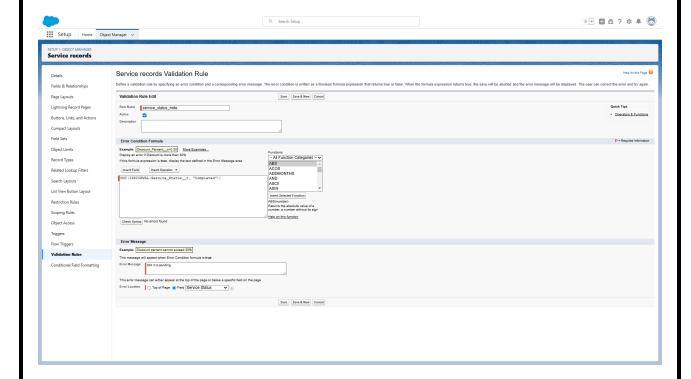
# To Create a Validation Rule for the Appointment Object

- 1. Go to the **Setup** page → Click on **Object Manager**.
- 2. From the drop-down, click **Edit** for the **Appointment** object.
- 3. Click on Validation Rules → Click New.
- 4. Enter the Rule Name as "Vehicle".
- 5. Insert the Error Condition Formula:
- 6. NOT(REGEX(Vehicle\_number\_plate\_\_c, "[A-Z]{2}[0-9]{2}[A-Z]{2}[0-9]{4}"))
- 7. Enter the Error Message as "Please enter a valid number".
- 8. Set the Error Location to Field and select the field Vehicle License plate.
- 9. Click Save.



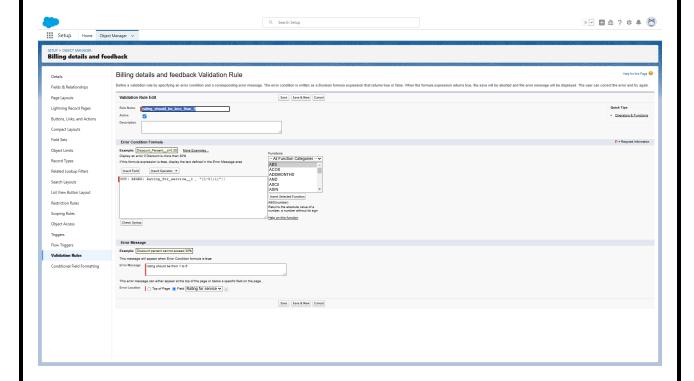
# To Create a Validation Rule for the Service Records Object

- 1. Go to the **Setup** page → Click on **Object Manager**.
- 2. From the drop-down, click **Edit** for the **Service Records** object.
- 3. Click on Validation Rules → Click New.
- 4. Enter the Rule Name as "service\_status\_note".
- 5. Insert the Error Condition Formula:
- 6. NOT(ISPICKVAL(Service\_Status\_\_c, "Completed"))
- 7. Enter the Error Message as "Still it is pending".
- 8. Set the Error Location to Field and select the field Service Status.
- 9. Click Save.



# To Create a Validation Rule for the Billing Details and Feedback Object

- 1. Go to the **Setup** page → Click on **Object Manager**.
- 2. From the drop-down, click **Edit** for the **Billing Details and Feedback** object.
- 3. Click on Validation Rules → Click New.
- 4. Enter the Rule Name as "rating\_should\_be\_less\_than\_5".
- 5. Insert the Error Condition Formula:
- 6. NOT(REGEX(Rating\_for\_service\_\_c, "[1-5]{1}"))
- 7. Enter the Error Message as "Rating should be from 1 to 5.
- 8. Set the Error Location to Field and select the field Rating for Service.
- 9. Click Save.



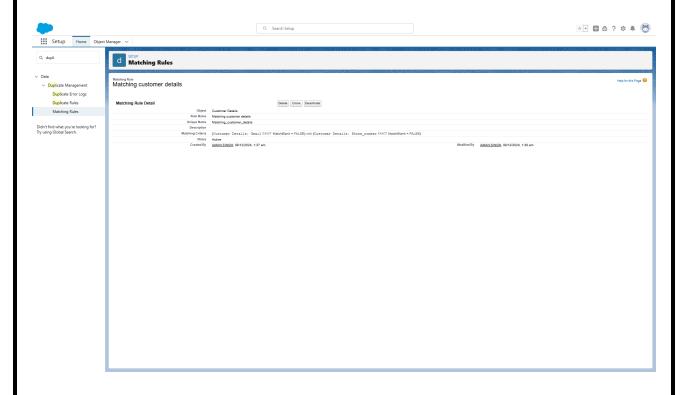
# **Duplicate Rules and Matching Rules**

### To Create a Matching Rule for the Customer Details Object

- 1. Go to the Quick Find box in Setup and search for Matching Rule.
- 2. Click on Matching Rule → Click New Rule.
- 3. Select the object as **Customer Details** → Click **Next**.
- 4. Enter the Rule Name: Matching Customer Details.
- 5. The **Unique Name** is auto-populated.

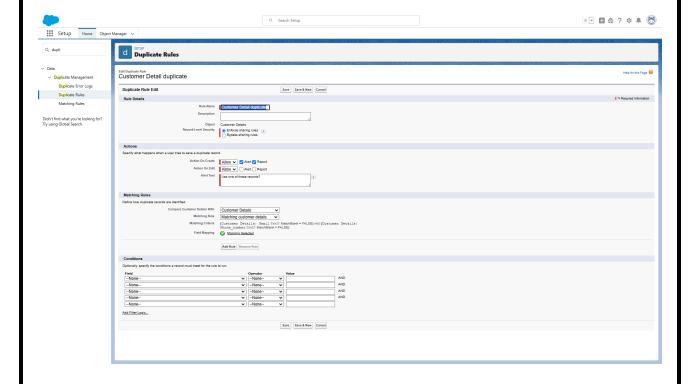
Field	Matching Method
Gmail	Exact
Phone Number	Exact

- 6. Define the matching criteria as above.
- 7. Click Save.
- 8. After saving, click on **Activate**.



### To Create a Duplicate Rule for the Customer Details Object

- 1. Go to the Quick Find box in Setup and search for Duplicate Rules.
- 2. Click on **Duplicate Rule** → Click **New Rule**.
- 3. Select the **Customer Details** object.
- 4. Enter the Rule Name as Customer Detail Duplicate.
- 5. Scroll to the **Matching Rule** section.
- 6. Select the matching rule: Matching Customer Details.
- 7. Click Save.
- 8. After saving, click on Activate.

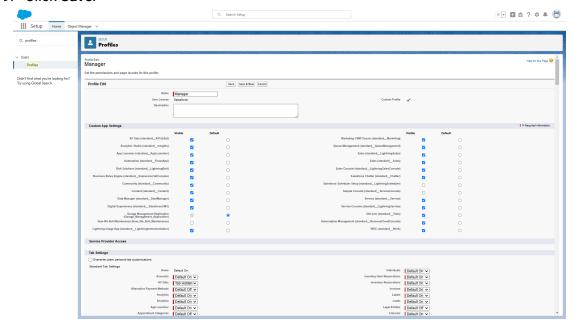


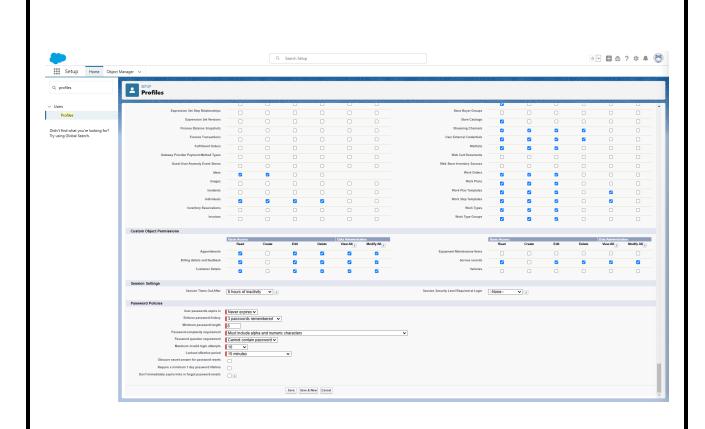
# **Profiles**

A profile is a group/collection of settings and permissions that define what a user can do in Salesforce. Profiles control object permissions, field permissions, user permissions, tab settings, app settings, Apex class access, sales force page access, page layouts, record types, login hours, and login IP ranges.

### To Create a Manager Profile

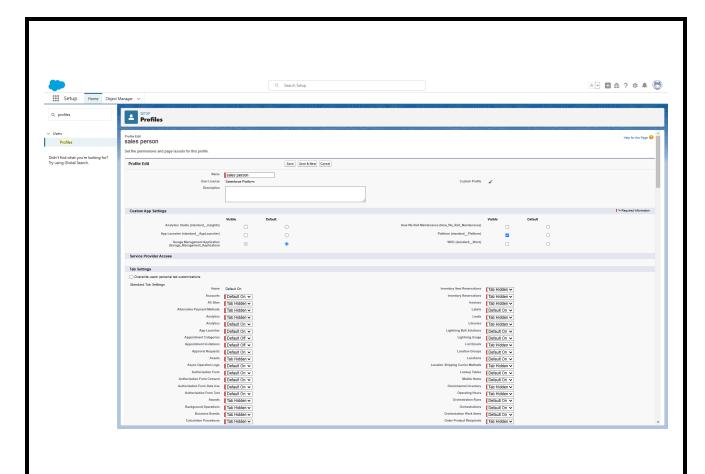
- 1. Go to **Setup** → Type **Profiles** in the **Quick Find** box.
- Click on Profiles → Clone the desired profile (Standard User).
- 3. Enter the **Profile Name**: Manager → Click Save.
- 4. Click **Edit** on the profile page.
- 5. Set the **Custom App Settings** default to **Garage Management**.
- 6. Scroll to **Custom Object Permissions** and grant access for:
  - Appointments
  - Billing Details and Feedback
  - Service Records
  - Customer Details
- 7. Change the session timeout to **8 hours of inactivity**.
- 8. Update Password Policies:
  - User passwords expire: **Never expires**.
  - Minimum password length: 8.
- 9. Click Save.

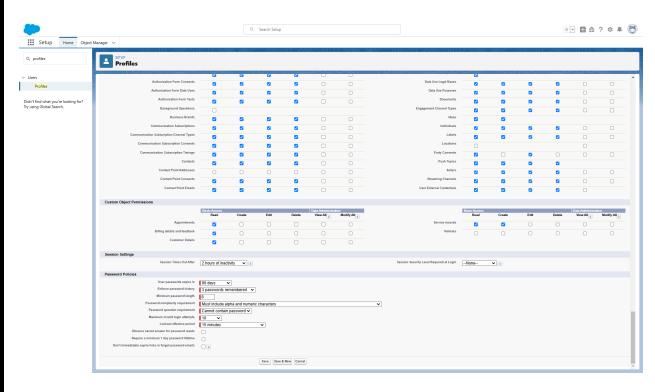




#### To Create a Sales Person Profile

- 1. Go to **Setup** → Type **Profiles** in the **Quick Find** box.
- 2. Click on **Profiles** → Clone the desired profile (**Salesforce Platform User**).
- 3. Enter the **Profile Name**: **Sales Person** → Click **Save**.
- 4. Click Edit on the profile page.
- 5. Set the **Custom App Settings** default to **Garage Management**.
- 6. Scroll to Custom Object Permissions and grant access for:
  - Appointments
  - Billing Details and Feedback
  - **■** Service Records
  - Customer Details
- 7. Click Save.





# **Roles and Role Hierarchy**

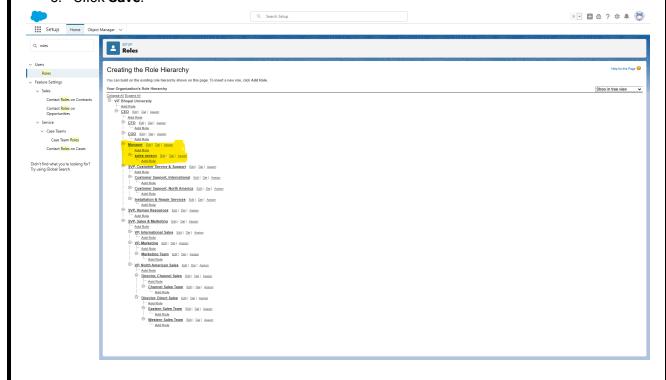
A **Role** in Salesforce defines a user's record-level visibility access. Roles specify the types of access that users have to records.

### To Create the Manager Role

- 1. Go to Quick Find → Search for Roles → Click on Set Up Roles.
- 2. Click on **Expand All** → Add a role under the desired role.
- 3. Enter the **Label**: **Manager**. The **Role Name** auto-populates.
- 4. Click Save.

#### To Create the Sales Person Role

- 1. Go to Quick Find → Search for Roles → Click on Set Up Roles.
- 2. Click on the **plus** next to the CEO role.
- 3. Add a role under Manager.
- 4. Enter the **Label**: **Sales Person**. The **Role Name** auto-populates.
- 5. Click Save.



# **Users**

A **User** is anyone who logs into Salesforce. Users represent employees who need access to the company's records.

#### To Create a User

- 1. Go to **Setup** → Type **Users** in the **Quick Find** box.
- 2. Select **Users** → Click **New User**.
- 3. Fill in the fields:

First Name: Nicklaus
 Last Name: Mikaelson
 Alias: (Enter Alias Name)

Email ID: (Personal Email ID)Username: (Format: text@text.text)

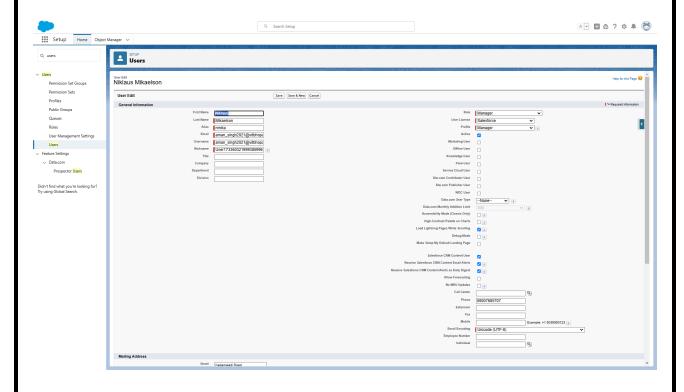
■ Nickname: (Enter Nickname)

■ Role: Manager

■ User License: Salesforce

■ Profile: Manager

4. Click Save.



#### **To Create Another User**

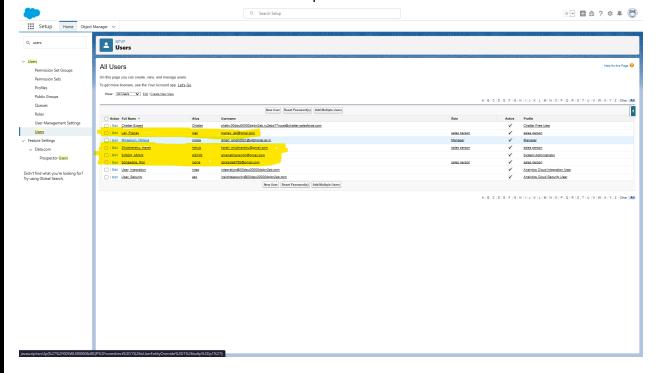
1. Repeat the steps above for:

■ Role: Sales Person

■ User License: Salesforce Platform

■ **Profile**: Sales Person

2. Create at least **three users** with these permissions.

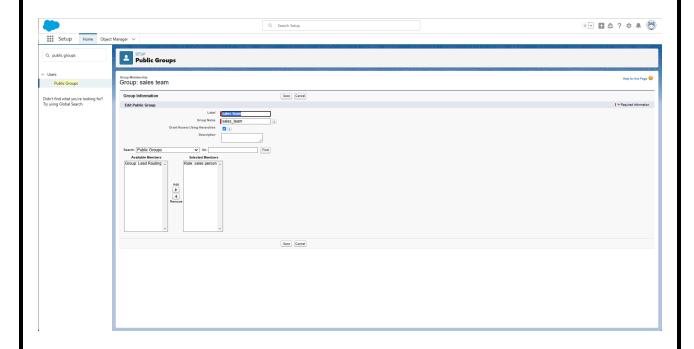


# **Public Groups**

Public groups are an essential tool for Salesforce administrators and developers, helping streamline user management, data access, and security settings. By creating and utilizing public groups effectively, you can ensure a secure and organized Salesforce environment, providing users with appropriate access to necessary resources.

# **Creating a New Public Group**

- Navigate to Setup → Search for Users in the Quick Find box → Select Public Groups → Click New.
- 2. Assign a label such as Sales Team.
- 3. The group name will be auto-filled based on the label.
- 4. Search for the relevant Roles.
- 5. From the **Available Members** list, select **Salesperson**, then click **Add** to move them to **Selected Members**.
- 6. Save the changes.



# **Sharing Settings**

Sharing settings in Salesforce govern how records are accessed and shared across the organization, ensuring data privacy and security. These configurations allow administrators to define specific access rules tailored to organizational needs:

#### • Organization-Wide Default (OWD) Settings:

These settings determine the baseline access level for all objects in Salesforce. Options include:

- **Private**: Only record owners and those explicitly granted access can view/edit the records.
- Public Read-Only: All users can view, but only owners can edit.
- Public Read/Write: All users can view and edit.
- Controlled by Parent: Access is inherited from the parent object.

#### Role Hierarchy:

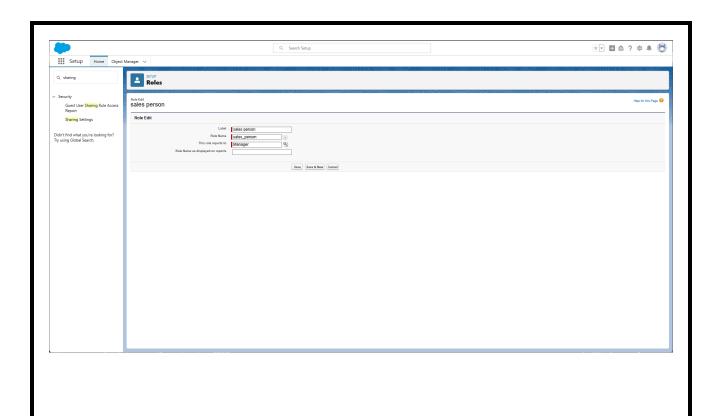
Role hierarchies enable record access based on user roles. Users higher in the hierarchy can view or manage records owned by users below them. This approach complements OWD settings by refining access permissions.

#### Profiles and Permission Sets:

- **Profiles**: Assign object and field-level permissions to user groups.
- Permission Sets: Extend additional permissions to specific users as needed.

# **Configuring Sharing Settings**

- 1. Go to **Setup** → Search for **Users** in the Quick Find box → Select **Sharing Settings** → Click **Edit**.
- 2. Set the **OWD setting** for the **Service Records** object to **Private**.
- 3. Save the changes and refresh the page.
- 4. Scroll down and click **New** under **Service Records Sharing Rules**.
- 5. Provide a label, such as **Sharing Setting**. The rule name will auto-fill based on the label.
- 6. **Step 3**: Specify which records to share: Select **Roles** → **Salesperson**.
- 7. Step 4: Indicate with whom to share: Choose Roles → Manager.
- 8. **Step 5**: Set the access level to **Read/Write**.
- 9. Save the sharing rule.



### **Flows**

#### Flows in Salesforce

Flows are powerful automation tools in Salesforce that help administrators create seamless processes for managing data and performing actions within the system. Below is a guide to creating a flow:

### Steps to Create a Flow

- 1. Navigate to Setup:
  - Go to **Setup** → Search for **Flow** in the Quick Find box → Click on **Flow** → Select **New Flow**.
- 2. Choose Flow Type:
  - Select Record-Triggered Flow → Click Create.
- 3. Configure Object and Trigger:
  - Choose the object as **Billing Details and Feedback** from the dropdown.
  - Set the trigger condition to A Record is Created or Updated.
  - Optimize the flow for **Actions and Related Records** → Click **Done**.
- 4. Add an Update Records Element:
  - Under **Record-Triggered Flow**, click the "+" symbol → Select **Update Records** from the dropdown.
  - Label Name: Enter Amount Update.
  - **API Name:** Auto-filled.
  - Filter Condition: Set as All Conditions are Met (AND).
    - Field: Payment\_Status\_c
    - Operator: Equals
    - Value: Completed
  - Set the field values for the Billing Details and Feedback Record:
    - Field: Payment\_Paid\_\_c
    - Value: {!\$Record.Service\_records\_\_r.Appointment\_\_r.Service\_Amount\_\_c}
  - Click Done.

#### 5. Create a New Resource:

- From the toolbox, click **New Resource** → Select **Variable**.
- Choose **Text Template** as the resource type.
- API Name: Enter alert.
- Change the view to **Plain Text**.
- In the body field, paste the following text:
- 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.
```

Click Done.

#### 6. Add an Action Element:

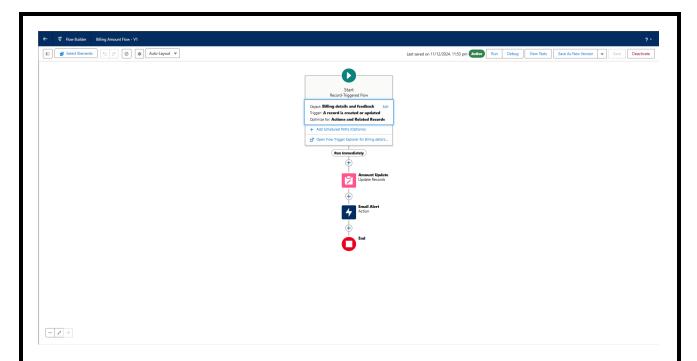
- Click Add Element → Select Action.
- In the action search bar, type **Send Email** → Click on it.
- Label Name: Enter Email Alert.
- API Name: Auto-filled.
- Set input values:
  - Body: Select the previously created text template (alert).
  - Recipient Address List:

```
{!$Record.Service_records__r.Appointment__r.Customer_N ame__r.Gmail__c}
```

- Subject: Enter Thank You for Your Payment Garage Management.
- Click Done.

### 7. Save and Activate the Flow:

- Save the flow with a suitable Flow Label.
- The Flow API Name will auto-populate.
- Click Save → Click Activate.



# **Apex Triggers**

Apex triggers in Salesforce allow developers to execute custom actions in response to changes in Salesforce records. These triggers can be defined to execute before or after specific database operations, enabling greater control and flexibility in record handling.

# **Supported Trigger Operations**

Triggers can run **before** or **after** the following events:

- Insert
- Update
- Delete
- Merge
- Upsert
- Undelete

For instance, triggers can be used to:

- Validate data before insertion or update.
- Perform actions after a record is deleted or restored.
- Automate changes in related records when an operation occurs.

Triggers can be defined for:

- Top-Level Standard Objects (e.g., Account, Contact).
- Standard Child Objects (e.g., CaseComment).
- Custom Objects.

To define a trigger, navigate to the **Object Management Settings** for the relevant object → Select **Triggers**.

## **Types of Apex Triggers**

#### 1. Before Triggers:

- Used to validate or update records before they are saved to the database.
- Common use: Ensuring data meets specific criteria before committing changes.

### 2. After Triggers:

- Used to make changes to other records or access system-set field values after the record is saved.
- Common use: Modifying related records based on changes to the current record.

# **Apex Handler Use Case: Amount Distribution**

This example demonstrates how to distribute the service amount for each service the customer selects for their vehicle.

#### **Steps to Implement**

#### 1. Access Developer Console:

- Log in to your Salesforce Trailhead account.
- Click on the **Gear Icon** (top-right corner) → Select **Developer Console**.

#### 2. Create a New Apex Class:

- In the Developer Console, click **File** → **New** → **Apex Class**.
- Name the class **AmountDistributionHandler**.

```
{\tt 25} \quad {\it vitbhopaluniversity 47-dev-ed. develop.my. sales force.com/\_ui/common/apex/debug/ApexCSIPage}
File * Edit * Debug * Test * Workspace * Help * < >
 Code Coverage: None + API Version: 62 -
                         app.Service_Amount__c = 8000;
 28
 29
30
                   }
 31 ▼
32
                    else if(app.Repairs__c == true && app.Replacement_Parts__c == true){
 33
                        app.Service_Amount__c = 7000;
 34
35
36
37 ▼
                    }
                    else if(app.Maintenance_service__c == true){
 38
39
40
                         app.Service_Amount__c = 2000;
 41
                    }
 42
43 •
                    else if(app.Repairs_c == true){
 45
46
47
                         app.Service_Amount__c = 3000;
                    }
 48
49 ▼
                    else if(app.Replacement_Parts__c == true){
 50
 51
52
                         app.Service_Amount__c = 5000;
 53
54
55
                    }
 56
57
          }
 58
59
          }
 60
 61 }
```

## 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;
      }
      }
 }
```

# **Creating a New Trigger in Salesforce**

Triggers are a vital part of Salesforce development, allowing custom logic to execute automatically when certain actions occur on an object. Below is a step-by-step guide for creating a trigger in Salesforce and a use case example.

## **Steps to Create a Trigger**

- 1. Open Developer Console:
  - Log in to your Salesforce Trailhead account.
  - Click the **Gear Icon** in the top-right corner → Select **Developer Console**.
- 2. Create a New Trigger:
  - In the Developer Console, go to File → New → Trigger.
  - Provide a **Trigger Name** and select the **Object** it will act upon.
  - **■** Example:
    - **Trigger Name:**AmountDistribution
    - o **Object:**Appointment\_\_c
- 3. Basic Trigger Syntax:
  - The syntax for creating a trigger:
  - trigger [TriggerName] on [ObjectName] (Before/After Events)
    {
     // Trigger Logic
    }
- 4. Use Case Overview:
  - The trigger will execute when a record's total exceeds a defined threshold (minimum business requirement).
  - When this condition is met, the trigger logic runs to perform necessary actions.

### CODE:

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

if(trigger.isbefore && trigger.isinsert || trigger.isupdate){

AmountDistributionHandler.amountDist(trigger.new);

}

# Report

Salesforce Reports enable users to analyze, visualize, and share data in meaningful ways. They offer various formats and features to suit diverse needs. This guide walks you through report creation, sharing, and customization basics.

# **Types of Reports in Salesforce**

- 1. Tabular Reports:
  - Present data in a simple table format.

Best suited for creating lists.

#### 2. Summary Reports:

- Provide grouped data with subtotals.
- Useful for analysis with categorization.

#### 3. Matrix Reports:

- Compare data in rows and columns.
- Ideal for detailed analysis with multiple dimensions.

#### 4. Joined Reports:

- Combine multiple report types into one view.
- Great for summarizing related information.

# **Steps to Create a Report Folder**

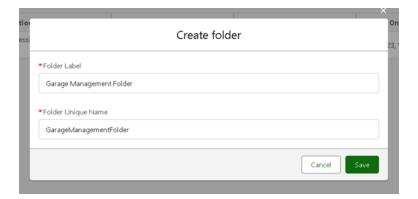
- 1. Open the Reports Tab:
  - Click on the **App Launcher** and search for **Reports**.
  - Select the **Reports Tab**.

#### 2. Create a New Folder:

- Click on **New Folder**.
- Enter the folder name as Garage Management Folder.
- The unique folder name will auto-populate.

#### 3. Save the Folder:

■ Click **Save** to finalize.

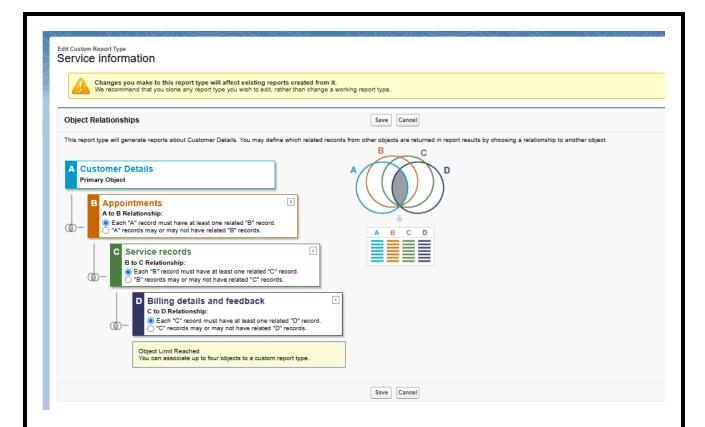


# **Sharing a Report Folder**

- 1. Locate the Folder to Share:
  - Go to the **Reports Tab** → Click on **All Folders**.
  - Find Garage Management Folder and click the dropdown arrow.
- 2. Set Sharing Options:
  - Select **Share** from the dropdown menu.
  - In the **Share With** field, choose **Roles**.
  - Enter the role name, such as **Manager**.
  - Set the access level to **View**.
- 3. Complete Sharing:
  - Click **Share** and then **Done**.

# **Creating a Custom Report Type**

- 1. Access Report Type Settings:
  - Go to **Setup** → Type **Report Type** in the Quick Find box → Select **Report Types** → Click **Continue**.
- 2. Define a New Report Type:
  - Click on **New Custom Report Type**.
  - Select the Primary Object (e.g., Customer Details).
  - Provide the following:
    - **Report Type Label:**Service Information
    - o Report Type Name: Auto-populated
    - **Description:** Keep default or provide relevant details.
    - Store in Category: Select Other Reports.
    - Deployment Status: Set to Deployed.
- 3. Relate Additional Objects:
  - Click the **Related Object** box → Select **Appointment Object**.
  - Repeat the process to add related objects:
    - Service Records
    - Billing Details and Feedback
- 4. Save the Report Type:
  - Click **Save** to finalize.



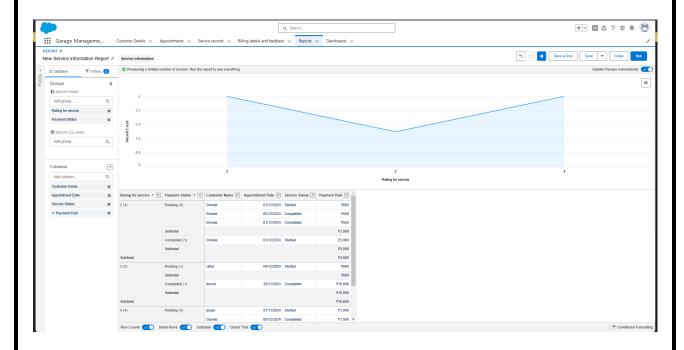
# **Steps to Create a Report**

#### **Preparation:**

Before creating the report, ensure that at least **10 records** are created for each object, with every field populated for optimal results.

- 1. Navigate to Reports Tab:
  - Open the App Launcher, search for Reports, and click on the tab.
- 2. Start a New Report:
  - Click on **New Report**.
  - Choose the Category as Other Reports, search for Service Information, and select it.
  - Click Start Report.
- 3. Select Report Fields:
  - In the **Outline Pane**, add the following fields to the **Column Section**:
    - Customer Name
    - Appointment Date
    - Service Status
    - o Payment Paid
  - Remove any unnecessary fields.

- 4. Group Rows:
  - In the **Group Rows Section**, add:
    - Rating for Service
    - Payment Status
- 5. Add a Chart:
  - Click Add Chart and select the Line Chart.
- 6. Save the Report:
  - Provide the report name as **New Service Information Report**.
  - The unique name will auto-populate.
  - Select the previously created folder and click **Save**.



# **Dashboard**

Dashboards provide a visual overview of business data and trends, empowering users to make data-driven decisions.

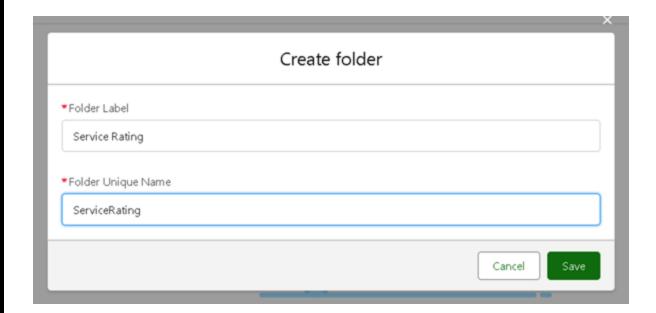
# **Steps to Create a Dashboard Folder**

- 1. Access Dashboards:
  - Open the **App Launcher**, search for **Dashboards**, and click on the tab.
- 2. Create a Folder:

- Click **New Folder** and name it **Service Rating**.
- The unique folder name will auto-populate.
- Click Save.

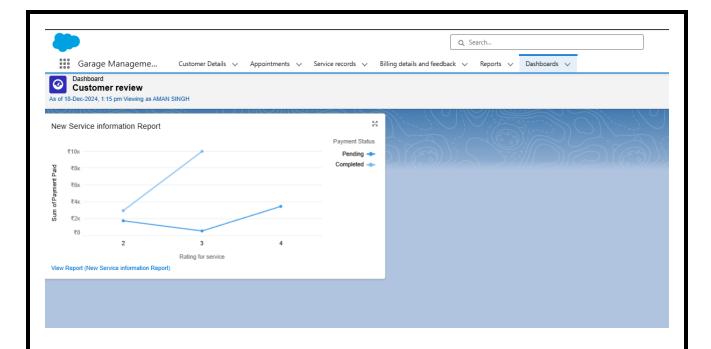
#### 3. Set Sharing Settings:

■ Follow the folder-sharing steps from earlier to grant access to appropriate roles (e.g., Managers with view-only access).



# **Steps to Create a Dashboard**

- 1. Start a New Dashboard:
  - Open the **Dashboards Tab** → Click **New Dashboard**.
  - Enter a name and select the folder created earlier, then click **Create**.
- 2. Add a Component:
  - Click **Add Component**.
  - Choose the report created earlier (e.g., New Service Information Report).
  - Select the **Line Chart** as the visual type.
  - Customize the chart theme as needed.
- 3. Save and Finalize:
  - Click **Add**, then **Save**, and finally **Done**.
  - Preview the dashboard to confirm the visualizations.



# **Dashboard Subscription Setup**

- 1. Subscribe to Dashboard Updates:
  - On the dashboard screen, click **Subscribe** in the top-right corner.
- 2. Set Subscription Frequency:
  - Choose **Weekly** as the frequency.
  - Set the day to **Monday**.
- 3. Save the Subscription:
  - Click **Save** to complete the subscription process.