

GARAGE MANAGEMENT SYSTEM

TEAM MEMBERS

- 1.Prakash raj.M au713121205007 (TEAM LEAD)
2. Manojkumar.M au713121205005 (Member)
3. Vignesh kumar.P au71321205012(Member)

COLLEGE NAME : **SRI SAI RANGANATHAN ENGINEERING COLLEGE**

PROJECT OVERVIEW

The Garage Management System is a web-based tool designed to manage and track all garage operations. The system aims to provide a centralized platform for garage owners to monitor and control their business activities, including employee management, inventory tracking, and customer service.

The system is built on the Salesforce platform, which provides a robust and secure infrastructure for managing and storing data. The Salesforce platform also offers a wide range of tools and features that can be used to customize and extend the system to meet the specific needs of the garage business.

One of the key features of the Garage Management System is its employee management module. This module allows garage owners to keep track of all their employees, including their contact information, work schedules, and job assignments. The system also provides tools for managing employee performance, such as tracking attendance and evaluating performance.

The Garage Management System also includes a customer service module, which allows garage owners to keep track of all their customers and their interactions with the garage.

The system provides tools for managing customer information, such as contact details and service history, as well as tools for scheduling appointments and tracking customer feedback.

OBJECTIVES

Business Goals

- Optimize Garage Operations and Customer Experience
- Drive Revenue Growth and Efficient Resource Utilization
- Enable Data-Driven Decisions

Specific Outcomes

- Enhanced Data Accessibility
- Automated Scheduling and Service Tracking
- Inventory and Billing Automation
- Upsell and Cross-sell Recommendations
- Performance Analytics and Customer Retention.

SALESFORCE KEY FEATURES AND CONCEPTS UTILIZED

INTRODUCTION

- 1.Creating Developer Account
- 2.Creating the Objects
- 3.Create the tabs
- 4.Create the lighting app
- 5.Create the Fields
- 6.Validation Rules
- 7.Duplicate Rules
- 8.Profiles
- 9.Role & Role Hierarchy
- 10.Users
11. Public Groups
- 12.Share Settings 1
- 3.Flows
- 14.Apex Trigger
- 15.Reports
- 16.DashBoard

DETAILED STEPS TO SOLUTION DESIGN

INTRODUCTION

The Garage Management System is a comprehensive solution designed to optimize the usage of vehicles and trailers that carry inventories to stores. The system aims to streamline the management of vehicle records, track vehicles, and ensure efficient inventory transportation. The Garage Management System will be built on the Salesforce platform, leveraging its robust architecture and scalability. The system will consist of several components, including vehicle records, inventory management, workflow automation, and integration with other Salesforce modules. The implementation strategy will involve requirements gathering, design, development, testing, and deployment. The abstraction framework for the system will use an Integration Procedure to get input from a workflow, query the product model based on that input, and update products, attributes, and inventory levels. The Garage Management System will provide a flexible and scalable architecture for managing and optimizing inventory transportation, ensuring efficient vehicle utilization, and automating business processes.

TASK 1: Creating Developer Account:

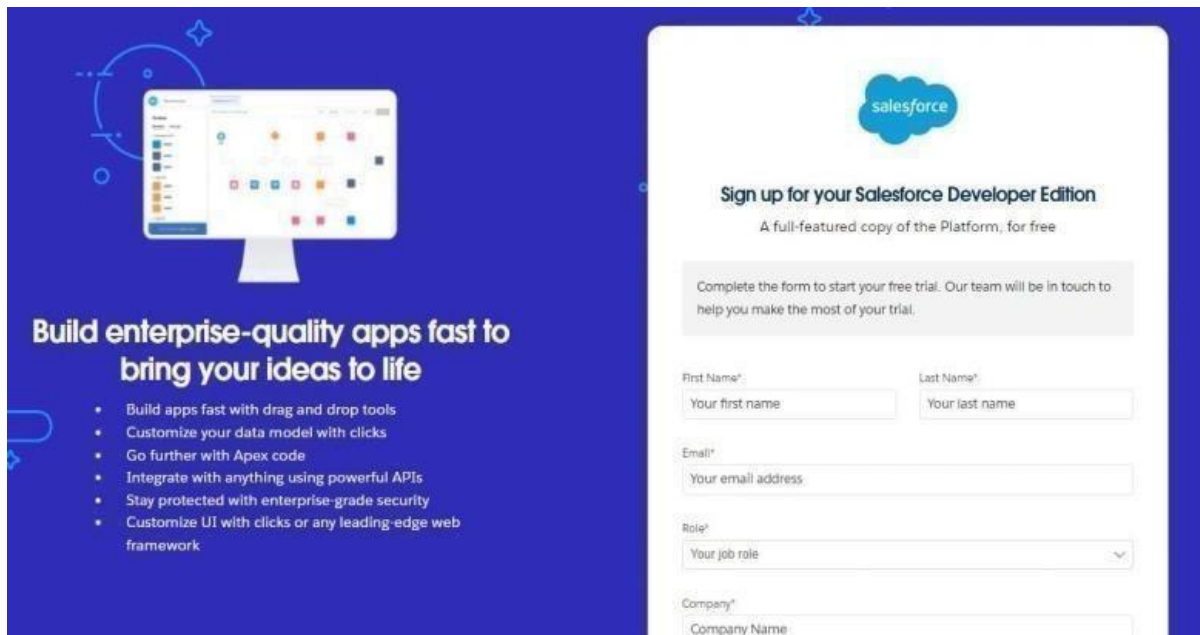
Creating a developer org in salesforce.

1. Go to <https://developer.salesforce.com/signup>
2. On the sign up form, enter the following details :
3. First name & Last name
4. Email
5. Role : Developer
6. Company : College Name
7. Country : India
8. Postal Code : pin code
9. 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

10. Click on sign me up after filling these.

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



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

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

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

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

First Name*

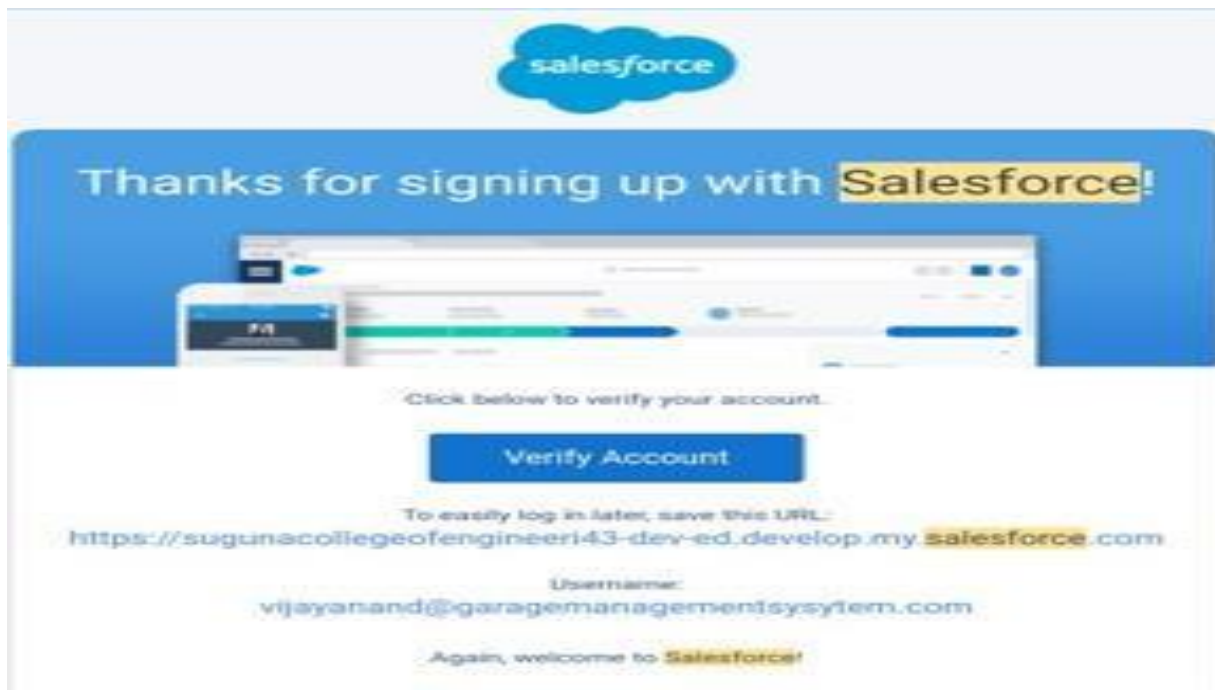
Last Name*

Email*

Role*

Company*

2.Click on Verify Account



Thanks for signing up with Salesforce!

Click below to verify your account.

Verify Account

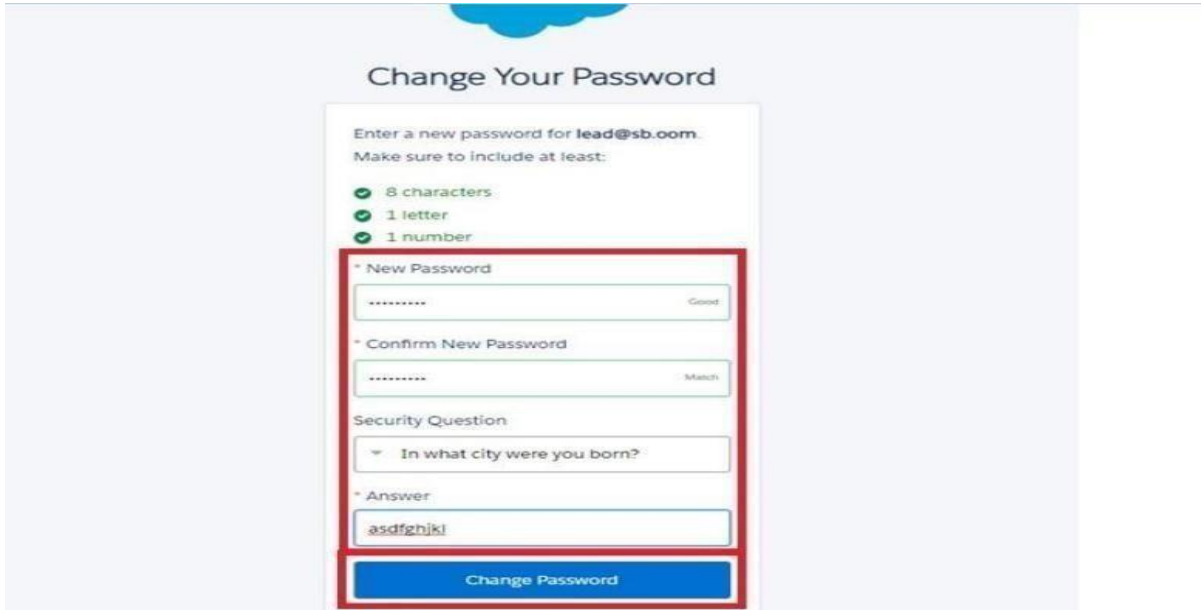
To easily log in later, save this URL:

<https://sugunacollegeofengineeri43-dev-ed.develop.my.salesforce.com>

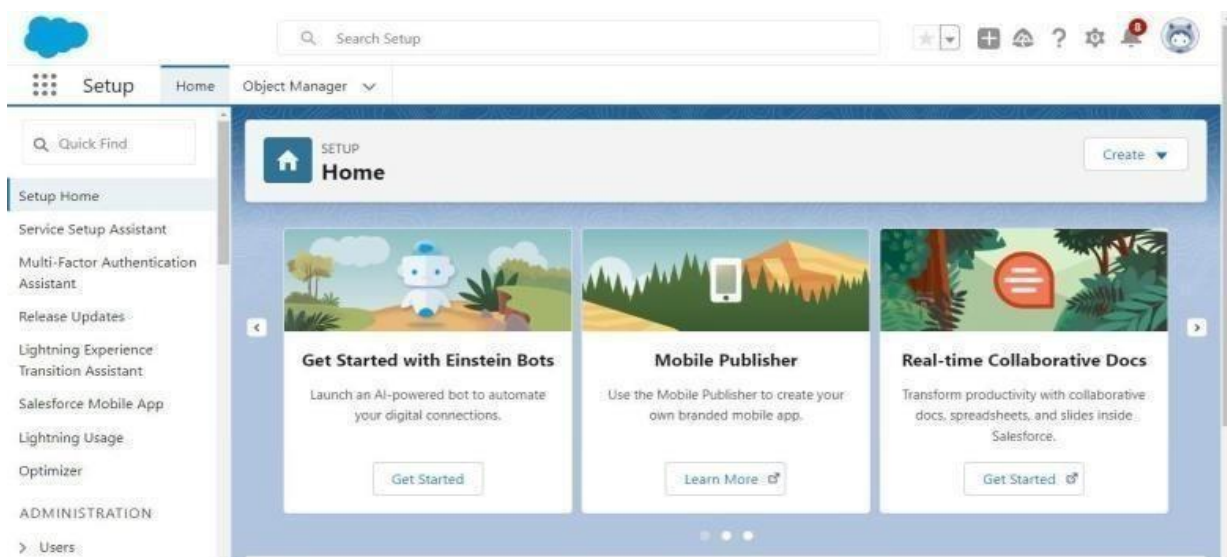
Username:
 vijayanand@garagemanagementsysstem.com

Again, welcome to Salesforce!

3. Give a password and answer a security question and click on change password.



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



TASK 2: CREATING THE OBJECTS

i) Create Customer Details Object

ii) To create 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 >>



TASK 2: CREATING THE OBJECTS

i) Create Customer

Details ObjectTo

create an object:

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

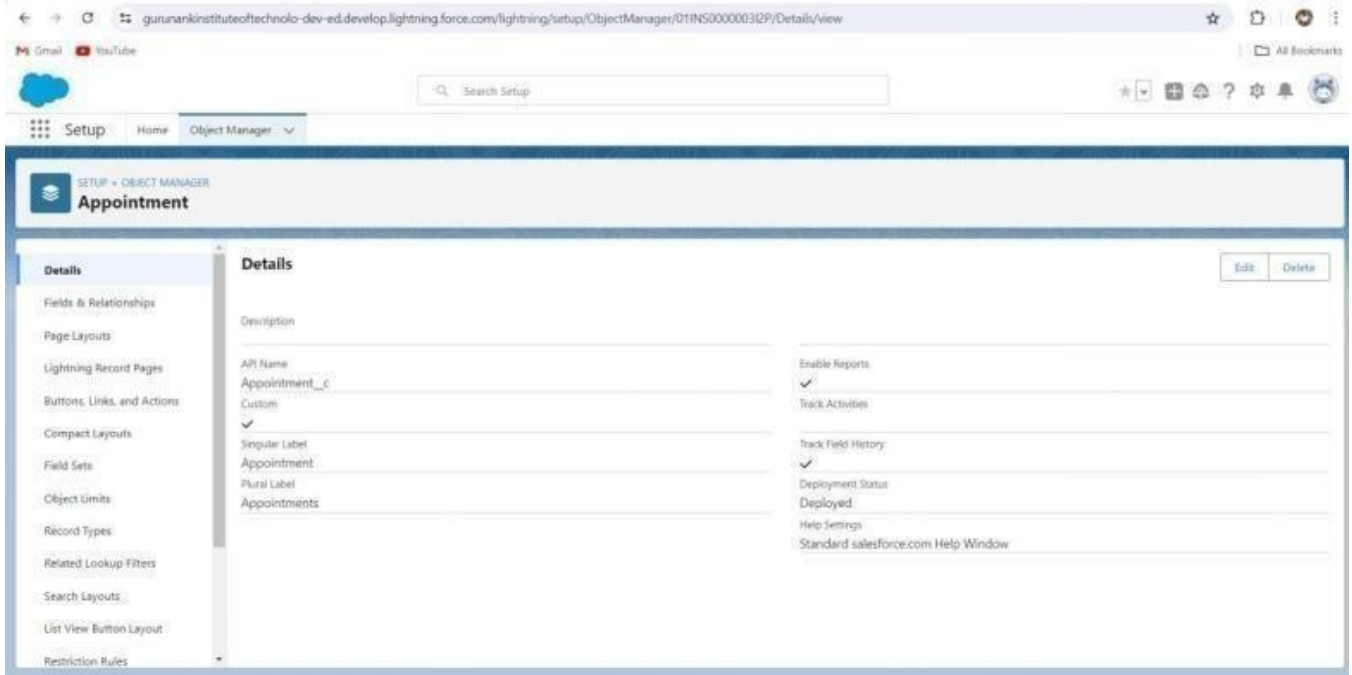
1. Enter the label name >> Customer Details
2. Plural label name >> Customer Details
3. Enter Record Name Label and Format
 - Record Name >> Customer Name
 - Data Type >> Text
2. Click on Allow reports and Track Field History,
3. Allow search >> Save

ii) Create Appointment ObjectTo 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

Click on Allow reports and Track Field History, 3. Allowsearch

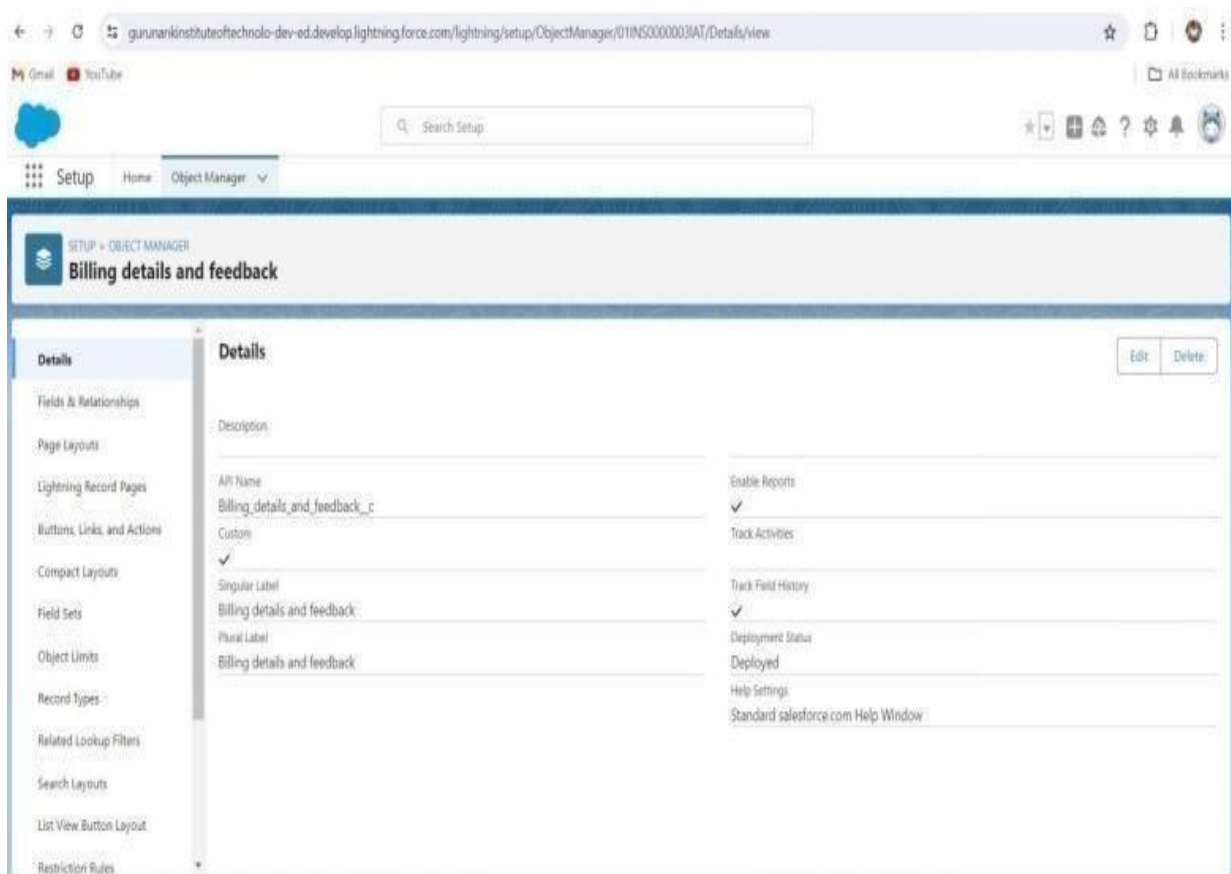
>>Save



iv) Create Billing Details And Feedback ObjectTo create an object:

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

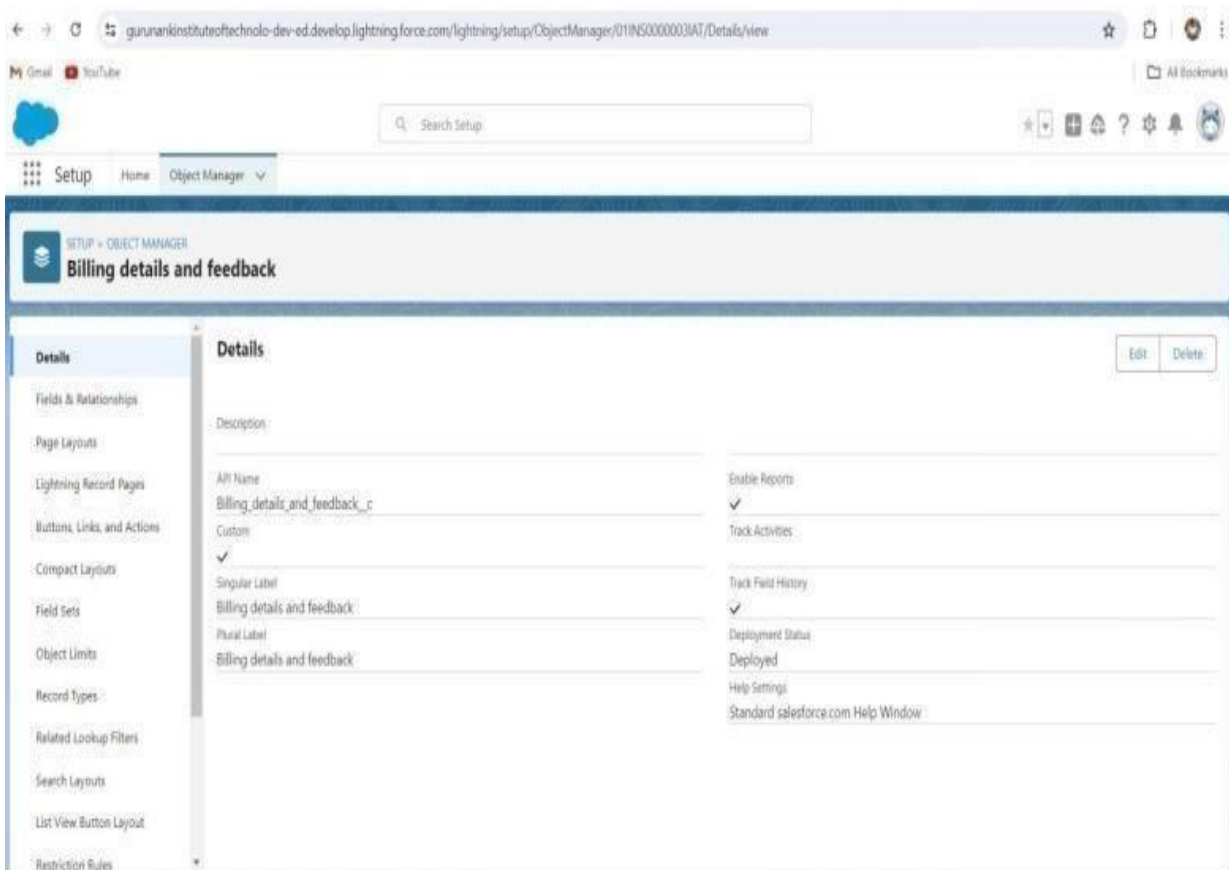
>>Save



The screenshot shows the Salesforce Object Manager setup page for a custom object named 'Billing details and feedback'. The page is titled 'SETUP - OBJECT MANAGER' and 'Billing details and feedback'. On the left, there is a sidebar with various setup options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The 'Details' section is currently selected. The main content area shows the 'Details' for the object, including fields for API Name, Custom, Singular Label, Plural Label, and a list of checkboxes for 'Enable Reports', 'Track Activities', 'Track Field History', 'Deployment Status', 'Help Settings', and 'Standard Salesforce.com Help Window'. The 'API Name' is 'Billing_details_and_feedback_c', 'Custom' is checked, 'Singular Label' is 'Billing details and feedback', and 'Plural Label' is 'Billing details and feedback'. The 'Enable Reports' checkbox is checked, and 'Track Field History' is also checked. The 'Deployment Status' is 'Deployed'. The 'Help Settings' are set to 'Standard Salesforce.com Help Window'. There are 'Edit' and 'Delete' buttons in the top right corner of the details section.

iv) Create Billing Details And Feedback Object To create an object:

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

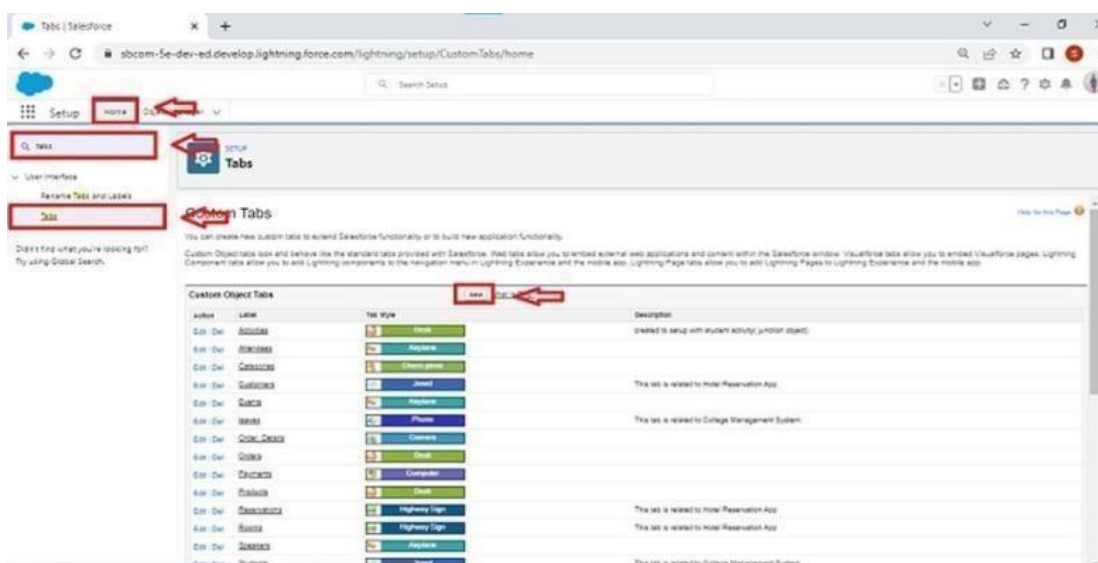


TASK 3: CREATE TABS

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 .



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

To create a Tab:(Billing details and feedback)

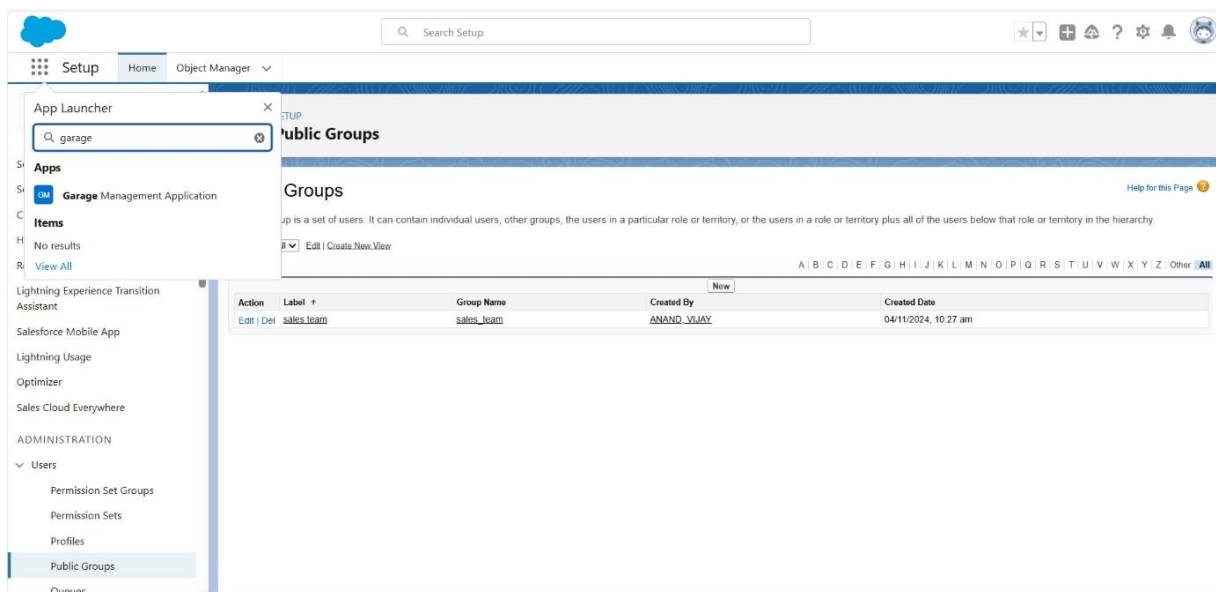
1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)
2. Select Object(Billing details and feedback) >> Select the tab style >> Next (Add to profiles page)keep it as default >> Next (Add to Custom App) uncheck the include tab .
3. Make sure that the Append tab to users' existing personal customizations is checked.
4. Click save

TASK 4: CREATE THE LIGHTNING APP

To create a lightning app page:

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



TASK 5: CREATE THE FIELDS

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”
3. Click on next.
4. Fill the Above as following:

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

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

2. To create another fields in an object:

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

Creation Of Lookup Fields

Creation of Lookup Field on Appointment Object :

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

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

Creation of Another Checkbox Field on Appointment Object :

1. Repeat the steps form 1 to 3.
2. Give the Field Label : Repairs
3. Field Name : is auto populated
4. Default value : unchecked
5. Click on next >> next >> save.
6. Follow the same and create another checkbox with given names
7. Give the Field Label : Replacement Parts
8. Field Name : is auto populated
9. Default value : unchecked
10. Click on next >> next >> save.

Creation of Checkbox Field on Service records Object :

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

Creation of Date Field on Appointment Object :

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

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 Name : 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.

Creation of Currency Field on Billing details and feedback Object :

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

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.

Creation Of Picklist Fields

Creation of Picklist Fields in Service records object :

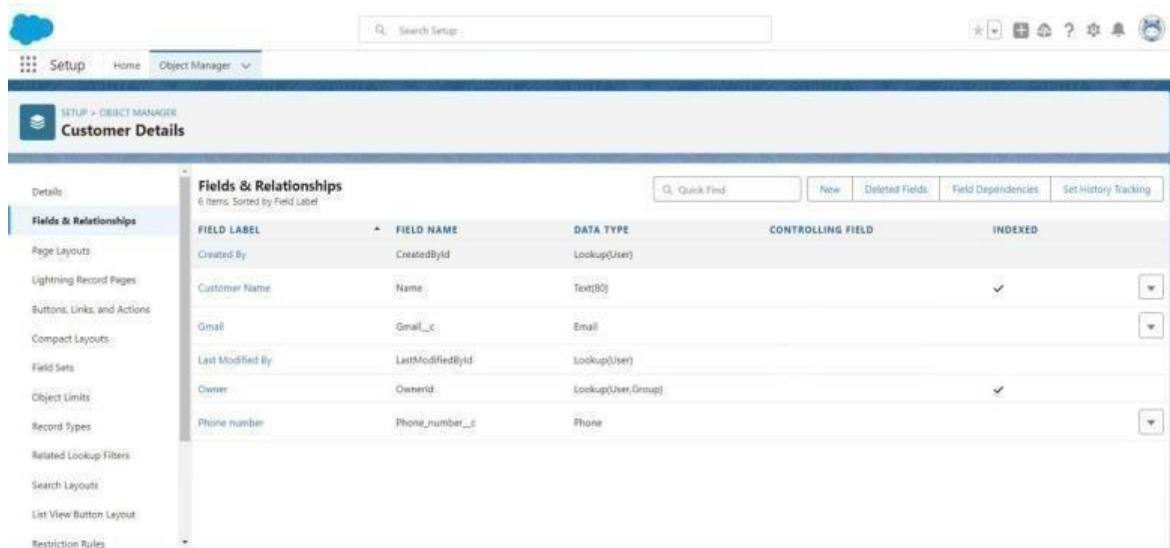
1. Go to setup >> click on Object Manager >> type object name (Service records) in search bar >> click on the object.
2. Click on fields & relationship >> click on New.
3. Select Data type as “Picklist” and click Next.
4. Enter Field Label as “Service Status”, under values select “Enter values, with 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.

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.



The screenshot shows the Salesforce Setup interface for the 'Customer Details' object. The 'Fields & Relationships' section is active, displaying a table of fields. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: 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)), and Phone number (Phone_number_c, Phone). The 'INDEXED' column shows checkmarks for Customer Name, 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		

Setup Home Object Manager

Appointment

Details

Fields & Relationships
13 Items, Sorted by Field Label

Q, Quick Find New Deleted Fields Field Dependencies Set History Tracking

Field Label	Field Name	Data Type	Controlling Field	Indexed
Last Modified By	LastModifiedById	Lookup(User)		
Maintenance service	Maintenance_service__c	Checkbox		
Owner	OwnerId	Lookup(User, Group)		
Payment Paid	Payment_Paid__c	Currency(18, 0)		
Quality Check Status	Quality_Check_Status__c	Checkbox		
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)		

Setup Home Object Manager

Billing details and feedback

Details

Fields & Relationships
8 Items, Sorted by Field Label

Q, Quick Find New Deleted Fields Field Dependencies Set History Tracking

Field Label	Field Name	Data Type	Controlling Field	Indexed
Billing details and feedback Name	Name	Auto Number		
Created By	CreatedBy	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(2)		
Service records	Service_records__c	Lookup(Service records)		

Setup Home Object Manager

Billing details and feedback

Details

Fields & Relationships
8 Items, Sorted by Field Label

Q, Quick Find New Deleted Fields Field Dependencies Set History Tracking

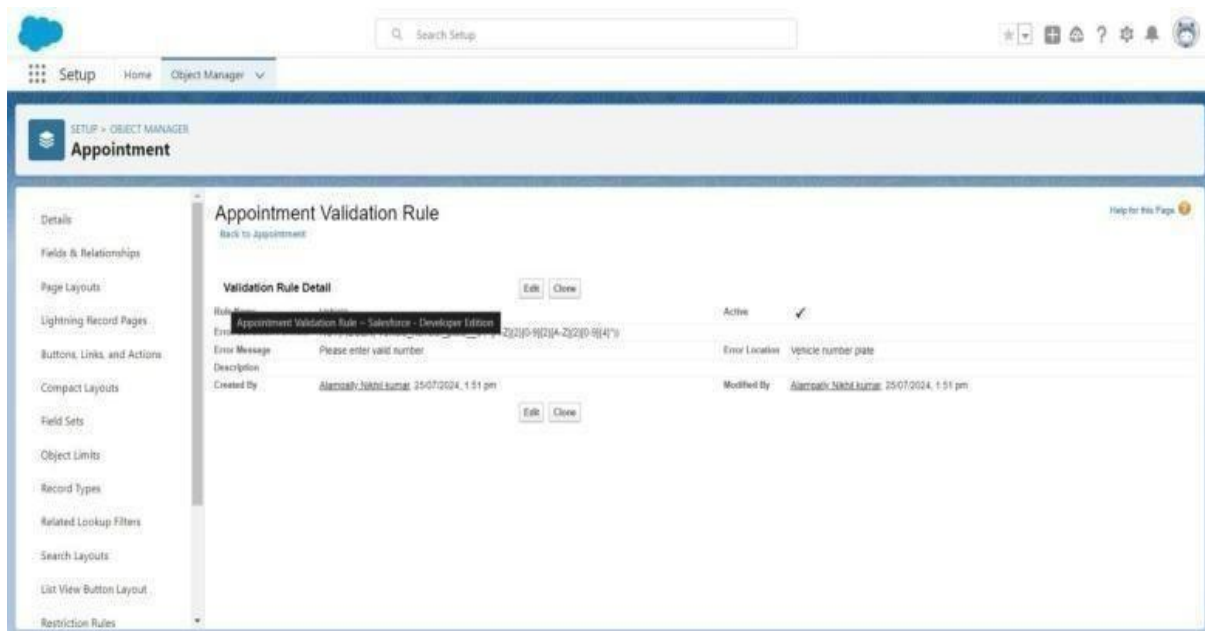
Field Label	Field Name	Data Type	Controlling Field	Indexed
Billing details and feedback Name	Name	Auto Number		
Created By	CreatedBy	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User, Group)		
Payment Paid	Payment_Paid__c	Currency(18, 0)		
Payment Status	Payment_Status__c	Picklist		
Rating for service	Rating_for_service__c	Text(2)		
Service records	Service_records__c	Lookup(Service records)		

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 Appointmentobject.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “ Vehicle ”.
4. Insert the Error Condition Formula as :-

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

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

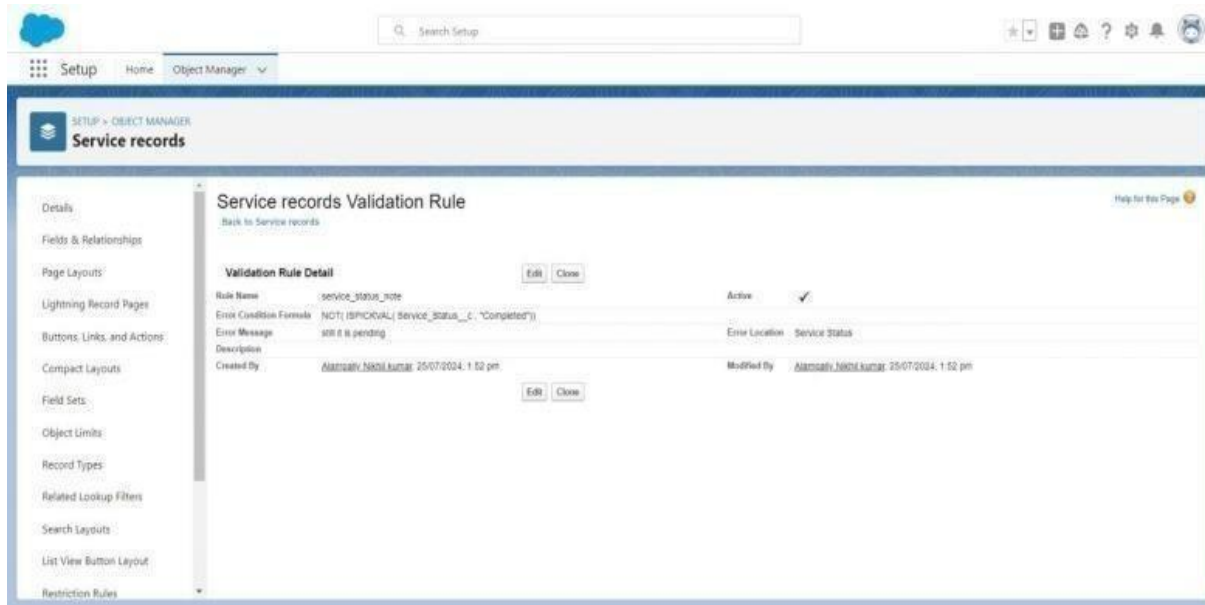


To Create A Validation Rule To An Service Records Object

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

NOT(ISPICKVAL(Service_Status__c , "Completed"))

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



Service records Validation Rule

Back to Service records

Validation Rule Detail [Edit] [Close]

Rule Name: service_status_note Active ☒

Error Condition Formula: NOT(ISPODUAL(Service_Status__c, "Completed"))

Error Message: still it is pending Error Location: Service Status

Description:

Created By: Anandashy.NANDHAKUMAR 25/07/2024, 1:52 pm Modified By: Anandashy.NANDHAKUMAR 25/07/2024, 1:52 pm

[Edit] [Close]

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 detailsand feedback object.

2. Click on the validation rule >> click New.

3. Enter the Rule name as “ rating_should_be_less_than_5”.

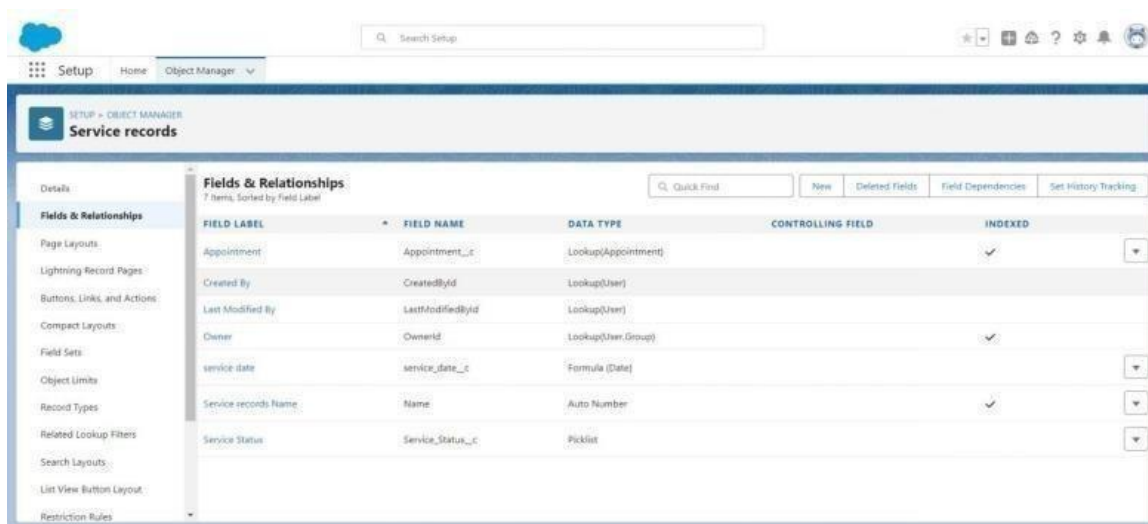
4. Insert the Error Condition

Formula as : - NOT(REGEX(

Rating_for_service_c , "[1-

5]{1}"))

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



Fields & Relationships

7 items, Sorted by Field Label

[Quick Find] [New] [Deleted Fields] [Field Dependencies] [Set History Tracking]

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment	Appointment__c	Lookup(Appointment)		<input checked="" type="checkbox"/>
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		<input checked="" type="checkbox"/>
service date	service_date__c	Formula (Date)		<input type="checkbox"/>
Service records Name	Name	Auto Number		<input checked="" type="checkbox"/>
Service Status	Service_Status__c	Picklist		<input type="checkbox"/>

TASK 7: 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
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.
4. Give the Rule name as : Customer
Scroll a little in Matching rule section
5. Select the matching rule : Matching customer details
6. And Click on save.

Matching Rules

Define how duplicate records are identified.

Compare Customer Details With:

Matching Rule:

Matching Criteria: (Customer Details: Email EXACT MatchBlank = FALSE) AND (Customer Details: Phone Number EXACT MatchBlank = FALSE)

Field Mapping: ☒ Mapping Selected

Conditions


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

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

TASK 8: CREATE PROFILES

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.

 Search Setup

Setup Home Object Manager

Q pro

Hyperforce Assistant

Users

Profiles

Data

Mass Transfer Approval Requests

Feature Settings

Data.com

Prospector Preferences

Prospector Users

Decision Explorer

Business Process Type Definition

Functions

Marketing

Lead Processes

SETUP Profiles

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

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

Profile Detail

Name: Analytics Cloud Integration User

User License: Analytics Cloud Integration User

Custom Profile: ☐

Created By: salesforce.com, inc., 16/10/2024, 1:07 pm

Modified By: Saisangeetha C, 16/10/2024, 9:59 pm

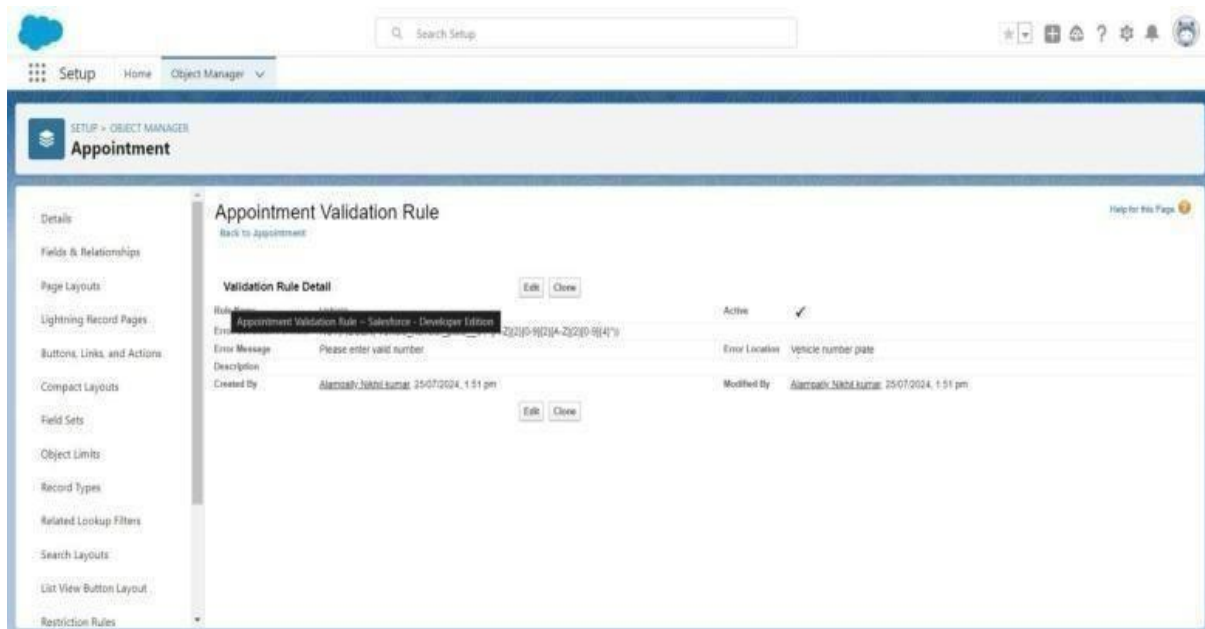
Page Layouts

Standard Object Layouts

Global	Invoice
Global Layout [View Assignment]	Invoice Layout [View Assignment]
Email Application: Not Assigned [View Assignment]	Invoice Line: Invoice Line Layout [View Assignment]
Home Page Layout: Home Page Default [View Assignment]	Lead: Lead Layout [View Assignment]
Account: Account Layout [View Assignment]	Legal Entity: Legal Entity Layout [View Assignment]
Alternative Payment Method: Alternative Payment Method Layout [View Assignment]	Location: Location Layout [View Assignment]
Appointment Invitation: Appointment Invitation Layout [View Assignment]	Location Group: Location Group Layout [View Assignment]
Asset: Asset Layout	Location Group Assignment: Location Group Assignment Layout

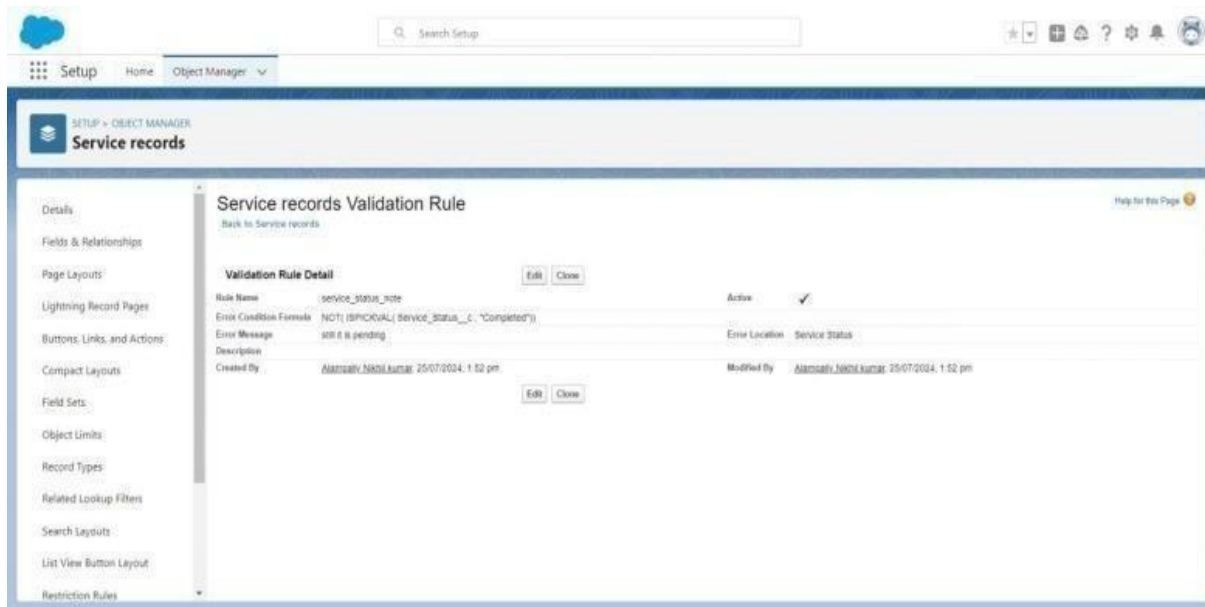
Sales Person Profile

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, Billingdetails and feedback , service records and customer details objects as mentioned in the below diagram.
5. And click save.



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 recordsobject.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “ service_status_note ”.
4. Insert the Error Condition Formula as :-
`NOT(ISPICKVAL(Service_Status_c , "Completed"))`
5. Enter the Error Message as “still it is pending”, select the Error location as Field and select the fieldas “Service status”, and click Save.



Setup - Object Manager - Service records

Service records Validation Rule

Back to Service records

Validation Rule Detail [Edit] [Close]

Rule Name: service_status_note Active ☒

Error Condition Formula: NOT(ISPICKVAL(Service_Status__c, "Completed"))

Error Message: still it is pending Error Location: Service Status

Description:
Created By: Animesh/Nikhil Kumar: 25/07/2024: 1:52 pm Modified By: Animesh/Nikhil Kumar: 25/07/2024: 1:52 pm

[Edit] [Close]

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.

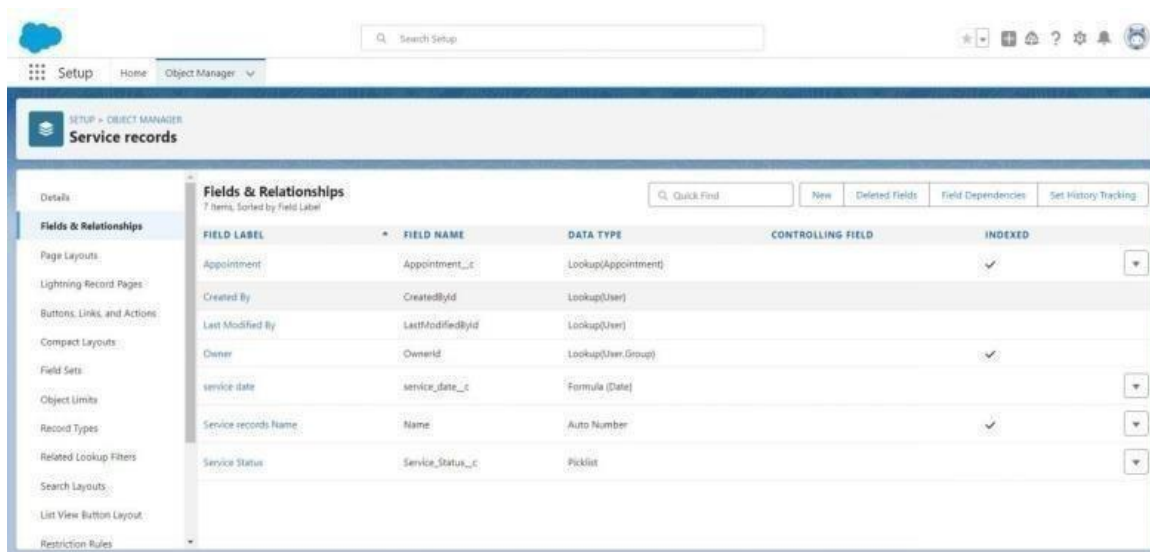
3. Enter the Rule name as “ rating_should_be_less_than_5”.

4. Insert the Error Condition

Formula as : - NOT(REGEX(

Rating_for_service_c , "[1-

5. 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.



Setup - Object Manager - Service records

Fields & Relationships

7 Items, Sorted by Field Label

[Quick Find] [New] [Deleted Fields] [Field Dependencies] [Set History Tracking]

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment	Appointment__c	Lookup(Appointment)		<input checked="" type="checkbox"/>
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User, Group)		<input checked="" type="checkbox"/>
service_date	service_date__c	Formula (Date)		<input type="checkbox"/>
Service records Name	Name	Auto Number		<input checked="" type="checkbox"/>
Service Status	Service_Status__c	Picklist		<input type="checkbox"/>

After saving the Duplicate Rule, Click on Activate

Matching Rules

Define how duplicate records are identified.

Compare Customer Details With: **Customer Details**

Matching Rule: **matching Customer details**

Matching Criteria: (Customer Details: Email EXACT Match (Blank = FALSE)) and (Customer Details: Phone Number EXACT Match (Blank = FALSE))

Field Mapping: **Mapping Selected**

Conditions

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

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

[Add Filter Logic...](#)

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

TASK 8: CREATE PROFILES

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.

Setup Home Object Manager

Search Setup

Profiles

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

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

Profile Detail [Edit](#) [Clone](#) [View Users](#)

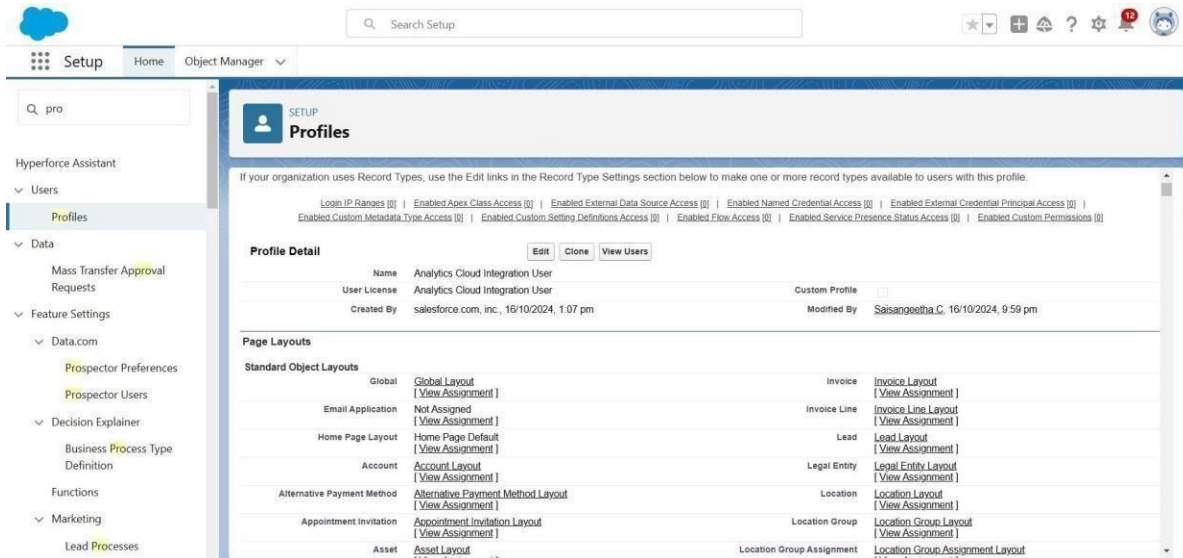
Name	Analytics Cloud Integration User		
User License	Analytics Cloud Integration User		
Created By	salesforce.com, inc., 16/10/2024, 1:07 pm	Modified By	Saisangeetha C, 16/10/2024, 9:59 pm

Page Layouts

Standard Object Layouts	Global	Invoice
	Global Layout [View Assignment]	Invoice Layout [View Assignment]
Email Application	Not Assigned [View Assignment]	Invoice Line Layout [View Assignment]
Home Page Layout	Home Page Default [View Assignment]	Lead Layout [View Assignment]
Account	Account Layout [View Assignment]	Legal Entity Layout [View Assignment]
Alternative Payment Method	Alternative Payment Method Layout [View Assignment]	Location Layout [View Assignment]
Appointment Invitation	Appointment Invitation Layout [View Assignment]	Location Group Layout [View Assignment]
Asset	Asset Layout	Location Group Assignment Layout

Sales Person Profile

6. 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.
7. While still on the profile page, then click Edit.
8. Select the Custom App settings as default for the Garage management.
9. Scroll down to Custom Object Permissions and Give access permissions for Appointments, Billingdetails and feedback , service records and customer details objects as mentioned in the below diagram.
10. And click save.



The screenshot shows the Salesforce Setup interface. The left sidebar contains the navigation menu with 'Setup' selected. The main content area is titled 'Profiles' and shows the 'Profile Detail' for 'Analytics Cloud Integration User'. The 'Page Layouts' section is expanded, showing a table of layouts and their assignments.

Page Layouts			
Standard Object Layouts			
Global	Global Layout (View Assignment)	Invoice	Invoice Layout (View Assignment)
Email Application	Not Assigned (View Assignment)	Invoice Line	Invoice Line Layout (View Assignment)
Home Page Layout	Home Page Default (View Assignment)	Lead	Lead Layout (View Assignment)
Account	Account Layout (View Assignment)	Legal Entity	Legal Entity Layout (View Assignment)
Alternative Payment Method	Alternative Payment Method Layout (View Assignment)	Location	Location Layout (View Assignment)
Appointment Invitation	Appointment Invitation Layout (View Assignment)	Location Group	Location Group Layout (View Assignment)
Asset	Asset Layout (View Assignment)	Location Group Assignment	Location Group Assignment Layout (View Assignment)

TASK 9: Role & Role Hierarchy

Creating Manager Role:

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

Creating Another Roles

Creating another two roles under manager

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



TASK 10: USERS

Create User

- i. Go to setup >> type users in quick find box >> select users >> click New user.ii.Fill in the fields
 1. First Name : Nicklaus
 2. Last Name : Mikaelson
 3. Alias : Give a Alias Name
 4. Email id : Give your Personal Email id
 5. Username : Username should be in this form: text@text.text
 6. Nick Name : Give a Nickname
 7. Role : Manager
 8. User license : Salesforce
 9. Profiles : Manager
- iii.Save.


The screenshot displays the Salesforce Setup application. The left sidebar contains navigation links such as Setup, Home, Object Manager, Users, Permission Set Groups, Permission Sets, Profiles, Public Groups, Queues, Roles, User Management Settings, Feature Settings, Data.com, Service, Embedded Service, and User Interface. The main content area is titled "Users" and includes a sub-header "All Users". Below this, there is a section for user management actions like "New User", "Reset Password(s)", and "Add Multiple Users". A table lists existing users with columns for Action, Full Name, Alias, Username, Role, Active status, and Profile. The table includes entries for system administrators and various sales and integration roles.

Action	Full Name +	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	ANAND_VIJAY	VANAN	vijayanand@garagemanagementsystem.com		✓	System Administrator
<input type="checkbox"/> Edit	Chan_Jackie	jchan	vijayanand@salesforcesales2.com	sales person	✓	sales person
<input type="checkbox"/> Edit	Chatter_Expert	chatter	chativ00d000000dnssasub.dga6fct54z@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	Hardy_Tom	thard	vijayanand@salesforcesales.com	sales person	✓	sales person
<input type="checkbox"/> Edit	Mikaelson_Niklaus	mika	vijayanand@salesforce.com	Manager	✓	Manager
<input type="checkbox"/> Edit	Noian_Chris	cnoia	vijayanand@salesforcesales3.com	sales person	✓	sales person
<input type="checkbox"/> Edit	User_Integration	integ	integration@00d000000dnssasub.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insighsecurity@00d000000dnssasub.com		✓	Analytics Cloud Security User

TASK 11: PUBLIC GROUPS

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 auto populated.
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.



Setup

Home

Object Manager

Users

Public Groups

Feature Settings

Salesforce Files

Content Deliveries and Public Links

User Interface

Global Actions

Publisher Layouts

Company Settings

Calendar Settings

Public Calendars and Resources

SETUP

Public Groups

Public Groups

A public group is a set of users. It can contain individual users, other groups, the users in a particular role or territory, or the users in a role or territory plus all of the users below that role or territory in the hierarchy.

View: All

Edit

Create New View

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

Action	Label	Group Name	Created By	Created Date
Edit Del	sales_team	sales_team	C. Saisangsootha	16/10/2024, 7:40 pm

New

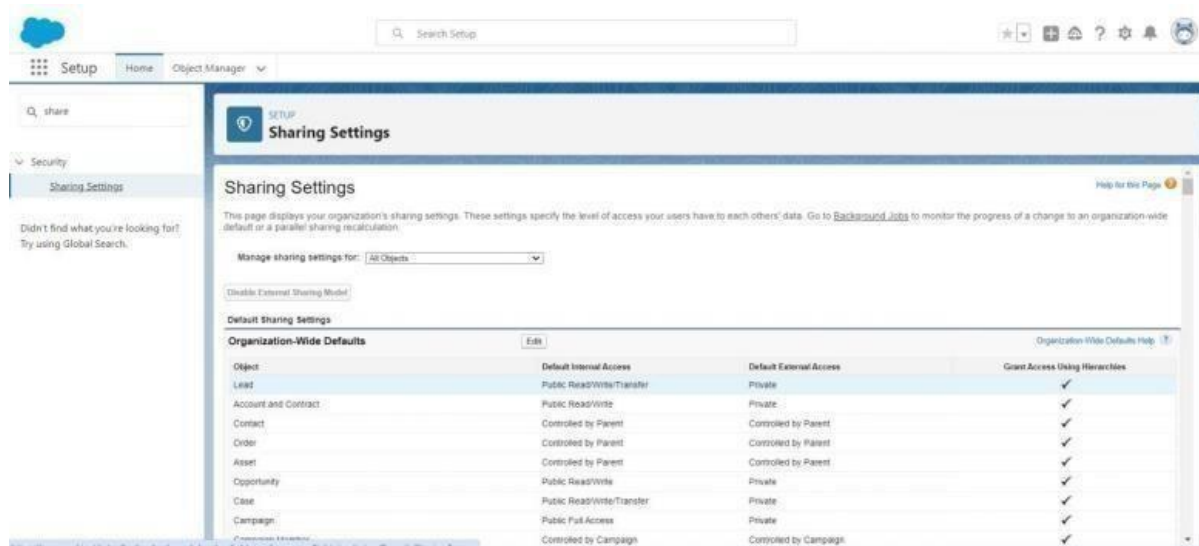
Didn't find what you're looking for?

Try using Global Search.

TASK 12: SHARE SETTING

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



TASK 13: 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

7. Give the Label Name : Amount Update
8. Api name : is auto populated
- 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.
17. Before creating another Element. Create a New Resource form Toolbox form top left.
18. Click on the New Resource, And select Variable.
19. Select the resource type as text template.
20. Enter the API name as “ alert”.
21. Change the view as Rich Text ? View to Plain Text.
22. In body field paste the syntax that given below.

Dear `{!$Record.Service_records r.Appointment r.Customer_Name_r.Name}`,

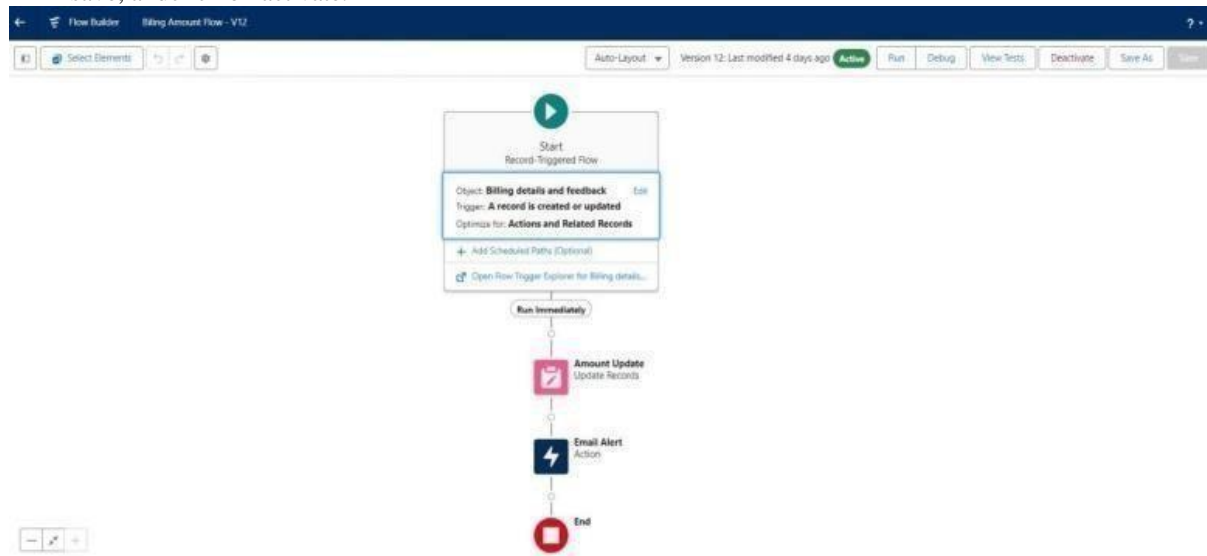
I hope this message finds you well. I wanted to take a moment to express my sincere gratitude for your recent payment for the services provided by our garage management team. Your prompt payment is greatly appreciated, and it helps us continue to provide top-notch services to you and all our valued customers.

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

`{!$Record.Service_records r.Appointment r.Customer_Name_r.Gmail_c}`
32. Include subject as “ Thank You for Your Payment - Garage Management”.

33. Click done.

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



TESTING AND VALIDATION:

TASK 14: APEX TRIGGER

Apex Handler

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

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

```

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



```

AmountDistribution.apex | AmountDistributionHandler.apex
Code Coverage: None | API Version: 58
12
13     else if(app.Maintenance_service__c == true && app.Replacement_Parts__c == true){
14         app.Service_Amount__c = 8000;
15     }
16     else if(app.Repairs__c == true && app.Replacement_Parts__c == true){
17         app.Service_Amount__c = 7000;
18     }
19     else if(app.Maintenance_service__c == true){
20         app.Service_Amount__c = 2000;
21     }
22     else if(app.Repairs__c == true){
23         app.Service_Amount__c = 3000;
24     }
25     else if(app.Replacement_Parts__c == true){
26         app.Service_Amount__c = 5000;
27     }
28
29 }
30 }
31 }
  
```

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



New Apex Trigger

Name:

sObject:

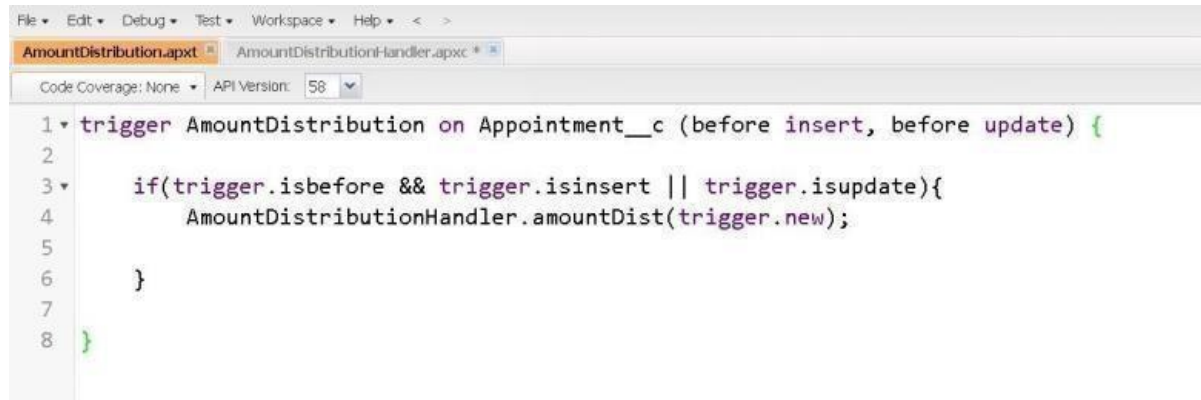
Submit

7. Syntax For creating trigger :
8. The syntax for creating trigger is :
- 9.
10. Trigger [trigger name] on [object name](Before/After event)

In this project , trigger is called whenever the particular records sum exceed the threshold i.e minimum

business requirement value. Then the code in the trigger will get executed.

1. Handler for the Appointment Object



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

KEY SCENARIOS ADDRESSED BY SALESFORCE IN THE IMPLEMENTATION PROJECT

TASK 15: 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

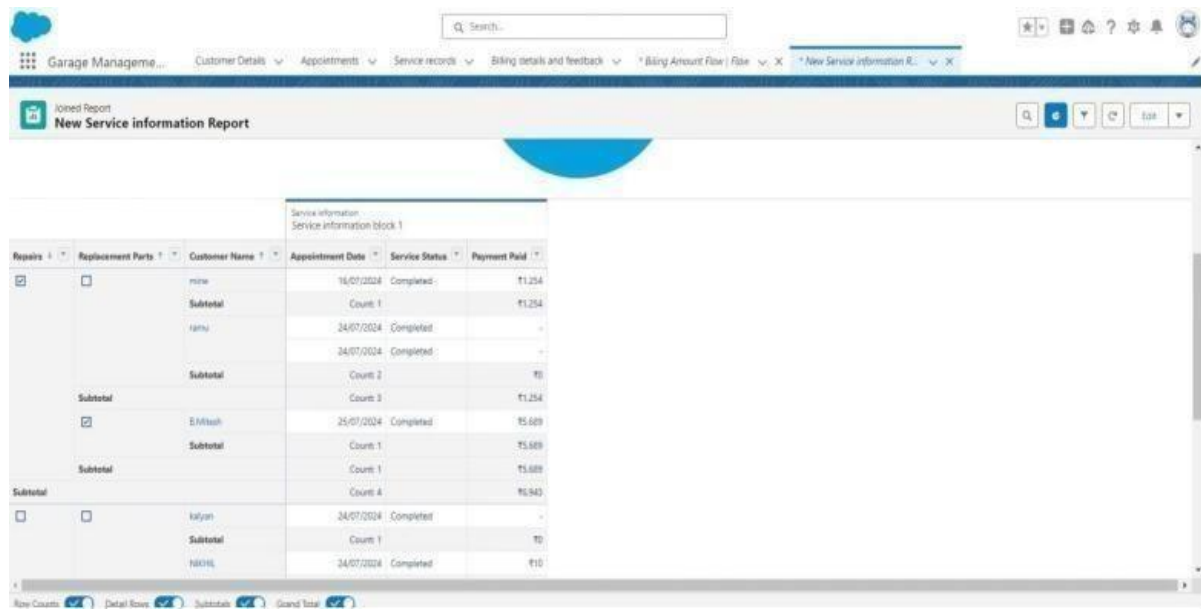
1. Go to setup >> type users in quick find box >> select Report Type >> click on Continue.
2. Click on new custom report type.
3. Select the Primary object as “ Customer details” .
4. Give the Report type Label as “ Service information ”
5. Report type Name is autopopulated.
6. Keep the Description as 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

10. Select the folder the created and Click on save.



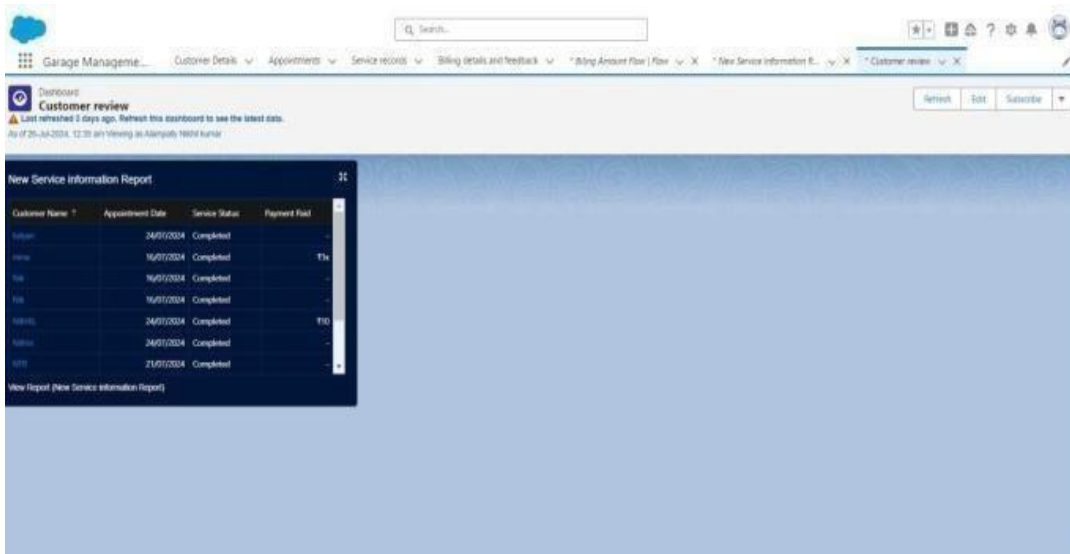
TASK 16: DASHBOARD

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



Customer review
 Last refreshed 2 days ago. Refresh this dashboard to see the latest data.
 As of 26-Jul-2024, 12:30 PM Viewing as Admin role

New Service Information Report

Customer Name *	Appointment Date	Service Status	Payment Paid
John	24/07/2024	Completed	
John	16/07/2024	Completed	T14
John	16/07/2024	Completed	
John	16/07/2024	Completed	
John	24/07/2024	Completed	T10
John	24/07/2024	Completed	
John	21/07/2024	Completed	

[View Report \(New Service Information Report\)](#)

Edit Subscription

Schedule dashboard refreshes and subscribe to receive results.

Settings

Frequency:

Daily
Weekly
Monthly

Days:

Sun
Mon
Tue
Wed
Thu
Fri
Sat

Time:

3:00 pm

Recipients

☒ Receive new results by email when dashboard is refreshed.

Send email to:

Me

Edit Recipients

Cancel

Save

CONCLUSION:

The Garage Management System using Salesforce streamlines operations, enhances customer service, and boosts efficiency. With features like automation, real-time analytics, and scalability, it ensures smooth management of services, inventory, and billing while supporting business growth and customer satisfaction.

THANK YOU...