

GARAGE MANAGEMENT SYSTEM Project Report

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Project Abstraction

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.

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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 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.

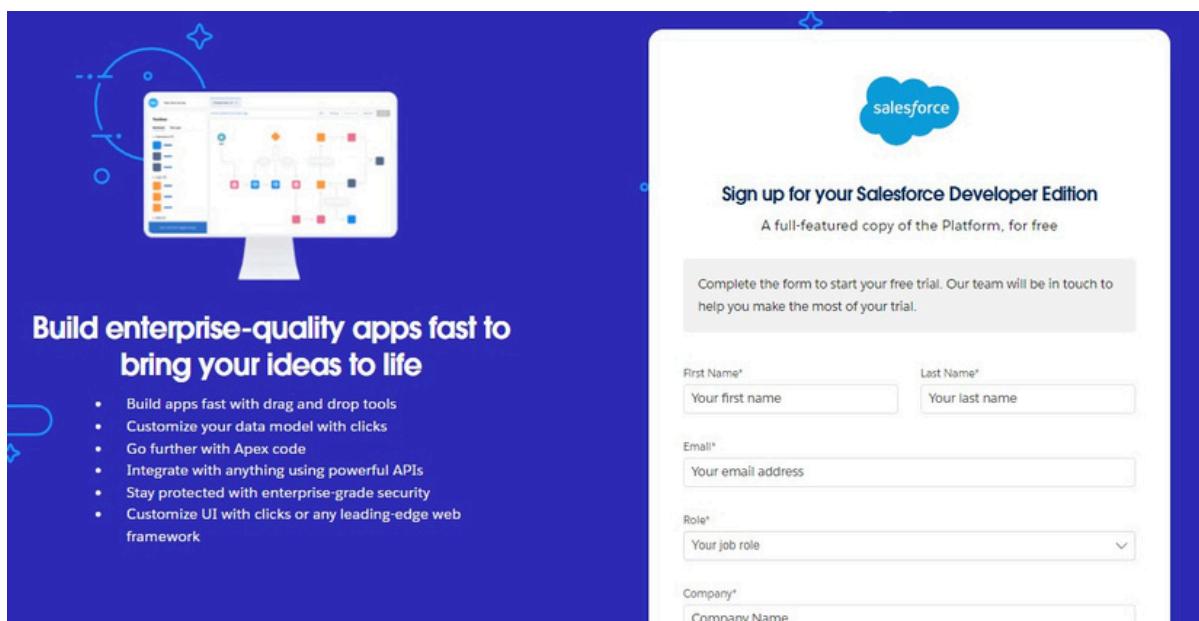
TASK 1:

Creating Developer Account:

Creating a developer org in salesforce.

1. Go to <https://developer.salesforce.com/signup>

2. Click on the sign up form



enter the following details :

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

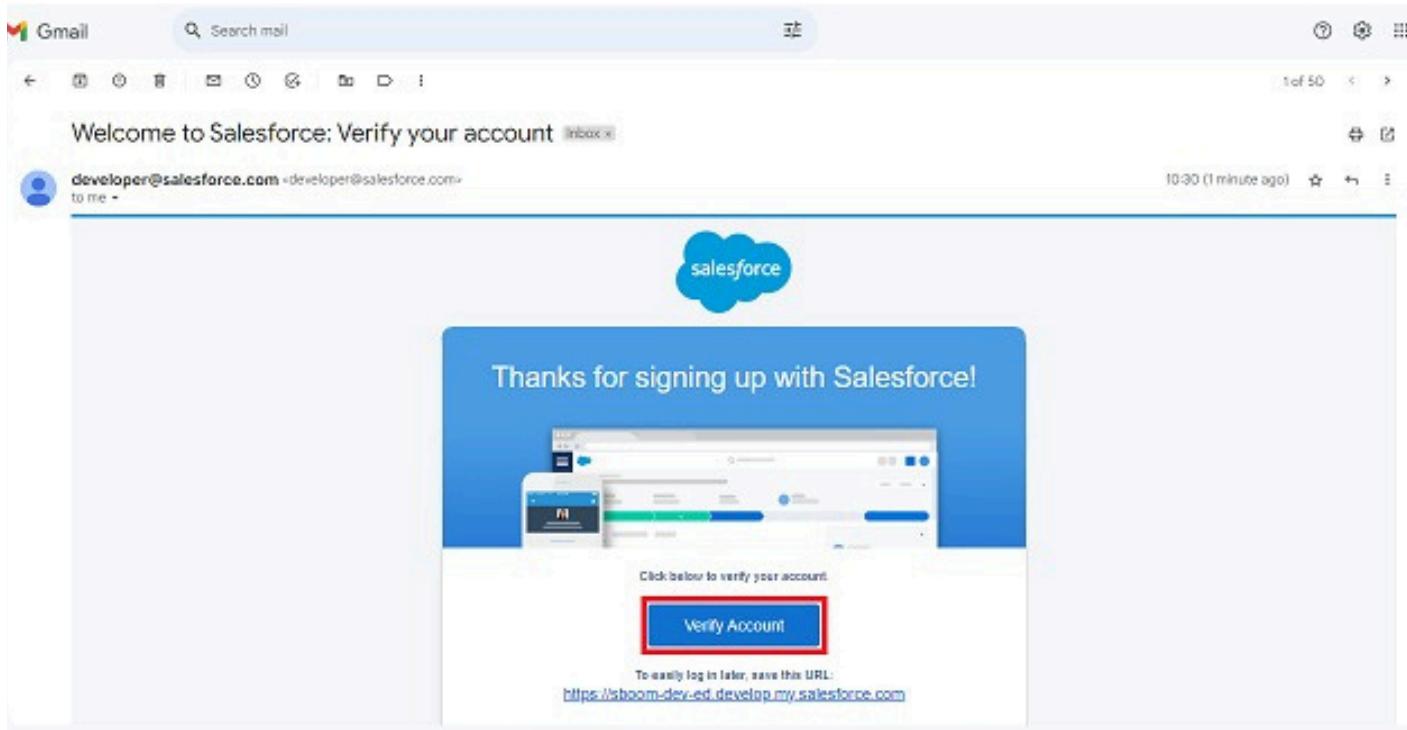
This need not be an actual email id, you can give anything in the format :

username@organization.com

Click on sign me up after filling these.

Account Activation

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



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



Change Your Password

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

- 8 characters
- 1 letter
- 1 number

* New Password
 Good

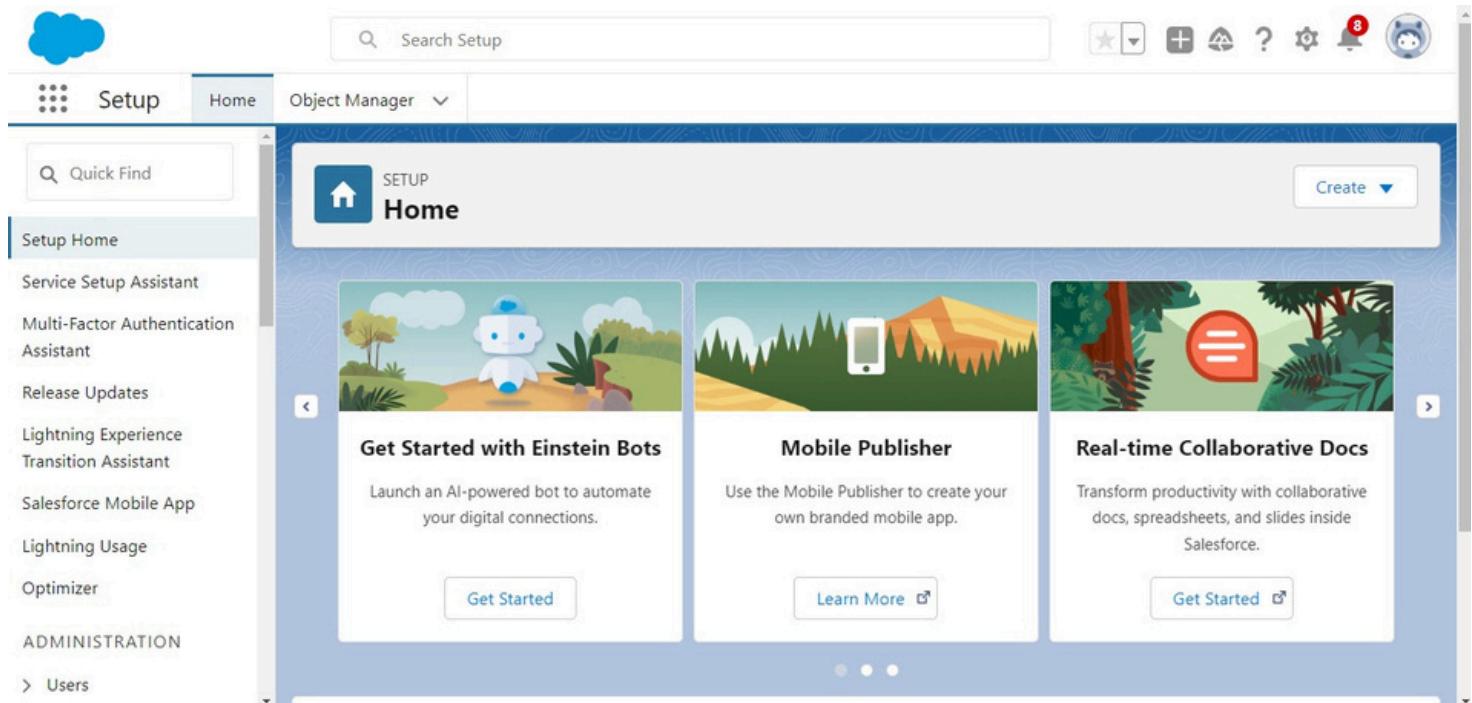
* Confirm New Password
 Match

Security Question
In what city were you born?

* Answer

Change Password

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



The screenshot shows the Salesforce Setup Home page. The top navigation bar includes a search bar, a gear icon, and other setup-related icons. The main content area features a "Home" button with a house icon. Below it are three promotional cards:

- Get Started with Einstein Bots**: Launch an AI-powered bot to automate your digital connections. Includes a "Get Started" button.
- Mobile Publisher**: Use the Mobile Publisher to create your own branded mobile app. Includes a "Learn More" button.
- Real-time Collaborative Docs**: Transform productivity with collaborative docs, spreadsheets, and slides inside Salesforce. Includes a "Get Started" button.

The left sidebar contains a navigation menu with links such as Quick Find, Setup Home, Service Setup Assistant, Multi-Factor Authentication Assistant, Release Updates, Lightning Experience Transition Assistant, Salesforce Mobile App, Lightning Usage, Optimizer, Administration, and Users.

TASK 2:

Create Customer Details Object

To create an object:

Custom Object.

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

The screenshot shows the Salesforce Setup interface with the 'Object Manager' tab selected. A sidebar on the left lists various configuration options like Fields & Relationships, Page Layouts, and Lightning Record Pages. The main 'Details' tab is active, showing the configuration for the 'Customer Details' object. The API Name is set to 'Customer_Details__c'. The Singular Label is 'Customer Details' and the Plural Label is also 'Customer Details'. Under the 'Details' section, checkboxes for 'Enable Reports' and 'Track Activities' are checked. The 'Track Field History' checkbox is also checked. Deployment Status is set to 'Deployed'. Help Settings link points to 'Standard salesforce.com Help Window'. At the top right, there are 'Edit' and 'Delete' buttons.

Create Appointment Object

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 1. Enter the label name >> Appointment
 2. Plural label name >> Appointments
 3. Enter Record Name Label and Format

- Record Name >> Appointment Name
- Data Type >> Auto Number
- Display Format >> app-{000}
- Starting number >> 1

2. Click on Allow reports and Track Field History,
3. Allow search >> Save.

Object Manager - Appointment

Details

Description

API Name: Appointment__c

Singular Label: Appointment

Plural Label: Appointments

Enable Reports: ✓

Track Activities: ✓

Track Field History: ✓

Deployment Status: Deployed

Create Service records Object

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 1. Enter the label name >> Service records
 2. Plural label name >> Service records
 3. Enter Record Name Label and Format
 - Record Name >> Service records Name
 - Data Type >> Auto Number
 - Display Format >> ser-{000}
 - Starting number >> 1

2. Click on Allow reports and Track Field History,
3. Allow search >> Save.

The screenshot shows the Salesforce Object Manager page. At the top, there are tabs for 'SETUP', 'Home', and 'Object Manager'. The 'Object Manager' tab is selected. A search bar at the top right contains the placeholder 'Search Setup'. Below the header, the title 'Object Manager' is displayed with a 'Service records' icon. A sub-header indicates '1 items. Sorted by Label'. On the right side of the header, there are buttons for 'Service records', 'Schema Builder', and 'Create'. The main content area is a table with the following columns: 'LABEL', 'API NAME', 'TYPE', 'DESCRIPTION', 'LAST MODIFIED', and 'DEPLOYED'. There is one row in the table:

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Service records	Service_records__c	Custom Object		29/09/2024	✓

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.

The screenshot shows the Salesforce Object Manager interface. The left sidebar lists various setup options like Fields & Relationships, Page Layouts, and Buttons, Links, and Actions. The main area displays the 'Details' tab for the 'Billing details and feedback' object. It includes sections for Description, API Name (Billing_details_and_feedback__c), Singular Label (Billing details and feedback), Plural Label (Billing details and feedback), and various configuration settings such as Enable Reports, Track Activities, and Deployment Status (Deployed). At the top right are 'Edit' and 'Delete' buttons.

TASK 3:

Creating a Custom Tab

To create a Tab:(Customer Details)

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

The screenshot shows the 'Custom Tabs' setup page. The 'Custom Object Tabs' section is visible, listing various tabs with their labels, tab styles (e.g., Desk, Anywhere, Chess piece), and descriptions. A red box highlights the 'New' button at the top right of the table, which is being clicked. Other highlighted areas include the 'Tabs' tab in the sidebar, the 'Custom Tabs' section title, and the 'Customer Details' label in the search bar.

Action	Label	Tab Style	Description
Edit / Del	Activities	Desk	created to setup with student activity(junction object)
Edit / Del	Addresses	Anywhere	
Edit / Del	Classrooms	Chess piece	
Edit / Del	Customers	Zoom	This tab is related to Hotel Reservation App
Edit / Del	Events	Anywhere	
Edit / Del	Hotels	Phone	This tab is related to College Management System.
Edit / Del	Color_Codes	Camera	
Edit / Del	Codes	Desk	
Edit / Del	Comments	Computer	
Edit / Del	Contracts	Desk	
Edit / Del	Resources	Highway Sign	This tab is related to Hotel Reservation App
Edit / Del	Roles	Highway Sign	This tab is related to Hotel Reservation App
Edit / Del	Sessions	Anywhere	

2. Select Object(Customer Details) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) uncheck the include tab .

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

4. Click save.

New Custom Object Tab

Step 1. Enter the Details Step 1 of 3

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

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

Object: Customer Details

Tab Style:

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

Splash Page Custom Link: --None--

Enter a short description.

Description:

Next Cancel

Tab Style Selector

[Create your own style](#)

Hide styles which are used on other tabs

Airplane	Alarm clock	Apple	Balls
Bank[1]	Bell	Big top	Boat[1]
Books	Bottle	Box	Bridge
Building	Building Block	Caduceus	Camera
Can	Car	Castle	CD/DVD
Cell phone	Chalkboard	Chess piece	Chip
Circle	Compass	Computer	Credit card
CRT TV	Cup	Desk[1]	Diamond
Dice	Factory	Fan	Flag
Form	Gears	Globe	Guitar
Hammer	Hands	Handsaw	Headset
Heart[1]	Helicopter	Hexagon	Highway Sign
Hot Air Balloon	Insect	IP Phone	Jewel
Keys	Laptop	Leaf	Lightning

To create a Tab:(Appointment)

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

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 a Lightning App

To create a lightning app page:

- 1.Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.
2. Fill the app name in app details as Garage Management Application >> Next >> (App option page)
3. keep it as default >> Next >> (Utility Items) keep it as default >> Next.
4. To Add Navigation Items:
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.

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty_000zy00000c9ihmar.govbderzeff@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/> Edit	kally_sannu	skall	gagu@hinku.rok	salesperson	<input checked="" type="checkbox"/>	Standard Platform User
<input type="checkbox"/> Edit	Mikaelson_Niklaus	Raj_varu	rajanurunney@gmail.com	Manager	<input checked="" type="checkbox"/>	Managed
<input type="checkbox"/> Edit	Pilli_Rai_Vanu	RPill	raivanuru@gnt.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/> Edit	User_Integration	integ	integration@00dry00000c9ihmar.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@00dry00000c9ihmar.com		<input checked="" type="checkbox"/>	Analytics Cloud Security User
<input type="checkbox"/> Edit	yamma_harshitha	hvarm	muni@mani.ma	salesperson	<input checked="" type="checkbox"/>	Standard Platform User
<input type="checkbox"/> Edit	xanu_sunay	svaru	rahavaru@gnt.com	salesperson	<input checked="" type="checkbox"/>	Standard Platform User

TASK 5:

Creation of fields for the Customer Details object

1. To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Customer Details) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data Type as a “Phone”
4. Click on next.
5. Fill the Above as following:

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

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

2. To create another fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Customer Details) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Email” and Click on Next
4. Fill the Above as following:
 - 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 Select “Look-up relationship” as data type and click Next.
3. Select the related object “ Appointment ” and click next.
4. Make it a required field so click on Required.
5. Scroll down for Lookup Filter and click on Show filter settings.
6. Now add the filter criteria.
7. Field : Appointment: Appointment Date >> Operator : less than >> select field >> Appointment: Created Date Filter type should be Required.
8. Error Message : Value does not match the criteria. Enable the filter by click on Active.
9. Next >> Next >> Save.

Creation of Lookup Field on Billing details and feedback Object :

1. Go to setup >> click on Object Manager >> type object name(Billing details and feedback) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New. Select “Look-up relationship” as data type and click Next.
3. Select the related object “ Service records” and click next.
4. 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 Nme : is auto populated
4. Default value : unchecked
5. Click on next >> next >> save.
6. Follow the same and create another checkbox with given names
7. Give the Field Label : Replacement Parts
8. Field Nme : is auto populated
9. Default value : unchecked
10. Click on next >> next >> save.

Creation of Checkbox Field on Service records Object :

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

Creation of date Fields

Creation of Date Field on Appointment Object :

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

Creation of Currency Fields

Creation of Currency Field on Appointment Object :

1. Go to setup >> click on Object Manager >> type object name(Appointment) in the search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select “Currency” as data type and click Next.
4. Give the Field Label : Service Amount
5. Field Nme : is auto populated
6. Click on next
7. Give read only for all the profiles in field level security for profile.
8. Click on next >> save.

Creation of Currency Field on Billing details and feedback Object :

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

Creation of Text Fields

1. Go to setup >> click on Object Manager >> type object name(Appointment) in the search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select “Text” as data type and click Next.
4. Give the Field Label : Vehicle number plate

5. Field Name : is auto populated
6. Length : 10
7. Make field as Required and Unique.
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.

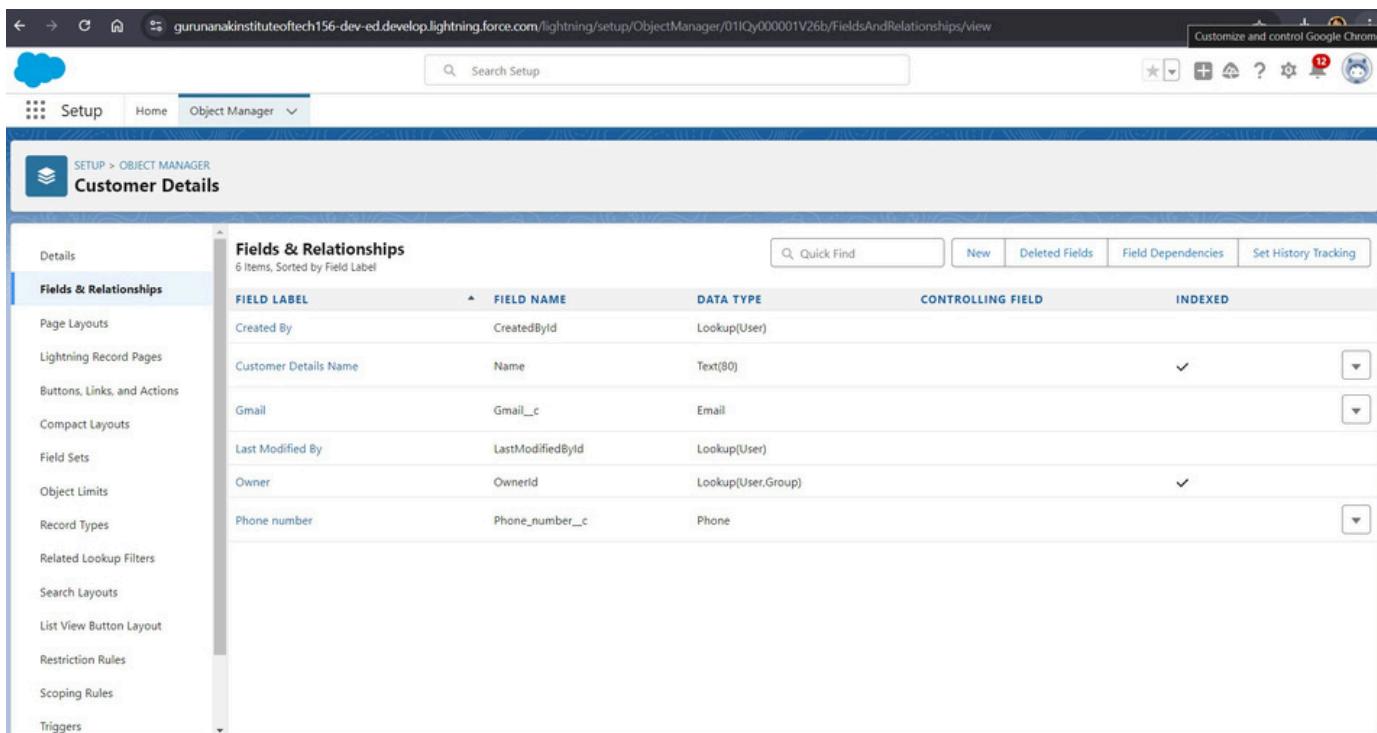
Creation of Picklist Fields in Billing details and feedback object :

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

5. value separated by a new line" and enter values as shown below.
6. The values are: Pending, Completed. Click Next.
7. Next >> Next >> Save.

Creating Formula Field in Service records Object

1. Go to setup >> click on Object Manager >> type object name(Service records) in search bar >> click on the object.
2. Click on fields & relationship >> click on New.
3. Select Data type as "Formula" and click Next.
4. Give Field Label and Field Name as "service date" and select formula return type as "Date" and click next.
5. Insert field formula should be : CreatedDate. click "Check Syntax".
6. Click next >> next >> Save.



The screenshot shows the Salesforce Object Manager interface. The left sidebar lists various setup options like Details, Fields & Relationships, Page Layouts, etc. The main content area is titled 'Customer Details' and shows the 'Fields & Relationships' section. It displays a table with 6 items, sorted by Field Label. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data is as follows:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Customer Details 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		

gurunanakinstuteoftech156-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01lQy000001V1yX/FieldsAndRelationships/view

Appointment

Fields & Relationships
11 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment Date	Appointment_Date__c	Date		
Appointment Name	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Customer Details	Customer_Details__c	Lookup(Customer Details)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Maintenance service	Maintenance_Service__c	Checkbox		
Owner	OwnerId	Lookup(User,Group)		✓
Repairs	Repairs__c	Checkbox		
Replacement Parts	Replacement_Parts__c	Checkbox		
Service Amount	Service_Amount__c	Currency(18, 0)		

gurunanakinstuteoftech156-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01lQy000001V23N/FieldsAndRelationships/view

Service records

Fields & Relationships
8 Items, Sorted by Field Label

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

The screenshot shows the Salesforce Object Manager interface. The left sidebar has a 'Fields & Relationships' section with various options like 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, Restriction Rules, Scoping Rules, and Triggers. The main content area is titled 'Fields & Relationships' and shows a table with 10 items, sorted by Field Label. The columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The table includes fields such as Billing details and feedback Name (Name, Auto Number), Created By (CreatedById, Lookup(User)), Last Modified By (LastModifiedById, Lookup(User)), Owner (OwnerId, Lookup(User,Group)), Payment Paid (Payment_Paid__c, Currency(18, 0)), Payment Status (Payment_Status__c, Picklist), Rating for service (Rating_for_service__c, Text(1) (Unique Case Insensitive)), service date (service_date__c, Formula (Date)), Service records (Service_records__c, Lookup(Service records)), and Service Status (Service_Status__c, Picklist). The 'Billing details and feedback Name' field is selected.

TASK 6:

To create a validation rule to an Appointment Object

1. Go to the setup page >> click on object manager >> From drop down click edit for Appointment object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “ Vehicle ”.
4. Insert the Error Condition Formula as : - NOT(REGEX(Vehicle_number_plate__c , "[A-Z]{2}[0-9]{2}[A-Z]{2}[0-9]{4}"))
Enter the Error Message as “Please enter valid number”, select the Error location as Field and select the field as “Vehicle number plate”, and click Save.

The screenshot shows the Salesforce Setup interface for the Appointment object. The left sidebar lists various setup categories, and the main area displays the 'Appointment Validation Rule' configuration. The rule details are as follows:

Validation Rule Detail	
Rule Name	Vehicle
Error Condition Formula	NOT(REGEX(Vehicle_number_plate__c , "[A-Z]{2}[0-9]{2}[A-Z]{2}[0-9]{4}"))
Error Message	Please enter valid number
Description	
Created By	Raj Varun Pillai 29/09/2024, 2:38 pm
Modified By	Raj Varun Pillai 29/09/2024, 2:38 pm

To create a validation rule to an Service records Object

1. Go to the setup page >> click on object manager >> From drop down click edit for Service records object .
2. Click on the validation rule >> click New.
3. Enter the Rule name as “ service _status _note ”.
4. Insert the Error Condition Formula as :-
NOT(ISPICKVAL(Service_Status__c , "Completed"))
Enter the Error Message as “still it is pending”, select the Error location as Field and select the field as “ Service status ”, and click Save.

The screenshot shows the Salesforce Setup interface. The top navigation bar includes links for Home, Object Manager, and a search bar. Below the navigation is a sidebar with various setup categories like Details, Fields & Relationships, Page Layouts, and Lightning Record Pages. The main content area is titled "Service records Validation Rule" and displays the "Validation Rule Detail" for a record named "Service records Validation Rule - Salesforce - Developer Edition". The rule is active and was created by "Raj Varun Pillai" on 29/09/2024, 2:41 pm. The error condition is set to "still it is pending" and the error message is "rating should be from 1 to 5". The error location is "Service Status" and the field is "Rating for Service". There are "Edit" and "Clone" buttons at the bottom of the detail view.

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

1. Go to the setup page >> click on object manager >> From drop down click edit for Billing details and feedback object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “ rating_should_be_less_than_5”.
4. Insert the Error Condition Formula as : - NOT(REGEX(Rating_for_service__c , "[1-5]{1}")) Enter the Error Message as “ rating should be from 1 to 5”, select the Error location as Field and select the field as “Rating for Service”, and click Save.

The screenshot shows the Salesforce Object Manager interface. The left sidebar lists various setup options like Details, Fields & Relationships, Page Layouts, and Lightning Record Pages. The main content area displays a validation rule titled 'Billing details and feedback Validation Rule'. The rule details are as follows:

Validation Rule Detail	
Rule Name	rating_should_be_less_than_10
Error Condition Formula	NOT(REGEX(Rating_for_service__c , "[0-9]{1}"))
Error Message	rating should be from 0 to 9
Description	
Created By	Raj Varun Pillai
Modified By	Raj Varun Pillai
Active	<input checked="" type="checkbox"/>
Error Location	Rating for service

TASK 7:

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

The screenshot shows the Salesforce Setup interface under the 'Data' section, specifically the 'Matching Rules' page. A matching rule named 'Matching customer details' is displayed. The rule's description is: '(Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone_number EXACT MatchBlank = FALSE)'. It was created by 'Bai.Varun.Pillai' on 29/09/2024, 2:45 pm and modified by the same user on the same date and time.

To create a Duplicate rule to an Customer details Object

1. Go to quick find box in setup and search for Duplicate rules.
2. Click on Duplicate rule >> click on New Rule >> select customer details object.
3. Give the Rule name as : Customer Detail duplicate
4. Scroll a little in Matching rule section
5. Select the matching rule : Matching customer details
6. And Click on save.
7. After saving the Duplicate Rule, Click on Activate.

The screenshot shows the Salesforce Setup interface under the 'Data' section, specifically the 'Duplicate Rules' page. A list of existing duplicate rules is shown, including 'Customer Detail duplicate', 'Standard Account Duplicate Rule', 'Standard Contact Duplicate Rule', and 'Standard Lead Duplicate Rule'. The 'Customer Detail duplicate' rule is highlighted with a green border. The page also includes a navigation bar with letters A-Z and a 'New Rule' button.

Edit Duplicate Rule
Customer Detail duplicate

Duplicate Rule Edit Save Save & New Cancel

Rule Details

Rule Name: Customer Detail duplicate

Description:

Object: Customer Details

Record Level Security: Enforce sharing rules

Bypass sharing rules

Actions

Specify what happens when a user tries to save a duplicate record.

Action On Create: Allow Alert Report

Action On Edit: Allow Alert Report

Alert Text: Use one of these records?

Matching Rules

Define how duplicate records are identified.

Compare Customer Details With: Customer Details

Matching Rule: matching Customer details

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

Field Mapping: Mapping Selected

Add Rule Remove Rule

Conditions

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

Field	Operator	Value	AND
--None--	--None--	<input type="text"/>	AND
--None--	--None--	<input type="text"/>	AND
--None--	--None--	<input type="text"/>	AND
--None--	--None--	<input type="text"/>	
--None--	--None--	<input type="text"/>	

Add Filter Logic...

Save Save & New Cancel

TASK 8:

Manager Profile

To create a new profile:

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Standard User) >> enter profile name (Manager) >> Save.
2. While still on the profile page, then click Edit.
3. Select the Custom App settings as default for the Garage management.
4. Scroll down to Custom Object Permissions and Give access permissions for Appointments,Billing details and feedback , service records and customer details objects as mentioned in the below diagram.

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

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

- Profile Manager** is selected in the left sidebar under **Profiles**.
- Profile Detail** section:
 - Name: Manager
 - User License: Salesforce
 - Description: (empty)
 - Created By: Raj Varun Pilli, 29/09/2024, 2:54 pm
 - Modified By: Raj Varun Pilli, 29/09/2024, 4:53 pm
- Page Layouts** section:

Standard Object Layouts	Global	Location Group Assignment	Location Group Assignment Layout
Email Application	Not Assigned [View Assignment]	Macro	Macro Layout [View Assignment]
Home Page Layout	DE Default [View Assignment]	Object Milestone	Object Milestone Layout [View Assignment]
Account	Account Layout [View Assignment]	Operating Hours	Operating Hours Layout [View Assignment]
Alternative Payment Method	Alternative Payment Method Layout [View Assignment]	Opportunity	Opportunity Layout [View Assignment]
Appointment Invitation	Appointment Invitation Layout [View Assignment]	Opportunity Product	Opportunity Product Layout [View Assignment]
Asset	Asset Layout [View Assignment]	Order	Order Layout [View Assignment]

sales person Profile

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Salesforce Platform User) >> enter profile name (sales person) >> Save.
2. While still on the profile page, then click Edit.
3. Select the Custom App settings as default for the GArage management.
4. Scroll down to Custom Object Permissions and Give access permissions for Appointments, Billing details and feedback , service records and customer details objects as mentioned in the below diagram.
5. And click save.

TASK 9:

Creating Manager Role

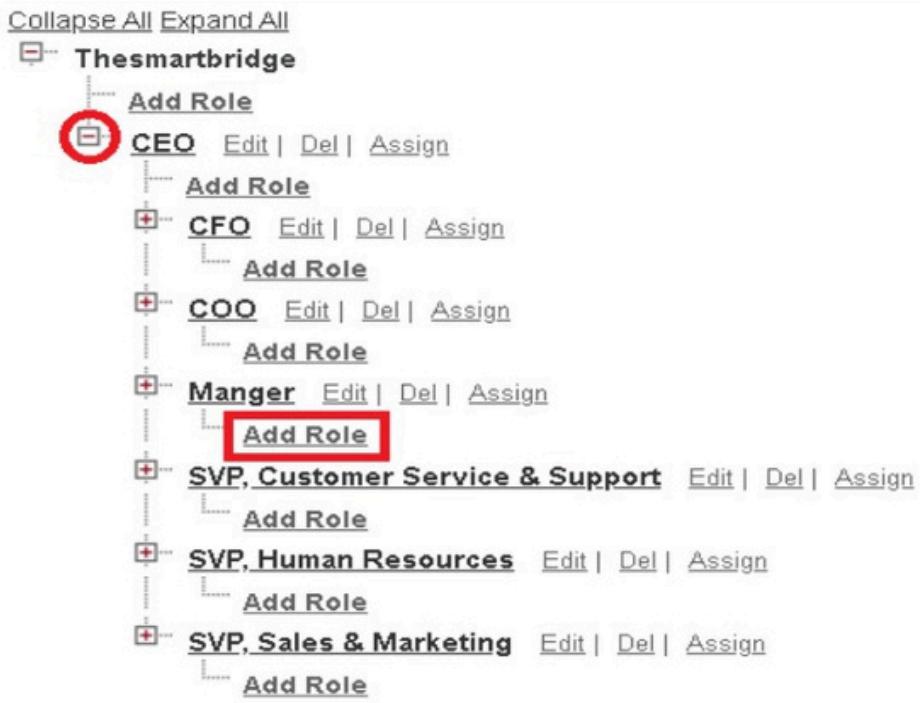
Creating Manager Role:

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



TASK 10:

Create User

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

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/>	Chatter Expert	Chatter	chaty_0000000000000000@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/>	Kalru_sannu	skall	gagu@hinku.rok	sales_person	<input checked="" type="checkbox"/>	Standard Platform User
<input type="checkbox"/>	Mikaelson_Niklaus	Bai_yaru	aiyanusunny@gmail.com	Manager	<input checked="" type="checkbox"/>	Manager
<input type="checkbox"/>	Pilli_Bai_Vasun	BPill	gavasan@gni.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/>	User_Integration	Integ	integration@0000000000000000@chatter.salesforce.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
<input type="checkbox"/>	User_Security	sec	insightsecurity@0000000000000000@chatter.salesforce.com		<input checked="" type="checkbox"/>	Analytics Cloud Security User
<input type="checkbox"/>	Varma_harshitha	hvarm	muni@mani.ma	sales_person	<input checked="" type="checkbox"/>	Standard Platform User
<input type="checkbox"/>	Vetrun_sunny	skaru	aiyanusunny@gmail.com	sales_person	<input checked="" type="checkbox"/>	Standard Platform User

creating another users

1. Repeat the steps and create another user using

1. Role : sales person

2. User licence : Salesforce Platform

3. Profile : sales person

Note : create atleast 3 users with these permissions.

TASK 11:

Creating New Public Group

1. Go to setup >> type users in quick find box >> select public groups >> click New.
2. Give the Label as “sales team”.
3. Group name is autopopulated.
4. Search for Roles.
5. In Available Members select Sales person and click on add it will be moved to selected member.
6. Click on save.

The screenshot shows the Salesforce Setup interface. The left sidebar is expanded to show the 'Users' section, with 'Public Groups' selected. The main content area is titled 'Public Groups' and contains a table with one row:

Action	Label	Group Name	Created By	Created Date
Edit Del	Sales team	sales_team	Pili_Bai_Vanu	29/09/2024, 3:45 pm

TASK 12:

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.

The screenshot shows the 'Service records Sharing Rules' page. At the top, there is a 'New' button with a red arrow pointing to it. Below the button, a message reads 'No sharing rules specified.'

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

Object	Default Internal Access	Default External Access	Grant Access Using Hierarchies
Lead	Public Read/Write/Transfer	Private	<input checked="" type="checkbox"/>
Account and Contract	Public Read/Write	Private	<input checked="" type="checkbox"/>
Contact	Controlled by Parent	Controlled by Parent	<input checked="" type="checkbox"/>
Order	Controlled by Parent	Controlled by Parent	<input checked="" type="checkbox"/>
Asset	Controlled by Parent	Controlled by Parent	<input checked="" type="checkbox"/>
Opportunity	Public Read/Write	Private	<input checked="" type="checkbox"/>
Case	Public Read/Write/Transfer	Private	<input checked="" type="checkbox"/>
Campaign	Public Full Access	Private	<input checked="" type="checkbox"/>
Campaign Member	Controlled by Campaign	Controlled by Campaign	<input checked="" type="checkbox"/>
User	Public Read Only	Private	<input checked="" type="checkbox"/>
Activity	Private	Private	<input checked="" type="checkbox"/>
Calendar	Hide Details and Add Events	Hide Details and Add Events	<input checked="" type="checkbox"/>

TASK 13:

Create a Flow

1. Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow.
2. Select the Record-triggered flow and Click on Create.
3. Select the Object as “Billing details and feedback” in the Drop down list.
4. Select the Trigger Flow when: “A record is Created or Updated”.
5. Select the Optimize the flow for: “Actions and Related Records” and Click on Done.
6. Under the Record-triggered Flow Click on “+” Symbol and In the Drop down List select the “Update records Element”.
7. Give the Label Name : Amount Update
8. Api name : is auto populated
9. Set a filter condition : All Conditions are met(AND)
10. Field : Payment_Status__c
11. Operator : Equals
12. Value : Completed
13. And Set Field Values for the Billing details and feedback Record
14. Field : Payment_Paid__c

15. Value : {!\$Record.Service_records__r.Appointment__r.Service_Amount__c}
16. Click On Done.
17. Before creating another Element. Create a New Resource form Toolbox form top left.
18. Click on the New Resource, And select Variable.
19. Select the resource type as text template.
20. Enter the API name as “ alert”.
21. Change the view as Rich Text ? View to Plain Text.
22. In body field paste the syntax that given below.

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

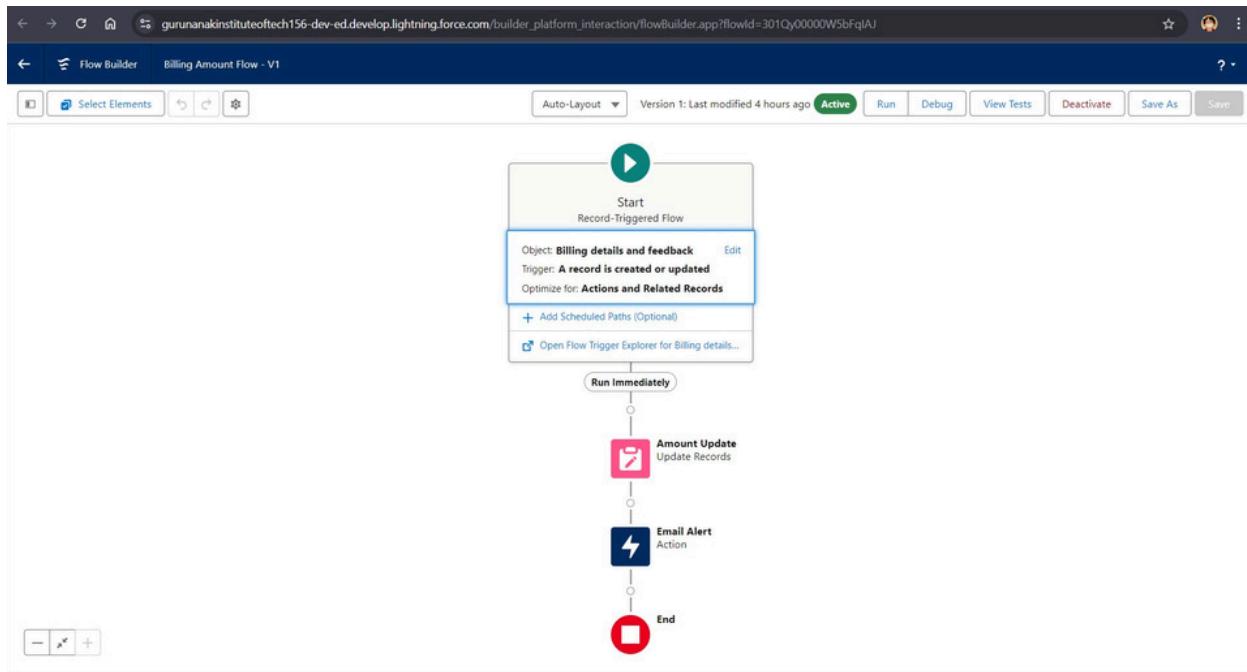
I hope this message finds you well. I wanted to take a moment to express my sincere gratitude for your recent payment for the services provided by our garage management team. Your prompt payment is greatly appreciated, and it helps us continue to provide top-notch services to you and all our valued customers.

Amount paid : {!\$Record.Payment_Paid__c}

}

Thank you for Coming .

23. Click done. Now Click on Add Element , select Action.
24. Their action bar will be opened in that search for “ send email ” and click on it.
25. Give the label name as “ Email Alert” API name will be auto populated.
26. Enable the body in set input values for the selected action.
27. Select the text template that created , Body : {!alert}
28. Include recipient address list select the email form the record.
29. RecipientAddressList:
 {!\$Record.Service_records__r.Appointment__r.Customer_Name__r.Gmail__c}
30. Include subject as “ Thank You for Your Payment - Garage Management”.
31. Click done.
32. Click on save.
33. Give the Flow label , Flow Api name will be autopopulated.
34. And click save, and click on activate.



TASK 14:

Apex handler

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

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

```
AmountDistribution.aprx AmountDistributionHandler.aprx
Code Coverage: None API Version: SB Go To
1 • public class AmountDistributionHandler {
2
3 •     public static void amountDist(List<Appointment__c> listApp){
4         List<Service_records__c> serList = new List<Service_records__c>();
5
6         for(Appointment__c app : listApp){
7             if(app.Maintenance_Service__c == true && app.Repairs__c == true && app.Replacement_Parts__c == true){
8                 app.Service_Amount__c = 10000;
9             }
10            else if(app.Maintenance_Service__c == true && app.Repairs__c == true){
11                app.Service_Amount__c = 5000;
12            }
13            else if(app.Maintenance_Service__c == true && app.Replacement_Parts__c == true){
14                app.Service_Amount__c = 8000;
15            }
16            else if(app.Repairs__c == true && app.Replacement_Parts__c == true){
17                app.Service_Amount__c = 7000;
18            }
19            else if(app.Maintenance_Service__c == true){
20                app.Service_Amount__c = 2000;
21            }
22            else if(app.Repairs__c == true){
23                app.Service_Amount__c = 3000;
24            }
25            else if(app.Replacement_Parts__c == true){
26                app.Service_Amount__c = 5000;
27            }
28        }
29    }
30 }
31 }
```

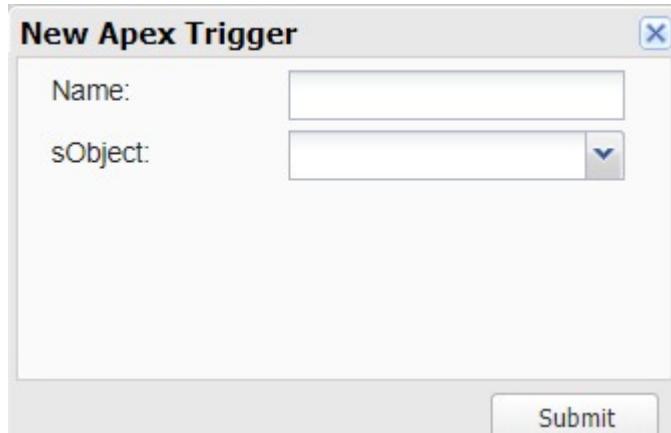


```
AmountDistribution.aprx AmountDistributionHandler.aprx
Code Coverage: None API Version: SB Go To
12 }
13     else if(app.Maintenance_Service__c == true && app.Replacement_Parts__c == true){
14         app.Service_Amount__c = 8000;
15     }
16     else if(app.Repairs__c == true && app.Replacement_Parts__c == 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



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

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

TASK 15:

create a report folder

1. Click on the app launcher and search for reports.

Click on the report tab, click on new folder.

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

3. 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 ”
Report type Name is autopopulated.
5. Keep the Description as same. Select Store in Category as “ other Reports ”
6. Select the deployment status as “ Deployed ”, click on Next.
now , Click on Related object box.
7. Click on Select Object, choose Appointment Object as shown in fig.
8. Again Click to relate another object.
9. And select the related object as “ service records ”.
10. Repeat the process and select the related object as “ Billing details and feedback ”.
11. 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 Click New Report .
2. Select the Category as other reports, search for Service Information, select that
3. report, click on it. And click on start report.

4. Their outline pane is opened already, select the fields that mentioned below in column section.

1. Customer name
2. Appointment Date
3. Service Status
4. Payment paid

5. Remove the unnecessary fields.

6. Select the fields that mentioned below in GROUP ROWS section.

1. Rating for Service

7. Select the fields that mentioned below in GROUP ROWS section.

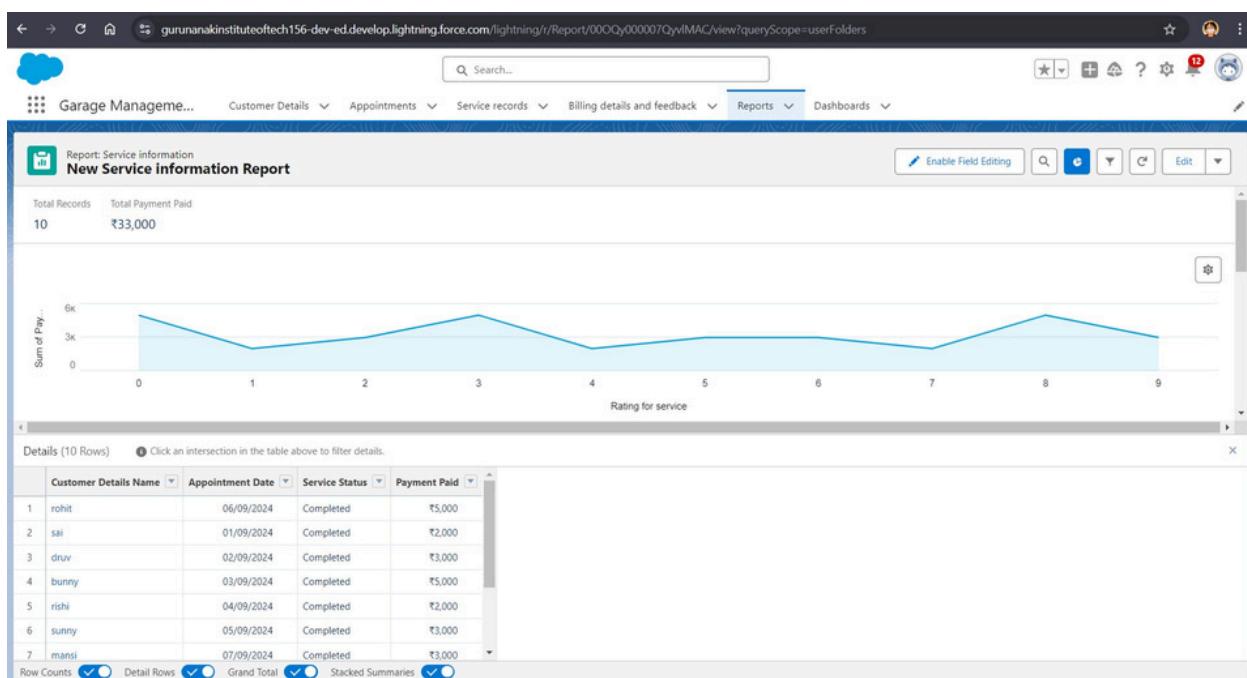
1. Payment Status

8. Click on Add Chart , Select the Line Chart.

9. Click on save, Give the report Name : New Service information Report

10. Report unique Name is auto populated.

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



TASK 16:

Create Dashboard Folder

1. Click on the app launcher and search for dashboard.
2. Click on dashboard tab.
3. Click new folder, give the folder label as “ Service Rating dashboard”.
4. Folder unique name will be auto populated.
5. Click save.
6. Follow the same steps, from milestone 15, and activity 2, and provide the sharing
7. 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.

