

GARAGE MANAGEMENT

SYSTEM

By

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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 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: Sai Harshith Lakkarsu
4. Email : lakkarsusaiharshith@gmail.com
5. Role : Developer
6. Company : College Name
7. County : 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.

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First Name*
Your first name

Last Name*
Your last name

Email*
Your email address

Role*
Your job role

Company*
Company Name

Account Activation

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

Meet - shy-hvmp-uyd | SI-5988-1727602077 | Garage Management System.pptx | Welcome to Salesforce: Verify your account | +

Compose

Inbox 6,601

Starred

Snoozed

Sent

Drafts 5

More

Labels +

Search mail

Thanks for signing up with Salesforce!

Click below to verify your account.

Verify Account

To easily log in later, save this URL:
<https://gurunanakinstituteoftech-6b-dev-ed.my.salesforce.com>

Username:
harshith@gnit.com

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.

Search Setup

Setup Home

Object Manager

Quick Find

Setup Home

Service Setup Assistant

Multi-Factor Authentication Assistant

Release Updates

Lightning Experience Transition Assistant

Salesforce Mobile App

Lightning Usage

Optimizer

ADMINISTRATION

Users

SETUP Home

Create

Get Started with Einstein Bots

Launch an AI-powered bot to automate your digital connections.

Get Started

Mobile Publisher

Use the Mobile Publisher to create your own branded mobile app.

Learn More

Real-time Collaborative Docs

Transform productivity with collaborative docs, spreadsheets, and slides inside Salesforce.

Get Started

TASK 2: CREATING THE OBJECTS

a. Create Customer Details Object

To create an object:

- From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom

Object.

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

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes a cloud icon, 'Search Setup', and various global buttons. The main header says 'SETUP > OBJECT MANAGER Customer Details'. On the left, a sidebar lists various configuration tabs: 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, Restriction Rules, and Scoping Rules. The main content area is titled 'Details' and contains sections for 'Description', 'API Name' (Customer_Details__c), 'Custom' (checked), 'Singular Label' (Customer Details), 'Plural Label' (Customer Details), and 'Enable Reports' (checked). Other settings like 'Track Activities', 'Track Field History' (checked), 'Deployment Status' (Deployed), and 'Help Settings' (Standard salesforce.com Help Window) are also visible. At the bottom right are 'Edit' and 'Delete' buttons.

b. Create Appointment Object

To create an object:

1. From the setup page >> Click on ObjectManager >> Click on Create>> Click on Custom Object.
2. Enter the label name >> Appointment
3. Plural label name >> Appointments
4. Enter RecordName Label and Format
 - i. Record Name >> Appointment Name
 - ii. Data Type >>Auto Number
 - iii. Display Format >> app-{000}
 - iv. Starting number >> 1
5. Click on Allow reports and Track Field History,
6. Allow search>> Save.

The screenshot shows the Salesforce Setup interface. At the top, there's a navigation bar with icons for Home, Object Manager, and a search bar labeled "Search Setup". Below the navigation is a header bar with "SETUP > OBJECT MANAGER" and the object name "Appointment". The main content area is divided into two columns. The left column, titled "Details", contains a sidebar with various configuration options: 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, Restriction Rules, and Scoping Rules. The right column, also titled "Details", shows specific settings for the Appointment object. It includes fields for Description, API Name (Appointment_c), Singular Label (Appointment), Plural Label (Appointments), and several checkboxes: Enable Reports (checked), Track Activities, Track Field History (checked), Deployment Status (Deployed), Help Settings, and Help URL (Standard salesforce.com Help Window). At the bottom right of the main area are "Edit" and "Delete" buttons.

c. Create Service RecordsObject

To create an object:

1. From the setup page >> Click on ObjectManager >> Click on Create>> Click on CustomObject.
2. Enter the label name >>Service records
3. Plural label name >> Servicerecords
4. Enter RecordName Label and Format
 - i. Record Name >>Service records Name
 - ii. Data Type >>Auto Number
 - iii. Display Format >> ser-{000}
 - iv. Starting number >> 1
5. Click on Allow reports and Track Field History,
6. Allow search >>Save.

The screenshot shows the Salesforce Setup interface. At the top, there's a search bar with the placeholder "Search Setup". Below the search bar, the navigation bar includes "Setup", "Home", and "Object Manager". On the far right of the header are several small icons: a star, a plus sign, a question mark, a gear, and a refresh symbol with a red "12" notification.

The main content area is titled "SETUP > OBJECT MANAGER" and shows "Service records". On the left, a sidebar lists various object configuration options: 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, Restriction Rules, and Scrolling Rules. The "Details" tab is selected.

The main "Details" section contains the following fields:

Field	Value
Description	
API Name	Service_records_c
Custom	✓
Singular Label	Service records
Plural Label	Service records
Enable Reports	✓
Track Activities	
Track Field History	✓
Deployment Status	
Deployed	
Help Settings	Standard salesforce.com Help Window

At the bottom right of the main section are "Edit" and "Delete" buttons.

d. Create BillingDetails And FeedbackObject

To create an object:

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

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

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



To create a Tab:(Appointment)

1. Go to setup page >> type Tabs in Quick Find bar >>click on tabs >> New (under custom objecttab)
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 includetab .
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 LIGHTING APP

To create a lightning app page:

- i. Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.
- ii. Fill the app name in app details as Garage Management Application >> Next >> (App option page) keep it as default >>Next >> (UtilityItems) keep it as default>> Next.

To Add Navigation Items:

- i. Select the items (CustomerDetails,Appointments, Service records,Billing details and feedback,Reports and Dashboards) from the searchbar and move it using the arrowbutton >> Next.

To Add User Profiles:

- i. Search profiles(System administrator) in the searchbar >> click on the arrow button>> save & finish.

App Name ↑	Developer Name	Description	Last Modified ...	App ...	Vis... ▾
1 All Tabs	AllTabSet		28/09/2024, 6:39 pm	Classic	▼
2 Analytics Studio	Insights	Build CRM Analytics dashboards and apps	28/09/2024, 6:39 pm	Classic	✓
3 App Launcher	AppLauncher	App Launcher tabs	28/09/2024, 6:39 pm	Classic	✓
4 Automation	FlowsApp	Automate business processes and repetitive tasks.	28/09/2024, 6:42 pm	Lightning	✓
5 Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	28/09/2024, 6:41 pm	Lightning	✓
6 Community	Community	Salesforce CRM Communities	28/09/2024, 6:39 pm	Classic	✓
7 Content	Content	Salesforce CRM Content	28/09/2024, 6:39 pm	Classic	✓
8 Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	28/09/2024, 6:39 pm	Lightning	✓
9 Digital Experiences	SalesforceCMS	Manage content and media for all of your sites.	28/09/2024, 6:39 pm	Lightning	✓
10 Garage Management Application	Garage_Management_Application		29/09/2024, 1:13 pm	Lightning	✓
11 Lightning Usage App	LightningInstrumentation	View Adoption and Usage Metrics for Lightning Experience	28/09/2024, 6:39 pm	Lightning	✓
12 Marketing CRM Classic	Marketing	Track sales and marketing efforts with CRM objects.	28/09/2024, 6:39 pm	Classic	✓
13 Platform	Platform	The fundamental Lightning Platform	28/09/2024, 6:39 pm	Classic	▼
14 Queue Management	QueueManagement	Create and manage queues for your business.	28/09/2024, 6:39 pm	Lightning	✓

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"
4. Click on next.
5. Fill the Above as following:
 - i. Field Label: Phone number
 - ii. FieldName : gets auto generated
 - iii. 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:
 - i. Field Label: Gmail
 - ii. FieldName : gets auto generated
 - iii. 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 >> clickon 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 " CustomerDetails" 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 searchbar >> clickon the object.
2. Now click on "Fields &Relationships" >> New
3. Select "Look-up relationship" as data type and click Next.
4. Select therelated object " Appointment " and clicknext.
5. Makeit a required field so click on Required.

6. Scroll down for LookupFilter and click on Show filtersettings.
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 LookupField on Billingdetails and feedbackObject :

1. Go to setup >> click on Object Manager >> type object name(Billing details and feedback) in searchbar >> 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 ObjectManager >> 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 AnotherCheckbox Field on Appointment Object:

1. Repeat the steps from 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 anothercheckbox 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 recordsObject :

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

Creation Of Date Fields

Creation of Date Field on Appointment Object :

1. Go to setup >>click on ObjectManager >> type object name(Appointment) inthe 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 Name : 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 ObjectManager >> 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 CurrencyField on Billingdetails and feedbackObject :

1. Follow the same steps as mentioned above in Billingdetails and feedbackObject.
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 ObjectManager >> 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 numberplate
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 feedbackobject :

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 Requiredand 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 ObjectManager >> type object name(Service records) in search bar >> clickon 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 valuesas shown below.
5. The values are: Started, Completed
6. Click Next.
7. Next >> Next >> Save.

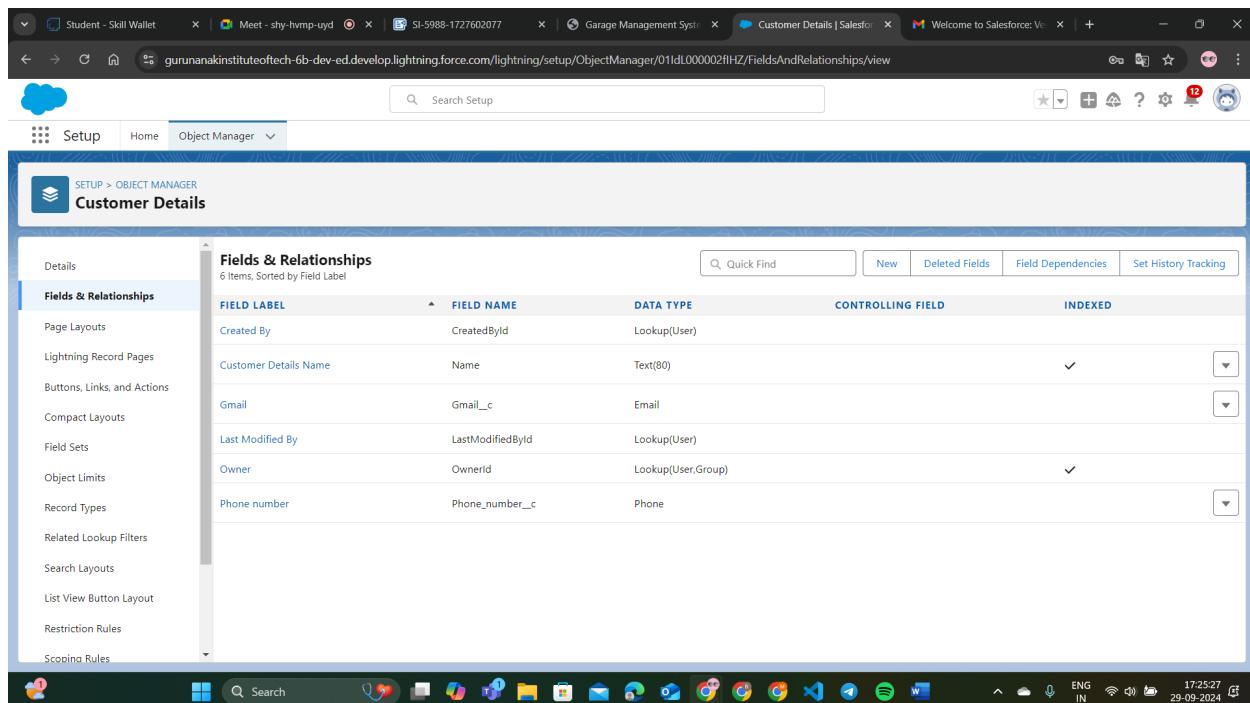
Creation of PicklistFields in Billingdetails and feedbackobject :

1. Go to setup >> click on Object Manager >> type object name(Billing details and feedback) in search bar >> clickon 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 valueseparated by a new line" and enter valuesas shown below.
5. The values are: Pending, Completed.
6. Click Next.

Creating Formula Field In Service Records Object

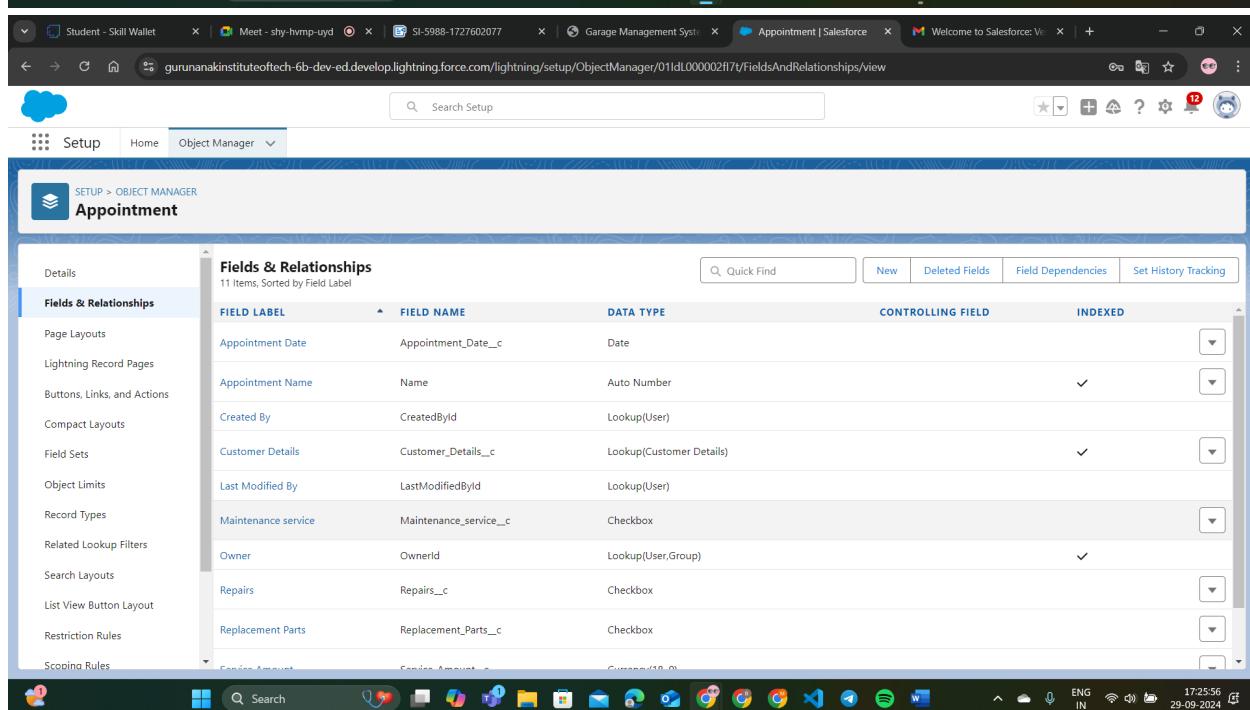
1. Go to setup >>click on ObjectManager >> type object name(Service records) in search bar >> click on theobject.
2. Click on fields & relationship >> click on New.
3. Select Data type as "Formula"and click Next.
4. Give Field Label and FieldName as "servicedate" and selectformula return type as "Date"and 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 with the URL gurunanakinstituteoftech-6b-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01l000002fHZ/FieldsAndRelationships/view. The page title is "Customer Details". The left sidebar shows "Fields & Relationships" selected. The main content area displays a table titled "Fields & Relationships" with 6 items. The 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		



The screenshot shows the Salesforce Setup interface with the URL gurunanakinstituteoftech-6b-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01l000002f7t/FieldsAndRelationships/view. The page title is "Appointment". The left sidebar shows "Fields & Relationships" selected. The main content area displays a table titled "Fields & Relationships" with 11 items. The 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
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(10, 0)		

Two screenshots of the Salesforce Setup interface showing the 'Fields & Relationships' section for two different objects: 'Service records' and 'Billing details and feedback'.

Service records Object Fields & Relationships:

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

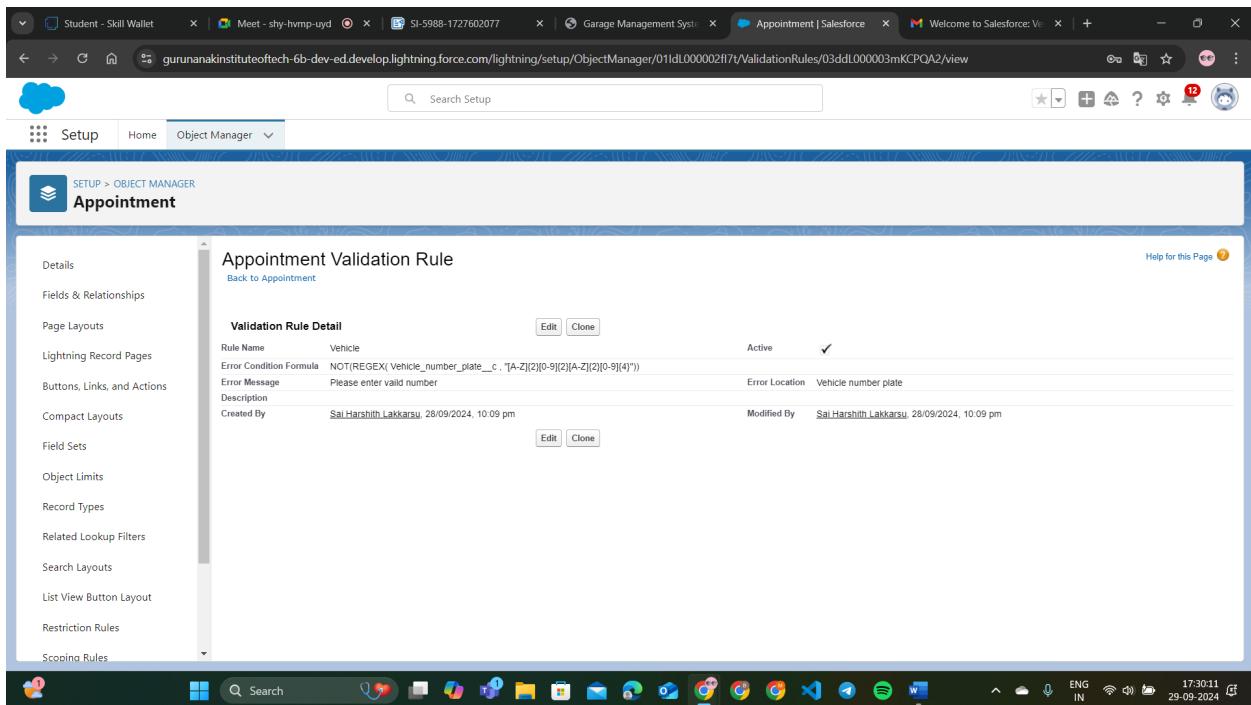
Billing details and feedback Object Fields & Relationships:

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

TASK 6: VALIDATION RULES

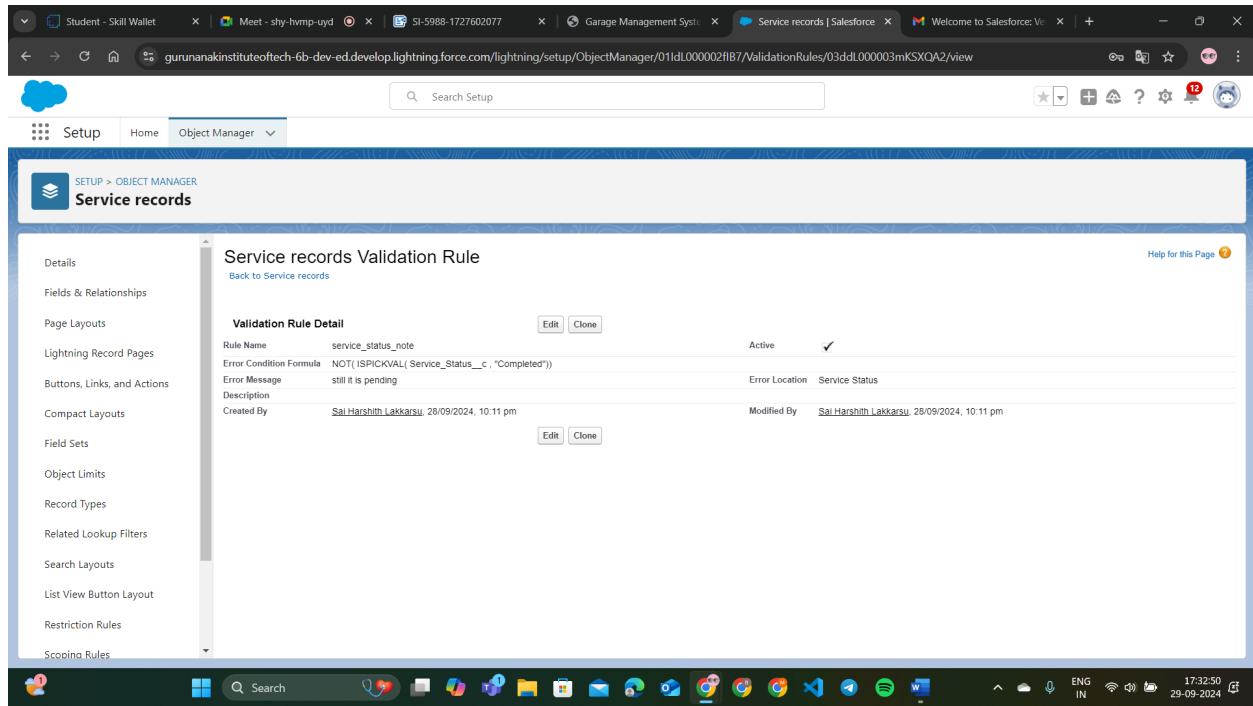
To Create A Validation Rule To An Appointment Object

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}"))`
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.



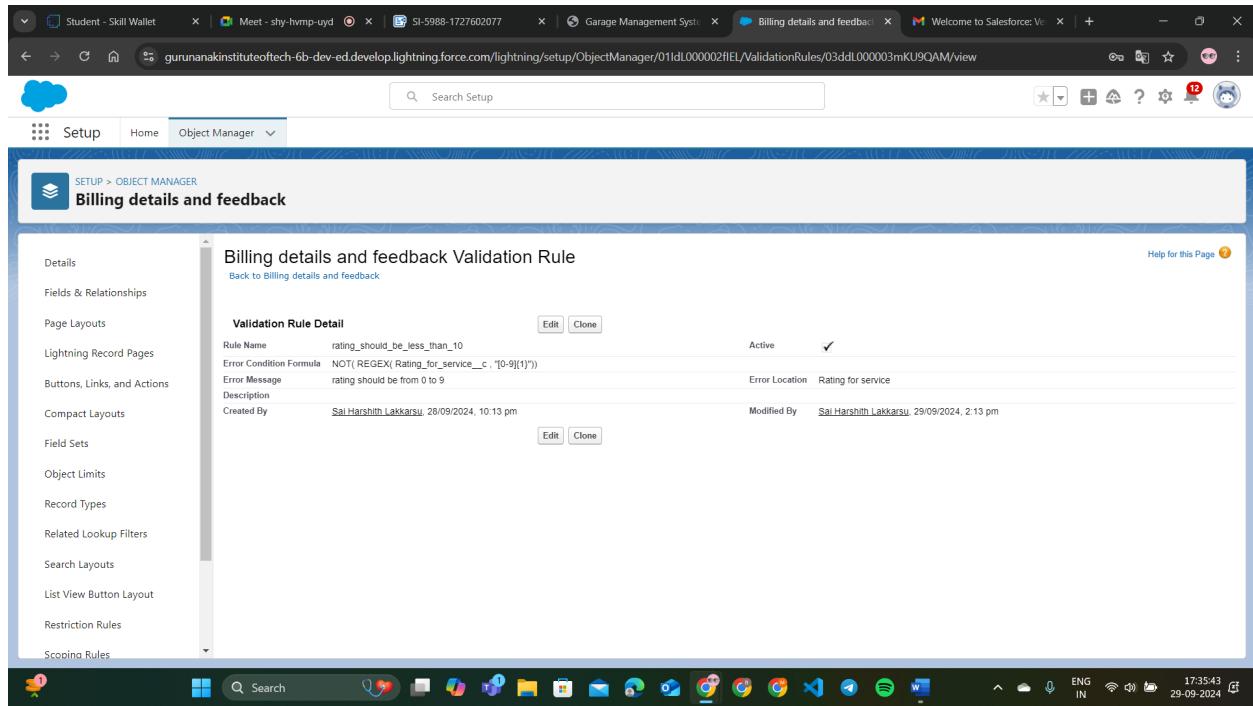
To Create A Validation Rule To An Service Records Object

1. Go to the setup page >> click on object manager >> From drop down click edit for Service records object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as " service_status_note ".
4. Insert the ErrorCondition 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.



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_10”.
4. Insert the Error Condition Formula as :-
`NOT(REGEX(Rating_for_service_c , "[0-9]{1}"))`
5. Enter the Error Message as “rating should be from 0 to 9”, select the Error location as Field and select the field as “Rating for Service”, and click Save.



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 customerdetails
5. Unique name : is auto populated
6. Define the matching criteria as

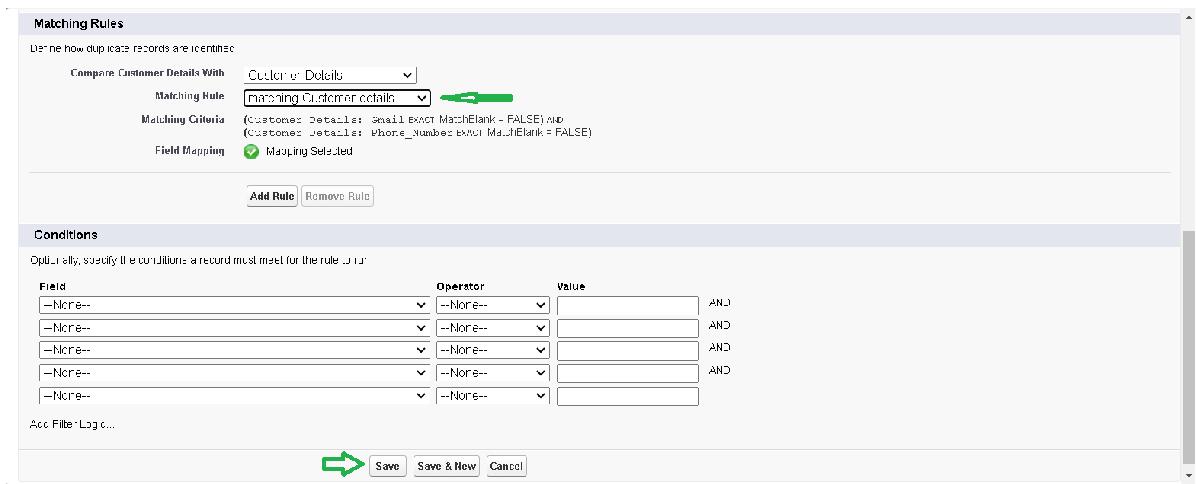
Field	Matching Method
a. Gmail	Exact
b. Phone Number	Exact

7. Click save.
8. After Saving Click on Activate.

To Create A Duplicate Rule To An Customer Details Object

1. Go to quick find box in setup and search for Duplicate rules.
2. Click on Duplicate rule >> click on New Rule >> select customer details object.

3. Give the Rule name as : Customer Detail duplicate
4. Scroll a little in Matching rule section
5. Select the matching rule : Matching customerdetails
6. And Click on save.
7. After saving the DuplicateRule, Click on Activate.

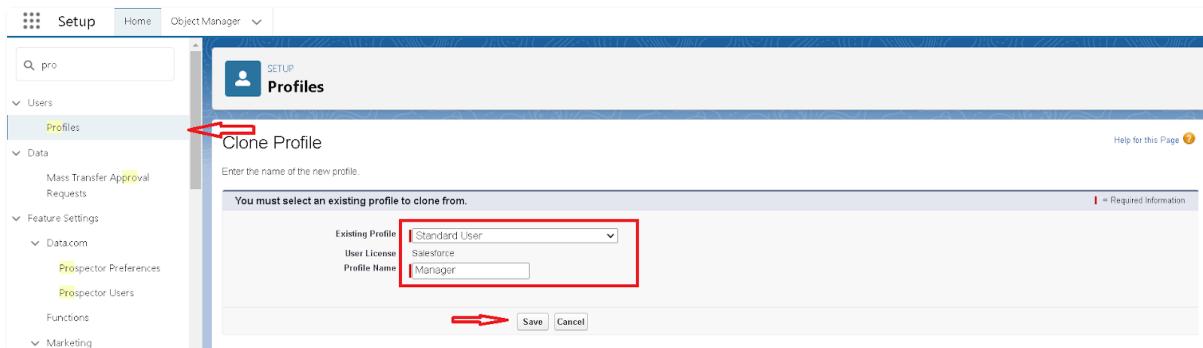


TASK 8:CREATE PROFILES

Manager Profile

To create a new profile:

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Standard User) >> enter profile name (Manager) >> Save.



2. While still on the profile page, then click Edit.
3. Select the Custom App settings as default for the Garage management.
4. Scroll down to Custom Object Permissions and Give access permissions for Appointments,Billing details and feedback , service records and customer details objects as

mentioned in the below diagram.

Custom Object Permissions						
	Basic Access				Data Administration	
	Read	Create	Edit	Delete	View All	Modify All
Appointments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Billing details and feedback	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customer Details	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Environments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laptops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service records	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SessionData	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

sales person Profile

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

Custom Object Permissions						
	Basic Access				Data Administration	
	Read	Create	Edit	Delete	View All	Modify All
Appointments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Billing details and feedback	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customer Details	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laptops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service records	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SessionData	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. And click save.

Creating Manager Role

Creating Manager Role:

1. Go to quick find >> Search for Roles >> click on set up roles.

The screenshot shows the Salesforce Setup Roles page. On the left, there's a sidebar with a search bar and sections for Users (with Roles highlighted) and Feature Settings (Sales, Service, Case Teams). The main area displays a 'Territory-based Sample' role hierarchy diagram. At the top is the 'Executive Staff' role, which includes the 'CEO' and 'President'. Below them are 'Western Sales Director', 'Eastern Sales Directors', and 'International Sales Director'. Under 'Western Sales Director' are 'Western Sales Rep' (with sub-reps for CA, OR, and MA), 'NY Sales Rep', and 'Int'l Sales'. Under 'International Sales Director' are 'Asian Sales Rep' and 'European Sales Rep'. A legend on the right explains the icons: a person icon for View & edit data, a chart icon for Create reports & generate forecasts, and a lock icon for Can't access data of others. A red box highlights the 'Set Up Roles' button at the bottom right.

2. Click on Expand All and click on add role under whom this role works.

The screenshot shows the 'Your Organization's Role Hierarchy' tree view. The root node is 'Nick Enterprises'. Under it are 'Add Role', 'CEO' (with 'Edit | Del | Assign' buttons), 'HR' (with 'Edit | Del | Assign' buttons), 'Manager' (with 'Edit | Del | Assign' buttons), 'On Site Emp' (with 'Edit | Del | Assign' buttons), and 'Remote Emp' (with 'Edit | Del | Assign' buttons). A red box highlights the 'Expand All' button at the top left. Another red box highlights the 'Add Role' button under the 'Manager' node.

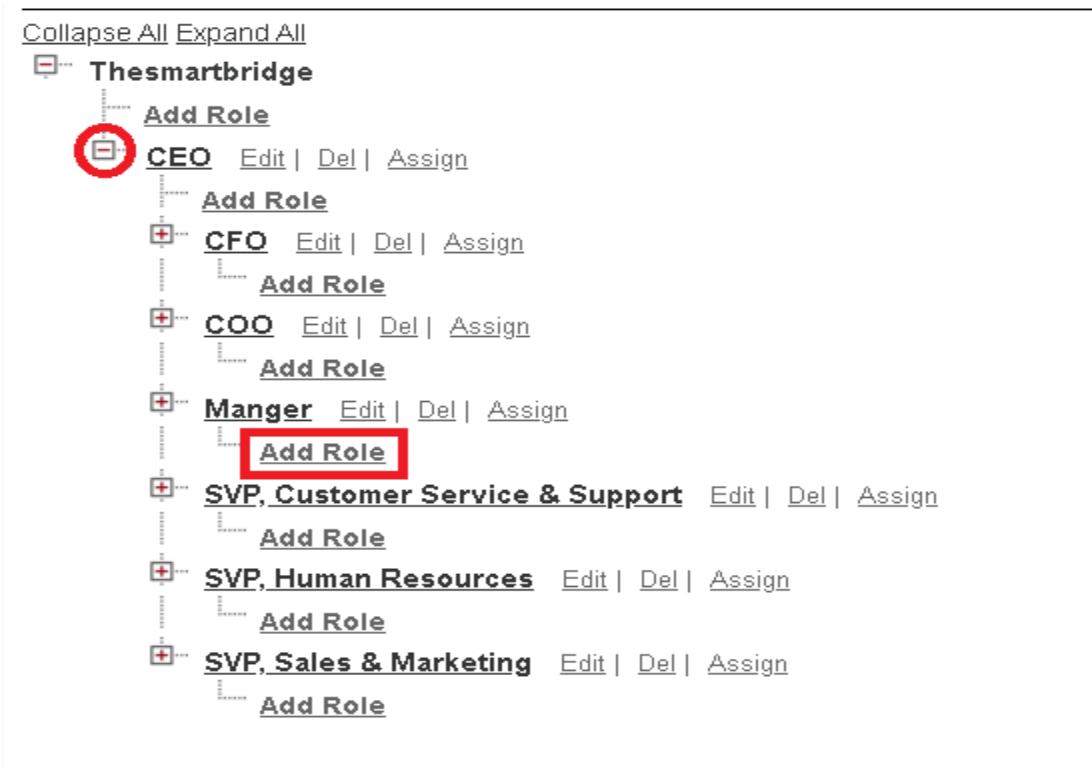
3. Give Label as "Manager" and Role name gets auto populated. Then click on Save.

The screenshot shows the 'Role Edit' dialog box. It has fields for 'Label' (set to 'Manger'), 'Role Name' (auto-filled as 'Manger'), 'This role reports to' (set to 'CEO'), and 'Role Name as displayed on reports' (empty). At the bottom are 'Save' and 'Save & New' buttons, with a red arrow pointing to the 'Save' button.

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

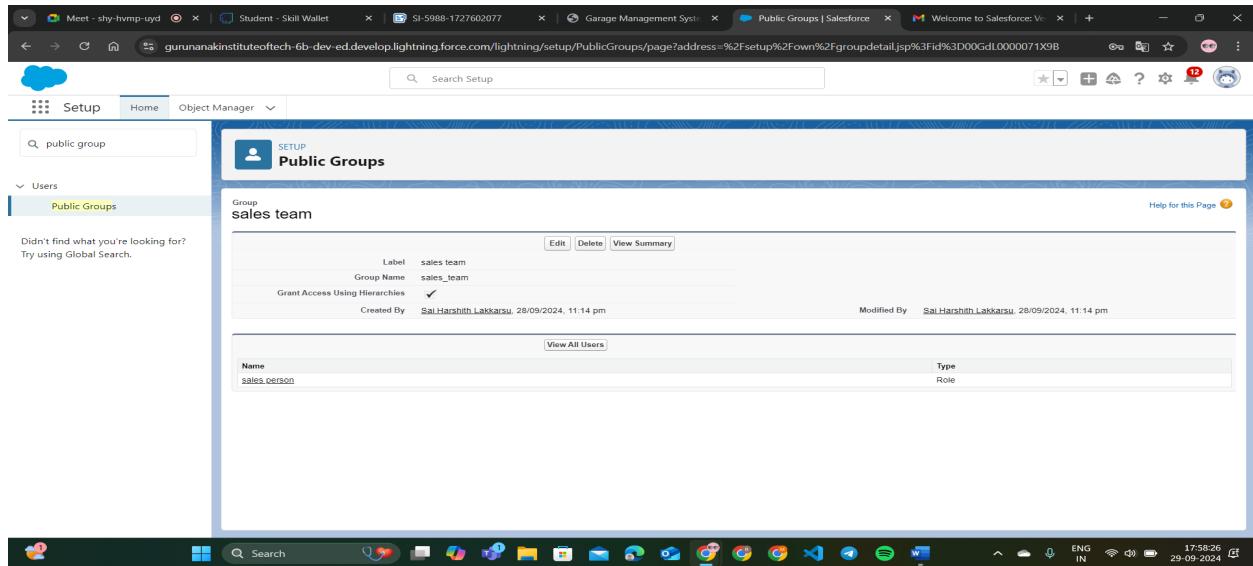
1. Go to setup >> type users in quick find box >>select users >>click New user.
2. Fill in the fields
 - i. First Name : Nicklaus
 - ii. Last Name: Mikaelson
 - iii. Alias : Give a Alias Name
 - iv. Email id : Give your Personal Emailid
 - v. Username : Username should be in this form: text@text.text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

Action	Full Name	Alias	Username	Role	Active	Profile
 Edit	Chatter Expert	Chatter	chatty.0dd0000000czrdnuaz.bv8tkwxyll@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
 Edit	har_har	hhar	har@har.com		<input checked="" type="checkbox"/>	Standard Platform User
 Edit	Lakkarasu_SaiHarshith	Slakk	harshith@gnt.com		<input checked="" type="checkbox"/>	System Administrator
 Edit	Mikaelson_Niklaus	nnika	kin@kin.com	Manager	<input checked="" type="checkbox"/>	Manager
 Edit	sai_sai	ssai	ias@ias.com		<input checked="" type="checkbox"/>	Standard Platform User
 Edit	shith_shith	sshit	shith@shith.com		<input checked="" type="checkbox"/>	Standard Platform User
 Edit	User_Integration	integ	integration@00dd000000czrdnuaz.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
 Edit	User_Security	sec	insightsseccury@00dd000000czrdnuaz.com		<input checked="" type="checkbox"/>	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.



TASK 12:SHARESETTING

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 recordsharing Rules.
5. Give the Label name as " Sharing setting"
6. Rule name is auto populated.
7. In step 3 : Select whichrecords to be shared, membersof " Roles " >>" Sales person"
8. In step 4: share with, select " Roles " >> " Manager "
9. In step 5 : Change the accesslevel to " Read / write ".
10. Click on save.

The screenshot shows the 'Sharing Settings' page in the Salesforce Setup. The left sidebar has 'Sharing Settings' selected under 'Security'. The main area displays a table of 'Organization-Wide Defaults' for various objects. The table columns are 'Object', 'Default Internal Access', 'Default External Access', and 'Grant Access Using Hierarchies'. Checkmarks are present in the 'Grant Access Using Hierarchies' column for most objects.

Object	Default Internal Access	Default External Access	Grant Access Using Hierarchies
Lead	Public Read/Write/Transfer	Private	✓
Account and Contract	Public Read/Write	Private	✓
Contact	Controlled by Parent	Controlled by Parent	✓
Order	Controlled by Parent	Controlled by Parent	✓
Asset	Controlled by Parent	Controlled by Parent	✓
Opportunity	Public Read/Write	Private	✓
Case	Public Read/Write/Transfer	Private	✓
Campaign	Public Full Access	Private	✓
Campaign Member	Controlled by Campaign	Controlled by Campaign	✓
User	Public Read Only	Private	✓

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 Optimizer 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 from 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.

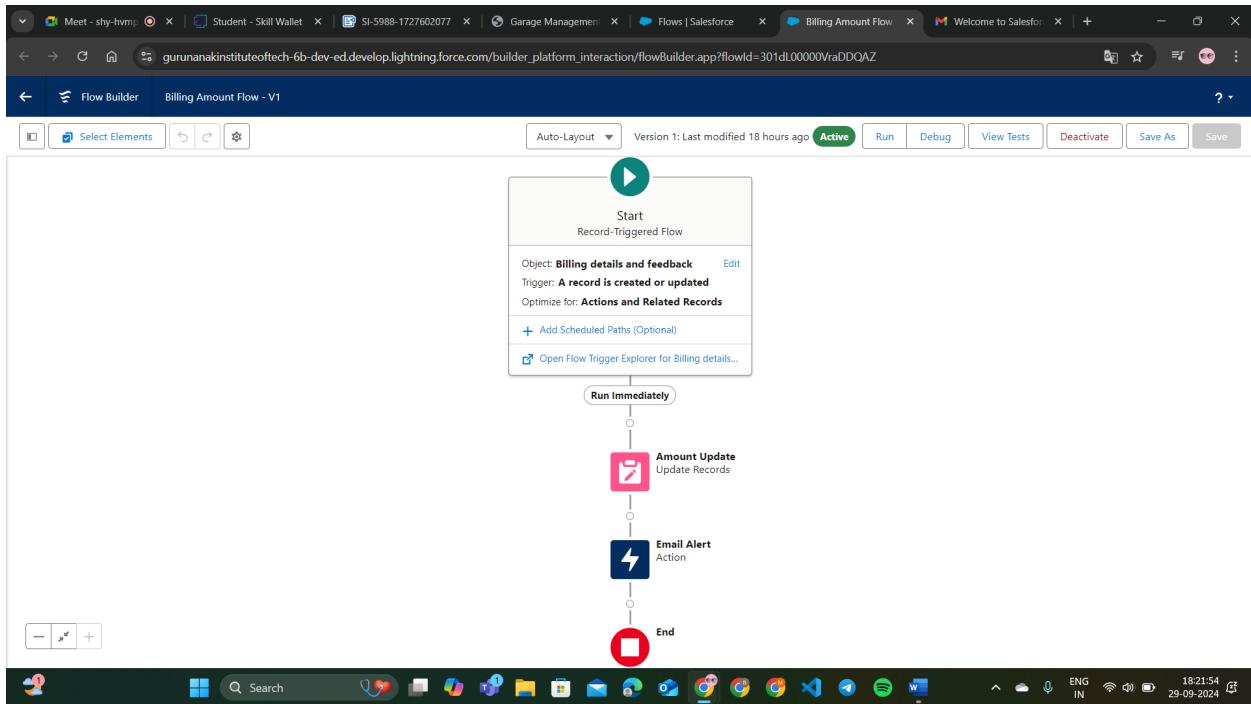
Dear {\$Record.Service_records.r.Appointment.r.Customer_Name.r.Name},

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.



TASK 14:APEX TRIGGER

Apex Handler

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

Code:

```

public class AmountDistributionHandler {
    public static void amountDist(list<Appointment__c> listApp){
        list<Service_records__c> serList = new list <Service_records__c>();
        for(Appointment__c app : listApp){
            if(app.Maintenance_service__c == true && app.Repairs__c == true &&

```

```

app.Replacement_Parts__c == true){
    app.Service_Amount__c = 10000;
}
else if(app.Maintenance_service__c == true && app.Repairs__c == true){
    app.Service_Amount__c = 5000;
}
else if(app.Maintenance_service__c == true && app.Replacement_Parts__c == true){
    app.Service_Amount__c = 8000;
}
else if(app.Repairs__c == true && app.Replacement_Parts__c == true){
    app.Service_Amount__c = 7000;
}
else if(app.Maintenance_service__c == true){
    app.Service_Amount__c = 2000;
}
else if(app.Repairs__c == true){
    app.Service_Amount__c = 3000;
}
else if(app.Replacement_Parts__c == true){
    app.Service_Amount__c = 5000;
}
}
}
}
}

```

Trigger Handler :

How to create a new trigger :

1. While still in the trailhead account, navigate to the gear icon in the top right corner.
2. Click on developer console and you will be navigated to a new console window.
3. Click on File menu in the tool bar, and click on new? Trigger.
4. Enter the trigger name and the object to be triggered.
5. Name : AmountDistribution
6. sObject : Appointment__c

Syntax For creating trigger :

The syntax for creating trigger is :

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

```
{
}
```

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

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

1. Handler for the Appointment Object

Code:

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

The screenshot shows the Salesforce Developer Console interface. At the top, there are several tabs: Meet - shy-hvmp, Student - Skill Wallet, SL-5988-1727602077, Garage Management, Flows | Salesforce, Developer Console, and Welcome to Salesforce. Below the tabs, the URL is gurunanakinstituteoftech-6b-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage. The main area displays the code for AmountDistributionHandler.apxc. The code defines a public class AmountDistributionHandler with a static void method amountDist that takes a list of Appointment__c records. It initializes a list of Service_records__c and iterates through each appointment record. If the Maintenance_service__c field is true and either Repairs__c or Replacement_Parts__c is also true, it sets the Service_Amount__c field to 10000. Otherwise, if only Repairs__c is true, it sets the Service_Amount__c field to 5000. The code coverage is shown as 0% for all classes. At the bottom, the Test tab is selected, showing a single test run named 'Test Run' with no failures. The status bar at the bottom right shows the date and time as 29-09-2024 18:31:02.

```
1 public class AmountDistributionHandler {  
2     public static void amountDist(list<Appointment__c> listApp){  
3         list<Service_records__c> serList = new list <Service_records__c>();  
4  
5         for(Appointment__c app : listApp){  
6             if(app.Maintenance_service__c == true && app.Repairs__c == true && app.Replacement_Parts__c == true){  
7                 app.Service_Amount__c = 10000;  
8             }  
9             else if(app.Maintenance_service__c == true && app.Repairs__c == true){  
10                 app.Service_Amount__c = 5000;  
11             }  
12         }  
13     }  
14 }
```

Overall Code Coverage		
Class	Percent	Lines
Overall	0%	0/2
AmountDistribution	0%	0/2
AmountDistributionHandler	0%	0/17

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

Status	Test Run	Enqueued Time	Duration	Failures	Total
Overall	0%	0/2	0/17	0	0

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 "GarageManagement Folder", Folderunique name will be autopopulated.
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 GarageManagement folder, andClick on share.
3. Select the share with as "roles",in name field search for "manager", give "view" as access for thatrole.
4. Then click share, and click on Done.

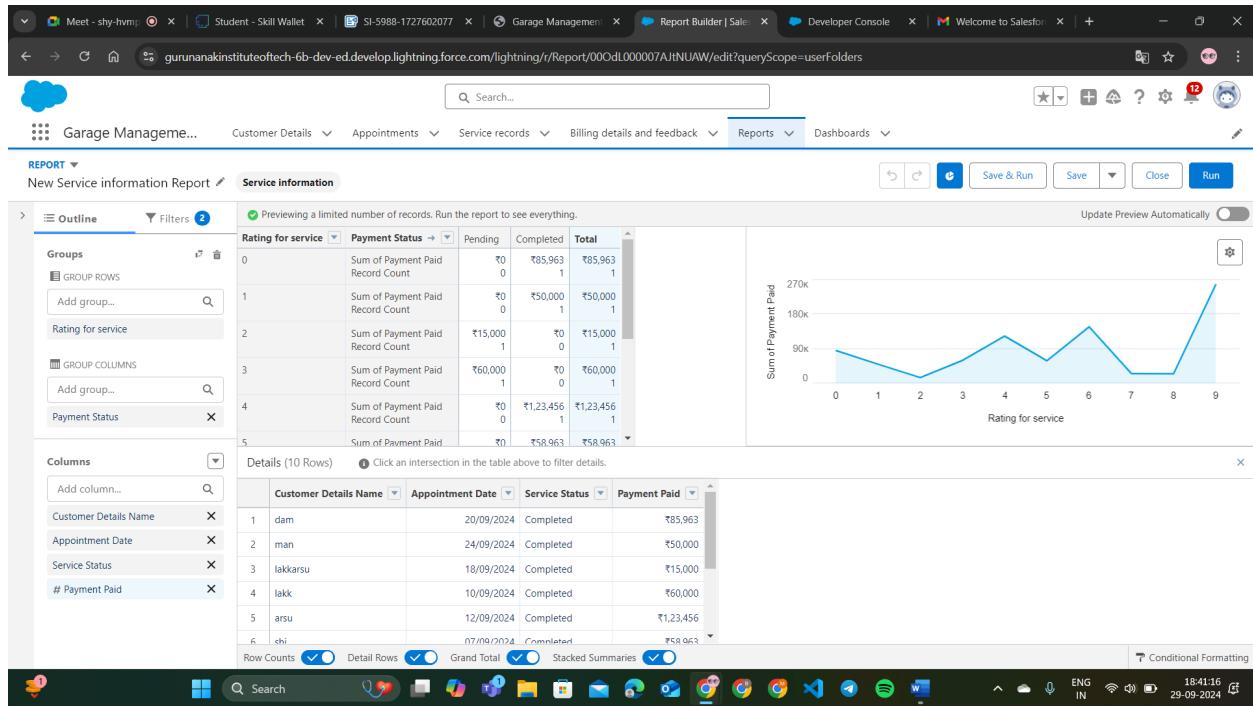
Create Report Type

1. Go to setup >>type users in quick find box >>select Report Type >> click on Continue.
2. Click on new customreport 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 Objectas shown in fig.
11. Again Click to relate another object.
12. And select the related objectas " service records".
13. Repeat the process and select the related objectas " 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 recordfor better experience.

1. Go to the app >>click on the reports tab
2. Click New Report.
3. Select the Categoryas other reports,search for ServiceInformation, select that report, click on it. And clickon start report.
4. Their outlinepane is openedalready, select the fields that mentioned belowin column section.
 - a. Customer name
 - b. Appointment Date
 - c. Service Status
 - d. Payment paid
5. Remove the unnecessary fields.
6. Select the fields that mentioned below in GROUP ROWS section.
 - a. Rating for Service
7. Select the fields that mentioned below in GROUP COLUMNS section.
 - a. 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 uniqueName is auto populated.
11. 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 “ ServiceRating dashboard”.
4. Folder uniqueness will be auto populated.
5. Click save.
6. Follow the same steps, from milestone15, and activity 2, and provide the sharing settingsfor the folderthat 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 Reportand click on select.
5. Select the Line Chart.Change the theme.
6. Click Add then clickon Save and then clickon Done.

7. Preview is shown below.

The screenshot shows a Salesforce dashboard titled "Customer review". The main chart displays the relationship between service ratings and payment amounts. The Y-axis represents the sum of payment paid in rupees, ranging from ₹0 to ₹300k. The X-axis represents the rating for service, ranging from 0 to 9. The data points show a general increase in payment as the rating goes up, with a notable dip at rating 7. A tooltip for the chart indicates "Payment Status" with options "Pending" and "Completed". Below the chart, there is a link to "View Report (New Service information Report)".

8. After that Click on Subscribe on top right.

9. Set the Frequency as " weekly ".

10. Set a day as monday.

11. And Click on save.

The screenshot shows a "Edit Subscription" modal window overlaid on the same Salesforce dashboard. The modal contains settings for scheduling dashboard refreshes and sending notifications. Under "Frequency", "Weekly" is selected. Under "Days", "Mon" is selected. Under "Time", "3:00 pm" is chosen. In the "Recipients" section, a checkbox for "Receive new results by email when dashboard is refreshed" is checked and set to "Me". At the bottom of the modal are buttons for "Unsubscribe", "Cancel", and "Save".

THANK YOU