



ANGEL



**COLLEGE OF ENGINEERING
AND TECHNOLOGY**
TIRUPUR – 641665
(AN ISO 9001:2015 CERTIFIED INSTITUTION)

BONAFIDE CERTIFICATE

Register Number.....

This is to certify that the bonafide record work done by
..... of **B.E. Computer Science**
And Engineering branch for the **07** semester during the academic year **2024-2025** in the
SB8067- Salesforce Developer Laboratory.

Signature of

Faculty in-charge

Signature of

Head of the Department

Submitted for the University Practical Examination held on

INTERNAL EXAMINER

EXTERNAL EXAMINER

A CRM APPLICATION TO ENGINEERING WORKS

College Name : Angel college of Engineering and Technology

College code:7103

Department : Computer Science and Engineering

NM Project : A CRM application to engineering
works

Group project

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Abstract

An application is required to efficiently manage client information for engineering projects, encompassing details such as company information, owner details, contact information, worker details, and their respective requirements for materials, including measurements. Additionally, the application should automatically calculate the price based on the specified materials and measurements. The available works in Engineering Works comprise Fabrication, Shed Construction, and Pipe Lining. Within the Fabrication work, various processes are involved, namely Drilling, Welding, Cutting, and Folding.

The GMS provides modules for various aspects of garage management, including:

1. Customer Management: Maintains a database of customer profiles, service history, and contact details, enabling personalized service and efficient customer communication.
2. Appointment Scheduling: Allows customers to book service appointments online or via phone, with automatic scheduling to optimize garage capacity and reduce wait times.
3. Vehicle Management: Keeps track of vehicle information, maintenance history, and upcoming service reminders, ensuring that each vehicle receives timely and appropriate care.
4. Inventory Management: Manages spare parts and consumables inventory, monitors stock levels, generates purchase orders, and provides alerts for low-stock items to avoid service delays.
5. Job Card and Work Order Management: Generates job cards for each service request, assigns tasks to technicians, and tracks job progress in real-time, improving accountability and workflow management.

6. Billing and Invoicing: Automates the generation of detailed invoices based on services rendered and parts used, with options for discounts, taxes, and multiple payment methods.
7. Reporting and Analytics: Provides detailed reports on key performance indicators (KPIs) such as revenue, customer retention, technician productivity, and inventory turnover, enabling data-driven decision-making.
8. Notifications and Alerts: Sends automated reminders and alerts to customers for service due dates, appointment confirmations, and promotional offers, enhancing customer engagement.
9. Security and User Access Control: Ensures secure data storage with role-based access control, protecting sensitive information and preventing unauthorized access.

The system is designed to be user-friendly, with an intuitive interface accessible via desktop and mobile devices. It supports integration with third-party systems, such as accounting software and payment gateways, to provide a seamless experience for garage owners and customers.

Key Benefits:

Improved Operational Efficiency: Automates routine tasks, reducing manual errors and freeing up staff to focus on higher-value activities.

Enhanced Customer Experience: Provides a convenient platform for customers to book appointments, track service status, and receive timely updates.

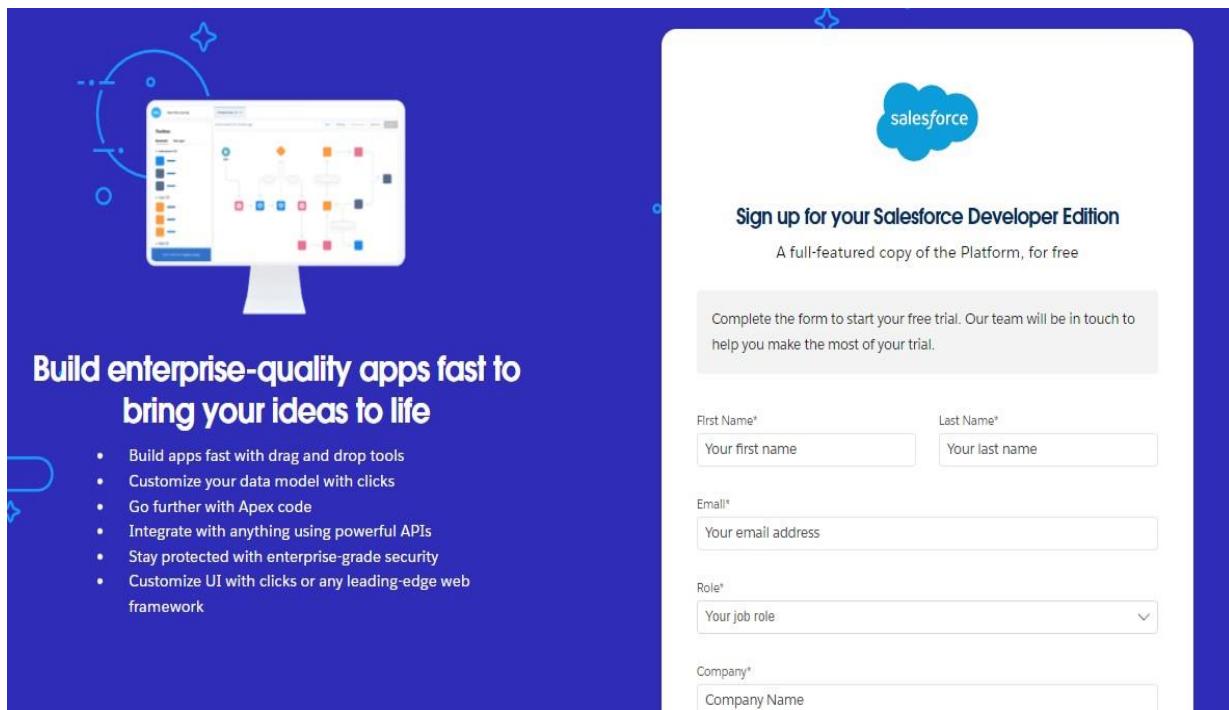
Cost Savings: Optimizes inventory management and job scheduling, reducing waste and maximizing resource utilization.

Scalability: Suitable for small, independent garages as well as larger, multi-location service centers.

The A CRM application to engineering works serves as a comprehensive solution to modernize garage operations, helping businesses stay competitive in a fast-evolving automotive service industry.

SALESFORCE

Creating developer account:

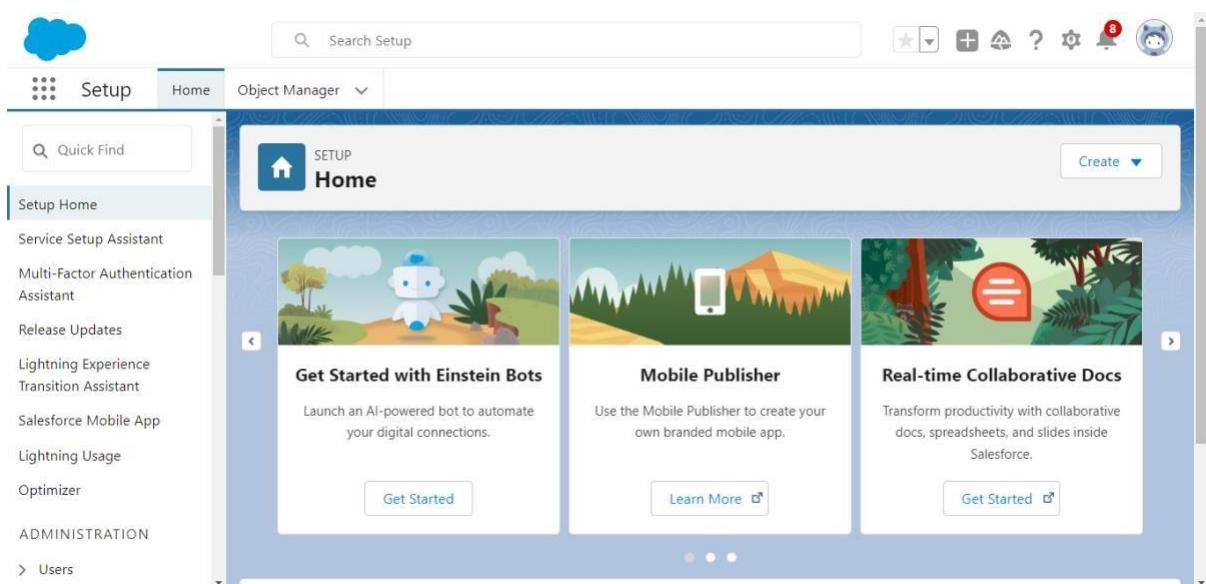
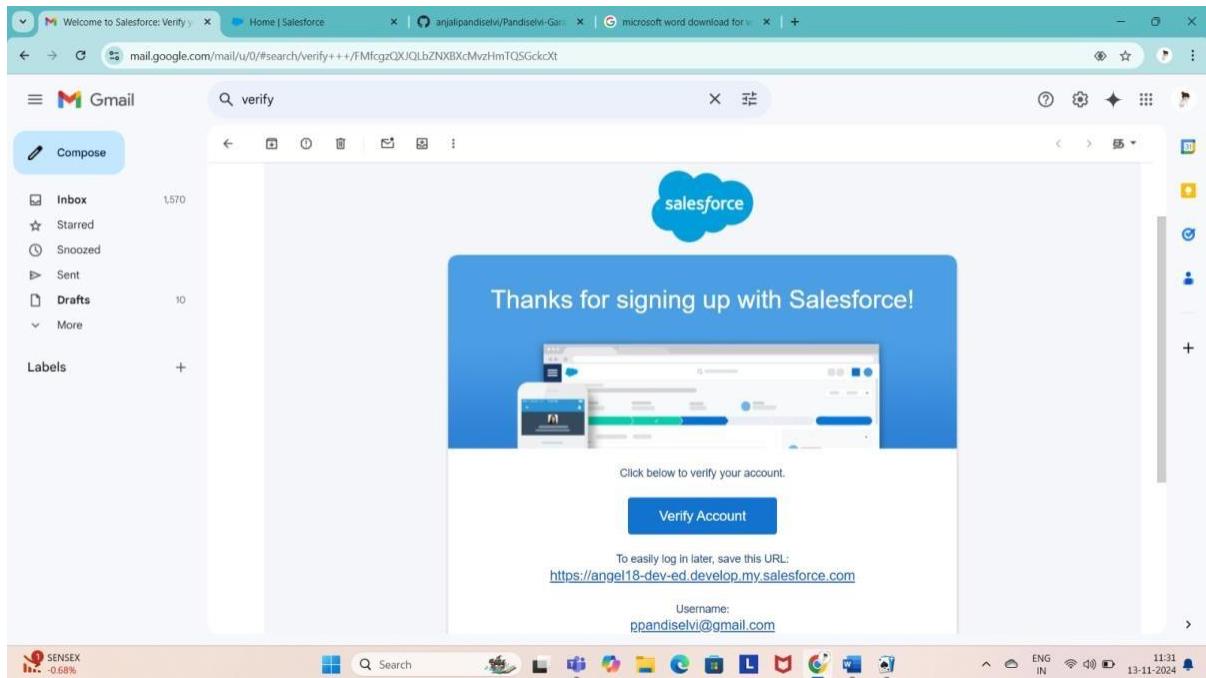


1. First name & Last name
2. Email
3. Role : Developer
4. Company : College Name
5. County : India
6. Postal Code : pin code
7. Username : should be a combination of your name and company

This need not be an actual email id, you can give anything in the format :lusername@organization.com
Click on sign me up after filling these.

Account Activation

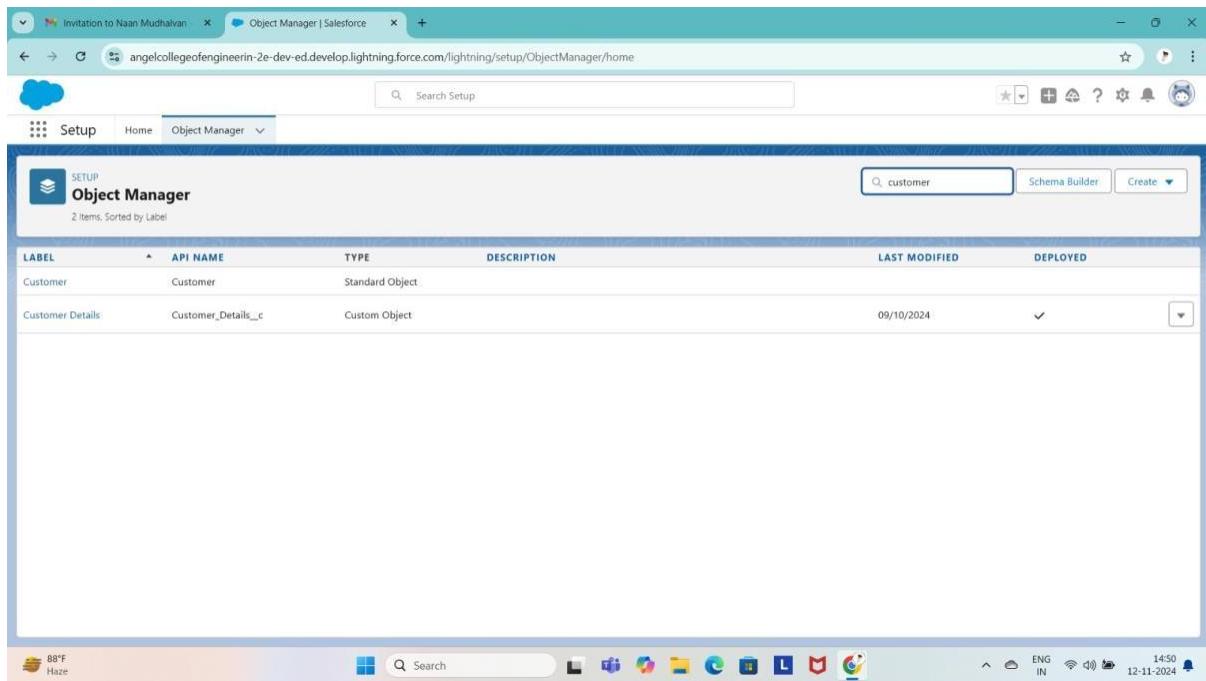
1. Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.
2. Click on Verify Account
3. Give a password and answer a security question and click on change password.
4. Then you will redirect to your salesforce setup page



Create Fabrication 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>> Fabrication
 2. Plural label name >> Fabrications
 3. Enter Record Name Label and Format
 - Record Name >> Fabrication Name
 - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow Activities
3. Allow search >> Save.



Create Shed-Work 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 >> Shed-Work
 2. Plural label name >> Shed Works
 3. Enter Record Name Label and Format
 - Record Name >> Shed Work Name
 - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow Activities
3. Allow search >> Save.

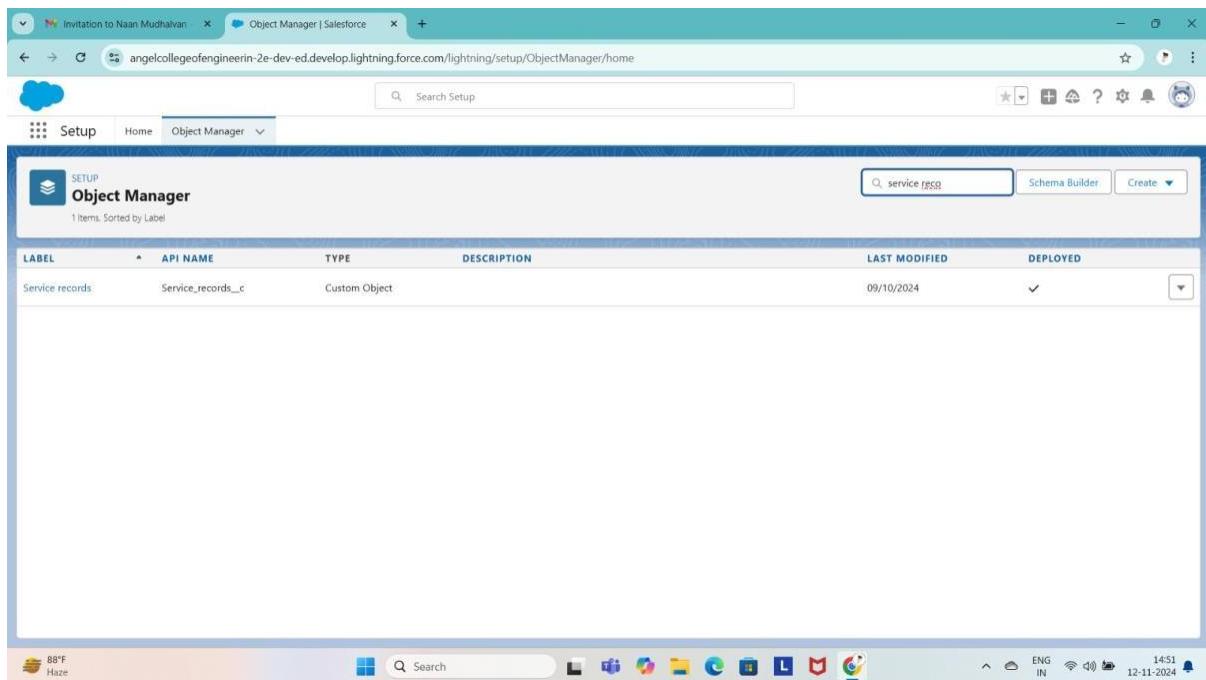
The screenshot shows the Salesforce Object Manager page. At the top, there are tabs for 'Setup' and 'Object Manager'. The main area displays a table titled 'Object Manager' with 7 items sorted by Label. The columns are labeled: LABEL, API NAME, TYPE, DESCRIPTION, LAST MODIFIED, and DEPLOYED. The data in the table is as follows:

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Appointment	Appointment_c	Custom Object		14/10/2024	✓
Appointment Category	AppointmentCategory	Standard Object			
Appointment Invitation	AppointmentInvitation	Standard Object			
Appointment Invitee	AppointmentInvitee	Standard Object			
Appointment Topic Time Slot	AppointmentTopicTimeSlot	Standard Object			
Service Appointment	ServiceAppointment	Standard Object			
Service Appointment Attendee	ServiceAppointmentAttendee	Standard Object			

Create Pipe Lining Object

To create an object:

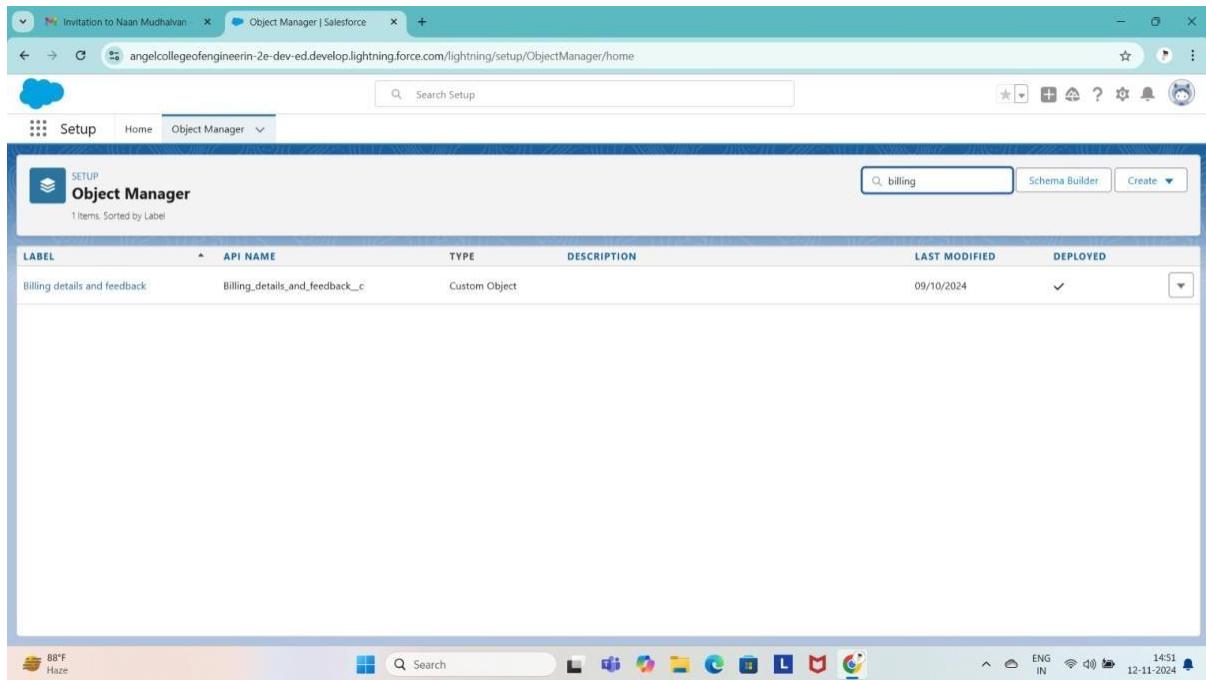
1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 1. Enter the label name >> Pipe Lining
 2. Plural label name >> Pipe Linings
 3. Enter Record Name Label and Format
 - Record Name >> Pipe Lining Name
 - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow Activities
3. Allow search >> Save



Create Worker Object

To create an object:

2. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
3. Enter the label name >> Worker
4. Plural label name >> Workers
5. Enter Record Name Label and Format
6. Record Name >> Worker Name
7. Data Type >> Text
8. Click on Allow reports and Track Field History,Allow Activities
9. Allow search >> Save.



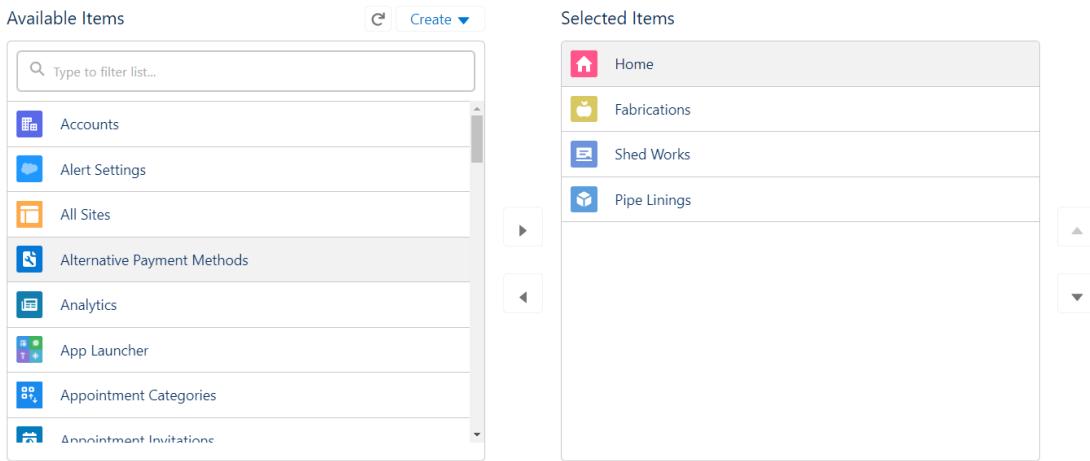
Creating a Custom Tab

To create a Tab:(Customer Details)

1. Select Object(Fabrication) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) uncheck the include tab .
2. Make sure that the Append tab to users' existing personal customizations is checked.
3. Click save

Creating Remaining Tabs

1. Now create the Tabs for the remaining Objects, they are “Shed-Work, Pipe lining, Worker”.
2. Follow the same steps as mentioned in Activity -1 .



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 and branding as follow

App Name : Engineering Works

Developer Name : This will auto populated

Image : optional (if you want to give any image you can otherwise not mandatory) Primary color hex value : keep this default.

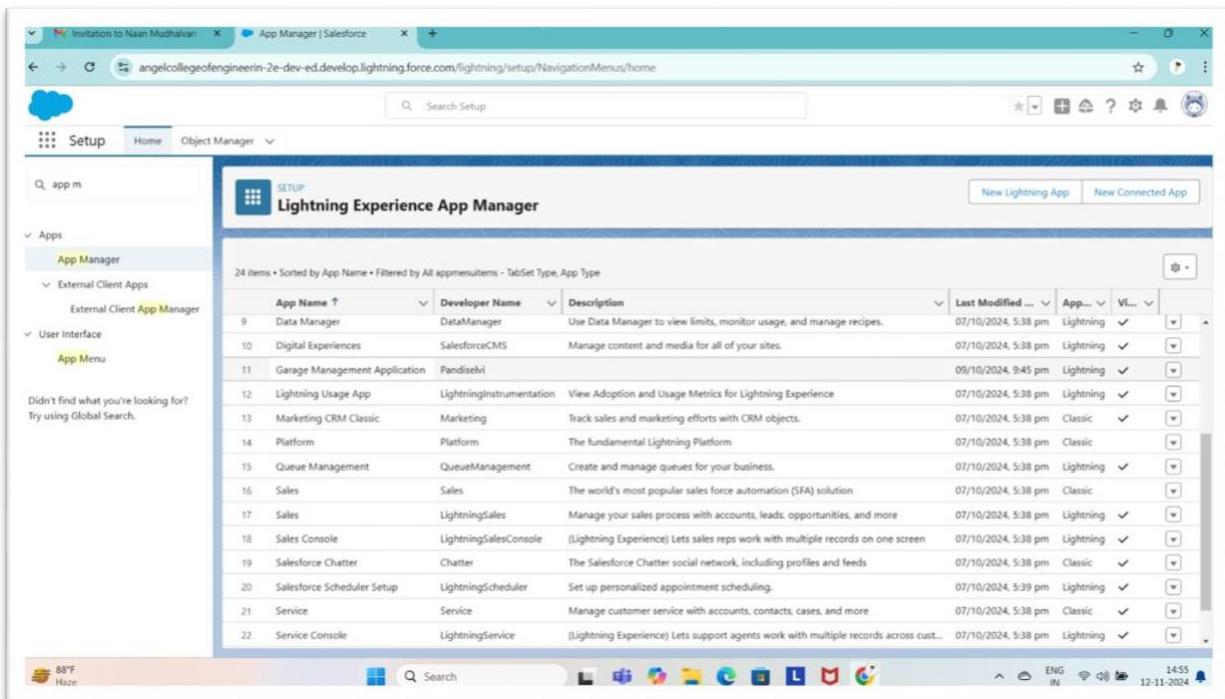
3. Then click Next >> (App option page) Set Navigation Style as Standard Navigation >> Next.

4. (Utility Items) keep it as default >> Next.

5. To Add Navigation Items:

6. To Add User Profiles:

Search profiles (System administrator) in the search bar >> click on the arrow button >> save & finish.



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.

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

Creation of Lookup fields

Creation of Lookup Field on Appointment Object :

1. Go to setup >> click on Object Manager >> type object name(Appointment) in the search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select “Look-up relationship” as data type and click Next.
4. Select the related object “ Customer Details ” and click next.
5. Next >> Next >> Save.

Note: Make sure you complete Activity 4 Before continuing.

Creation of Lookup Field on Service records Object :

1. Go to setup >> click on Object Manager >> type object name(Service records) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select “Look-up relationship” as data type and click Next.
4. Select the related object “ Appointment ” and click next.
5. Make it a required field so click on Required.

Lookup Options

Related To: Appointment

Related List Label: Service records

Child Relationship Name: Service_records

Required:

- Always require a value in this field in order to save a record
- Clear the value of this field. You can't choose this option if you make this field required.

What to do if the lookup record is deleted?

- Don't allow deletion of the lookup record that's part of a lookup relationship.
- Always require a value in this field in order to save a record.

6. Scroll down for Lookup Filter and click on Show filter settings.

7. Now add the filter criteria.
8. Field : Appointment: Appointment Date >> Operator : less than >> select field >> Appointment: Created Date
9. Filter type should be Required.

Lookup Filter

Optional, create a filter to limit the records available to users in the lookup field. [Tell me more!](#)

Hide Filter Settings

Filter Criteria

Field	Operator	Value / Field
Appointment: Appointment Date	less than	Field <input type="button" value="Appointment: Created Date"/> <input type="button" value="Clear"/>
AND <input type="text" value="Begin typing to search for a field..."/> <input type="button" value="--None--"/> <input type="button" value="Value"/> <input type="button" value="Clear"/>		
<input type="button" value="Add another condition..."/>		

Filter Type

Required. The user-entered value must match filter criteria.
If it doesn't, display this error message on save.

Optional. The user can remove the filter or enter values that don't match criteria.

Lookup Window Text Add this informational message to the lookup window.

Active Enable this filter.

10. Error Message : Value does not match the criteria.
11. Enable the filter by click on Active.
12. Next >> Next >> Save.

Creation of Lookup Field on Billing details and feedback Object :

1. Go to setup >> click on Object Manager >> type object name(Billing details and feedback) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select “Look-up relationship” as data type and click Next.
4. Select the related object “ Service records” and click next.
5. Next >> Next >> Save & new.

Creation of Checkbox fields

Creation of Checkbox Field on Appointment Object :

1. Go to setup >> click on Object Manager >> type object name(Appointment) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select “Check box” as data type and click Next.

SETUP > OBJECT MANAGER

Appointment

Details

Fields & Relationships

Specify the type of information that the custom field will contain.

Data Type

None Selected Select one of the data types below.

Auto Number A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

Formula A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

Roll-Up Summary A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.

Lookup Relationship Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of the values in the list.

Master-Detail Relationship Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent, or "master") where:

- The relationship field is required on all detail records.
- The ownership and sharing of a detail record are determined by the master record.
- When a user deletes the master record, all detail records are deleted.
- You can create roll-up summary fields on the master record to summarize the detail records.

External Lookup Relationship The relationship field allows users to click on a lookup icon to select a value from a popup list. The master object is the source of the values in the list.

Checkbox Allows users to select a True (checked) or False (unchecked) value.

Currency Allows users to enter a dollar or other currency amount, and automatically formats the field as a currency amount. This can be useful if you export data to Excel or another

4. Give the Field Label : Maintenance service
 5. Field Name : is auto populated
 6. Default value : unchecked

Appointment New Custom Field

Help for this Page

Step 2 Enter the details

Step 2 of 4

[Previous](#) [Next](#) [Cancel](#)

Field Label	Maintenance service i	
Default Value	<input type="radio"/> Checked <input checked="" type="radio"/> Unchecked 	
Field Name	Maintenance_service i	
Description	<input type="text"/>	
Help Text	<input type="text"/>	

Auto add to custom report type Add this field to existing custom report types that contain this entity [i](#)

[Previous](#) [Next](#) [Cancel](#)

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.

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

- Page Layouts**: Appointment Date, Appointment Name, Created By, Customer Details, Last Modified By, Maintenance service, Owner.
- Lightning Record Pages**: None listed.
- Buttons, Links, and Actions**: None listed.
- Compact Layouts**: None listed.
- Field Sets**: None listed.
- Object Limits**: None listed.
- Record Types**: None listed.
- Related Lookup Filters**: None listed.
- Search Layouts**: None listed.
- List View Button Layout**: None listed.
- Restriction Rules**: None listed.
- Scoping Rules**: None listed.

Fields & Relationships (12 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)		✓
Payment Paid	Payment_Paid_c	Currency(18, 0)		
Repairs	Repairs_c	Checkbox		
Replacement Part	Replacement_Part_c	Checkbox		
Replacement Part Description	Replacement_Part_Desc_c	Text		
Repair Status	Repair_Status_c	Text		

Creation of Checkbox Field on Service records Object :

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

Appointment
New Custom Field

Step 2. Enter the details

Help for this Page [?](#)

Step 2 of 4

Previous [Next](#) Cancel

Field Label [i](#)

Field Name [i](#)

Description

Help Text

Required Always require a value in this field in order to save a record

Auto add to custom report type Add this field to existing custom report types that contain this entity [i](#)

Default Value [Show Formula Editor](#)

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

This screenshot shows the 'Step 2. Enter the details' screen for creating a new custom field. The field label is set to 'Service Amount'. The length is 18, and the decimal places are 0. The field name is 'Service_Amount'. There is a description and help text section, both of which are currently empty. Under the 'Required' section, there is a checkbox for 'Always require a value in this field in order to save a record' which is unchecked. Below that, there is a checkbox for 'Add this field to existing custom report types that contain this entity' which is checked. At the top right, there are 'Previous', 'Next', and 'Cancel' buttons, and at the bottom right, it says 'Step 2 of 4'.

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

This screenshot shows the 'Step 3. Establish field-level security' screen. It displays the field details: Field Label is 'Service Amounts', Data Type is 'Currency', Field Name is 'Service_Amounts', and Description is empty. A green arrow points upwards from the previous step's screenshot to this one. At the top right, there are 'Previous', 'Next', and 'Cancel' buttons, and at the bottom right, it says 'Step 3 of 4'. Below the field details, there is a table titled 'Field-Level Security for Profile' showing security settings for various profiles. The 'Visible' column has checkboxes for all profiles, and the 'Read-Only' column has checkboxes for all profiles except 'Analytics Cloud Integration User' and 'Analytics Cloud Security User', which have their checkboxes checked. A green box highlights the 'Read-Only' column header.

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.

The screenshot shows the 'Step 2. Enter the details' configuration screen for creating a new text field. The field label is set to 'Vehicle number plate'. The length is specified as 10. The field name is 'Vehicle_number_plate'. There is a description and help text section, both of which are currently empty. Under the 'Required' and 'Unique' sections, two checkboxes are checked: 'Always require a value in this field in order to save a record' and 'Do not allow duplicate values'. Under 'External ID', there is an option to 'Set this field as the unique record identifier from an external system', which is unchecked. At the bottom, there is an 'Auto add to custom report type' checkbox, which is checked, and a note indicating that the field will be added to existing custom report types that contain this entity.

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.

New Custom Field

Step 2. Enter the details Step 2 of 4

Field Label

Values Use global picklist value set
 Enter values, with each value separated by a new line

Display values alphabetically, not in the order entered
 Use first value as default value
 Restrict picklist to the values defined in the value set

Field Name

Description

Previous Next Cancel

6. Click Next.
7. Next >> Next >> Save.

Invitation to Naan Mudhalvan Service records | Salesforce

angelicolegeofengineering-2e-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01lM000002mpgb/FieldsAndRelationships/view

Setup Home Object Manager

SETUP > OBJECT MANAGER Service records

Details Fields & Relationships 8 items, Sorted by Field Label

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

https://angelicolegeofengineering-2e-dev-ed.lightning.force.com/one/one.app#/setup/ObjectManager/01lM000002mpgb/FieldsAndRelationships/view

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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

This screenshot shows the 'Insert Field' dialog box. In the left pane, 'Service records >' is expanded, and 'Created Date' is selected and highlighted with a green box. In the right pane, 'You have selected: CreatedDate' is shown with its type as 'Date/Time' and API name as 'CreatedDate'. An 'Insert' button is highlighted with a green box. Below this, the 'Step 3. Enter formula' screen shows the formula 'service dates (Date) = CreatedDate' in the 'Simple Formula' tab. The 'CreatedDate' part of the formula is highlighted with a green box and has a green arrow pointing to it. The 'Advanced Formula' tab is also visible. On the right, a 'Quick Tips' sidebar has a green arrow pointing to it, listing 'Getting Started' and 'Operators & Functions'.

6. click “Check Syntax” .
7. Click next >> next >> Save.

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.

The screenshot shows the Salesforce Object Manager interface for the 'Appointment' object. On the left, there's a sidebar with various configuration options like Buttons, Links, and Actions, Field Sets, Object Limits, Record Types, etc. The 'Validation Rules' option is highlighted with a green box. The main area displays a table titled 'Validation Rules' with one item listed:

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Vehicle	Vehicle number plate	Please enter valid number	✓	project 2, 25/09/2023, 11:56 am

A green box highlights the 'New' button in the top right corner of the table header.

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}"))

The screenshot shows the 'Validation Rule Edit' dialog for the 'Vehicle' rule. It has fields for Rule Name (Vehicle), Active (checked), and Description (vehicle). Below these, the 'Error Condition Formula' section is expanded, showing the formula NOT(REGEX(Vehicle_number_plate_c , "[A-Z]{2}[0-9]{2}[A-Z]{2}[0-9]{4}")). A green box highlights the formula input field. To the right, a 'Functions' dropdown menu is open, showing options like ABS, ACOS, ADDMONTHS, AND, ASCII, ASIN, etc. A green box highlights the 'Check Syntax' button at the bottom left of the formula editor.

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.



SETUP > OBJECT MANAGER
Appointment

Validation Rules					
RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY	
Vehicle	Vehicle number plate	Please enter valid number	✓	Pandiselvi P, 14/10/2024, 2:45 pm	New

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"))

Validation Rule Edit

Save Save & New Cancel

Rule Name: service_status_note

Active:

Description:

Error Condition Formula

Example: Discount_Percent_c > 30% More Examples...
Display an error if Discount is more than 30%

If this formula expression is true, display the text defined in the Error Message area

Insert Field Insert Operator NOT (ISPICKVAL(Service_Status_c , "Completed"))

Functions

- All Function Categories --
- ABS
- ACOS
- ADDMONTHS
- AND
- ASCII
- ASIN

Insert Selected Function
ABS(number)
Returns the absolute value of a number, a number without its sign
Help on this function

Check Syntax

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.

Error Message

Example: Discount percent cannot exceed 30%
This message will appear when Error Condition formula is true

Error Message: still it is pending

This error message can either appear at the top of the page or below a specific field on the page

Error Location: Top of Page Field Service Status

Save Save & New Cancel

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

- Page Header:** Invitation to Naan Mudhalvan, Service records | Salesforce, angelcollegeofengineering-2e-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01IdM000002mpgb/ValidationRules/view
- Left Sidebar:** SETUP > OBJECT MANAGER, Service records
- Left Panel:** Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules.
- Main Content:**

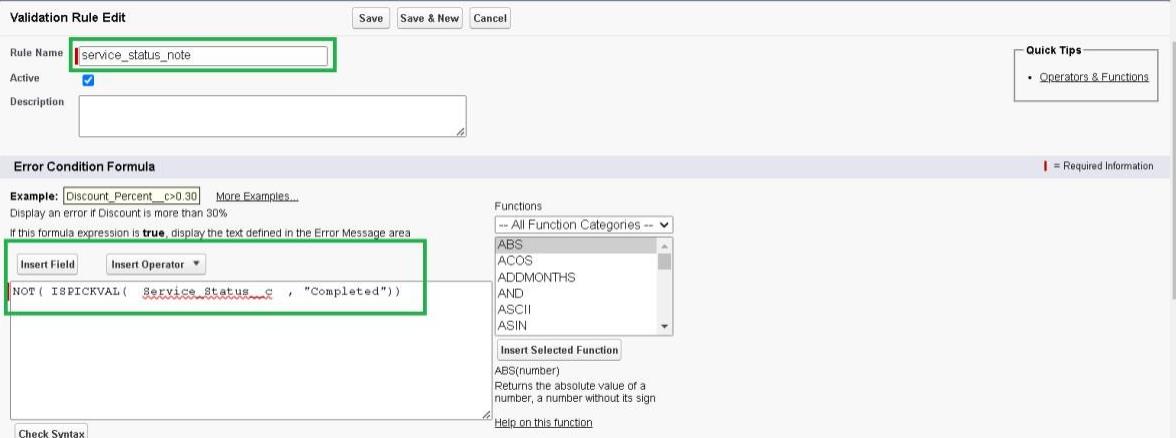
Validation Rules				
1 items, Sorted by Rule Name				
RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
service_status_note	Service Status	still it is pending	<input checked="" type="checkbox"/>	Pandiselvi P, 14/10/2024, 2:48 pm
- Bottom:** Light rain Tomorrow, Search bar, various icons, ENG IN, 15:07, 12-11-2024.

Creation of Picklist Fields in Billing details and feedback object:

1. Go to setup >> click on Object Manager >> type object name(Billing details and feedback) in search bar >> click on the object.
2. Click on fields & relationship >> click on New.
3. Select Data type as “Picklist” and click Next.
4. Enter Field Label as “Payment Status”, under values select “Enter values, with each value separated by a new line” and enter values as shown below.
5. The values are: Pending, Completed.
6. Click Next.
7. Next >> Next >> Save.

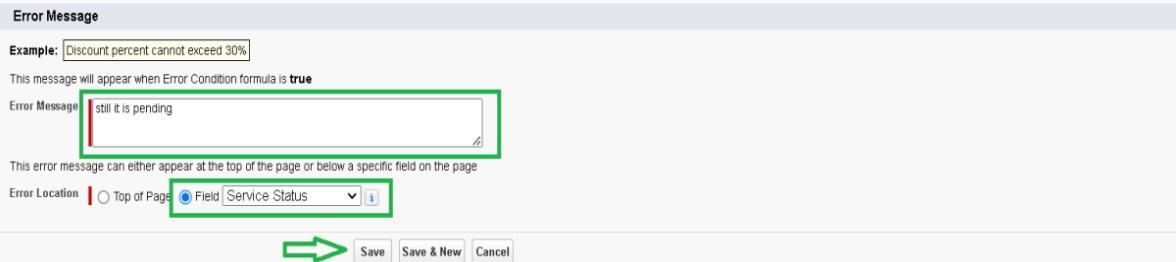
To create a validation rule to an Billing details and feedback Object

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}"))`

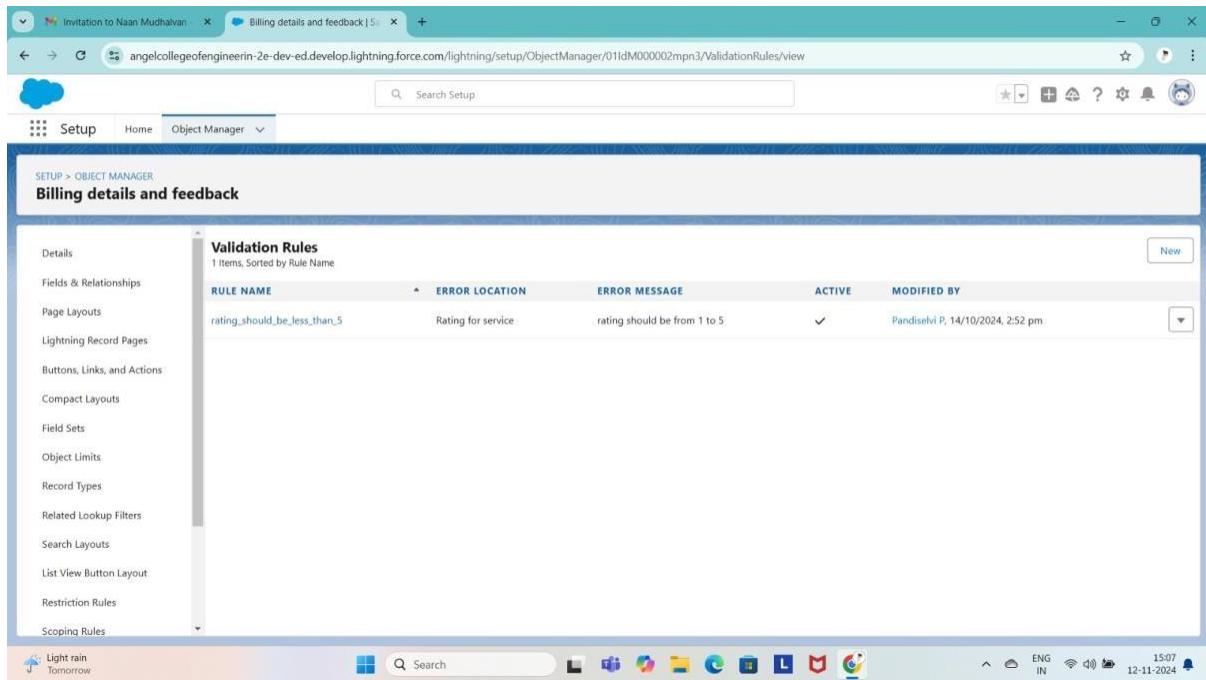


The screenshot shows the 'Validation Rule Edit' interface. At the top, there are buttons for Save, Save & New, and Cancel. Below that, the 'Rule Name' field contains 'service_status_note'. The 'Active' checkbox is checked. A 'Description' field is empty. On the right, a 'Quick Tips' panel has a link to 'Operators & Functions'. The 'Error Condition Formula' section contains an example 'Discount_Percent_c>0.30' and a note about displaying an error if the discount is more than 30%. It shows the formula `NOT(ISPICKVAL(Service_Status_c , "Completed"))`. To the right is a 'Functions' dropdown menu with various options like ABS, ACOS, ADDMONTHS, AND, ASCII, ASIN, and a link to 'Insert Selected Function'. A 'Check Syntax' button is at the bottom left. A red box highlights the formula input field.

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

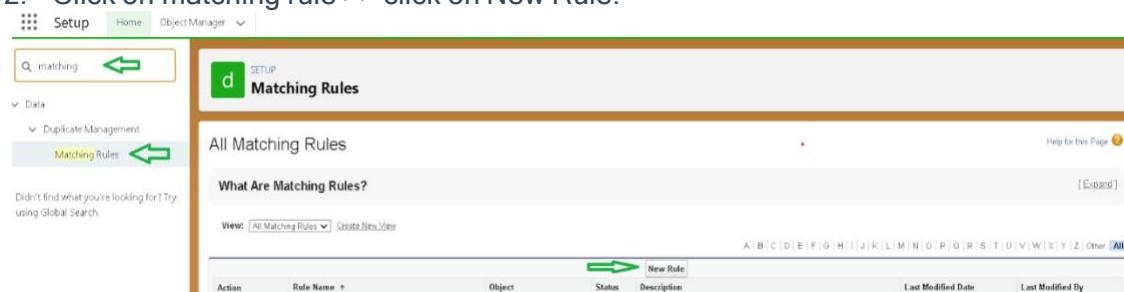


The screenshot shows the 'Error Message' screen. It has an 'Example' field with 'Discount percent cannot exceed 30%' and a note about appearing when the condition is true. The 'Error Message' field contains 'still it is pending'. A note says the message can appear at the top or below a specific field. The 'Error Location' section shows 'Top of Page' is unselected and 'Field' is selected, with 'Service Status' chosen. A green arrow points to the 'Save' button at the bottom. A red box highlights the 'Field' radio button and the 'Service Status' dropdown.

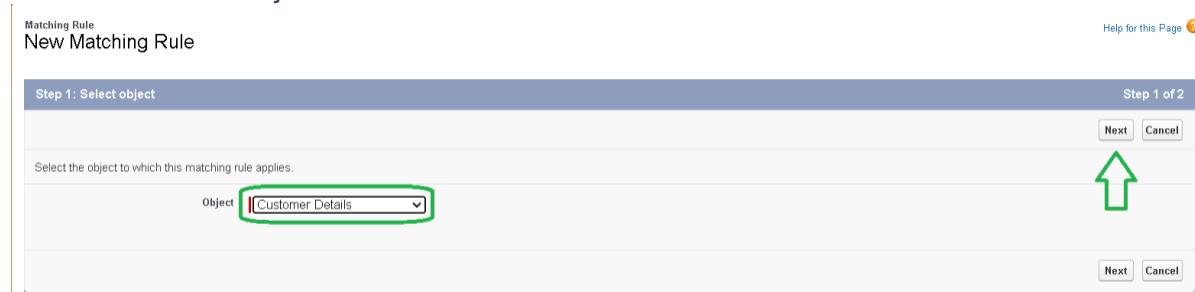


To create a matching rule to an Customer details Object

1. Go to quick find box in setup and search for matching Rule.
2. Click on matching rule >> click on New Rule.



3. Select the object as Customer details and click Next.



4. Give the Rule name : Matching customer details
5. Unique name : is auto populated
6. Define the matching criteria as

7. Field	Matching Method
1. Gmail	Exact
2. Phone Number	Exact
8. Click save.

9. After Saving Click on Activate.

The screenshot shows the 'Rule Details' section of the Matching Rule creation page. It includes fields for Object (Customer Details), Rule Name (matching Customer data), Unique Name (matching_Customer_det), and Description. The 'Matching Criteria' section lists fields: Gmail (Exact), Phone Number (Exact), and several 'None' options. The 'Match Blank Fields' section contains four AND conditions. A green arrow points to the 'Save' button at the bottom right of the main form.

Rule Details

Object: Customer Details
Rule Name: matching Customer data
Unique Name: matching_Customer_det
Description:

Matching Criteria

Tell the rule which fields to compare and how

Field	Matching Method	Match Blank Fields
Gmail	Exact	AND
Phone Number	Exact	AND
—None—	Exact	AND
—None—	Exact	AND
—None—	Exact	AND

Add Filter Logic... → Save Cancel

Matching Rule
matching Customer details Help for this Page ⓘ

Matching Rule Detail

Object: Customer Details
Rule Name: matching Customer data
Unique Name: matching_Customer_details
Description:
Matching Criteria: (Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone_Number EXACT MatchBlank = FALSE)
Status: Inactive
Created By: project_2, 25/09/2023, 10:15 am Modified By: project_2, 10/10/2023, 3:32 pm

The screenshot shows the 'Matching Rules' list page. It displays a table of rules with columns for Action, Rule Name, Object, Status, Description, Last Modified Date, and Last Modified By. The newly created rule, 'matching customer details', is listed as Active with a status of 'Inactive'. A green arrow points to the 'Activate' button in the top right corner of the list view.

Matching Rules

All Matching Rules Help for this Page ⓘ

What Are Matching Rules?

View: All Matching Rules Create New View

Action	Rule Name	Object	Status	Description	Last Modified Date	Last Modified By
Del Deactivate	Matching customer details	Customer Details	Active	More info	14/10/2024	EP
Deactivate	Standard Account Matching Rule	Account	Active	Matching rule for account records. More info	07/10/2024	EP
Deactivate	Standard Contact Matching Rule	Contact	Active	Matching rule for contact records. More info	07/10/2024	EP
Deactivate	Standard Lead Matching Rule	Lead	Active	Matching rule for lead records. More info	07/10/2024	EP

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

Rain showers Thursday ENG IN 15:09 12-11-2024

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.

The screenshot shows the 'Duplicate Rules' page in Salesforce. The left sidebar has a 'Data' section with 'Duplicate Management', 'Duplicate Error Log', 'Duplicate Rules' (which is selected and highlighted with a green box), and 'Matching Rules'. The main area is titled 'All Duplicate Rules' and contains a table of existing rules. One rule, 'Customer Detail duplicate', is highlighted with a green box. The table columns include 'Rule Name', 'Description', 'Object', 'Matching Rule', 'Active', 'Last Modified By', and 'Last Modified Date'. The 'Matching Rule' column for the highlighted row shows 'matching Customer details'.

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 'Edit Duplicate Rule' page for 'Customer Detail duplicate'. The 'Rule Details' section includes fields for 'Rule Name' (Customer Detail duplicate), 'Description' (Customer Details), 'Object' (Customer), and 'Record Level Security' (Enforce sharing rules). The 'Actions' section defines actions for 'Action On Create' and 'Action On Edit'. The 'Matching Rules' section is expanded, showing 'Compare Customer Details With' set to 'Customer Details', 'Matching Rule' set to 'matching Customer details' (which is highlighted with a green box), 'Matching Criteria' containing '(Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone_Number EXACT MatchBlank = FALSE)', and 'Field Mapping' set to 'Mapping Selected'. The 'Conditions' section at the bottom is collapsed. At the bottom of the page, there are 'Save', 'Save & New', and 'Cancel' buttons, with a green arrow pointing to the 'Save' button.

The screenshot shows the 'Duplicate Rules' section in the Salesforce Setup. The left sidebar has 'Data' expanded, with 'Duplicate Management' selected. Under 'Duplicate Management', 'Duplicate Rules' is highlighted. The main area displays a table titled 'All Duplicate Rules' with the following data:

Rule Name	Description	Object	Matching Rule	Active	Last Modified By	Last Modified Date
Customer Detail duplicate	Identify accounts that duplicate other accounts.	Customer Details	Matching customer details	✓	PP	14/10/2024
Standard Account Duplicate Rule	Identify contacts that duplicate other contacts and leads.	Account	Standard Account Matching Rule	✓	PP	07/10/2024
Standard Contact Duplicate Rule	Identify contacts that duplicate other contacts and leads.	Contact	Standard Lead Matching Rule	✓	PP	07/10/2024
Standard Lead Duplicate Rule	Identify leads that duplicate other leads and contacts.	Lead	Standard Contact Matching Rule	✓	PP	07/10/2024

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.

The screenshot shows the 'Profiles' section in the Salesforce Setup. The left sidebar has 'Users' expanded, with 'Profiles' selected. A red arrow points to the 'Clone Profile' button in the center of the page. The 'Clone Profile' dialog box contains the following fields:

- Existing Profile: Standard User
- User License: Salesforce
- Profile Name: Manager

2. While still on the profile page, then click Edit.

The screenshot shows the 'Profile Detail' page for the 'Manager' profile. The top navigation bar includes 'Edit' (highlighted with a red arrow), 'Clone', 'Delete', and 'View Users'. The profile details are as follows:

Name	Manager
User License	Salesforce
Description	
Created By	sunny_1, 13/06/2023, 2:40 pm
Modified By	sunny_1, 13/06/2023, 2:40 pm

3. Select the Custom App settings as default for the Garage management.

Data Manager (standard_DataManager)	<input checked="" type="checkbox"/>	<input type="radio"/>	(standard_ServiceConsole)	<input type="checkbox"/>	<input type="radio"/>
Digital Experiences (standard_SalesforceCMS)	<input checked="" type="checkbox"/>	<input type="radio"/>	Service (standard_Service)	<input checked="" type="checkbox"/>	<input type="radio"/>
Garage Management Application (Garage_Management_Application)	<input type="checkbox"/>	<input checked="" type="radio"/>	Service Console (standard_LightningService)	<input checked="" type="checkbox"/>	<input type="radio"/>
Laptop Hub (Laptop_Hub)	<input type="checkbox"/>	<input type="radio"/>	Site.com (standard_Sites)	<input checked="" type="checkbox"/>	<input type="radio"/>

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	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"/>	<input type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Environments	<input type="checkbox"/>								
Laptops	<input type="checkbox"/>								
Service records	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SessionData	<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	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"/>	<input 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"/>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	<input 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"/>	<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"/>	<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 checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. And click save.

The screenshot shows the Salesforce Setup interface under the Profiles section. A specific profile, "sales person", is selected. The profile details include the name "sales person", user license "Salesforce Platform", and creation date "14/10/2024, 3:13 pm". The "Page Layouts" section lists various standard object layouts assigned to this profile, such as Global Layout, Email Application, Home Page Layout, Account, and Alternative Payment Method. Each layout is associated with a specific assignment link. The "Object Permissions" section at the bottom shows checkboxes for various permissions like Read, Create, Edit, Delete, View All, and Modify All for various objects like Appointments, Billing details and feedback, Customer Details, Environments, Laptops, Service records, and SessionData.

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 interface under the Roles section. A role named "Territory-based Sample" is selected. The page provides an "Understanding Roles" section with a sample role hierarchy diagram. The hierarchy starts with "Executive Staff" (CEO, CFO, VP, Sales) at the top, which oversees "Western Sales Director" (Dir. of W Sales), "Eastern Sales Director" (Dir. of E Sales), and "International Sales Director" (Dir. of Int'l Sales). These directors oversee "Western Sales Rep" (CA Sales Rep, OR Sales Rep), "Eastern Sales Rep" (NY Sales Rep, MA Sales Rep), and "International Sales Rep" (Asian Sales Rep, European Sales Rep). The page also includes a "Set Up Roles" button and a checkbox for "Don't show this page again".

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

Your Organization's Role Hierarchy

Collapse All **Expand All**

- Nick Enterprises**
 - Add Role**
 - CEO** [Edit](#) | [Del](#) | [Assign](#)
 - Add Role**
 - HR** [Edit](#) | [Del](#) | [Assign](#)
 - Add Role**
 - Manager** [Edit](#) | [Del](#) | [Assign](#)
 - Add Role**
 - On Site Emp** [Edit](#) | [Del](#) | [Assign](#)
 - Add Role**
 - Remote Emp** [Edit](#) | [Del](#) | [Assign](#)
 - Add Role**

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

Role Edit

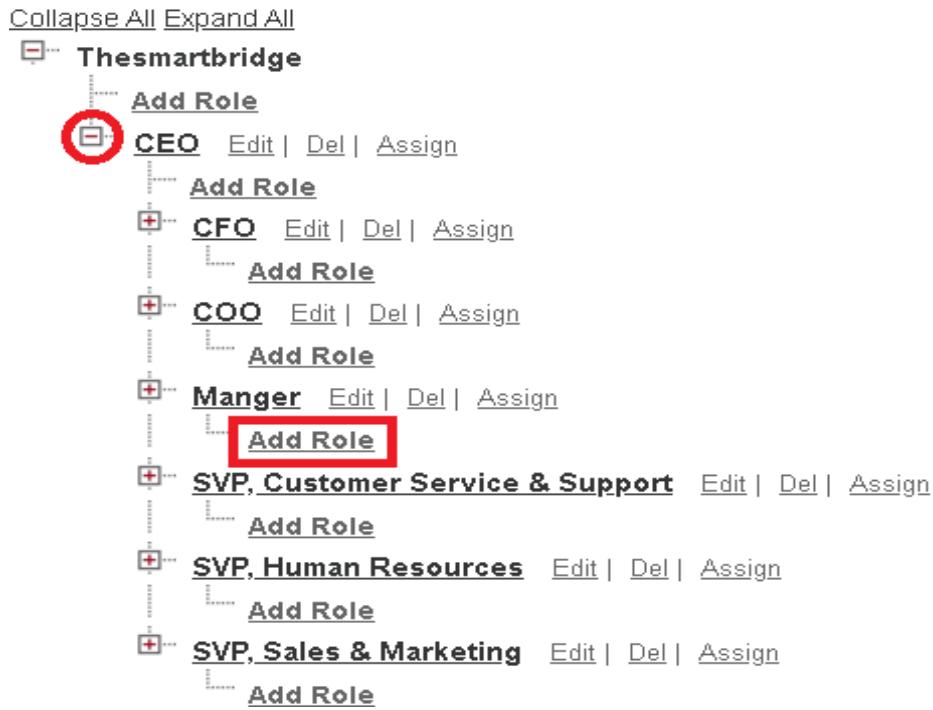
Label	Manger	➡
Role Name	Manger	Edit
This role reports to	CEO	Edit
Role Name as displayed on reports		

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

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.

Create User

1. Go to setup >> type users in quick find box >> select users >> click New user.
2. Fill in the fields
 1. First Name : Niklaus
 2. Last Name : Mikaelson
 3. Alias : Give a Alias Name

4. Email id : Give your Personal Email id
5. Username : Username should be in this form: text@text.text
6. Nick Name : Give a Nickname
7. Role : Manager
8. User licence : Salesforce
9. Profiles : Manager

New User

User Edit Save Save & New Cancel

General Information

First Name	Niklaus
Last Name	Mikaelson
Alias	nmika
Email	
Username	Mikaelson@Niklaus
Nickname	nik
Title	
Company	
Department	
Division	

Role Manager
User License Salesforce
Profile Manager
Active

Marketing User
 Offline User
 Knowledge User
 Flow User
 Service Cloud User
 Site.com Contributor User
 Site.com Publisher User
 WDC User
 Data.com User Type --None--

3. Save.

Invitation to Naan Mudhalvan X Users | Salesforce +

angelicolegeofengineering-2e-dev-ed.lightning.force.com/lightning/setup/ManageUsers/page?address=%2F005%3FlsUserEntityOverride%3D1%26retURL%3D%252Fsetup%252Fhome%26appL... ☆ ⋮

Setup Home Object Manager ▼

Search Setup Q

user SEARCH

Users

Permission Set Groups
Profiles
Public Groups
Queues
Roles
User Management Settings
Users
Feature Settings
Data.com
Prospector Users
Service
Embedded Service
Messaging for In-App and Web User Verification
User Interface

SETUP **Users**

All Users

On this page you can create, view, and manage users.

To get more licenses, use the Your Account app. [Let's Go](#)

View: All Users Edit Create New View

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	arasi_mangai	maras	mangai@arasi.com	sales.person	<input checked="" type="checkbox"/>	sales person
<input type="checkbox"/> Edit	Chatter_Expert	Chatter	chatty.0ddm00000daebjuah.hugrnyyadd@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/> Edit	jinali_karunya	jeetl	karunaya@enika.com	sales.person	<input checked="" type="checkbox"/>	sales person
<input type="checkbox"/> Edit	Mikaelson_Niklaus	nmika	mikaelson1@niklaus.com	sales.person	<input checked="" type="checkbox"/>	Manager
<input type="checkbox"/> Edit	P_Pandiselvi	PP	pandiselvi@angelcollege.com	Manager	<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/> Edit	User_integration	integ	integration.0ddm00000daebjuah.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@0ddm00000daebjuah.com		<input checked="" type="checkbox"/>	Analytics Cloud Security User
<input type="checkbox"/> Edit	vasan_rudhra	mika	rudhra@vasan.com	sales.person	<input checked="" type="checkbox"/>	sales person

New User Reset Password(s) Add Multiple Users

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

88°F Haze SEARCH L C G B S E M D A F H I J K L M N O P Q R S T U V W X Y Z Other All

ENG IN 15:18 12-11-2024

Creating another users

1. Repeat the steps and create another user using

 - a. Role : sales person
 - b. User licence : Salesforce Platform
 - c. Profile : sales person

Note : create atleast 3 users with these permissions.

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.

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.

The screenshot shows the 'Sharing Settings' page in Salesforce setup. The 'Service records' object is selected. In the 'Sharing Rules' section, the 'Object Default Sharing' dropdown is set to 'Private'. Other objects like Work Plan Template, Work Step Template, Work Type, etc., have their OWD settings set to 'Public Read/Write'. The 'Save' button at the bottom is highlighted with a red box.

3. Click on save and refresh.
4. Scroll down a bit, Click new on Service records sharing Rules.
- 5.

The screenshot shows the 'Service records Sharing Rules' page. The 'New' button is highlighted with a red arrow. The page header includes 'Service records Sharing Rules Help ?' and a 'Recalculate' button.

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

Sharing Settings

Manage sharing settings for: Service records

Default Internal Access: Private

Default External Access: Private

Secure guest user record access: ✓

Sharing Rules

Step 1: Rule Name

Label: sharing settings

Rule Name: sharing_settings

Step 2: Select your rule type

Rule Type: Based on record owner

Step 3: Select which records to be shared

Service records: owned by members

Step 4: Select the users to share with

Share with: Roles (Manager)

Step 5: Select the level of access for the users

Access Level: Read/Write

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.

Set Entry Conditions

Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.

If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the **Only when a record is updated to meet the condition requirements** option for When to Run the Flow for Updated Records.

Condition Requirements

None

*Optimize the Flow for:

Fast Field Updates

Update fields on the record that triggers the flow to run. This high-performance flow runs *before* the record is saved to the database.

Actions and Related Records

Update any record and perform actions, like send an email. This more flexible flow runs *after* the record is saved to the database.

3

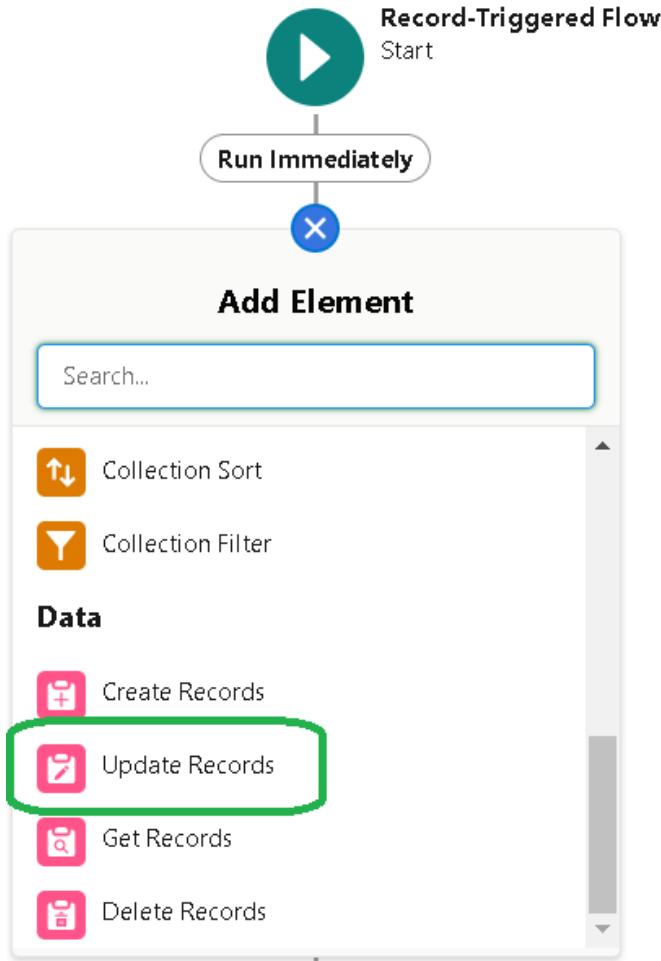
Include a Run Asynchronously path to access an external system after the original transaction for the triggering record is successfully committed

4

Cancel

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

Edit Update Records

Update Salesforce records using values from the flow.

*Label	*API Name
Amount Update	Amount_Update

Description

*** How to Find Records to Update and Set Their Values**

- Use the billing details and feedback record that triggered the flow
- Update records related to the billing details and feedback record that triggered the flow
- Use the IDs and all field values from a record or record collection
- Specify conditions to identify records, and set fields individually

Set Filter Conditions

Condition Requirements to Update Record

All Conditions Are Met (AND) ▾

Cancel Done

Set Filter Conditions

Condition Requirements to Update Record

All Conditions Are Met (AND) ▾

Field	Operator	Value
Payment_Status__c	Equals	Completed

+ Add Condition

Set Field Values for the Billing details and feedback Record

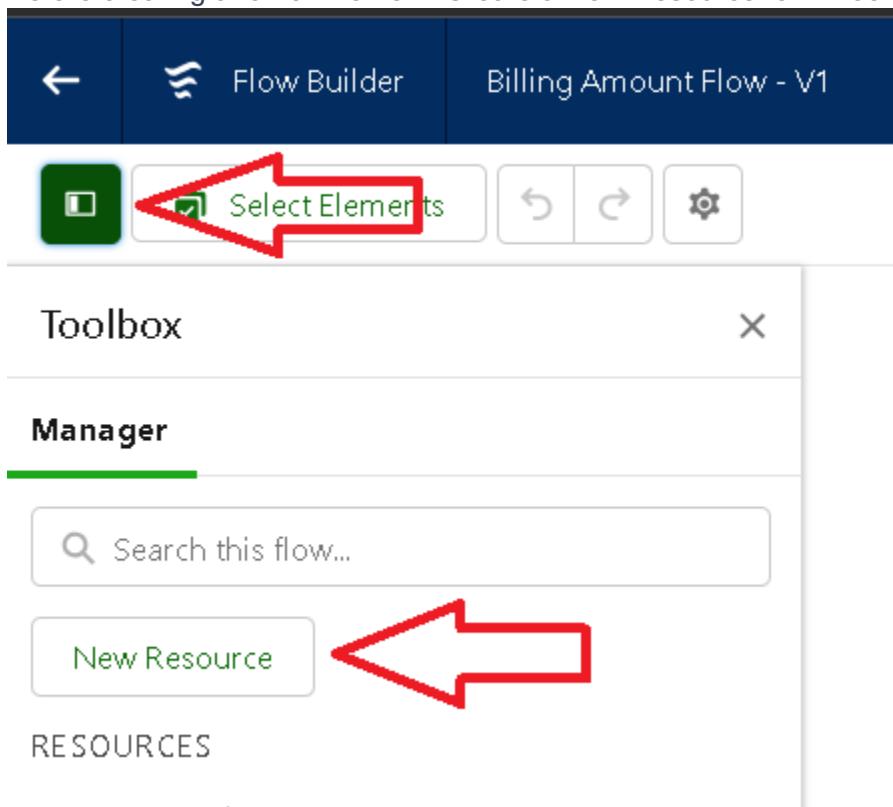
Field	Value
Payment_Paid__c	\$Record > Service records > Appointment > Service A... X

+ Add Field

Cancel Done

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.

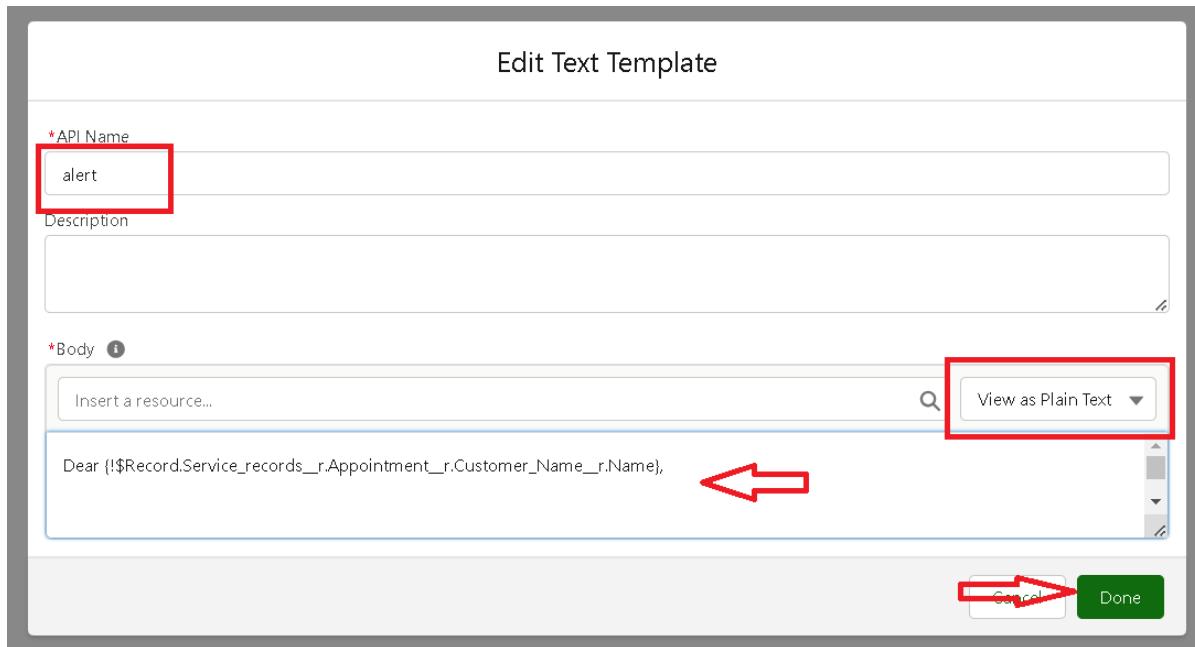
Dear {!\$Record.Service_records_r.Appointment_r.Customer_Name_r.Name},

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.



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.

Edit Action

Use values from earlier in the flow to set the inputs for the "Send Email" core action. To use its outputs later in the flow, store them in variables.

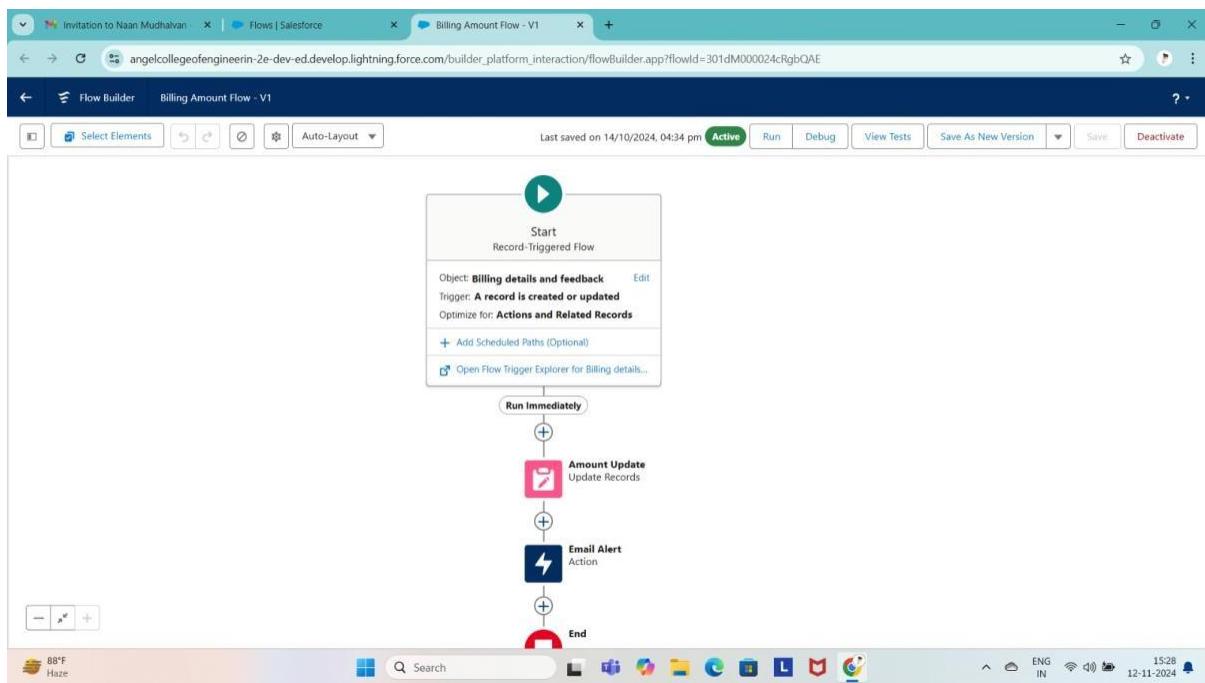
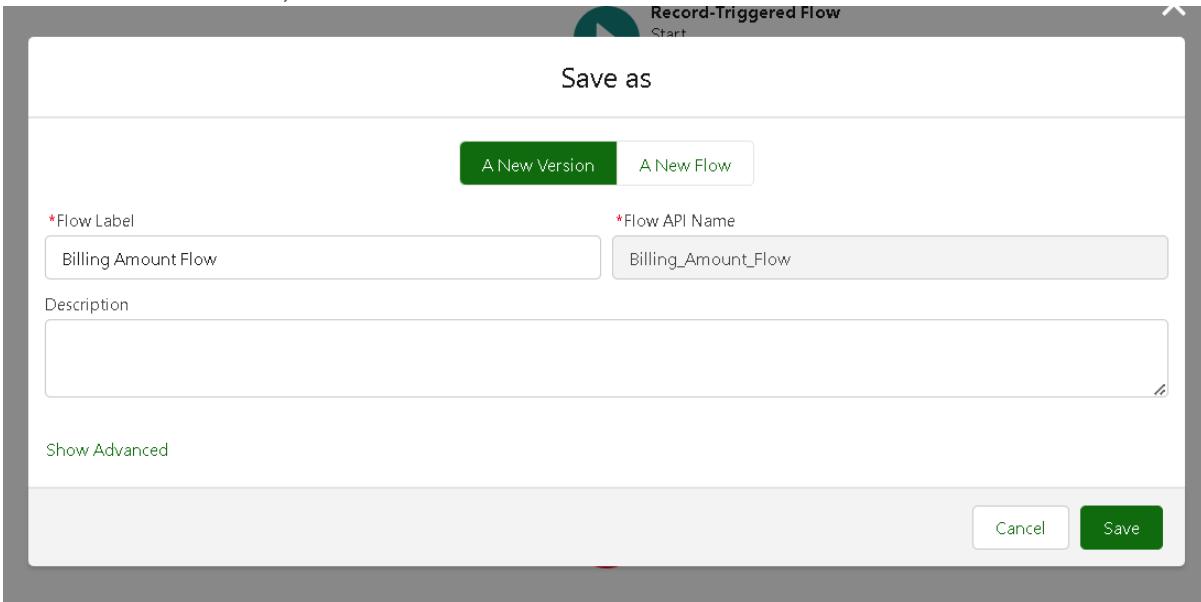
*Label <input style="width: 100%;" type="text" value="Email Alert"/>	*API Name <input style="width: 100%;" type="text" value="Email_Alert"/>
Description <input style="width: 100%; height: 40px;" type="text"/>	

Set Input Values for the Selected Action

A_a Body <small>i</small> <input style="width: 100%;" type="text" value="{{!alert}}"/>	<input checked="" type="checkbox"/> Include <input type="checkbox"/> Don't Include <input type="checkbox"/> Don't Include
A_a Email Template ID <input style="width: 100%;" type="text"/>	<input type="checkbox"/> Don't Include
A_a Log Email on Send <input type="checkbox"/>	<input type="checkbox"/> Don't Include

<h3>Edit Action</h3>	
A_a Recipient Address List <small>i</small> <input style="width: 100%;" type="text" value=" {!\$Record.Service_records_r.Appointment_r.Cus}"/>	<input checked="" type="checkbox"/> Include <input type="checkbox"/> Don't Include <input type="checkbox"/> Don't Include
A_a Recipient ID <input style="width: 100%;" type="text"/>	<input type="checkbox"/> Don't Include
A_a Related Record ID <input style="width: 100%;" type="text"/>	<input type="checkbox"/> Don't Include
A_a Rich-Text-Formatted Body <input style="width: 100%;" type="text"/>	<input type="checkbox"/> Don't Include
A_a Sender Email Address <input style="width: 100%;" type="text"/>	<input type="checkbox"/> Don't Include
A_a Sender Type <input style="width: 100%;" type="text"/>	<input type="checkbox"/> Don't Include
A_a Subject <small>i</small> <input style="width: 100%;" type="text" value="Thank You for Your Payment - Garage Management"/>	<input checked="" type="checkbox"/> Include <input style="border: 1px solid #ccc; padding: 2px; margin-right: 10px;" type="button" value="Cancel"/> <input style="background-color: #0070C0; color: white; border: 1px solid #0070C0; padding: 2px;" type="button" value="Done"/>

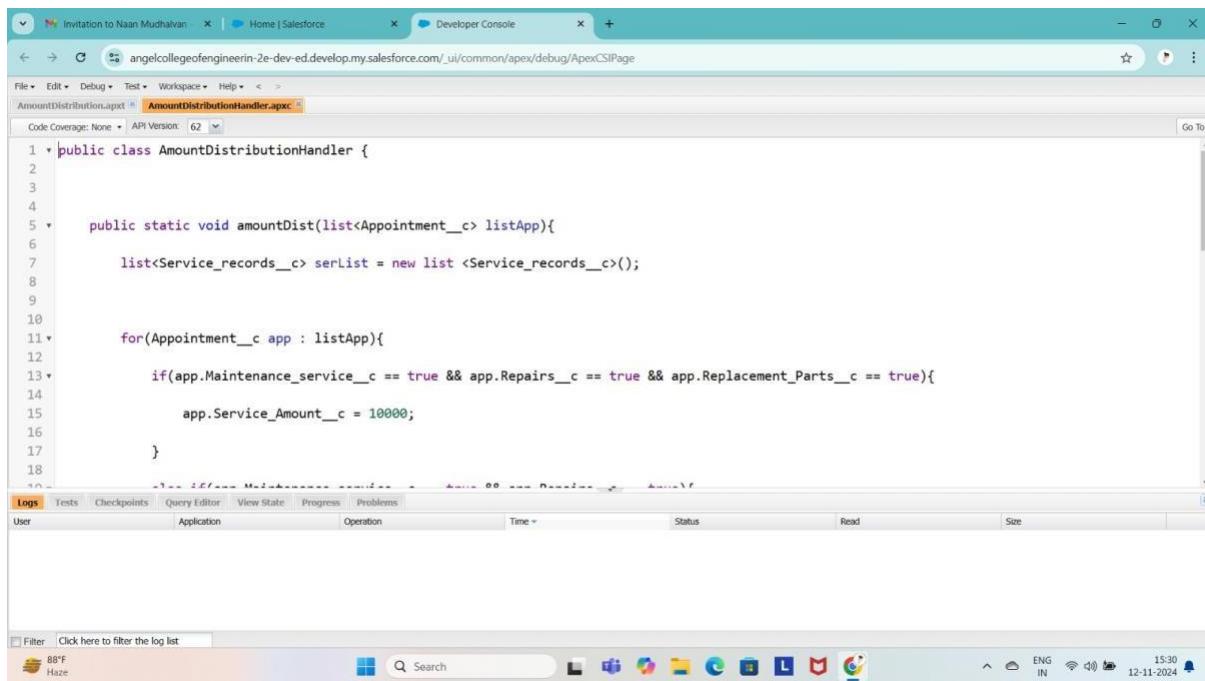
34. Click on save. Give the Flow label , Flow Api name will be autopopulated.
35. And click save, and click on activate.



Apex Handler

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

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



The screenshot shows the Salesforce Developer Console interface. The title bar indicates the user is connected to 'Invitation to Naan Mudhalvan' and is viewing the 'Developer Console'. The URL in the address bar is 'angelcollegeofengineering-2e-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage'. The main area displays the code for the 'AmountDistributionHandler.apex' class:

```
1 *public class AmountDistributionHandler {
2
3
4
5 * public static void amountDist(list<Appointment__c> listApp){
6
7     list<Service_records__c> serList = new list <Service_records__c>();
8
9
10    for(Appointment__c app : listApp){
11        if(app.Maintenance_service__c == true && app.Repairs__c == true && app.Replacement_Parts__c == true){
12            app.Service_Amount__c = 10000;
13        }
14    }
15}
```

The code defines a class 'AmountDistributionHandler' with a static method 'amountDist' that takes a list of 'Appointment__c' objects. It initializes a list of 'Service_records__c' objects and iterates through the appointment list. For each appointment where Maintenance service, Repairs, and Replacement Parts are all true, it sets the Service_Amount__c field to 10000.

The screenshot shows the Salesforce Developer Console interface. The top navigation bar includes tabs for Home | Salesforce, Developer Console, and apex/Debug/ApexCSIPage. Below the navigation is a file menu with options like File, Edit, Debug, Test, Workspace, Help, and a Go To button. The main area displays the code for AmountDistributionHandler.apx, which contains logic for calculating service amounts based on maintenance and repair flags. The code uses several if statements to determine the service amount based on different combinations of flags. The code editor has syntax highlighting and line numbers. Below the code editor is a logs section with tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The logs table shows a single entry for a user named 'User'. At the bottom of the screen is a taskbar with various icons and system status information.

```
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;
}
```

This screenshot shows the same Salesforce Developer Console interface as the first one, but with several lines of code removed from the AmountDistributionHandler.apx file. Lines 19 through 36, which contained the logic for maintenance and repair combinations, have been deleted. The remaining code follows the original structure but lacks the specific logic for those cases. The logs section and taskbar remain the same.

```
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;
}
```

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;
    }
}

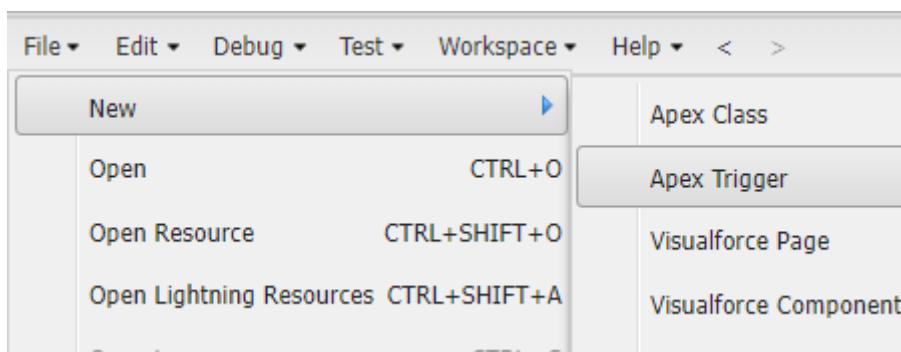
}
}
}

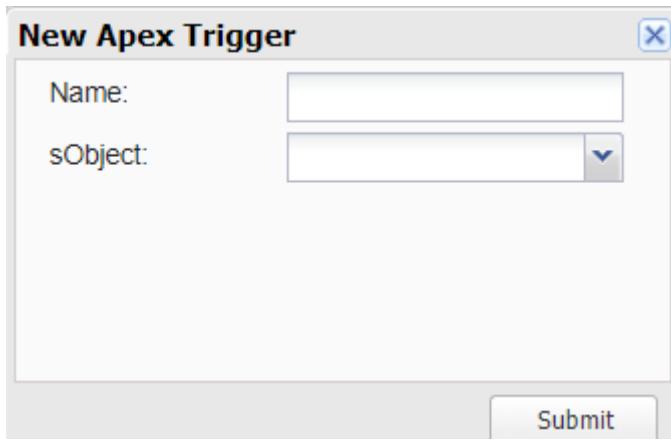
```

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

```
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. The top navigation bar includes 'File', 'Edit', 'Debug', 'Test', 'Workspace', 'Help', and tabs for 'Logs', 'Tests', 'Checkpoints', 'Query Editor', 'View State', 'Progress', and 'Problems'. The main area displays the Apex trigger code for 'AmountDistribution.apex'. Below the code editor is a log viewer with a single entry: '88F Haze'. The bottom status bar shows system information like 'ENG IN', '15:30', and the date '12-11-2024'.

Code:

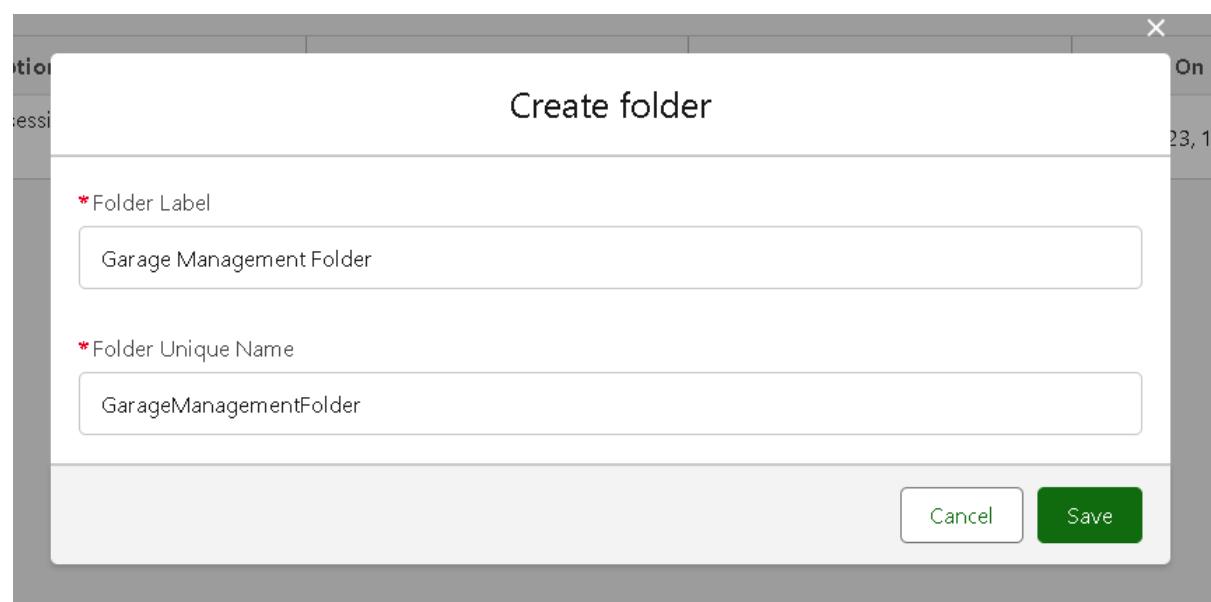
```
trigger AmountDistribution on Appointment_c (before insert, before update) {
```

```
    if(trigger.isbefore && trigger.isinsert || trigger.isupdate){  
        AmountDistributionHandler.amountDist(trigger.new);  
    }
```

```
}
```

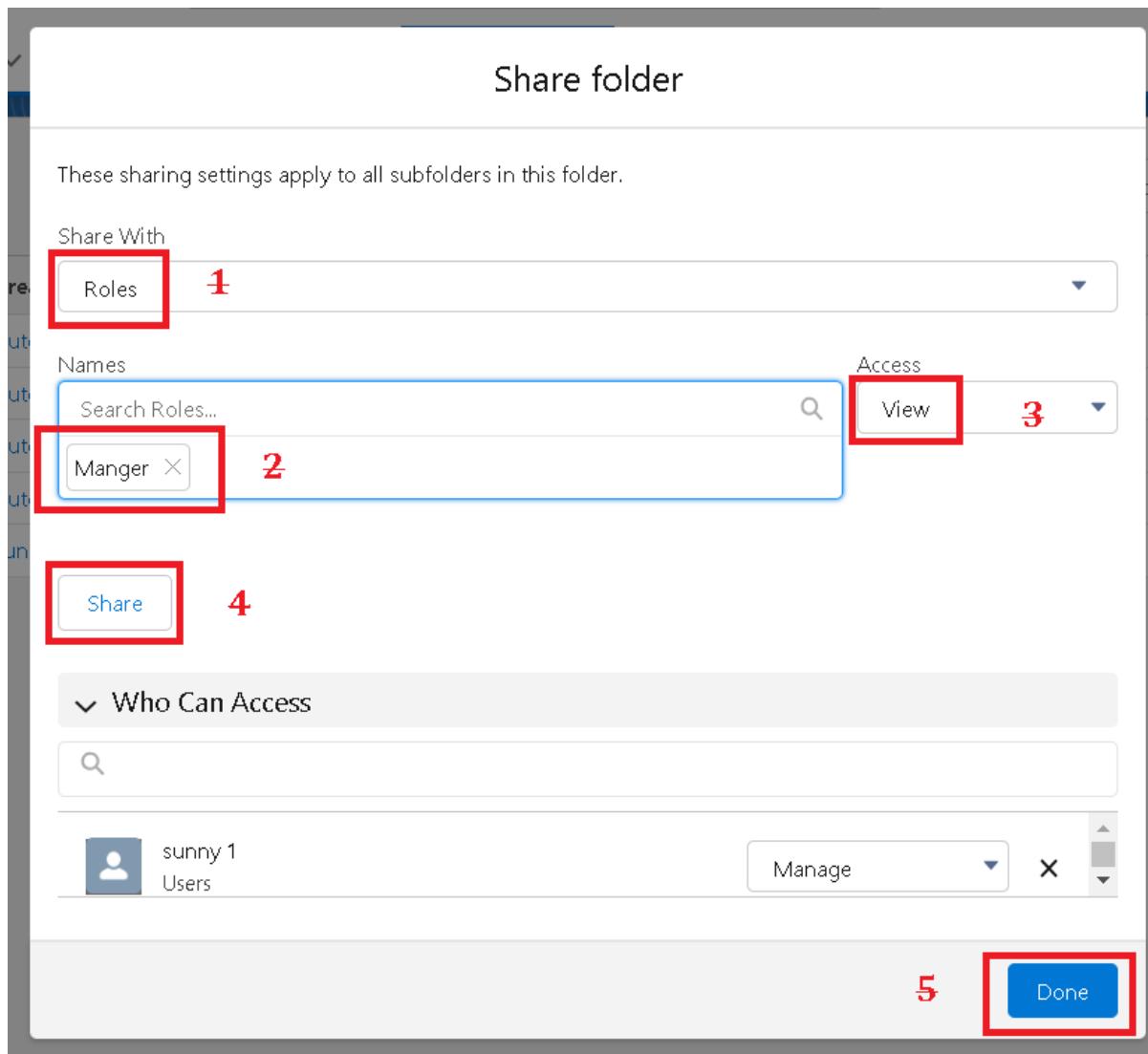
create a report folder

1. Click on the app launcher and search for reports.
2. Click on the report tab, click on new folder.
3. Give the Folder label as “Garage Management Folder”, Folder unique name will be auto populated.
4. Click save.



Sharing a report folder

1. Go to the app >> click on the reports tab.
2. Click on the All folder , click on the Drop down arrow for Garage Management folder, and Click on share.
3. Select the share with as “roles”, in name field search for “manager”, give “view” as access for that role.
4. Then click share, and click on Done.



Create a 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.

The screenshot shows the Salesforce Setup interface. In the top navigation bar, 'Setup' is selected. On the left, there's a sidebar with 'Feature Settings' expanded, showing 'Analytics' and 'Reports & Dashboards'. Under 'Reports & Dashboards', 'Report Types' is highlighted and has a green arrow pointing to it. The main content area is titled 'Report Types' and shows a list of 'All Custom Report Types'. At the top of this list, there's a 'New Custom Report Type' button with a green arrow pointing to it. The list includes several entries like 'Bot Metrics Daily Summer '23', 'Bot Metrics Hourly Summer '23', 'Screen Flows', and 'Session Metrics Summer '23'. Each entry has 'Edit | Del' links. To the right, there's a table with columns for 'Category', 'Deployed', 'Created By Alias', and 'Created Date'. The table shows four rows, all under 'Other Reports' category and 'autoproc' alias, with dates from 20/09/2023.

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.

This screenshot shows the 'Report Type Focus' configuration page. It has sections for 'Identification' and 'Deployment'. In the 'Identification' section, 'Report Type Label' is set to 'Service information', 'Report Type Name' is 'Service_information', 'Description' is 'Service information', and 'Store in Category' is 'Other Reports'. In the 'Deployment' section, 'Deployment Status' is set to 'Deployed'. At the bottom right, there are 'Next' and 'Cancel' buttons, with a green arrow pointing to the 'Next' button.

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

New Custom Report Type
Service information

Help for this Page [?](#)

Step 2. Define Report Records Set Step 2 of 2

This report type will generate reports about Customer Details. You may define which related records from other objects are returned in report results by choosing a relationship to another object.

A Customer Details
Primary Object

B Select Object...
--Select Object--
Activities
Appointments
Duplicate Record Items

At least one related "B" record.
related "B" records.

Previous Save Cancel

Step 2. Define Report Records Set

This report type will generate reports about Customer Details. You may define which related records from other objects are returned in report results by choosing a relationship to another object.

A Customer Details
Primary Object

B Appointments

A to B Relationship:

Each "A" record must have at least one related "B" record.
 "A" records may or may not have related "B" records.

... (Click to relate another object)

A B

11. Again Click to relate another object.
12. And select the related object as “ service records”.
13. Repeat the process and select the related object as “ Billing details and feedback”.
14. And click on save.

Create report

Note : Before creating report, create latest “10” records in every object.

Try to fill every field in each record for better experience.

1. Go to the app >> click on the reports tab
2. Click New Report.

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	Employee's working on projects report	Private Reports	Employee Project	5/6/2023, 9:33 am		
Created by Me	Assets assigned to Employees	Private Reports	Employee Project	5/6/2023, 9:36 am		

3. Select the Category as other reports, search for Service Information, select that report, click on it. And click on start report.

The screenshot shows the 'Create Report' interface. On the left, there's a sidebar with categories like Leads, Campaigns, Activities, Contracts and Orders, etc. A 'Other Reports' section is highlighted. In the center, a 'Select a Report Type' dialog is open, showing various report types like Service records, Service records with Appointment, Service records History, Billing details and feedback with Service records, and Service information. The 'Service information' option is selected. To the right, a 'Details' panel for the 'Service information' report is displayed, showing its description ('Service information'), created by ('Created By You' and 'Created By Others'), and fields (49). Two green arrows point from the 'Category' dropdown in the main pane to the 'Category' dropdown in the 'Service information' details panel.

4. Their outline pane is opened already, select the fields that mentioned below in 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 ROWS 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 unique Name is auto populated.
11. Select the folder the created and Click on save.

The screenshot shows the report preview interface. At the top, there are buttons for Save & Run, Save, Close, and Run. Below that is a chart titled 'Sum of Payment Paid' vs 'Rating for service', showing a downward-sloping line. To the left is an outline pane with sections for Groups (Rating for service, Payment Status) and Columns (Customer Name, Appointment Date, Service Status, # Payment Paid). A table below the outline pane displays 5 rows of data:

	Customer Name	Appointment Date	Service Status	Payment Paid
1	meghane	11/10/2023	Completed	\$8,000
2	rushi	08/09/2023	Completed	\$5,000
3	shivam	12/10/2023	Completed	\$2,000
4	shivam	12/10/2023	Completed	\$2,000
5	rushi	08/09/2023	Completed	\$3,000

At the bottom, there are checkboxes for Row Counts, Detail Rows, Grand Total, Stacked Summaries, and Conditional Formatting.

Save Report

* Report Name	<input type="text" value="New Service information Report"/>	←
Report Unique Name	<input type="text" value="New_Service_information_Report_oVu"/>	
Report Description	<input type="text"/>	
Folder	<input type="text" value="Garage Management Folder"/>	←
		<input type="button" value="Select Folder"/> <input type="button" value="Cancel"/> <input type="button" value="Save"/>

Create a 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.

Create folder

* Folder Label	<input type="text" value="Service Rating"/>
* Folder Unique Name	<input type="text" value="ServiceRating"/>
<input type="button" value="Cancel"/> <input type="button" value="Save"/>	

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

Creation 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.

New Dashboard

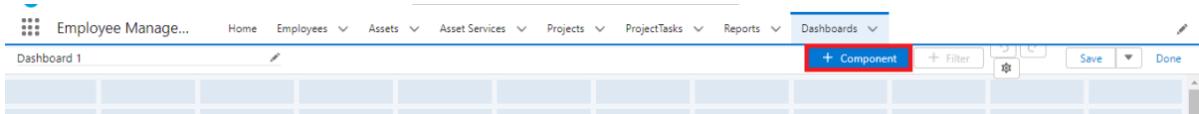
* Name
Customer review

Description

Folder
Service Rating



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.

Edit Subscription

Schedule dashboard refreshes and subscribe to receive results.

Settings

Frequency



Days



Time

3:00 pm

Recipients

Receive new results by email when dashboard is refreshed. (i)

Send email to
Me



Customer Details view page :

Recently Viewed | Customer De x Developer Console x

angelcollegeofengineering-2e-dev-ed.develop.lightning.force.com/lightning/o/Customer_Details_c/list?filterName=_Recent

Garage Management... Customer Details Appointments Service records Billing details and feedback Reports Dashboards

Customer Details Recently Viewed

4 items • Updated a few seconds ago

	Customer Name
1	bhathirisha
2	bhuvaneswari
3	pandiselvi
4	nandy

Upcoming Earnings

Search

15:55 12-11-2024 ENG IN

Appointments view page:

Recently Viewed

Appointment Name
1 app-006
2 app-005
3 app-004
4 app-001
5 app-003
6 app-002

Service records view:

Recently Viewed

Service Records Name
1 ser-006
2 ser-005
3 ser-004
4 ser-003
5 ser-002
6 ser-001

Billing details and feedback :

The screenshot shows a Salesforce Lightning interface with the following details:

Header: Welcome to Salesforce! | Recently Viewed | Billing | Student | anjalipandiseli/Pandiselvi | (2) WhatsApp | Login | Salesforce

Billing Details and Feedback: Recently Viewed

List View: Billing details and feedback

Items:

Index	Name
1	bill-005
2	bill-004
3	bill-003
4	bill-002
5	bill-001

The screenshot shows a Salesforce Lightning interface with the following details:

Header: https://angelcollegecom3-dev-ed.lightning.force.com/lightning/c/Billing_details_and_feedback_c/home | Recent | Dashboards | Salesfor... | Developer Console

Billing Details and Feedback: Recent

Items:

Dashboard Name	Description	Folder	Created By	Created On	Subscribed
Customer review	View data on how Enablement helps drive your business outcomes. This is your main dashboard for all Enablement analytics.	Service Rating	Pandiseli p	14/10/2024, 5:34 pm	✓
Enablement Dashboard	View data on how Enablement helps drive your business outcomes. This is your main dashboard for all Enablement analytics. Don't delete it. If you want to make changes to this dashboard, duplicate it.	Enablement Dashboard Summer '24	Automated Process	7/10/2024, 5:38 pm	✗
Enablement Dashboard	View data on how Enablement helps drive your business outcomes. This is your main dashboard for all Enablement analytics. Don't delete it. If you want to make changes to this dashboard, duplicate it.	Enablement Dashboard Spring '24	Automated Process	7/10/2024, 5:38 pm	✗

Reports view:

The screenshot shows a Salesforce browser-based application window. The title bar includes tabs for 'Welcome to Salesforce', 'New Service information', 'Student', 'anjalipandiseli/Pandiseli', '(2) WhatsApp', and 'Login | Salesforce'. The main content area displays a report titled 'Report: Service information' and 'New Service information Report'. It shows a summary row with 'Total Records' (5) and 'Total Payment Paid' (₹21,000). Below is a table with columns: Customer Name, Appointment Date, Payment Paid, and Service Status. The data is as follows:

	Customer Name	Appointment Date	Payment Paid	Service Status
1	nandy	21/11/2024	₹5,000	Completed
2	bhathirsha	04/11/2024	₹3,000	Completed
3	bhathirsha	04/11/2024	₹3,000	Completed
4	Zara	14/11/2024	₹5,000	Completed
5	Chiretha	05/11/2024	₹5,000	Completed
6			₹21,000	

The bottom of the screen shows a Windows taskbar with various icons and system status.

Dashboard view:

The screenshot shows a Salesforce browser-based application window. The title bar includes tabs for 'Welcome to Salesforce', 'Customer review | Salesforce', 'Student', 'anjalipandiseli/Pandiseli', '(2) WhatsApp', and 'Login | Salesforce'. The main content area displays a dashboard titled 'Customer review'. It shows a summary message: 'Last refreshed 4 days ago. Refresh this dashboard to see the latest data.' Below is a section titled 'New Service Information Report' with a table showing the same data as the previous report:

	Customer Name	Appointment Date	Payment Paid	Service Status
1	bhathirsha	04/11/2024	₹3k	Completed
2	bhathirsha	04/11/2024	₹3k	Completed
3	Chiretha	05/11/2024	₹5k	Completed
4	nandy	21/11/2024	₹5k	Completed
5	Zara	14/11/2024	₹5k	Completed

The bottom of the screen shows a Windows taskbar with various icons and system status.

Performance	20	
Program	40	
Result	20	
Record	20	
Total	100	

Result:

A CRM application to engineering works in salesforce can streamline operations for a engineering business by An application efficiently manage client information for engineering projects, encompassing details such as company information, owner details, contact information, worker details, and their respective requirements for materials, including measurements. Salesforce's CRM capabilities,combined with custom development on the salesforceplatform .