

A CRM APPLICATION FOR WHOLESALE RICE MILL

Project Overview

The Project “Rice Mill CRM Application” is a comprehensive solution designed to streamline and simplify how much rice per day, how many were sold that rice and which type of rice all reports send to owners daily wise. It leverages the power of customer relationship management (CRM) to enhance customer experiences, optimize store operations, and improve overall efficiency in the rice mill factory. This project aims to develop a user-friendly and feature-rich application that addresses the specific needs of a rice mill factory.

Objectives

The primary goal of the CRM (Customer Relationship Management) application for the wholesale rice mill is to streamline the management of customer relationships, optimize sales operations, and enhance overall business efficiency. The CRM will act as a centralized system for managing customer interactions, tracking sales, and improving service delivery, which is essential for the smooth functioning of the rice mill's wholesale operations.

Business Goals for CRM Application (Wholesale Rice Mill)

Improve Customer Retention and Loyalty: Build stronger, long-term relationships with customers through personalized communication and service. Provide better post-sale support, making customers more likely to return for future orders.

Streamline Sales and Order Management: Automate sales and follow-up processes, making the sales cycle more efficient and reducing manual tasks. Enable sales teams to focus on high-value clients and closing deals, leading to higher sales productivity.

Optimize Inventory and Supply Chain Management: Integrate inventory management with customer orders to ensure real-time stock updates and reduce stockouts or overstock situations. Better demand forecasting by analyzing customer orders and trends.

Specific Outcomes the Project Aims to Achieve:

Centralized Customer Database: Create a unified database of all customers, including order history, preferences, and communication records, making it easier to manage and interact with clients.

Faster and More Efficient Sales Process: Streamline the sales workflow, reducing the time it takes to process orders and follow up with clients, leading to more closed deals.

Salesforce Key Features and Concepts Utilized

Salesforce: Salesforce is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers. Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.

CRM stands for “Customer Relationship Management”. It refers to the strategies, processes, and technologies that companies use to manage interactions with current and potential customers. The primary goal of CRM is to improve business relationships, streamline processes, and enhance customer service to boost customer satisfaction, retention, and sales.

“The lightning app” is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps give your users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar.

“Reporting and Dashboards” is the application can generate detailed reports and analytics regarding daily how much rice sold and total income per daily, revenue generated, popular amenities, and most buyed customers. Easy to understand the data to the owner, improving resource allocation, and planning future development.

“A rollup summary field” is a field that summarizes data from a child object to a parent object that shares a master-detail relationship. Rollup summary fields can use the COUNT, SUM, MIN, and MAX functions. For example, you could use a rollup summary field to display the total value (amount of rice supplied) from rice details on a related supplier.

“A cross-object formula field” is a formula field that references fields from another object in Salesforce. This type of formula allows users to calculate the total amount from number of rice taken*price/kg and it displays the total amount I have to pay.

“Validation rules” also include an error message to display to the user when the rule returns a value of “True” due to an invalid value.so , In this project i gave Isblank formula.Isblank formula is used to verify whether it is blank it shows error.

“Permission sets” Organization Wide Defaults(OWD) in salesforce is the baseline level of access that the most restricted user should have. Organizational Wide Defaults are used to restrict access.But in our case we created roles and given the roles in such a way that the owner can see employer and worker records , and the employer can see the worker records.

Steps to Solution

Step 1: Creating a developer org in salesforce

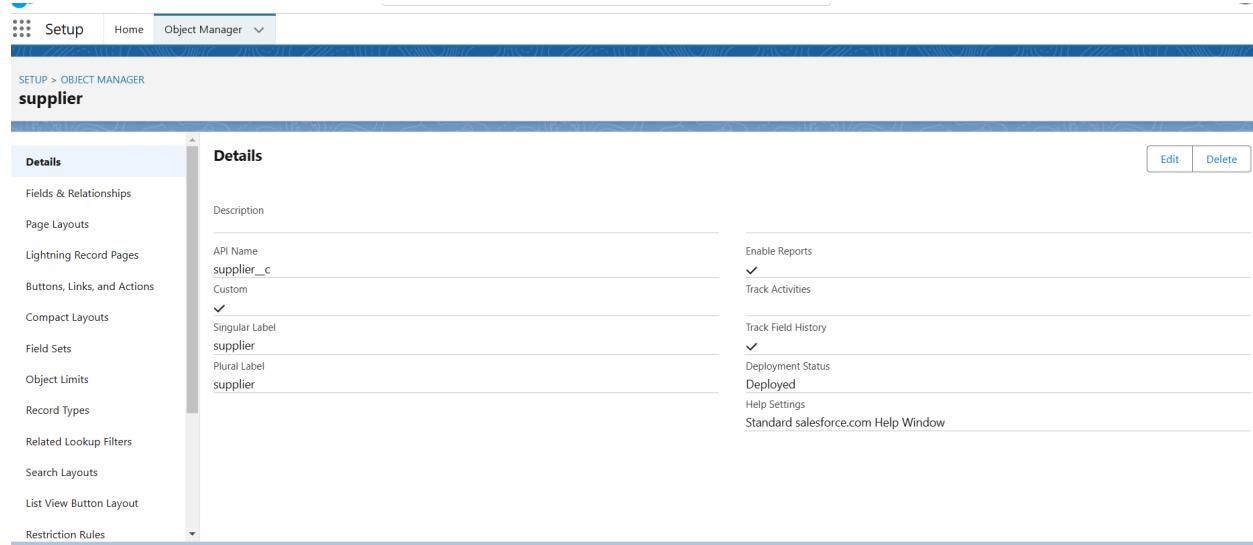
The image shows two screenshots. The top screenshot is a web browser displaying the Salesforce Developer Edition sign-up page. It features a blue header with the text "Build enterprise-quality apps fast to bring your ideas to life" and a list of benefits: "Build apps fast with drag and drop tools", "Customize your data model with clicks", "Go further with Apex code", "Integrate with anything using powerful APIs", "Stay protected with enterprise-grade security", and "Customize UI with clicks or any leading edge web framework". Below this is a form with fields for First Name*, Last Name*, Email*, Role*, Company*, Country/Region*, State/Province*, Postal Code*, and Username*. The form is filled with the values: First Name - Kritika, Last Name - Jarori, Email - kritikajarori@gmail.com, Role - Developer, Company - LNCTS, Country/Region - India, State/Province - Madhya Pradesh, Postal Code - 462022, and Username - kritikaj@lncts.in. The bottom screenshot is an email inbox showing a confirmation message from Salesforce. The subject is "Thanks for signing up with Salesforce!" and it includes a screenshot of the Salesforce interface. The message text says "Click below to verify your account." and contains a "Verify Account" button. It also provides the URL <https://lncts-e-dev-ed.develop.my.salesforce.com> for logging in later. The email footer shows "Again, welcome to Salesforce!"

Step 2: Salesforce objects are database tables that permit you to store data that is specific to an organization.

To create an object:

- From the setup page - Click on Object Manager -Click on Create - Click on Custom Object.
- On Custom object defining page: Enter the label name, plural label name, click on Allow reports, Allow search.
- Click on Save.
- Now we have to create objects like suppliers, rice mills, consumers and rice details.

Supplier Object:

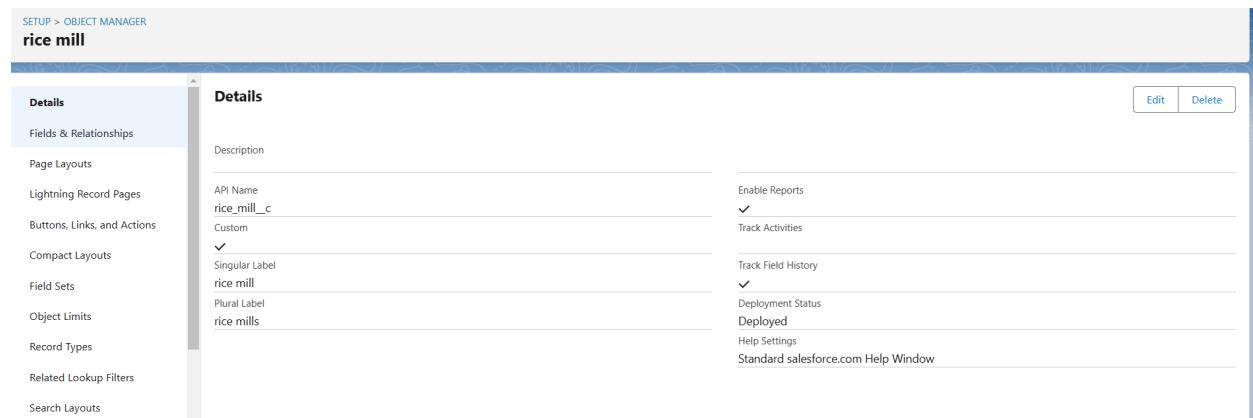


The screenshot shows the 'Object Manager' interface for creating a new custom object named 'supplier'. The left sidebar lists various configuration options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main 'Details' tab is selected, showing the following configuration:

- Description:** (empty)
- API Name:** supplier_c
- Custom:** ✓
- Singular Label:** supplier
- Plural Label:** supplier
- Enable Reports:** ✓
- Track Activities:** (empty)
- Track Field History:** ✓
- Deployment Status:** Deployed
- Help Settings:** Standard salesforce.com Help Window

At the bottom right are 'Edit' and 'Delete' buttons.

Rice mill Object:



The screenshot shows the 'Object Manager' interface for creating a new custom object named 'rice mill'. The left sidebar lists 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, and List View Button Layout. The main 'Details' tab is selected, showing the following configuration:

- Description:** (empty)
- API Name:** rice_mill_c
- Custom:** ✓
- Singular Label:** rice mill
- Plural Label:** rice mills
- Enable Reports:** ✓
- Track Activities:** (empty)
- Track Field History:** ✓
- Deployment Status:** Deployed
- Help Settings:** Standard salesforce.com Help Window

At the bottom right are 'Edit' and 'Delete' buttons.

Consumer Object:

SETUP > OBJECT MANAGER
consumer

Details	
Fields & Relationships	
Page Layouts	
Lightning Record Pages	
Buttons, Links, and Actions	
Compact Layouts	
Field Sets	
Object Limits	
Record Types	
Related Lookup Filters	
Details	
Description	
API Name	consumer__c
Custom	<input checked="" type="checkbox"/>
Singular Label	consumer
Plural Label	consumers
Enable Reports	
<input checked="" type="checkbox"/>	
Track Activities	
Track Field History	
<input checked="" type="checkbox"/>	
Deployment Status	
Deployed	
Help Settings	
Standard salesforce.com Help Window	

Rice details Object:

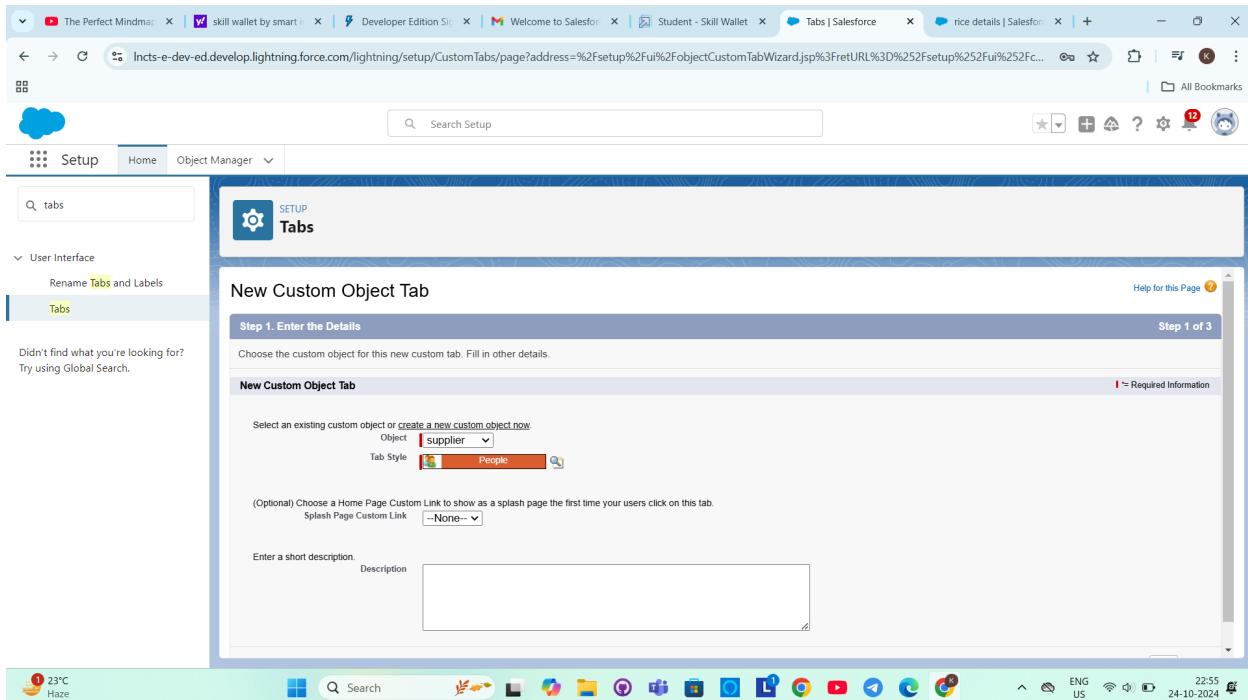
SETUP > OBJECT MANAGER
rice details

Details	
Fields & Relationships	
Page Layouts	
Lightning Record Pages	
Buttons, Links, and Actions	
Compact Layouts	
Field Sets	
Object Limits	
Record Types	
Related Lookup Filters	
Details	
Description	
API Name	rice_details__c
Custom	<input checked="" type="checkbox"/>
Singular Label	rice details
Plural Label	rice details
Enable Reports	
<input checked="" type="checkbox"/>	
Track Activities	
Track Field History	
<input checked="" type="checkbox"/>	
Deployment Status	
Deployed	
Help Settings	
Standard salesforce.com Help Window	

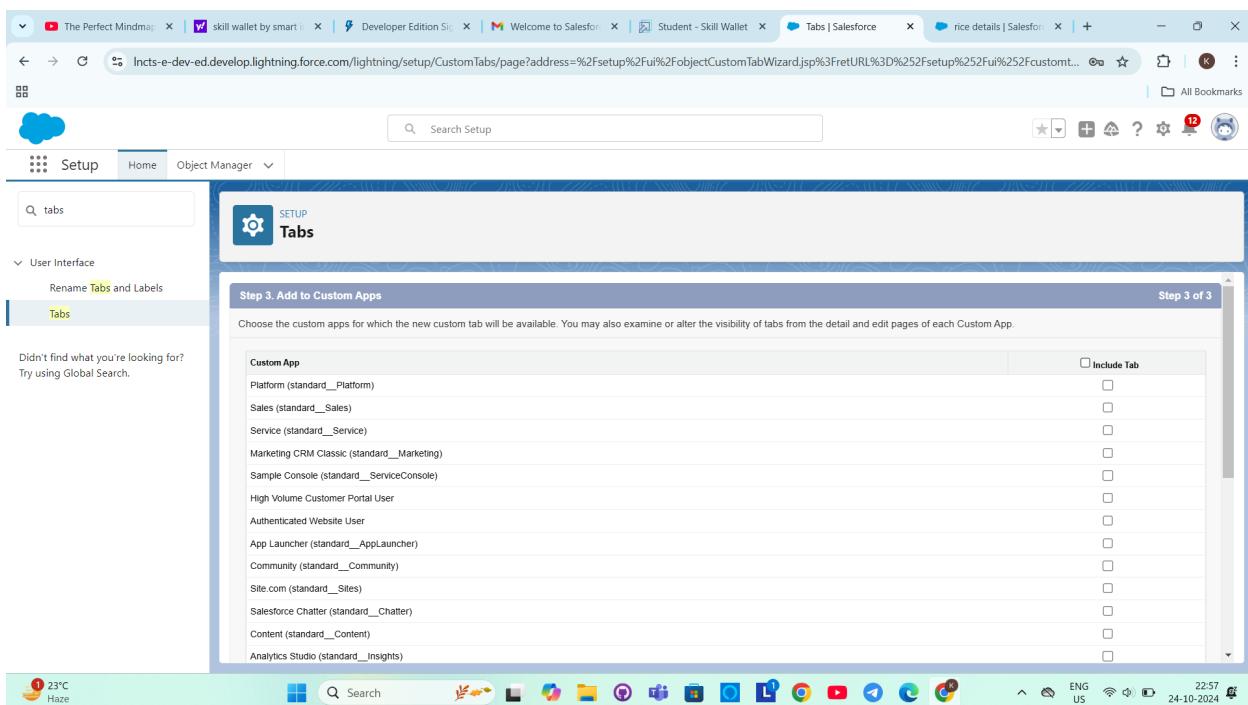
Step 3: A tab is like a user interface that is used to build records for objects and to view the records in the objects.

To create a Tab:(supplier)

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



5. Now create the Tabs for the remaining Objects, they are “rice mill, consumer , rice details”.Follow the same steps as mentioned above.

Custom Tabs

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Action	Label	Tab Style	Description
Edit Del	consumers	Credit card	
Edit Del	rice details	Books	
Edit Del	rice mills	Leaf	
Edit Del	supplier	People	

Web Tabs

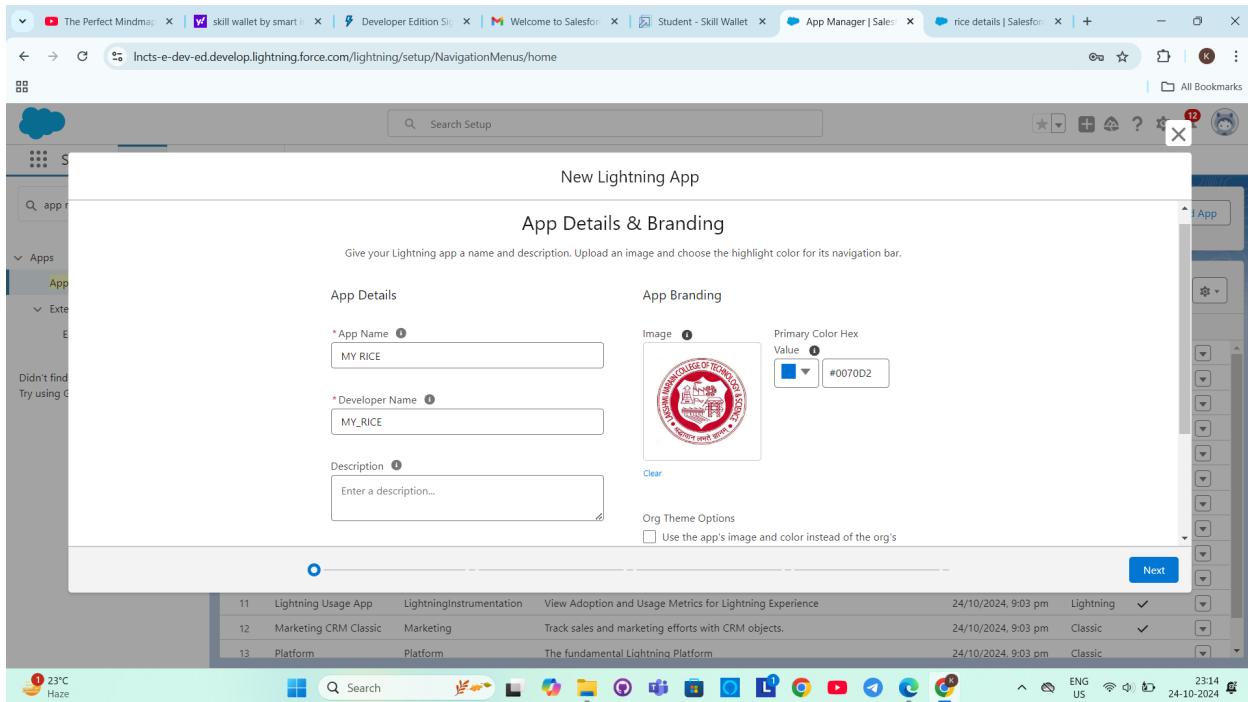
No Web Tabs have been defined

Visualforce Tabs

Step 4: Create lightning tab.

To create a lightning app page:

1. Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.
2. Fill the app name in app details as MY RICE >> Next >> (App option page) keep it as default >> Next >> (Utility Items) keep it as default >> Next.
3. Upload a photo that is related to your app.
4. To add Navigation Item:
 - Select the items (supplier, rice mill, consumer , Rice details) from the search bar and move it using the arrow button >> Next.
 - To Add User Profiles:Search profiles (System administrator) in the search bar >> click on the arrow button >> save & finish.



Step 5: To Create Fields:

➤ Creating the number field in rice details object.

1. Go to the setup page >> click on object manager >> From drop down click edit for rice details object
2. Click on fields & relationship >> click on New.
3. Select Data type as "Number" and click Next.
4. Given the Field Label as "rice distributed" and length as "5".
5. Field Name will be auto populated, and click on Next- Next >> Save.

The screenshots show the Salesforce Setup interface for creating a custom field named 'rice distributed' on the 'rice details' object.

Field Definition:

- Field Label:** rice distributed
- Length:** 8
- Decimal Places:** 0
- Field Name:** rice_distributed
- Description:** (empty)
- Help Text:** (empty)
- Required:** Always require a value in this field in order to save a record
- Unique:** Do not allow duplicate values
- External ID:** Set this field as the unique record identifier from an external system
- AI Prediction:** Use this field to store AI prediction scores
- Auto add to custom report type:** Add this field to existing custom report types that contain this entity
- Default Value:** Show Formula Editor

Add to page layouts:

- Step 4. Add to page layouts:** Step 4 of 4
- Field Label:** rice distributed
- Data Type:** Number
- Field Name:** rice_distributed
- Description:** (empty)
- Select page layouts:** Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.
To change the location of this field on the page, you will need to customize the page layout.
 Add Field Page Layout Name
 rice details Layout
- Buttons:** Previous, Save & New, Save, Cancel

Creating junction object.

A Junction object is a custom object that serves as a bridge between two related objects in a many-to-many relationship. It allows you to create a relationship between records of two different objects by creating a many-to-many relationship model. Creating junction object as rice details with supplier & rice mill

To create junction object

1. Go to the setup page >> click on object manager >> From drop down click edit for rice details object
2. Click on fields & relationship - click on New.
3. Select "Master-Detail relationship" as data type and click Next.
4. Select the related object " supplier " and click next.
5. Give Field Label as "supplier Name" and click Next.
6. Next >> Next >> Save & New.

rice details

New Relationship

Step 3. Enter the label and name for the lookup field

Field Label: i

Field Name: i

Description:

Help Text:

Child Relationship Name: i

Sharing Setting:

- Read Only: Allows users with at least Read access to the Master record to create, edit, or delete related Detail records.
- ReadWrite: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records.

Step 6 of 6

Step 6. Add custom related lists

Field Label: supplier Name

Data Type: Master-Detail

Field Name: supplier

Description:

Specify the title that the related list will have in all of the layouts associated with the parent.

Related List Label: i

These are the page layouts that will include this field. Because this is a Master-Detail relationship, the field is required.

Add Related List Page Layout Name:

- supplier Layout
- Append related list to users' existing personal customizations

Previous Save & New Save Cancel

7. Follow the same steps from 1 to 3.
8. Select the related object "rice mill" and click Next.
9. Give Field Label as "rice mill 1(one)" and click Next.
10. Next > Next > Save.

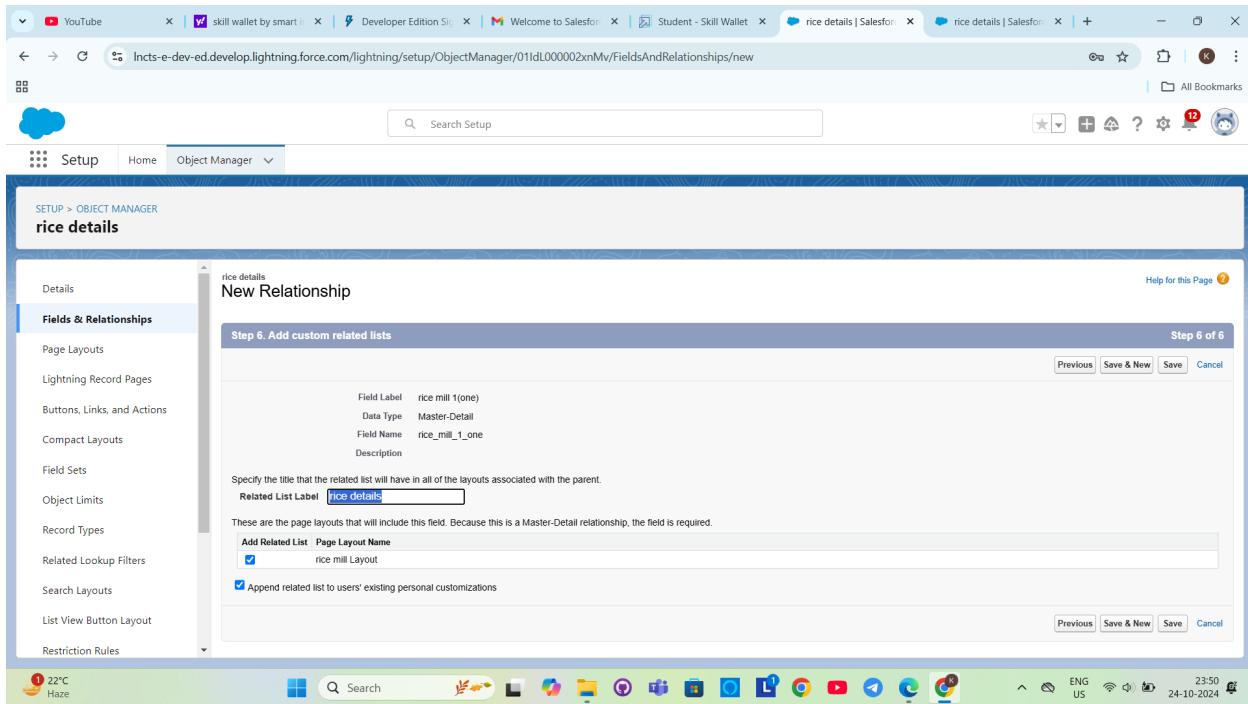
The screenshot displays two consecutive steps in the Salesforce Object Manager for creating a new relationship:

Step 2: Choose the related object

- Object: rice details
- Related To: rice mill

Step 3: Enter the label and name for the lookup field

- Field Label: rice mill 1(one)
- Field Name: rice_mill_1_one
- Description: (empty)
- Help Text: (empty)
- Child Relationship Name: rice_details
- Sharing Setting:
 - Read Only: Allows users with at least Read access to the Master record to create, edit, or delete related Detail records.
 - ReadWrite: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records. (Selected)



Creating Master-detail relationship .

Master-detail relationship is a type of relationship between two objects where the master object controls certain behaviors and settings of the detail object. Here are a few use cases that demonstrate the use of master-detail relationships.

To Create a Master-Detail relationship

1. Go to the setup page >> click on object manager >> From drop down click edit for consumer object.
2. Click on fields & relationship >> click on New.
3. Select "Master-Detail relationship" as data type and click Next.
4. Select the related object "rice mill".
5. Give Field Label as "rice mill name" and click Next.
6. Next >> Next >> Save.

SETUP > OBJECT MANAGER consumer

Fields & Relationships

Step 3. Enter the label and name for the lookup field

Field Label: rice mill name

Field Name: rice_mill_name

Description:

Help Text:

Child Relationship Name: consumers

Sharing Setting:

- Read Only: Allows users with at least Read access to the Master record to create, edit, or delete related Detail records.
- ReadWrite: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records.

SETUP > OBJECT MANAGER consumer

Fields & Relationships

Step 6. Add custom related lists

Field Label: rice mill name

Data Type: Master-Detail

Field Name: rice_mill_name

Description:

Related List Label: consumers

Add Related List Page Layout Name:

- rice mill layout
- Append related list to users' existing personal customizations

➤ Creating the Roll-up Summary .

Creating the Roll-up summary field on supplier & rice mill Objects.

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

4. Give the Field label as " sum of rice distributed ",Field Name will be Auto generated, and click Next.

SETUP > OBJECT MANAGER
supplier

New Custom Field

Step 2. Enter the details Step 2 of 5

Field Label: sum of rice distributed

Field Name: sum_of_rice_distributed

Description:

Help Text:

Auto add to custom report type Add this field to existing custom report types that contain this entity

5. Select the summarized object as " rice details ".

6. Select the Rollup type as "sum".

7. Select the field to aggregate as " rice distributed ", and click Next >>Next >>Save.

SETUP > OBJECT MANAGER
supplier

New Custom Field

Step 3. Define the summary calculation Step 3 of 5

Select Object to Summarize

Master Object: supplier
Summarized Object: rice details

Select Roll-Up Type

COUNT
 SUM
 MIN
 MAX

Field to Aggregate: rice distributed

Filter Criteria

All records should be included in the calculation
 Only records meeting certain criteria should be included in the calculation

8. Select the field to aggregate as " rice distributed ", and click Next >>Next >>Save. Follow the same steps for the rice mill Object from 1 to 3

9. Give the Field label as " rice distributed to shops ",Field Name will be Auto generated, and click Next.

SETUP > OBJECT MANAGER
supplier

New Custom Field

Step 2. Enter the details Step 2 of 5

Field Label: rice distributed to shops

Field Name: rice_distributed_to_shops

Description:

Help Text:

Auto add to custom report type Add this field to existing custom report types that contain this entity

10. Select the summarized object as " rice details ".

11. Select the Rollup type as "sum".

12. Select the field to aggregate as " rice distributed ", and click Next > Next > Save

SETUP > OBJECT MANAGER
rice mill

New Custom Field

Step 3. Define the summary calculation Step 3 of 5

Select Object to Summarize

Master Object: rice mill
Summarized Object: rice details

Select Roll-Up Type

COUNT
 SUM
 MIN
 MAX

Field to Aggregate: rice distributed

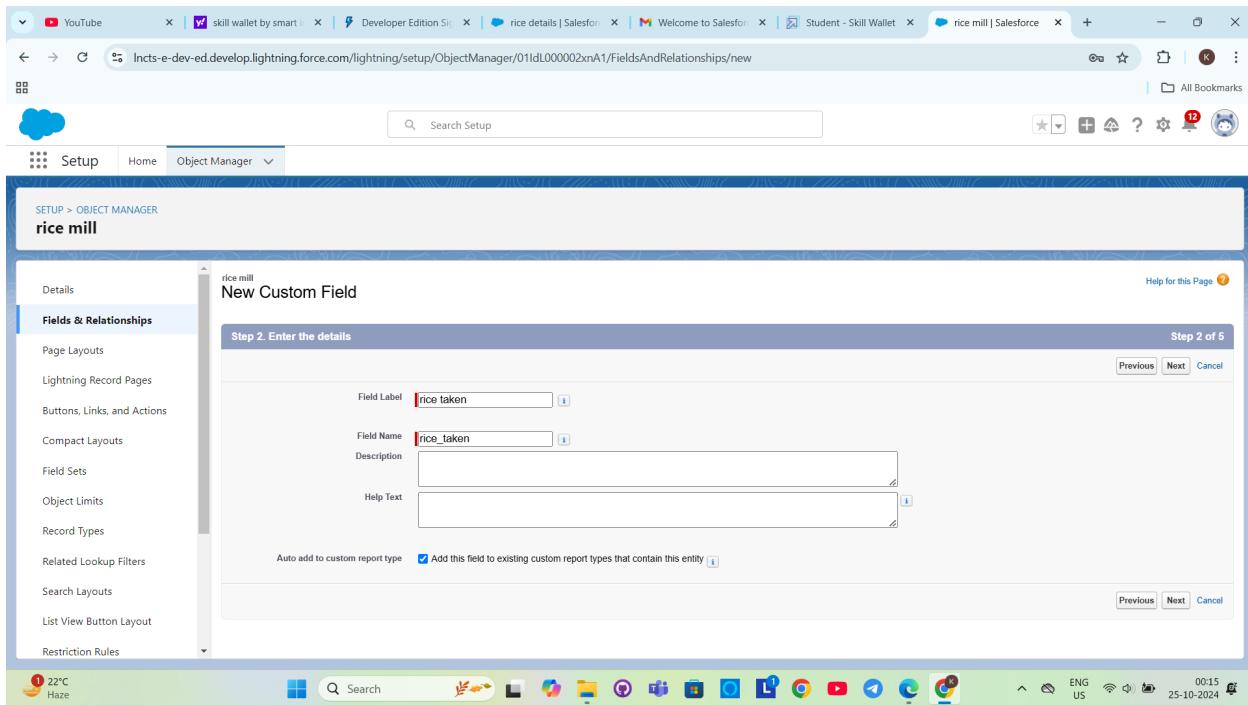
Filter Criteria

All records should be included in the calculation
 Only records meeting certain criteria should be included in the calculation

13. Note : create the field as " rice taken by shops in kgs" using number datatype in consumer object

14. Follow the same steps for the rice mill Object from 1 to 3

15. Give the Field label as " rice taken ",Field Name will be Auto generated, and click Next.

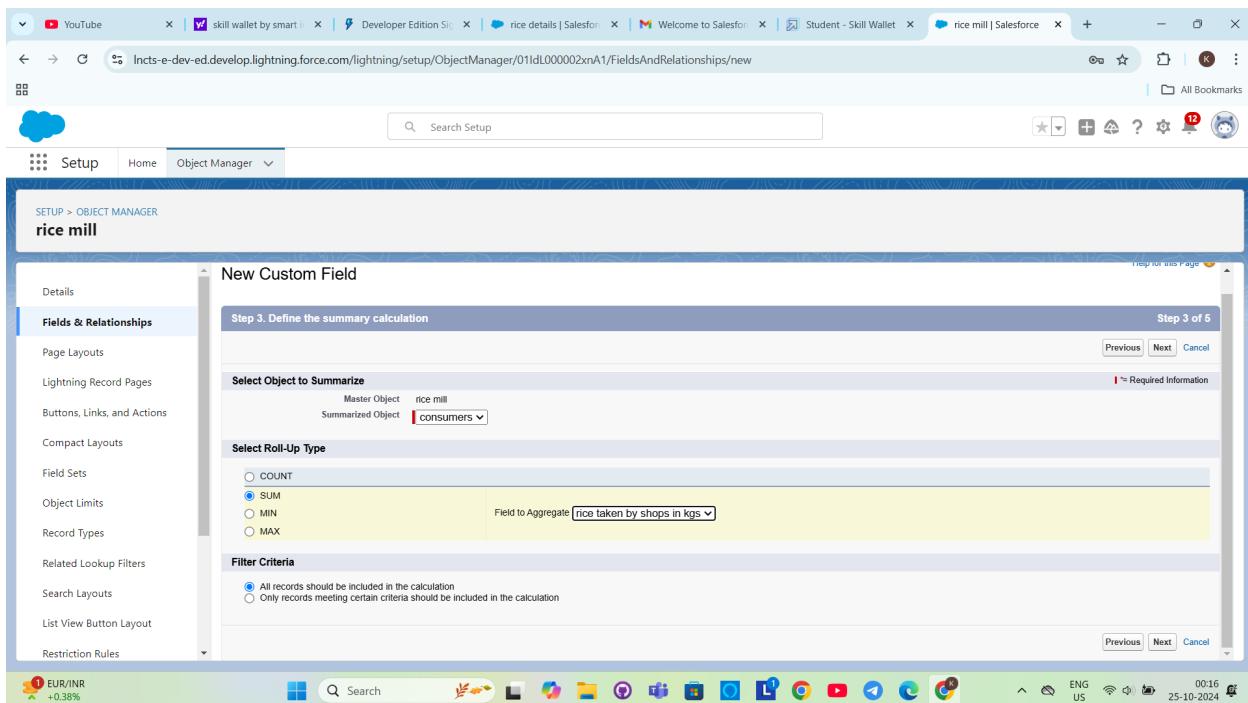


The screenshot shows the Salesforce Setup interface for creating a new custom field. The object is 'rice mill'. The 'Fields & Relationships' tab is selected. Step 2 of 5 is displayed, titled 'Enter the details'. The 'Field Label' is set to 'rice taken' and the 'Field Name' is 'rice_taken'. A checkbox for adding the field to existing report types is checked. The status bar at the bottom shows system information like weather (22°C Haze), date (25-10-2024), and time (00:15).

16. Select the summarized object as " consumer".

17. Select the Rollup type as "sum".

18. Select the field to aggregate as " rice taken in shops ", and click Next > Next > Save.



The screenshot shows the continuation of the custom field creation process. Step 3 of 5 is displayed, titled 'Define the summary calculation'. The 'Master Object' is 'rice mill' and the 'Summarized Object' is 'consumers'. The 'Select Roll-Up Type' section shows 'SUM' selected. The 'Field to Aggregate' dropdown is set to 'rice taken by shops in kgs'. The 'Filter Criteria' section has 'All records should be included in the calculation' selected. The status bar at the bottom shows system information like currency (EUR/INR +0.38%), date (25-10-2024), and time (00:16).

➤ Creating fields in object .

1. Creating the number field in rice details object
2. Go to the setup page >> click on object manager >> From drop down click edit for rice details object.
3. Click on fields & relationship >> click on New.
4. Select Data type as "master detail" and click Next.
5. Given the Field Label as " supplier name " and length as " 5.

rice details
New Custom Field

Step 2. Enter the details

Field Label: supplier name

Length: 5

Field Name: supplier_name

Description:

Help Text:

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

Unique: Do not allow duplicate values

Step 2 of 4

rice details
New Custom Field

Step 4. Add to page layouts

Field Label: supplier name

Data Type: Number

Field Name: supplier_name

Description:

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

Add Field Page Layout Name rice details Layout

When finished, click Save & New to create more custom fields, or click Save if you are done.

Step 4 of 4

6. Field Name will be auto populated, and click on Next>> Next >>Save.

➤ Creating Fields in rice mill Objects

1. Select Data type as "Number" and click Next.
2. Given the Field Label as "rice price/kg" and length as "5"

The screenshot shows the Salesforce Setup interface for creating a new custom field named 'rice_price_kg' for the 'rice mill' object. The field is defined as a Number type with a length of 5 and no decimal places. It has a label of 'rice price/kg' and a description of 'rice price/kg'. The field is required and does not allow duplicate values. In Step 4, the field is being added to the 'rice mill' layout. The system interface includes various tabs like Details, Fields & Relationships, Page Layouts, and Lightning Record Pages, along with standard browser navigation and status bars.

➤ Creating Fields in Consumer Objects.

Now create the field names as First name, Last name, Phone number,E-mail, Rice taken by

shops, Rice Type and mode of payment with the data type as Text, phone, e-mail ,number and picklist under the object consumer

The screenshot shows the Salesforce Setup interface for creating a new custom field named 'First_name' for the 'consumer' object. The field is defined as a Text type with a length of 18 characters. It is being added to the 'consumer' page layout. The interface includes a sidebar with various setup options like Page Layouts, Lightning Record Pages, and Field Sets.

Step 4 of 4: Add to page layouts

Field Label: First name
Data Type: Text
Field Name: First_name
Description:

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

Add Field Page Layout Name consumer Layout

When finished, click Save & New to create more custom fields, or click Save if you are done.

Step 2 of 4: Enter the details

Field Label: Last name
Length: 18
Field Name: Last_name
Description:
Help Text:
Required: Always require a value in this field in order to save a record
Unique: Do not allow duplicate values
 Treat "ABC" and "abc" as duplicate values (case insensitive)
 Treat "ABC" and "abc" as different values (case sensitive)

External ID: Set this field as the unique record identifier from an external system

SETUP > OBJECT MANAGER
consumer

Fields & Relationships
15 items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount Paid	Amount_Paid__c	Formula (Number)		
consumer Name	Name	Auto Number		
Consumer Name	Consumer_Name__c	Formula (Text)		
Created By	CreatedById	Lookup(User)		
email	email__c	Email		
First name	First_name__c	Text(18)		
Last Modified By	LastModifiedById	Lookup(User)		
Last name	Last_name__c	Text(18)		
Mode of payment	Mode_of_payment__c	Picklist		

SETUP > OBJECT MANAGER
consumer

Fields & Relationships
15 items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Last Modified By	LastModifiedById	Lookup(User)		
Last name	Last_name__c	Text(18)		
Mode of payment	Mode_of_payment__c	Picklist		
Phone number	Phone_number__c	Phone		
Record Type	RecordTypeid	Record Type		
rice mill name	rice_mill_name__c	Master-Detail(rice mill)		
Rice taken by shops	Rice_taken_by_shops__c	Number(5, 0)		
rice taken by shops in kgs	rice_taken_by_shops_in_kgs__c	Number(5, 0)		
Rice type	Rice_type__c	Picklist		

➤ Creating Cross Object Formula Field in consumer Object

A cross-object formula field is a formula field that references fields from another object in Salesforce. This type of formula allows users to calculate and display data from multiple objects on a single record.

1. Go to setup >> click on Object Manager >> type object name(consumer) 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 "Amount Paid" and select formula return type as "Number" and click next.

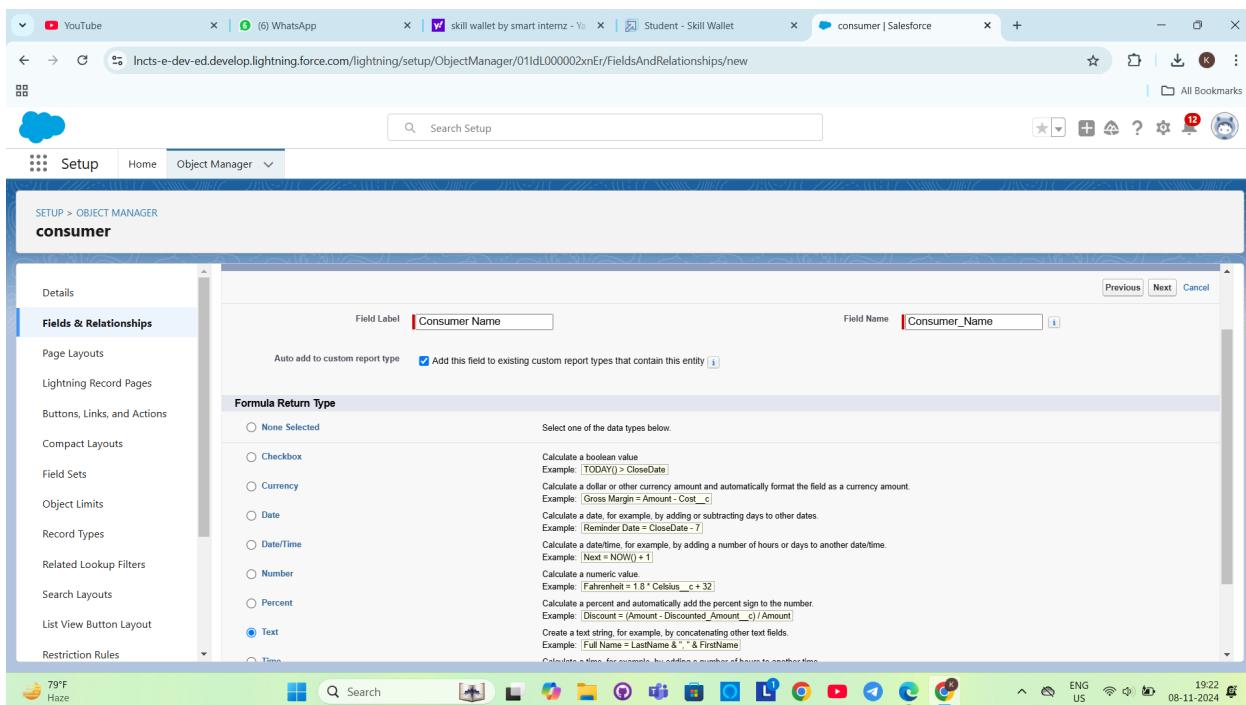
The screenshot shows the 'New Custom Field' page in the Salesforce Setup. The 'Field Label' is set to 'Amount Paid' and the 'Field Name' is 'Amount_Paid'. Under 'Formula Return Type', the 'Number' option is selected. The formula is defined as 'rice_taken_by_shops_c * rice_mill_name_r.rice_price_kg_c'. The status bar at the bottom indicates it's step 2 of 5.

5. Insert fields formula should be : **rice_taken_by_shops_c * rice_mill_name_r.rice_price_kg_c**
6. Under Advanced Formula write down the formula and click "Check Syntax" and Save.

The screenshot shows the 'Step 3. Enter formula' page. The formula 'rice_taken_by_shops_c * rice_mill_name_r.rice_price_kg_c' is entered in the 'Simple Formula' field. A tooltip for the 'Advanced Formula' subtab is displayed, containing links to 'Getting Started' and 'Operators & Functions'. The status bar at the bottom indicates it's step 3 of 5.

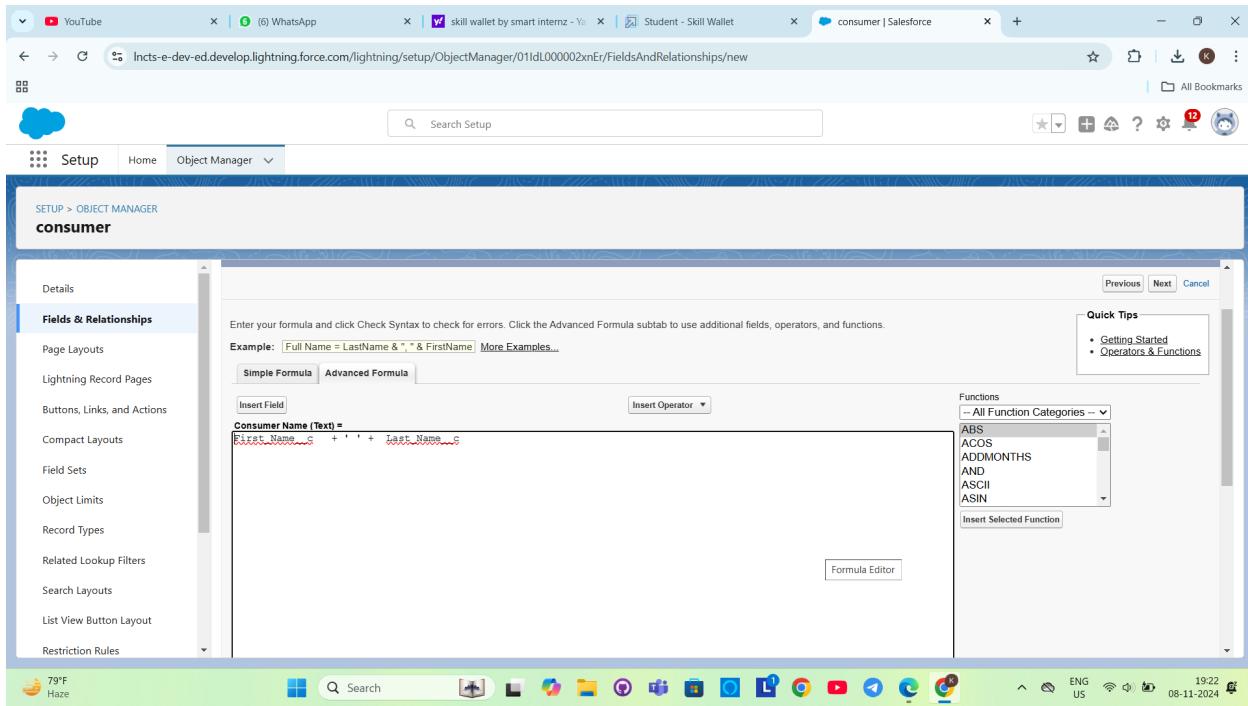
Creating the Formula field in consumer Object

1. Go to setup >> click on Object Manager >> type object name(consumer) 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 "Consumer Name" and select formula return type as "TEXT" and click next.



5. Insert field formula should be : First_Name__c + '' + Last_Name__c

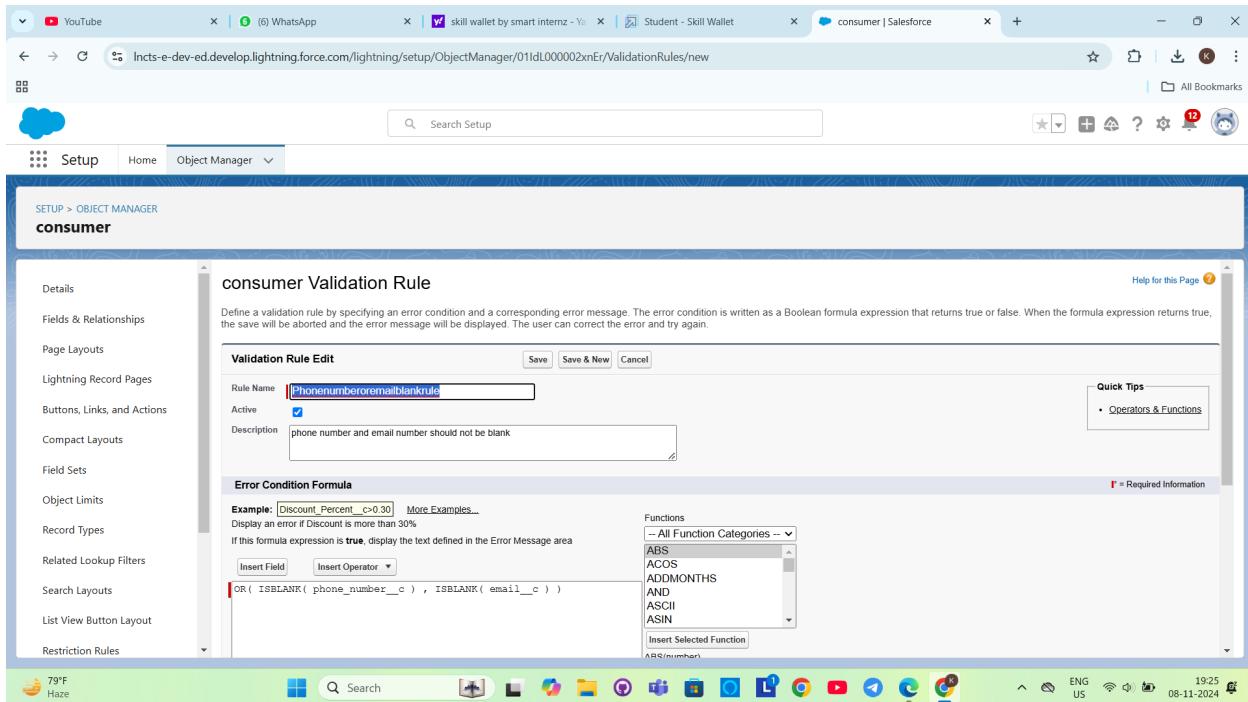
6. Click "CheckSyntax" and Save.



➤ Creating the validation rule

Creating the validation rule for phone number field in consumer object

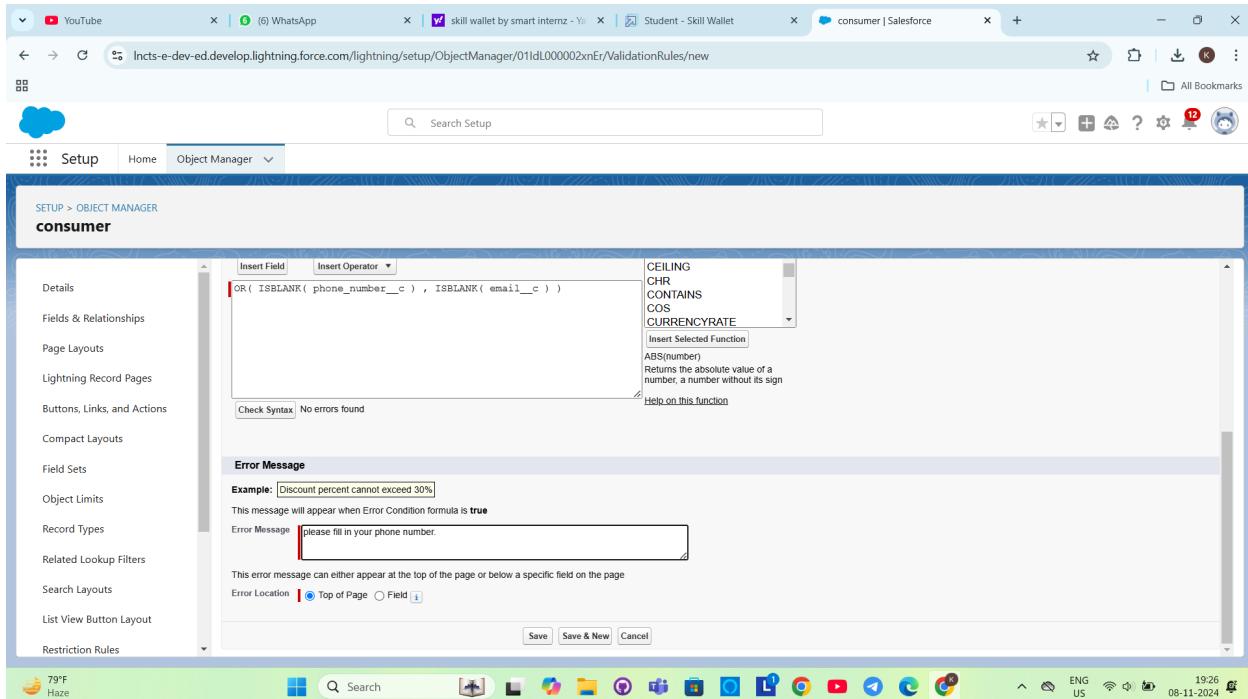
1. Go to the setup page >> click on object manager >> From drop down click edit for consumer object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as "Phonenumberoremailblankrule".
4. Enter the description as "phone number and email number should not be blank".
5. Enter the formula as "OR(ISBLANK(phone_number__c), ISBLANK(email__c))" and check the syntax.



6. Under the error message write as "please fill in your phone number."

7. Select error location "top of page".

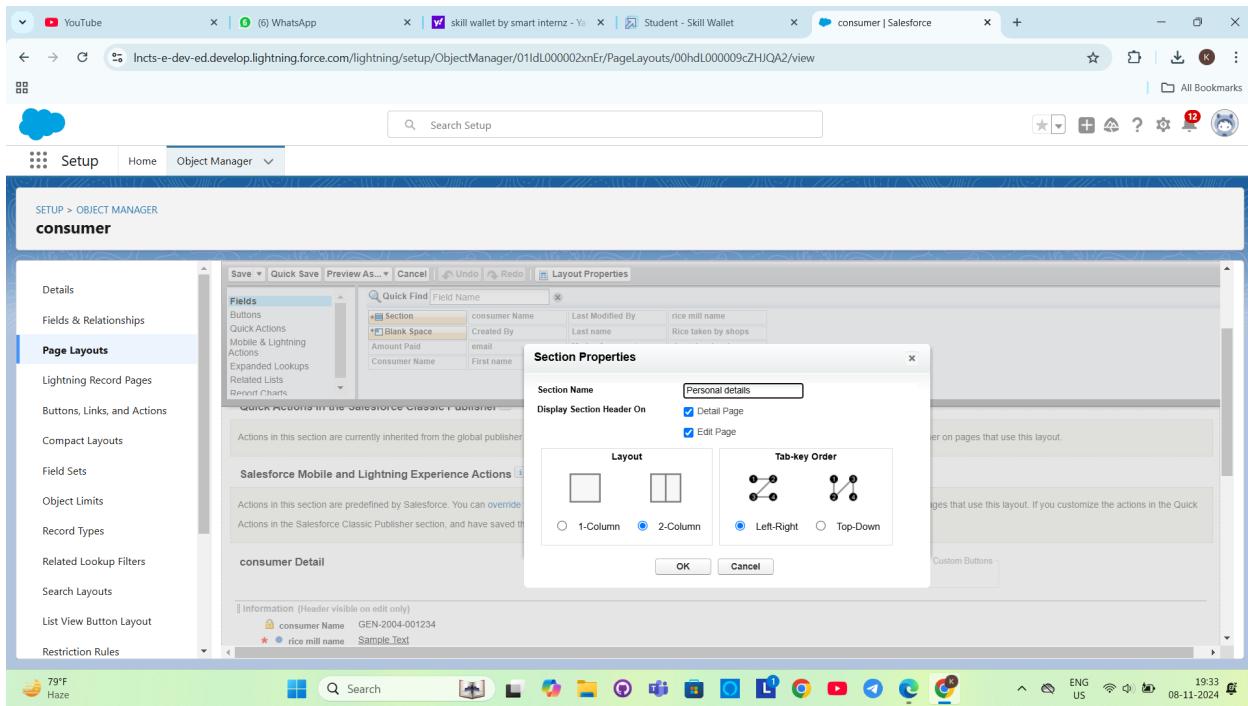
8. Save the validation rule.



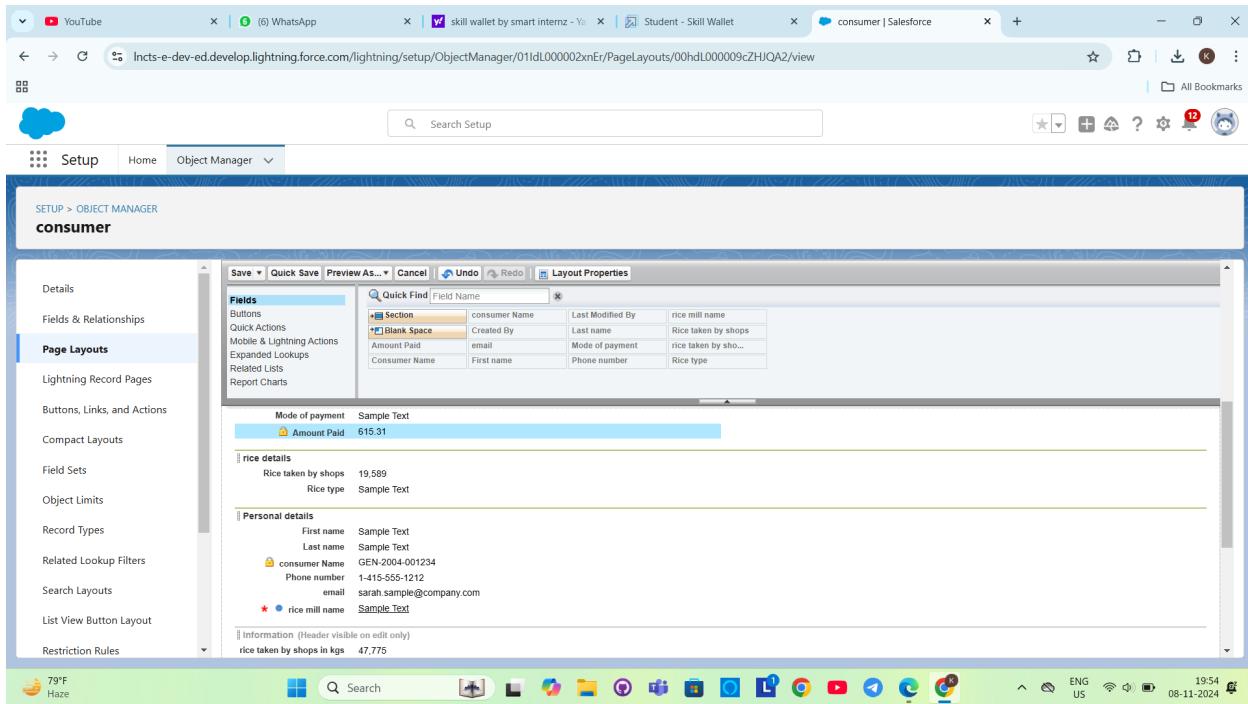
➤ Creating the Page layout To Create a Page layout:

1. Go to Setup >> Click on Object Manager >> Search for the object (consumer) >> From drop down select the object and click on it.

2. Click on Page layout >> Click on New.
3. Select the existing page layout, and give the page layout name as “consumer layout”, and click save.
4. Drag and drop the section field to consumer details and create the section.



5. Enter the section name as “Personal details”, - click Ok.
6. Now drag the fields to this section that mentioned , they are o First name , last name , consumer name , phone number, email, rice mill name.
7. Follow the same process for another two sections as shown above , they are
8. One section is “ rice details ” , drag the fields that are Rice taken by shop, rice type.



9. Another section is “Receipt details”, and drag the fields that are Mode of payment , Amount paid.

10. Click Save.

➤ Create Profiles.

A profile is a group/collection of settings and permissions that define what a user can do in salesforce. Profile controls “Object permissions, User permissions, Tab settings, App settings, Apex class access, Visualforce page access, Page layouts, Record Types, Login hours & Login IP ranges. You can define profiles by the user's job function. For example System Administrator, Developer, Sales Representative.

To create a new profile:

Owner profile:

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

Profile Detail

Name	owner	Custom Profile	
User License	Salesforce	✓	
Description			
Created By	Kritika Jarot 08/11/2024, 8:01 pm	Modified By	Kritika Jarot 08/11/2024, 8:01 pm

Page Layouts

Standard Object Layouts	Global	Invoice
Email Application	Global Layout [View Assignment]	Invoice Layout [View Assignment]
Home Page Layout	Not Assigned [View Assignment]	Invoice Line Layout [View Assignment]
Account	DE Default [View Assignment]	Lead Layout [View Assignment]
	Account Layout [View Assignment]	Legal Entity Layout [View Assignment]

2. Scroll down to Custom Object Permissions and Give access permissions for consumers, rice details , rice mill and suppliers objects as mentioned in the below diagram.

Ideas

	Read	Create	Edit	Delete	View All	Modify All
consumers	✓	✓	✓	✓	✓	✓
rice details	✓	✓	✓	✓	✓	✓

Work Plans

	Read	Create	Edit	Delete	View All	Modify All
Work Plan Templates	✓	✓	✓	✓	✓	✓
Work Step Templates	✓	✓	✓	✓	✓	✓
Work Types	✓	✓	✓	✓	✓	✓
Work Type Groups	✓	✓	✓	✓	✓	✓

Custom Object Permissions

	Basic Access						Data Administration					
	Read	Create	Edit	Delete	View All	Modify All	Read	Create	Edit	Delete	View All	Modify All
consumers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
rice details	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
rice mills	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
supplier	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Session Settings

Session Times Out After	2 hours of inactivity	Session Security Level Required at Login
-------------------------	-----------------------	--

Password Policies

User passwords expire in	90 days
Enforce password history	3 passwords remembered
Minimum password length	8
Password complexity requirement	Must include alpha and numeric characters
Password question requirement	Cannot contain password
Maximum Invalid login attempts	10

3. Give access and save it.

Employer profile:

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

2. While still on the profile page, then click Edit.
3. Select the Custom App settings as default for the rice mill.

Profile employer

Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information.

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

Profile Detail		Custom Profile			
Name	employer	Edit	Clone		
User License	Salesforce Platform	Delete	View Users		
Description					
Created By	Kritika Jarori	08/11/2024, 10:34 pm	Modified By	Kritika Jarori	10/11/2024, 1:32 am

Page Layouts

Standard Object Layouts	Global	Fulfillment Order Item Tax
Email Application	Global Layout [View Assignment]	Fulfillment Order Product [View Assignment]
Home Page Layout	Not Assigned [View Assignment]	Idea Varies by Record Type [View Assignment]
Account	Home Page Default [View Assignment]	Individual Individual Layout [View Assignment]

4. Scroll down to Custom Object Permissions and Give access permissions for consumer, rice details , rice mill and suppliers objects as mentioned in the below diagram.
5. Give access and save it.

Communication Subscription Consents

	Read	Create	Edit	Delete	View All	Modify All
consumers	✓	✓	✓	✓	✓	✓
rice details	✓	✓	✓	✓	✓	✓

Locations

	Read	Create	Edit	Delete	View All	Modify All
rice mills	✓	✓	✓	✓	✓	✓
supplier	✓	✓	✓	✓	✓	✓

Custom Object Permissions

	Basic Access	Data Administration	Basic Access	Data Administration								
	Read	Create	Edit	Delete	View All	Modify All	Read	Create	Edit	Delete	View All	Modify All
consumers	✓	✓	✓	✓	✓	✓						
rice details	✓	✓	✓	✓	✓	✓						
rice mills	✓	✓	✓	✓	✓	✓						
supplier	✓	✓	✓	✓	✓	✓						

Session Settings

Session Times Out After: 2 hours of inactivity

Session Security Level Required at Login

Password Policies

- User passwords expire in: 90 days
- Enforce password history: 3 passwords remembered
- Minimum password length: 8
- Password complexity requirement: Must include alpha and numeric characters
- Required password complexity: Contains uppercase letters

Worker profile:

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Standard Platform User) >> enter profile name (worker) >> Save.
2. While still on the profile page, then click Edit.
3. Select the Custom App settings as default for the rice mill.

Profile worker

Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information. If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.

Profile Detail

Name	worker	User License	Salesforce Platform	Custom Profile	✓
Description		Created By	Kritika Jarot, 09/11/2024, 12:14 am	Modified By	Kritika Jarot, 09/11/2024, 12:17 am

Page Layouts

Standard Object Layouts	Global	Email Application	Home Page Layout	Account	Fulfillment Order Item Tax	Fulfillment Order Product	Idea	Individual
Global Layout [View Assignment]	Not Assigned [View Assignment]	Home Page Default [View Assignment]	Account Layout [View Assignment]		Fulfillment Order Item Tax Layout [View Assignment]	Fulfillment Order Product Layout [View Assignment]	Varies by Record Type [View Assignment]	Individual Layout [View Assignment]

4. Scroll down to Custom Object Permissions and Give access permissions for consumer, rice details , rice mill and suppliers objects as mentioned in the below diagram.
5. And click save.

Ideas

	✓	✓	□	□
Images	□	□	□	□
Incidents	□	□	□	□
Individuals	✓	✓	✓	✓
Inventory Reservations	□	□	□	□

Work Plans

	✓	✓	✓	□	□
Work Plan Templates	✓	✓	✓	□	✓
Work Step Templates	✓	✓	✓	□	✓
Work Types	✓	✓	✓	□	□
Work Type Groups	✓	✓	✓	□	□

Custom Object Permissions

	Basic Access						Data Administration					
	Read	Create	Edit	Delete	View All	Modify All	Read	Create	Edit	Delete	View All	Modify All
consumers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
rice details	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
rice mills	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
supplier	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Session Settings

Session Times Out After: 2 hours of inactivity

Session Security Level Required at Login

Password Policies

User passwords expire in	90 days
Enforce password history	3 passwords remembered
Minimum password length	8
Password complexity requirement	Must include alpha and numeric characters
Password question requirement	Cannot contain password
Maximum Invalid login attempts	10

➤ Create Role & Role Hierarchy

A role in Salesforce defines a user's visibility access at the record level. Roles may be used to specify the types of access that people in your Salesforce organization can have to data. Simply put, it describes what a user could see within the Salesforce organization.

Creating owner Role:

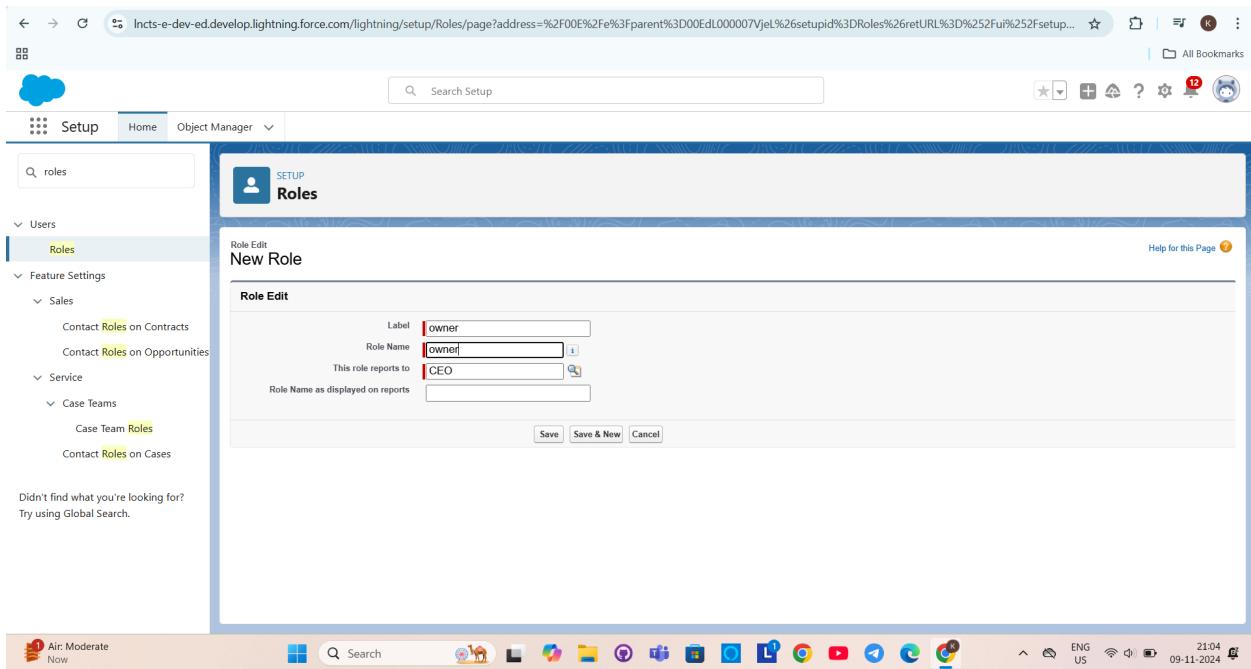
1. Go to quick find >> Search for Roles >> click on set up roles.

The screenshot shows the Salesforce Setup interface under the Roles section. A sample role hierarchy is displayed, illustrating how roles are organized. The hierarchy includes nodes such as Executive Staff, Western Sales Director, Eastern Sales Director, International Sales Director, and various sales representatives. Each node has a tooltip describing its permissions. A 'Set Up Roles' button is visible at the bottom right of the main content area.

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

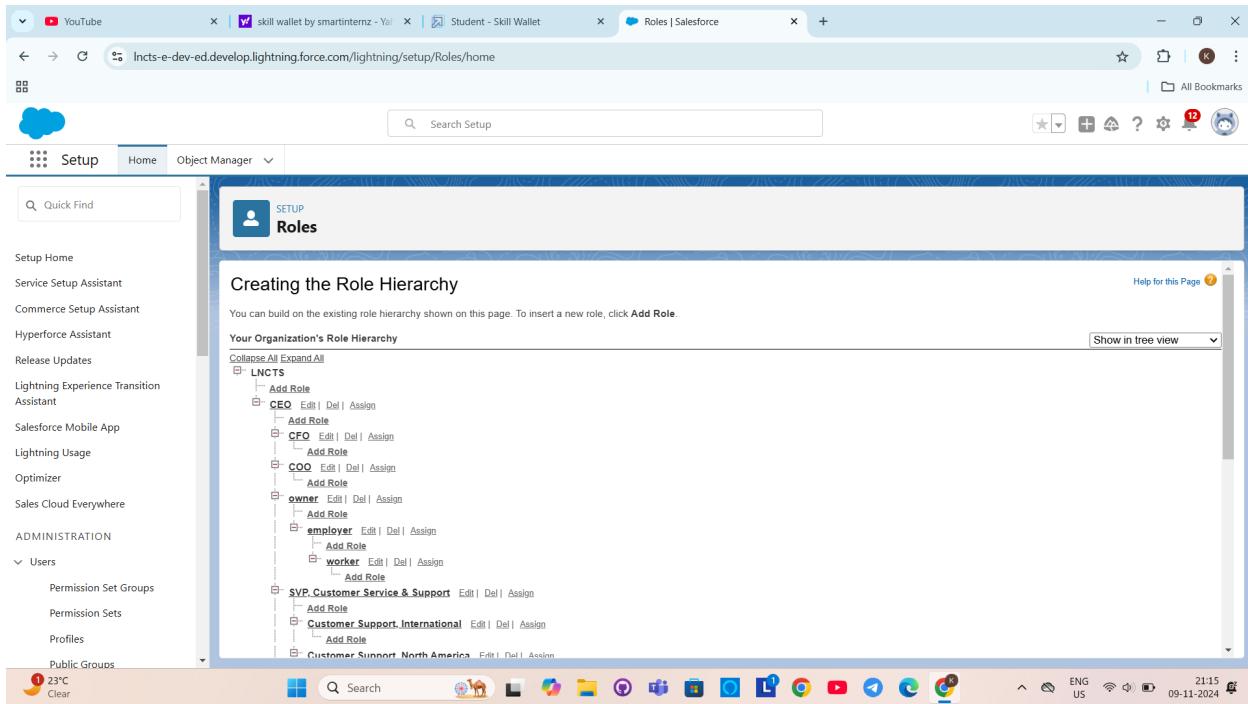
The screenshot shows the Salesforce Setup interface under the Roles section, specifically the 'Creating the Role Hierarchy' section. A tree view of existing roles is shown, with options to 'Add Role' under each node. The roles listed include CEO, CFO, COO, SVP_Customer_Service & Support, Customer_Support_International, Customer_Support_North_America, Installation & Repair Services, SVP_Human_Resources, and SVP_Sales_Marketing. Each role has 'Edit | Del | Assign' buttons next to it.

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



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 owner.
3. Give Label as "employer" and Role name gets auto populated. Then click on Save.
4. Repeat the same steps, for another role.
5. Click plus on CEO role, and click plus on owner, and click add role under employer. give Label as "worker" and Role name gets auto populated. Then click on Save.

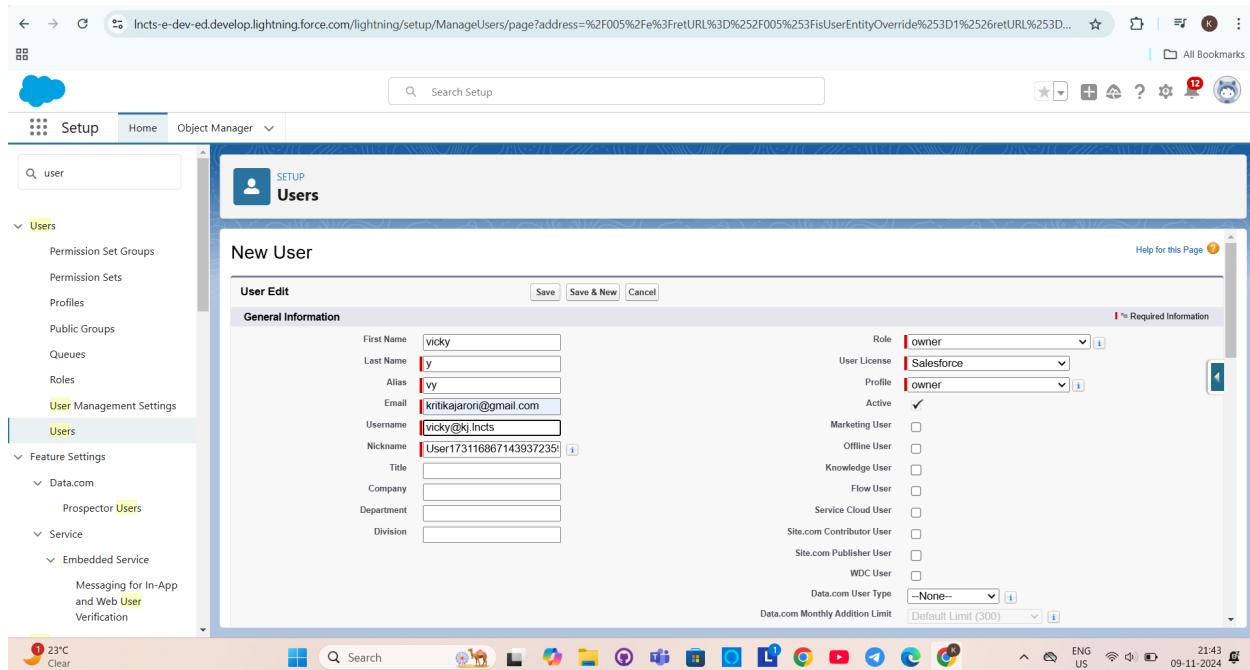


➤ Creating Users

A user is anyone who logs in to Salesforce. Users are employees at your company, such as sales reps, managers, and IT specialists, who need access to the company's records. Every user in Salesforce has a user account. The user account identifies the user, and the user account settings determine what features and records the user can access.

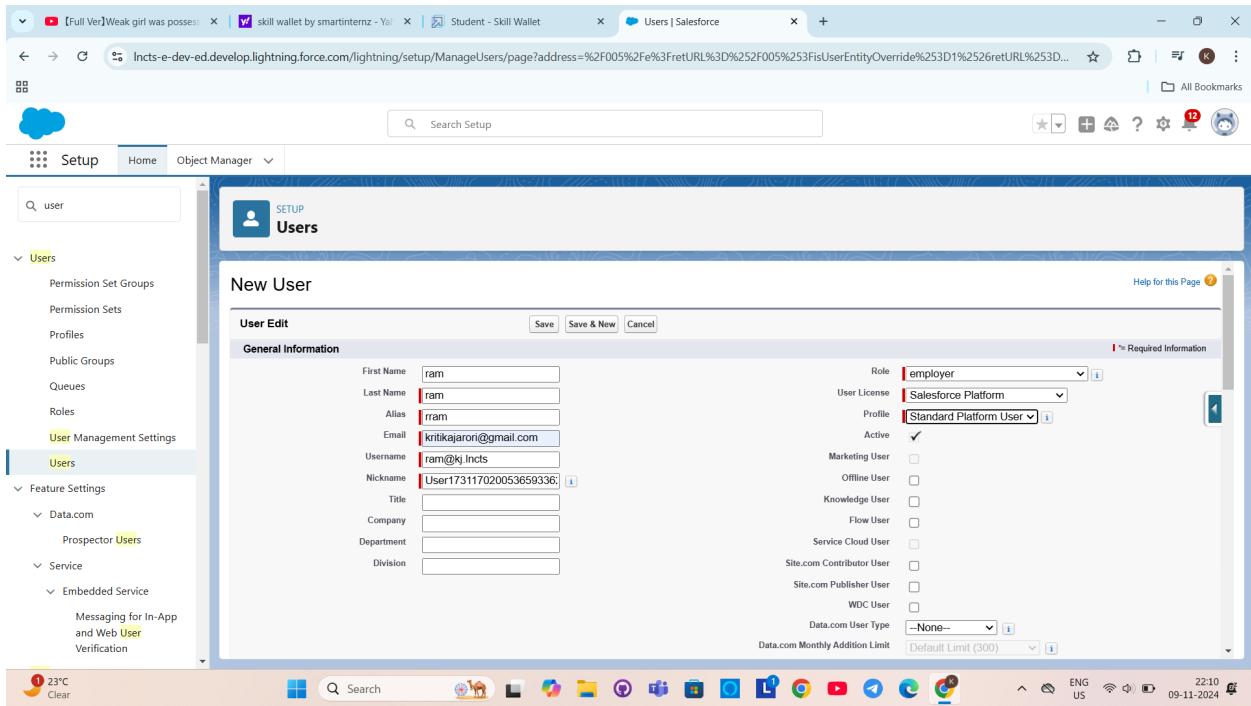
Create User

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



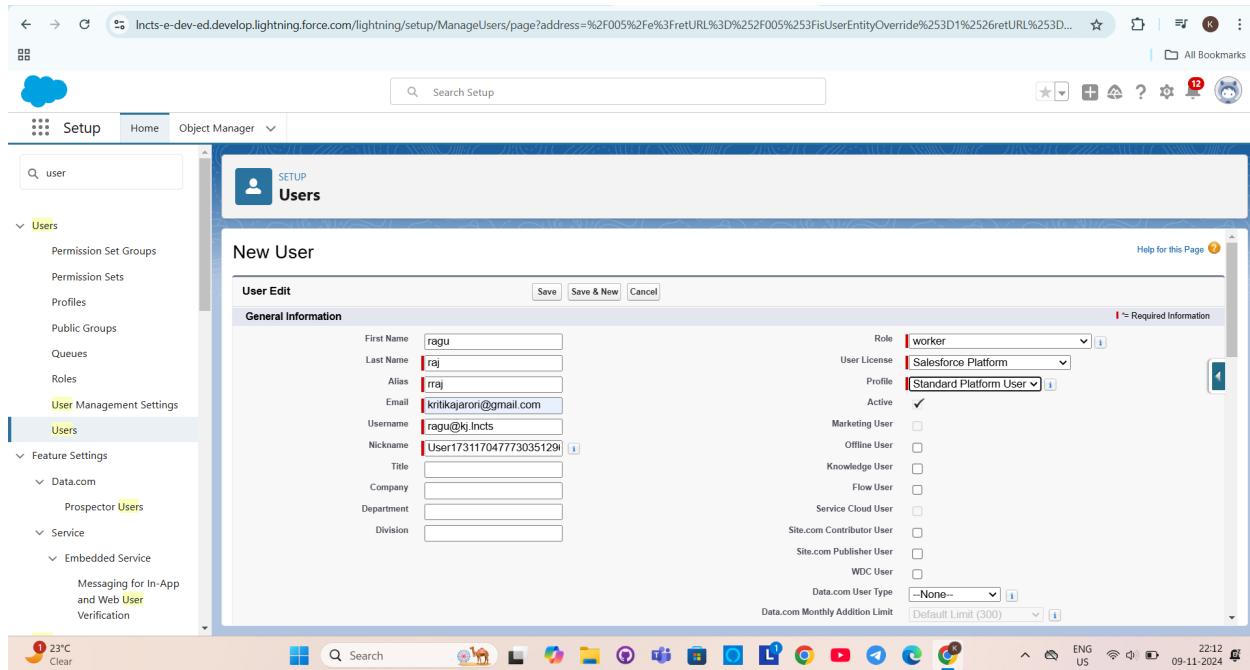
Creating another user

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



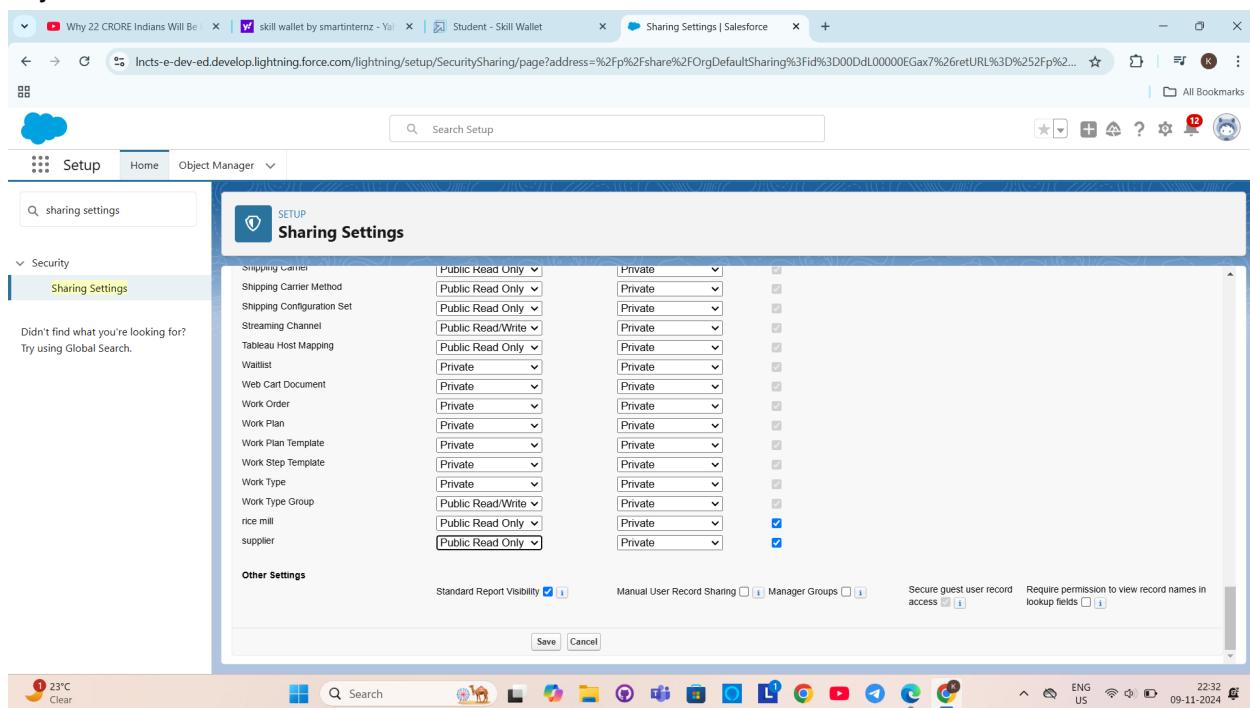
Create Another User

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



➤ Creating OWD setting.

1. Go to setup >> type “sharing settings ” in quick search >> Click edit.
2. Scroll down, change the default internal access to “ public read-only” for rice mill and supplier object.



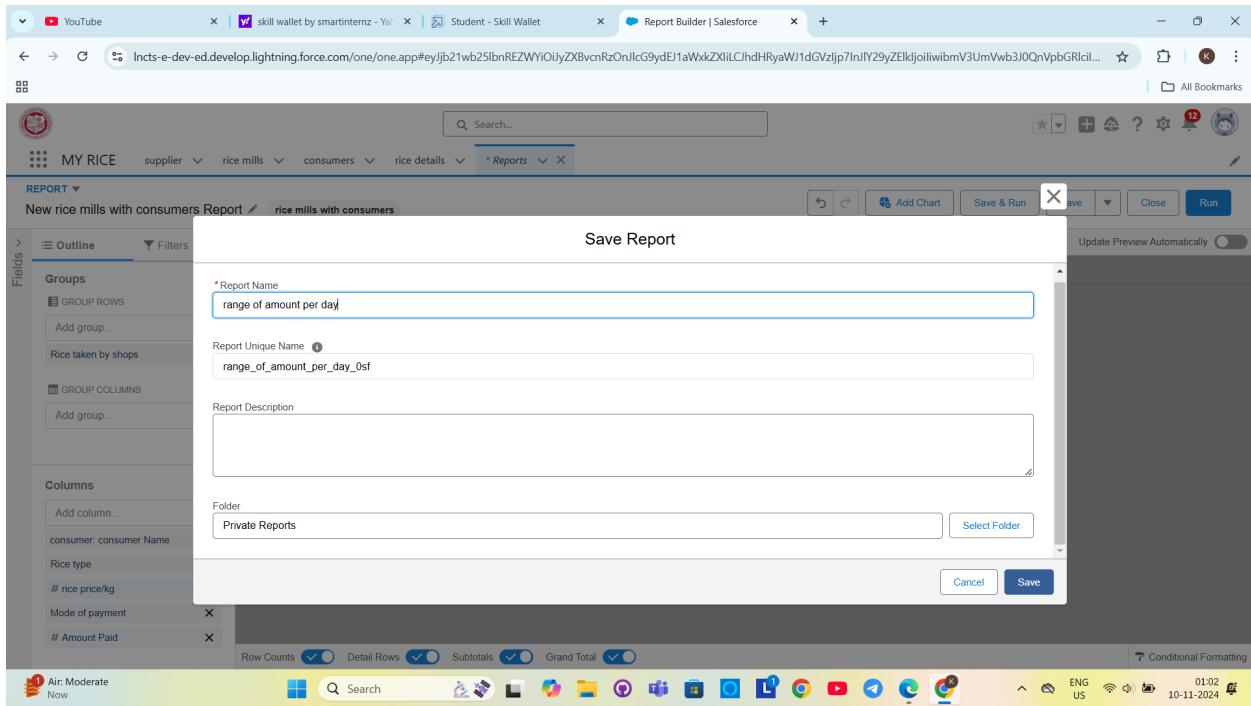
3. Click save.

➤ Create Report

1. Go to the app >>click on the reports tab
2. Click New Report.
3. select for report type, search for “rice mill with consumers” click on it. And click on start report.
4. Their outline pane is opened already, select the fields that are mentioned below in the column section
 - o Consumer name
 - o Mode of payment.
 - o Amount paid
 - o Rice price/kg.
5. Remove unnecessary fields.
6. Select the fields that are mentioned below in the GROUP ROWS section
 - o Rice taken by shops.

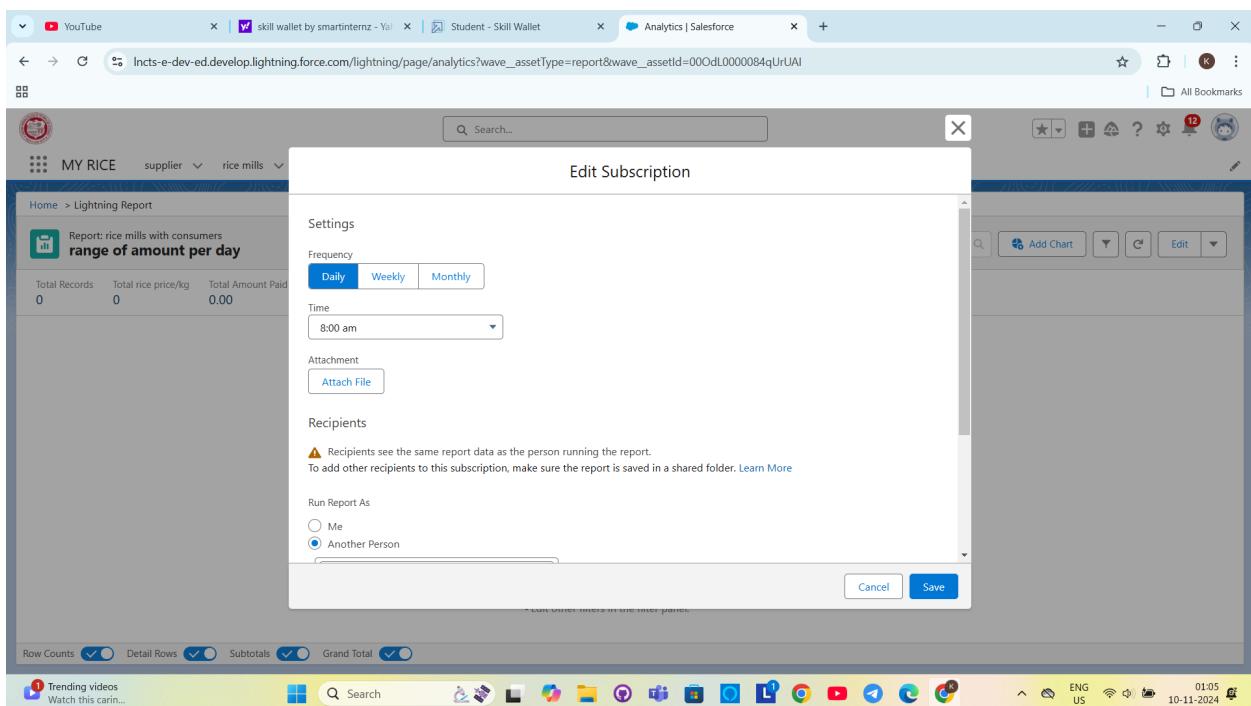
The screenshot shows the Salesforce Report Builder interface. The top navigation bar includes links for YouTube, skill wallet by smartinternz - Yal, Student - Skill Wallet, Report Builder | Salesforce, and a search bar. The main title is "New rice mills with consumers Report". The left sidebar under "Fields" shows sections for "Groups" (with "Rice taken by shops" selected) and "Columns" (listing consumer: consumer Name, Rice type, # rice price/kg, Mode of payment, and # Amount Paid). The central pane displays filters for "rice mill: rice mill Name" and "consumer: consumer Name", with a note that no records are returned. The bottom right corner shows system status (Air: Moderate Now), a taskbar with various icons, and a system tray with date and time (10-11-2024, 01:00).

7. Click save and run and save the report as “range of amount per day”.and save it.



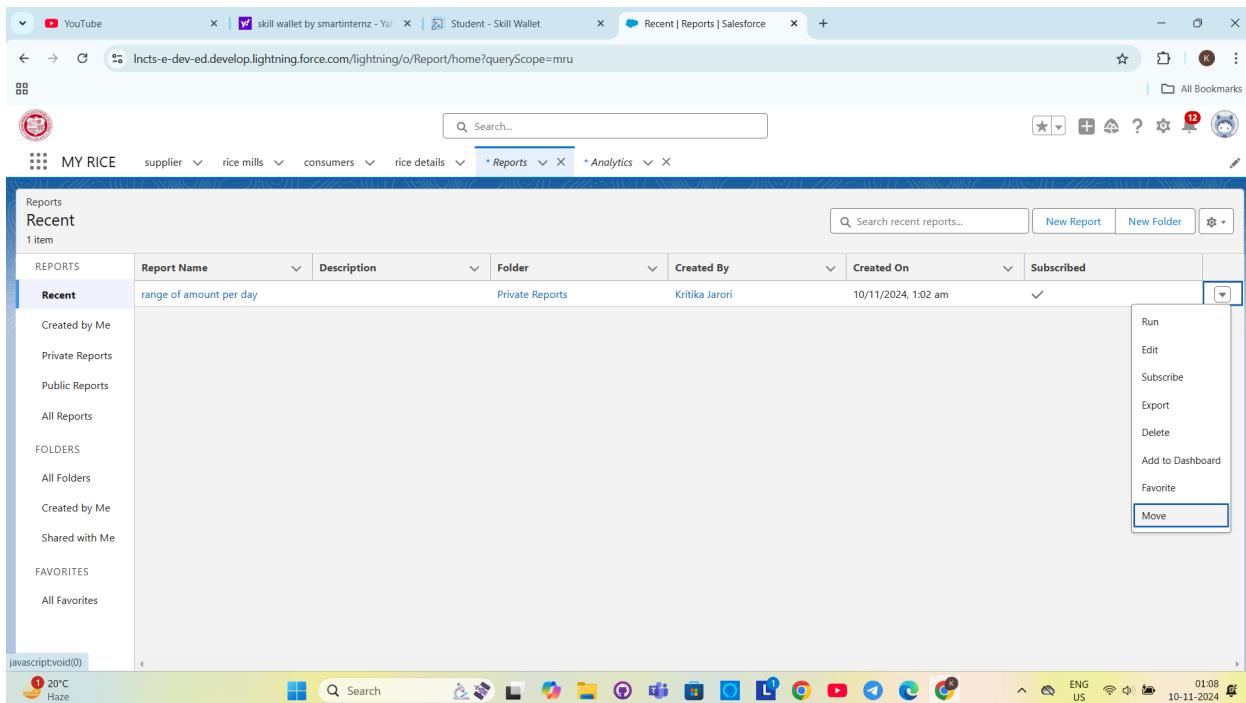
Sharing report to owner

1. Click edit drop down and select subscribe option
2. Follow as per below image.
3. After selecting the run report as a “another person” select your personal account or whom you want to send that mail to.
4. Click save.



Create a report folder

1. Click on the app launcher and search for reports.
2. Double click on the report, “ reports tab” will be auto populated in the navigation bar.
3. Click on the report tab, click on the new folder.
4. Give the Folder label as “estimated rice per day ”, Folder unique name will be auto populate.
5. Click save.



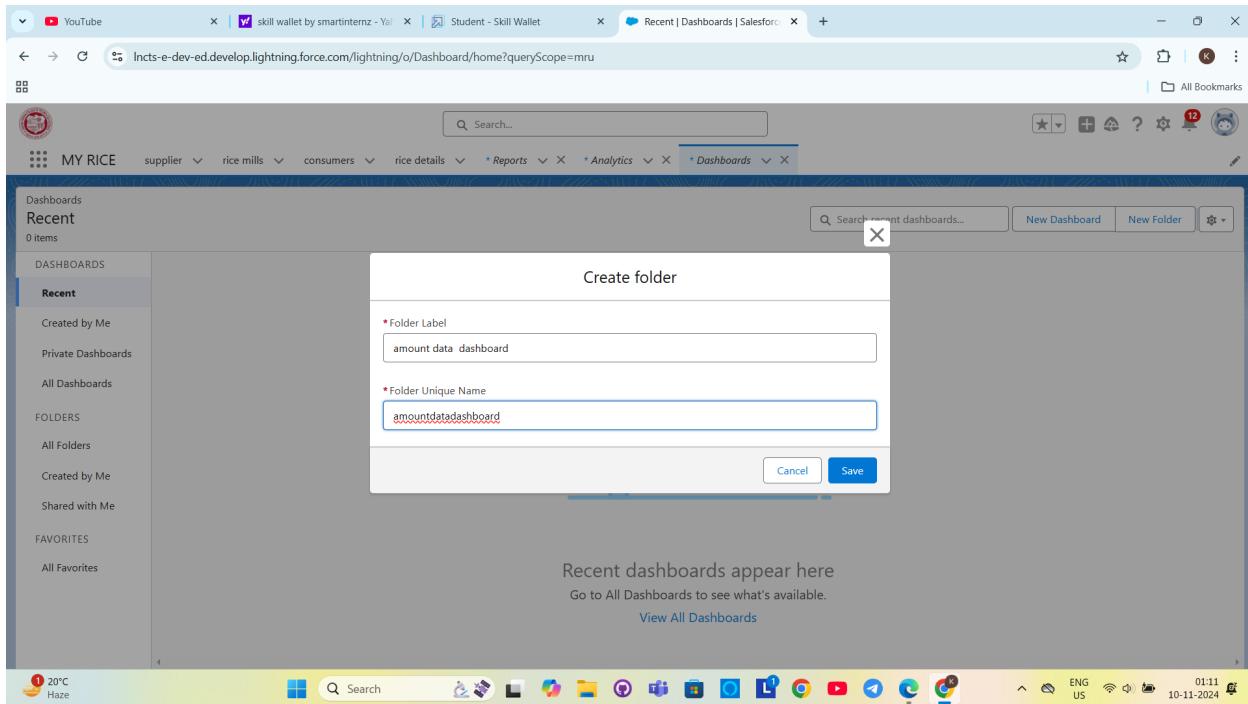
6. navigate to app launcher and click reports on that.
7. click all reports.
8. Select the range of amount per day drop down in that click move.
9. Select estimated rice per day folder and select folder.

➤ Dashboards

Dashboards help you visually understand changing business conditions so you can make decisions based on the real-time data you've gathered with reports. Use dashboards to help users identify trends, sort out quantities, and measure the impact of their activities. Before building, reading, and sharing dashboards, review these dashboard basics.

Create Dashboard Folder

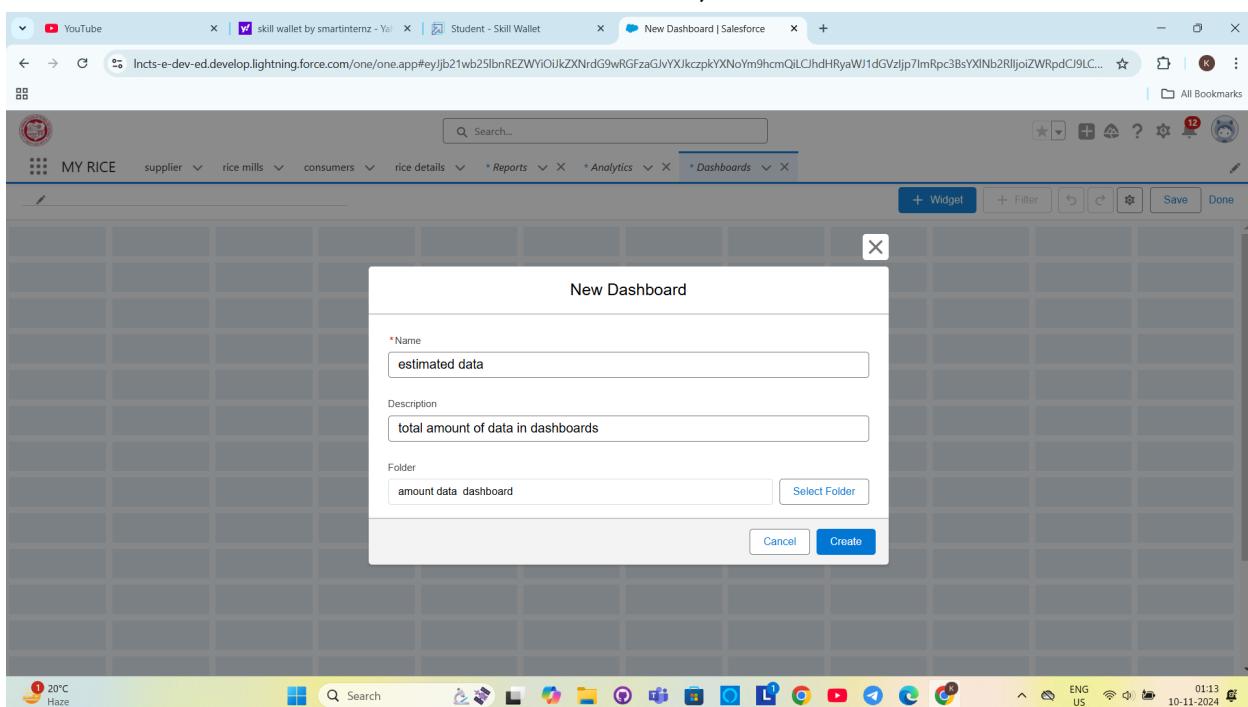
1. Click on the app launcher and search for the dashboard.
2. Click on the dashboard tab.
3. Click the new folder, give the folder label as “ amount data dashboard”.
4. Folder unique names will be auto populated.



5. Click create.

Create Dashboard

1. Go to the app >> click on the Dashboards tabs.
2. Give a Name and select the folder that was created, and click on create.

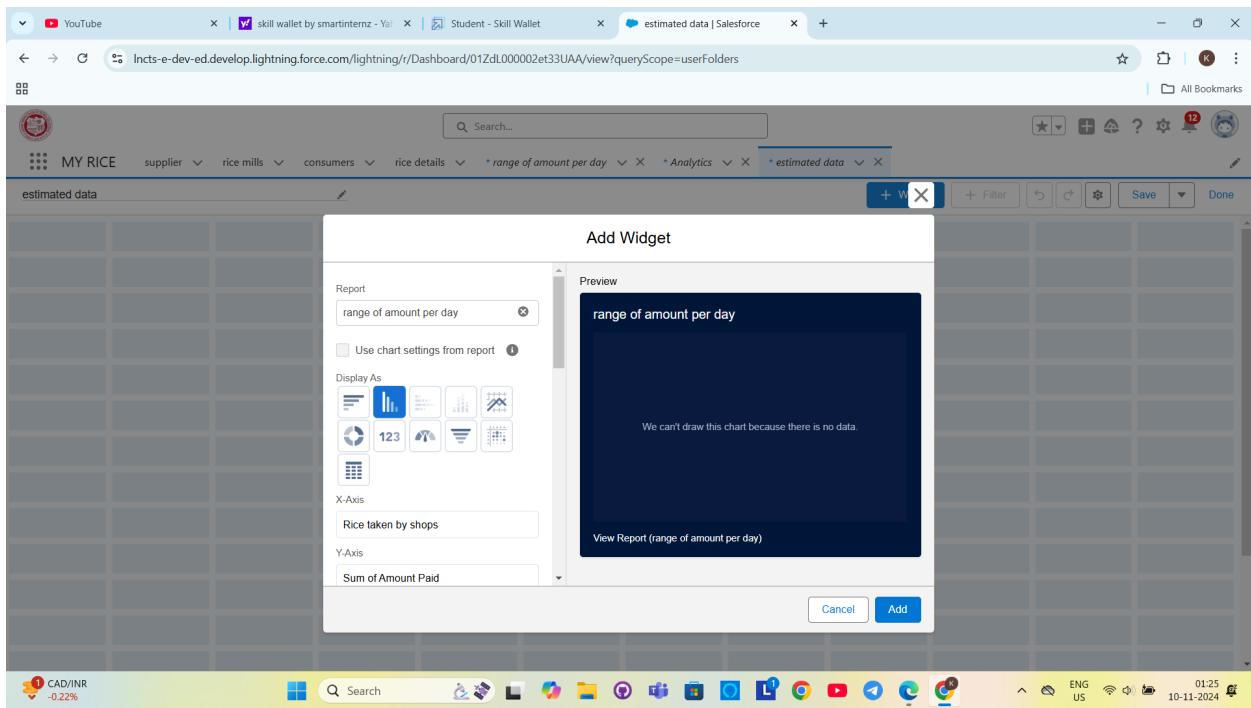


3. Select add component.

4. Select a Report and click on select.

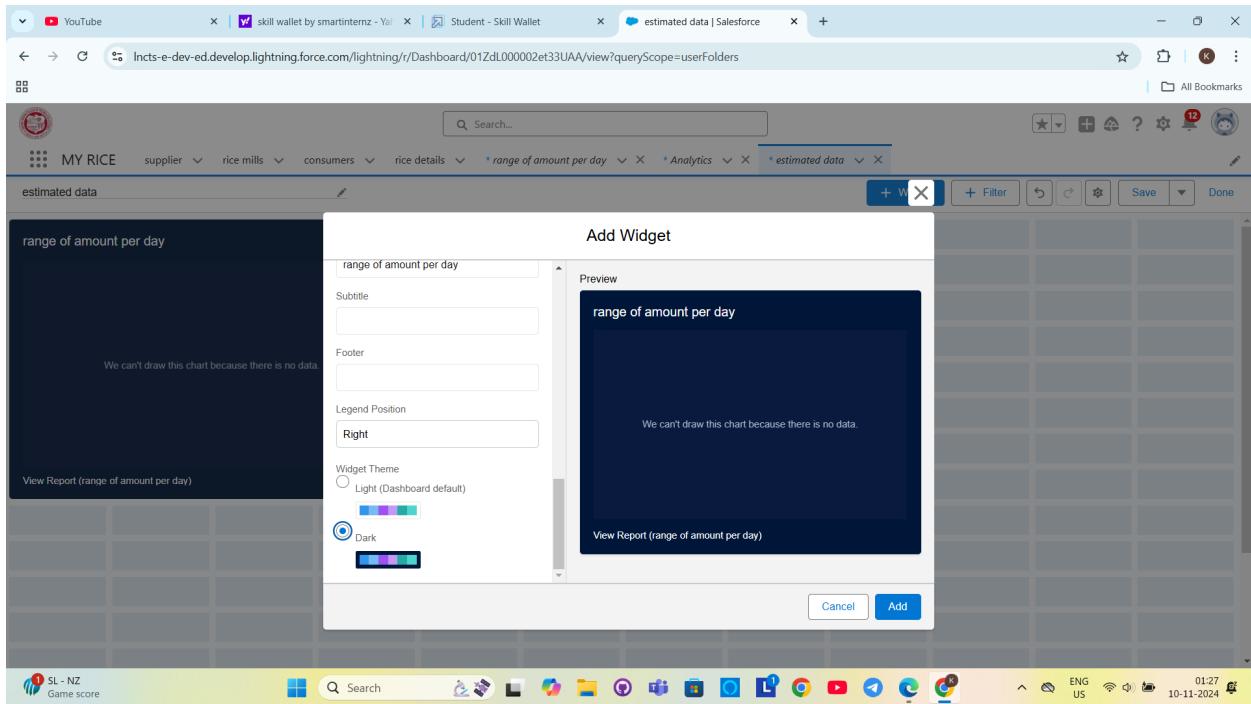
5. To add charts ,select any one of the on as:

- Display as>> vertical bar chart
- X-axis >> rice taken by shops
- Y-axis >> sum of amount
- Y-axis range >> automatic
- Sort by >> rice taken by shops
- Component theme >> dark.
- Add the component.



Again select add component with above same steps

- display as donut chart
- sort by >> sum of amount
- title>>range of amount per day
- component theme dark
- Click add.
- Click save and done.



➤ APEX

Apex is a strongly typed, object-oriented programming language that allows developers to execute flow and transaction control statements on the Lightning platform server in conjunction with calls to the Lightning Platform API. Using syntax that looks like Java and acts like database stored procedures, Apex enables developers to add business logic to most system events, including button clicks, related record updates, and Visualforce pages. Apex code can be initiated by Web service requests and from triggers on objects. It is as similar as java i.e, it also supports OOP(Object oriented programming) like Classes, objects, methods.

Creating Classes : Apex classes are modeled on their counterparts in Java. You'll define, instantiate, and extend classes, and you'll work with interfaces, Apex class versions, properties, and other related class concepts.

- **Class:** As in Java, you can create classes in Apex. A class is a template or blueprint from which objects are created. An object is an instance of a class.
- **Object:** Object is an instance of a class, where it can access all the properties that are present in a class i.e, variables and methods.

Creating an Apex Class(ConsumerRecord)

1. Login to the Salesforce account and navigate to the gear account in the top right corner.
2. Then we can see the Developer console. Click on the developer console and you will navigate to a new console window.
3. Then you can see many tools in the Toolbar of the new console window. Click on File, New and Apex Class.

4. Enter the name of the class(ConsumerRecord) to create a new class file.

The screenshot shows the Salesforce Developer Console interface. The title bar says "Developer Console - Google Chrome" and the URL is "lncts-e-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage". The tab is titled "ConsumerRecord.apxc *". The code editor contains the following Apex code:

```
1 public class ConsumerRecord {
2     public static void sendEmailNotification(List<consumer__c> con) {
3         for(consumer__c c : con) {
4             Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
5             email.setToAddresses(new List<String>{c.email__c});
6             email.setSubject('Welcome to our company');
7             email.setPlainTextBody('Dear ' + c.Name + ',\n\n' +
8                 'Welcome to MY RICE! We consider you a valuable customer and
9                 'We are proud to associate with esteemed customers like you.
10                'So why take a step back? Take a leap of faith and shop with
11                'Thank you for your purchase! Here are some products that might interest you.
12             Messaging.sendEmail(new List<Messaging.SingleEmailMessage>{email});
13         }
14     }
15 }
16 }
```

The "Problems" tab is selected at the bottom of the developer console. The code editor has syntax highlighting for Apex, with comments in red.

Code Snippet:

```
public class ConsumerRecord {

    public static void sendEmailNotification(List consumers) {

        List emailsToSend = new List();

        for (consumer__c consumer : consumers) {

            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();

            email.setToAddresses(new List{consumer.email__c});

            email.setSubject('Welcome to Our Company');
```

```
String body = 'Dear ' + consumer.Name + '\n\n' + 'Welcome to MY RICE! You are a valued customer to us. Please continue your journey with us as we strive to provide you with quality resources.\n\n' + 'We are proud to associate with customers like you and look forward to collaborating with you by offering exciting discounts and product offers.\n\n' + 'So why take a step back? Take a leap of faith and shop with us more as we provide valuable products and offers!\n\n' + 'Thank you for your support!\n\n' + 'Here are some of the products that other customers have enjoyed:\n\n';
```

```
email.setPlainTextBody(body);
```

```
emailsToSend.add(email);
```

```
}
```

Creating an Apex Trigger

Syntax For creating trigger :

```
Trigger [trigger name] on [object name]( Before/After event) { //Trigger Logic }
```

Trigger code:

```
trigger consumerTrigger on consumer__c (After insert) {
    if(trigger.isAfter && trigger.isInsert) {
        ConsumerRecord.sendEmailNotification(trigger.new);
    }
}
```

The screenshot shows the Salesforce Developer Console in Google Chrome. The URL is `https://lncts-e-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The tabs at the top are File, Edit, Debug, Test, Workspace, Help, and a back/forward arrow. Below the tabs, there are two tabs: "ConsumerRecord.apxc *" and "consumerTrigger.apxt *". The "consumerTrigger.apxt" tab is active. The code editor displays the following Apex trigger:

```
1 trigger consumerTrigger on consumer__c (After insert) {
2     if(trigger.isAfter && trigger.isInsert) {
3         ConsumerRecord.sendEmailNotification(trigger.new);
4     }
5 }
```

Below the code editor, there is a toolbar with tabs: Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The "Problems" tab is selected. A table below the toolbar lists items under the "Problems" tab, with columns for Name, Line, and Problem. There are no entries in the table.

Key Scenarios Addressed by Salesforce in the CRM Implementation for Wholesale Rice Mill

1. Customer Onboarding and Data Management Salesforce enables seamless onboarding of new customers by providing an easy-to-use interface for capturing customer details. The CRM organizes customer information, order history, and communication records in a centralized location, allowing the rice mill to manage relationships efficiently.
2. Sales Pipeline and Order Management Salesforce automates the sales pipeline, allowing the rice mill to track leads, manage orders, and follow up with prospects effortlessly. Sales representatives can monitor each stage of the sales process, from initial inquiry to order fulfillment, ensuring no deals are missed.
3. Inventory and Supply Chain Integration Salesforce provides real-time inventory tracking by integrating with existing systems. The rice mill can monitor stock levels, match orders with available products, and prevent overstocking or stockouts. This helps improve order accuracy.

and reduces operational inefficiencies.

4. Customer Support and Communication Tracking The CRM allows for efficient management of customer inquiries and complaints. Salesforce centralizes communication records, enabling customer service teams to respond promptly and maintain detailed histories of customer interactions. This improves customer satisfaction and ensures consistent service.

5. Sales Analytics and Forecasting Salesforce generates comprehensive sales reports and predictive analytics based on customer purchase patterns and historical data. The rice mill can use these insights to forecast demand, set sales targets, and adjust inventory levels, leading to better business planning and decisionmaking

6. Upselling and Cross-selling Opportunities With Salesforce, the rice mill can analyze customer buying behaviors to identify opportunities for upselling and cross-selling related products. By providing tailored product recommendations, the CRM helps maximize revenue from existing customers.

Conclusion Summary of Achievements:

The "Wholesome Rice Mill CRM" project successfully implements a comprehensive Salesforce solution to streamline the operations of a rice milling business. By centralizing customer data, the CRM provides a unified platform to manage interactions with buyers, distributors, and suppliers, ensuring accurate records and improved customer service. The system enhances sales tracking through detailed reporting and dashboards, enabling data-driven decision-making and identifying growth opportunities. The CRM also improves communication by automating notifications, managing tasks, facilitating follow-ups, strengthening relationships, and ensuring consistent engagement. Its scalable design allows the system to grow with the business, supporting future expansions and new product introductions. Through data analytics, the CRM offers valuable insights into market trends, demand forecasting, and inventory management, helping the rice mill meet market needs efficiently. Overall, this project provides a robust tool for managing relationships, optimizing processes, and driving growth, giving the business a competitive edge in the rice milling industry.