

# PROJECT OF SALESFORCE DEVELOPER

A CRM APPLICATION FOR WHOLESALE RICE MILL

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## **ABSTRACT**

The Rice Mill CRM Application for Salesforce is an integrated solution designed to streamline and optimize the sales, customer relationship management, and operational processes within the rice milling industry. This custom-built CRM system leverages Salesforce's cloud platform to manage customer data, enhance sales workflows, and automate key operations from order placement to delivery. The solution facilitates effective tracking of customer interactions, allows for the creation of detailed customer profiles, and supports advanced analytics for data-driven decision-making.

The CRM application offers features such as real-time inventory management, order tracking, and customer communication automation, enabling rice mills to efficiently monitor sales performance and customer satisfaction. Additionally, the application provides a unified interface to handle production schedules, payments, and product distribution, improving both internal coordination and client interactions.

By utilizing Salesforce's secure cloud environment, the Rice Mill CRM Application enhances operational efficiency, minimizes errors, and strengthens customer relationships, ultimately driving growth and profitability within the competitive rice milling sector.

# A CRM APPLICATION FOR WHOLESALE RICE MILL

## 1. Project Overview :

The Rice Mill CRM covering is a comp solution for managing and Make simpler rice production and sales tracking. It enables daily reporting on rice quantity, type, and sales, which is then pass to the owners. This CRM purchase customer kinship Control to enhance customer battle, streamline actions, and improve Performance in the rice mill factory. The project aims to deliver a user-friendly coating that meets the specific functional needs of a rice mill.

## 2. Objectives : Business Goals:

The Rice Mill CRM App will automate daily production and revenue reporting, providing owners with clear insights into functional performance. It will also implement customer calculus to place buying trends and popular rice assortment, enabling targeted marketing and better customer agreement. in addition, the coating will streamline resource allotment by forecasting demand and canvassing sales patterns. This will help the business optimize stock list control and Quickly allocate resources. Specific Outcomes: The Rice Mill CRM App will automate daily production and revenue reporting, track customer buying trends, and optimize resource allotment based on demand forecasts and sales patterns. This will provide clear insights, enhancing functional Performance.

## 3. Salesforce Key Features and Concepts Utilized :

### 1. Reporting and Dashboards:

- Daily Sales and Production Reports: The system generates detailed reports showing the amount of rice produced and sold each day
- Revenue Reports: Provides insights into daily revenue brought forth.
- Customer Data Review: Tracks popular rice types and most frequent buyers.
- Resource dispersion: Helps owners understand data for better resource allotment and future planning.

### 2. Rollup Summary Field:

- Purpose: sum up data from a child object to a parent object that shares a master-detail kinship.
- Functions:Can use COUNT, SUM, Minimum, and Maximum functions.

### 3. Cross-Object Formula Field:

- Purpose: mention fields from another object in Salesforce.
- Function: Calculates the total amount payable by procreate the number of rice units

taken by the price per kg.

#### 4. proof Rules:

- Purpose: Ensures data unity by confirming user inputs.
- Is Blank Formula: Verifies if a field is blank and displays an error message if the rule returns a value of "True."

#### 5. Permission Sets:

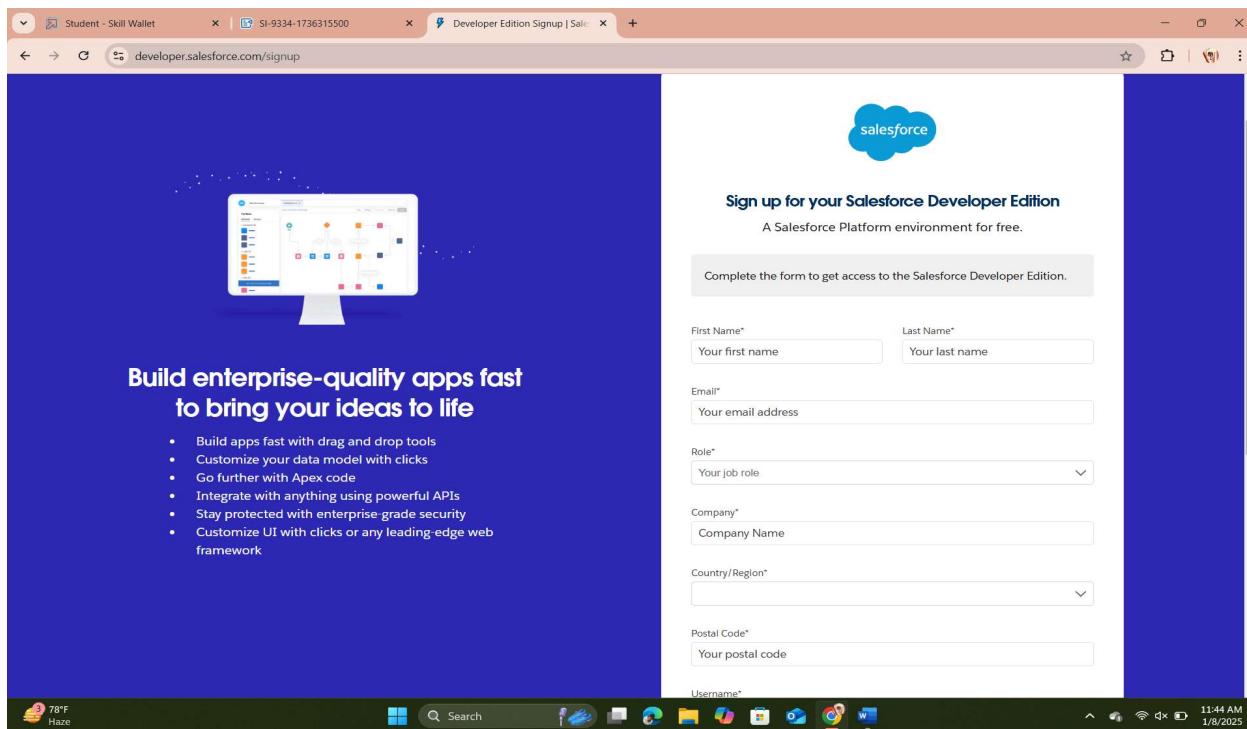
- Wide Defaults (OWD): Defines the baseline level of access for the most restricted user.
- Roles and Access:
- Company Owner: Can view records of employers and workers.
- Employer: Can view records of workers.

#### 4. Detailed Steps to Solution Design :

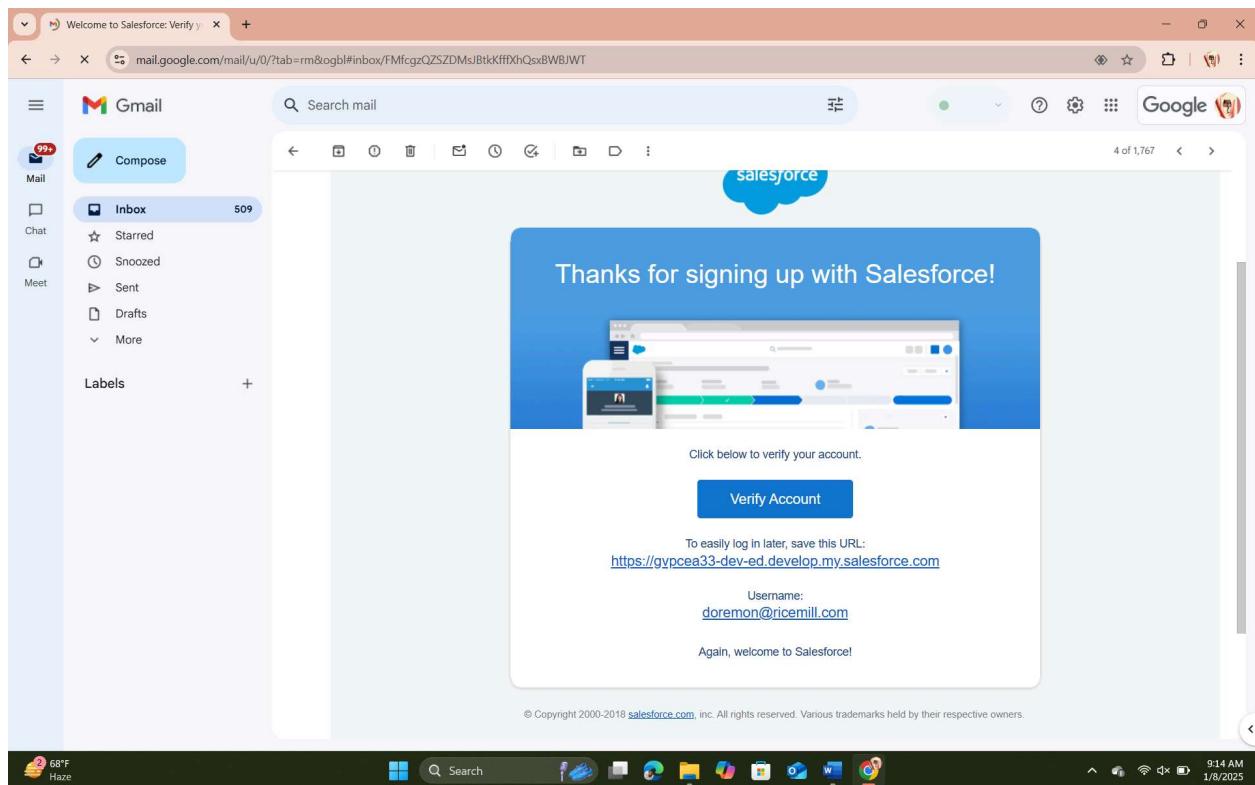
## Action 1: Creating Programmer Account and Account Initiation.

Steps:

- On the sign up form, enter the following details
- Click on sign me up after filling these.
- First name & Last name
- Email
- Role : Programmer
- Company : College Name
- Country : India
- Postal Code : pin code 2
- Username : should be a combining of your name and company
- This need not be an actual email id; you can give anything in the format.



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.

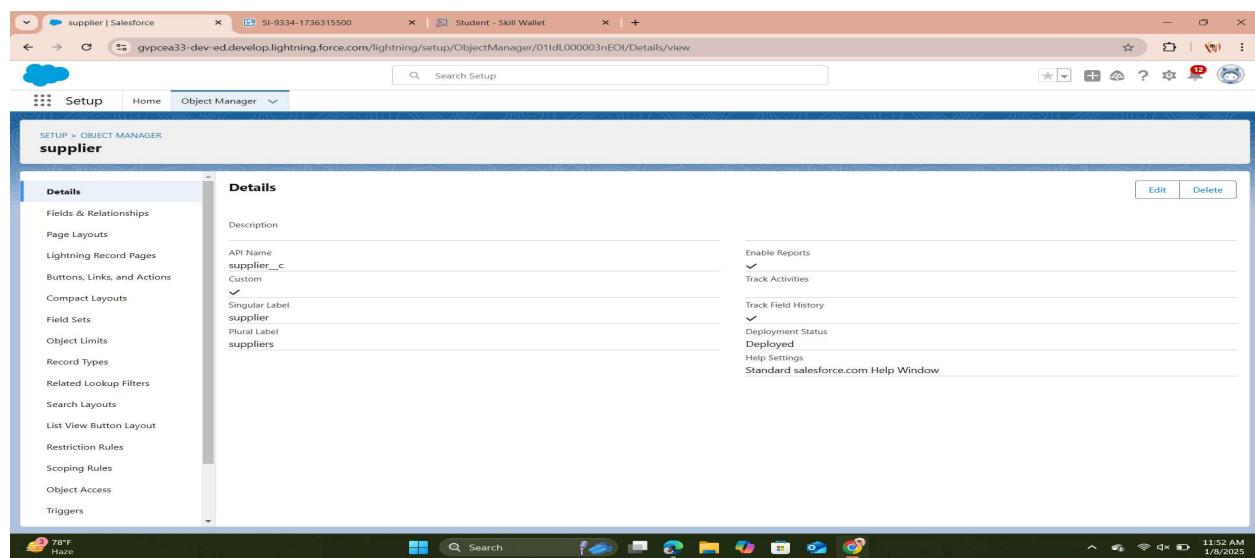


**Action 2:** Objects Salesforce objects are of two types:

1. **Standard Objects:** Salesforce.com provides standard objects, such as users, contracts, reports, dashboards, and more.
2. **Custom Objects:** Users create custom objects to supply unique and essential info for their agreement. These objects form the heart of any coating and provide a structure for sharing data.

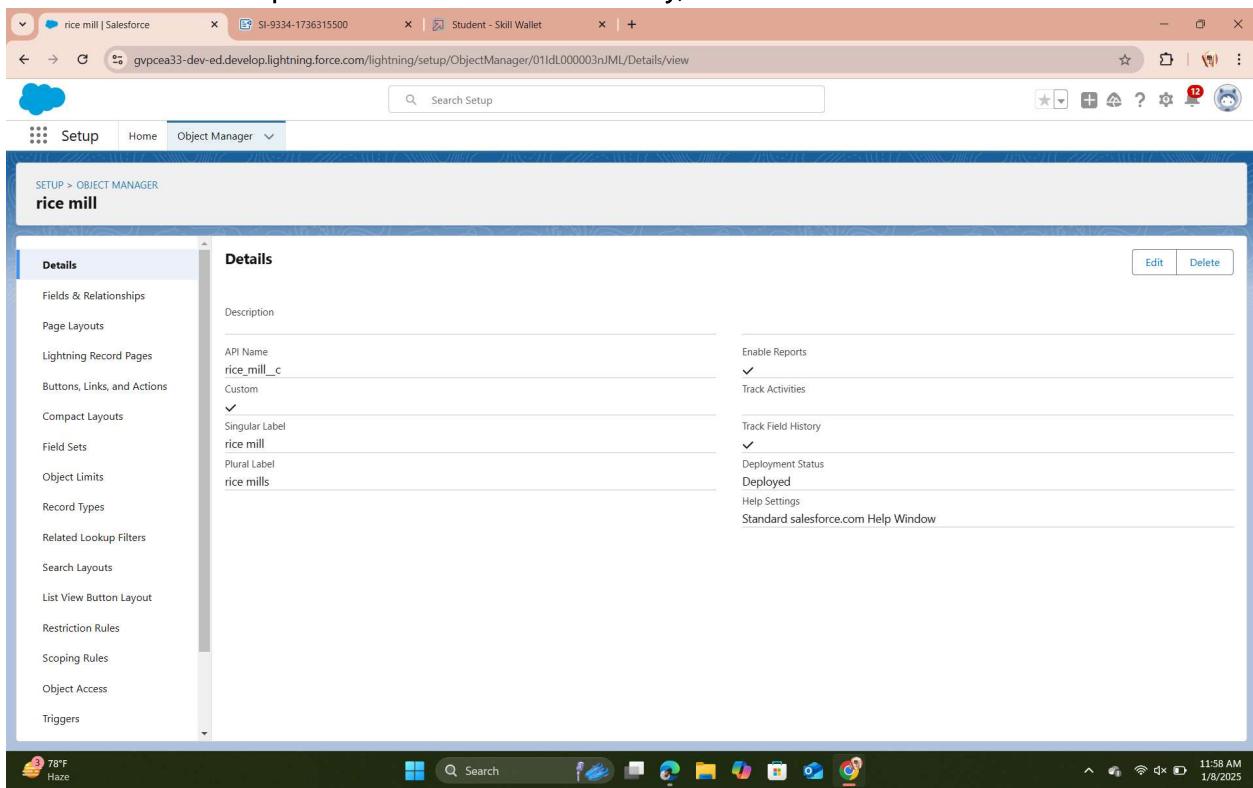
### Steps: Create Supplier Object

- From the setup page >> Click on Object Manager>> Click on Create>>Click on Custom Object.
- Enter the label name>>supplier
- Plural label name>>supplier
- Enter Record Name, Label, and Format
- Record Name >> supplier Name
- Data Type>>Text
- Click on Allow reports and Track Field History and allow search
- Allow search >>Save.



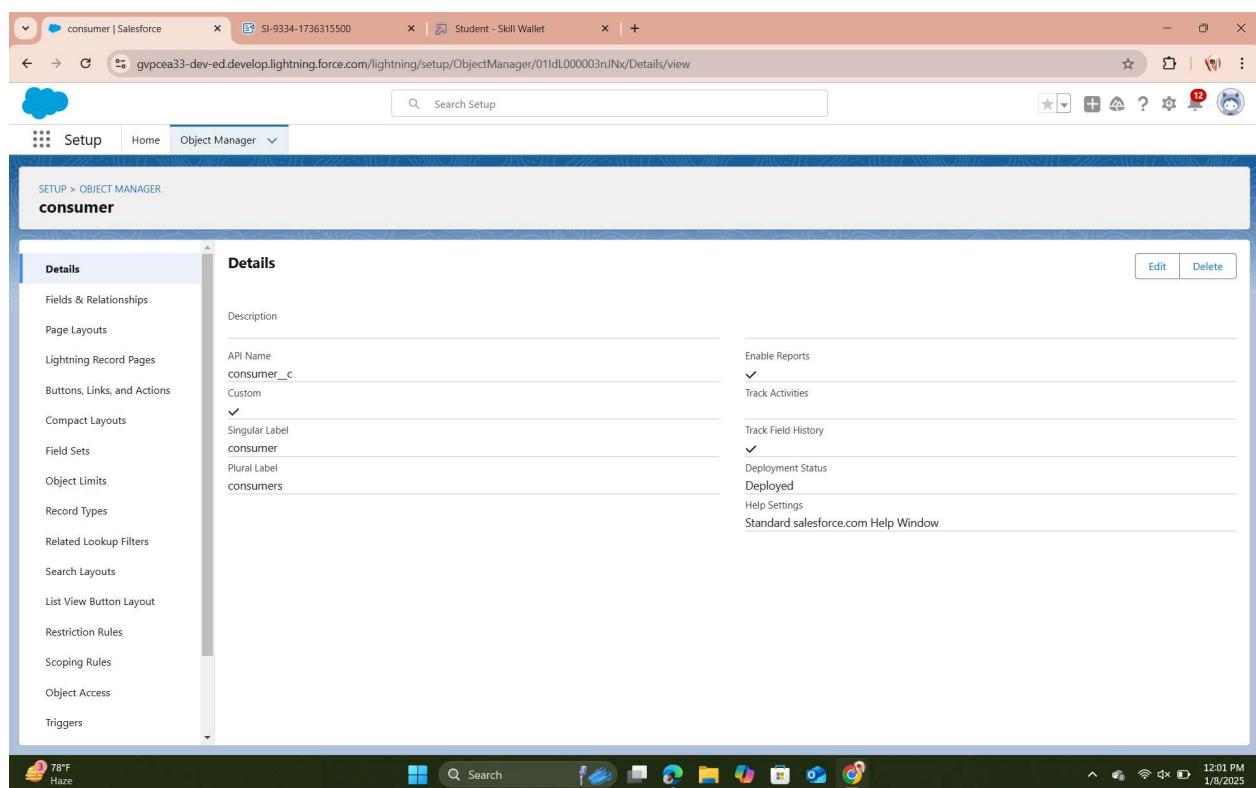
## Create Rice mill Object

- From the setup page >> Click on Object Manager>>Click on Create >> Click on Custom Object.
- Enter the label name>>rice mill
- Plural label name>> rice mills
- Enter Record Name, Label, and Format
- Record Name >>
  - Data Type >> Auto Number
  - Display Format >> rice-{000}
  - Starting number >> 1
- Click on Allow reports and Track Field History, Allow Search and Save



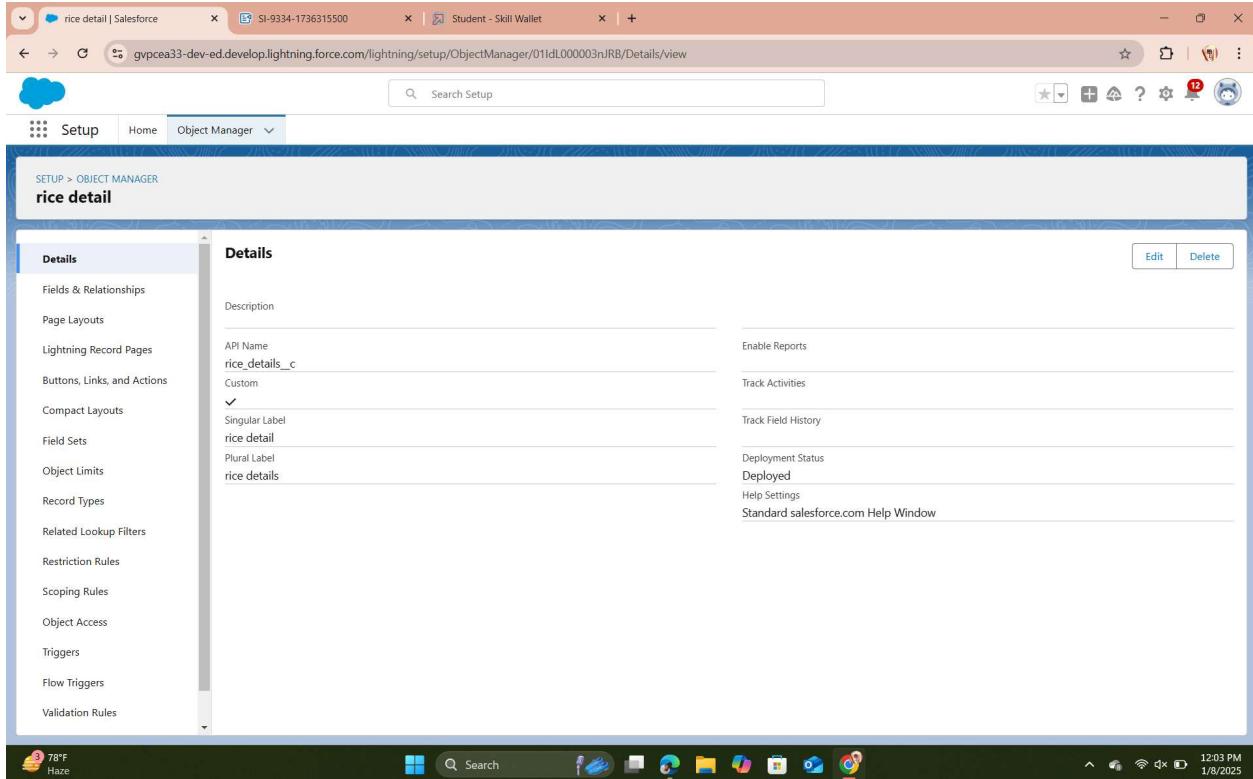
## Create Consumer Objects

- Use these display formats for the consumer
- **label name >> consumer**
- Plural label name >> consumers
- Display Format >> consumers-{000}
- Starting number >> 1



## Create Rice details Objects

- Use these display formats for the rice details
- **label name >> rice details**
- **Plural label name >> rice details**
- **Display Format >> rice-{000}**
- **Starting Number >>1**



### Action 3: Tabs

- Creating a Custom Tab
- To create a Tab:( supplier)
- Go to the setup page >> type Tabs in the Quick Find bar >> click on tabs >> New (under the custom object tab)
- Select Object (supplier) >> Select the tab style >> Next (Add to the profiles page) keep it as default >> Next (Add to Custom App) uncheck the include tab.
- Ensure you check the "Add tab to users' existing personal Adjustments" option.
- Click save.

The screenshot shows the Salesforce Setup interface with the 'Tabs' page open. The left sidebar has 'User Interface' expanded, with 'Tabs' selected. The main content area is titled 'Custom Tabs' and contains a table for 'Custom Object Tabs'. The table has columns for Action, Label, Tab Style, and Description. There are four rows in the table:

Action	Label	Tab Style	Description
Edit   Del	consumers	Square	
Edit   Del	rice details	Postage	
Edit   Del	rice mills	Truck	
Edit   Del	suppliers	Box	

Below the table are sections for 'Web Tabs', 'Visualforce Tabs', 'Lightning Component Tabs', and 'Lightning Page Tabs', each with a note indicating no items have been defined. The browser address bar at the top shows the URL https://gpvcea33-dev-ed.lightning.force.com/lightning/setup/CustomTabs/home.

#### Action 4: The Lightning App Create a Lightning App

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

#### Action 5: Fields Creating the number field in rice details object

- Go to the setup page >> click on the object manager >> From the drop-down, click edit for rice details object. Click on fields & kinship >> click on New.
- Select Data type as “Number” and click Next.
- Given the Field Label as “rice Shared ” and length as “ 5 ”.
- Field Name will be auto-Filled, and click on Next- Next >> Save .

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedBy	Lookup(User)		
Last Modified By	LastModifiedBy	Lookup(User)		
rice details name	Name	Auto Number		✓
rice distributed	rice_distributed__c	Number(5, 0)		
rice mill	rice_mill__c	Master-Detail(rice mill)		✓
supplier name	supplier_name__c	Master-Detail(supplier)		✓

## **Creating Junction Object:**

### **Creating junction object as rice details with supplier & rice mill**

- Go to the setup page >> click on the object manager >> From the drop-down, click edit for rice details object
- Click on fields & kinship - click on New.
- Select “Master-Detail kinship” as data type and click Next.
- Select the related object “supplier” and click next.
- Give Field Label as “supplier Name” and click Next
- Next >> Next >> Save & New.
- Follow the same steps from 1 to 3.
- Select the related object “rice mill” and click Next.
- Give Field Label as “rice mill 1(one)” and click Next. Next >> Next >> Save.

## **Creating a Master-Detail Relationship**

- Go to the setup page >> click on the object manager >> From the drop-down, click edit for consumer object.
- Click on fields & kinship >> click on New.
- Select “Master-Detail Relationship” as data type and click Next.
- Select the related object “rice mill”.
- Give Field Label as “rice mill name” and click Next.
- Next >> Next >> Save.

The screenshot shows the Salesforce Object Manager interface for the 'rice mill' object. The left sidebar lists various configuration options like Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, among others. The main content area is titled 'Fields & Relationships' and displays a table of fields. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
rice mill name	Name	Auto Number		✓
rice price/kg	rice_price_kg_c	Number(5, 0)		
rice taken	rice_taken_c	Roll-Up Summary (SUM consumer)		

### **Creating the Roll-up Summary**

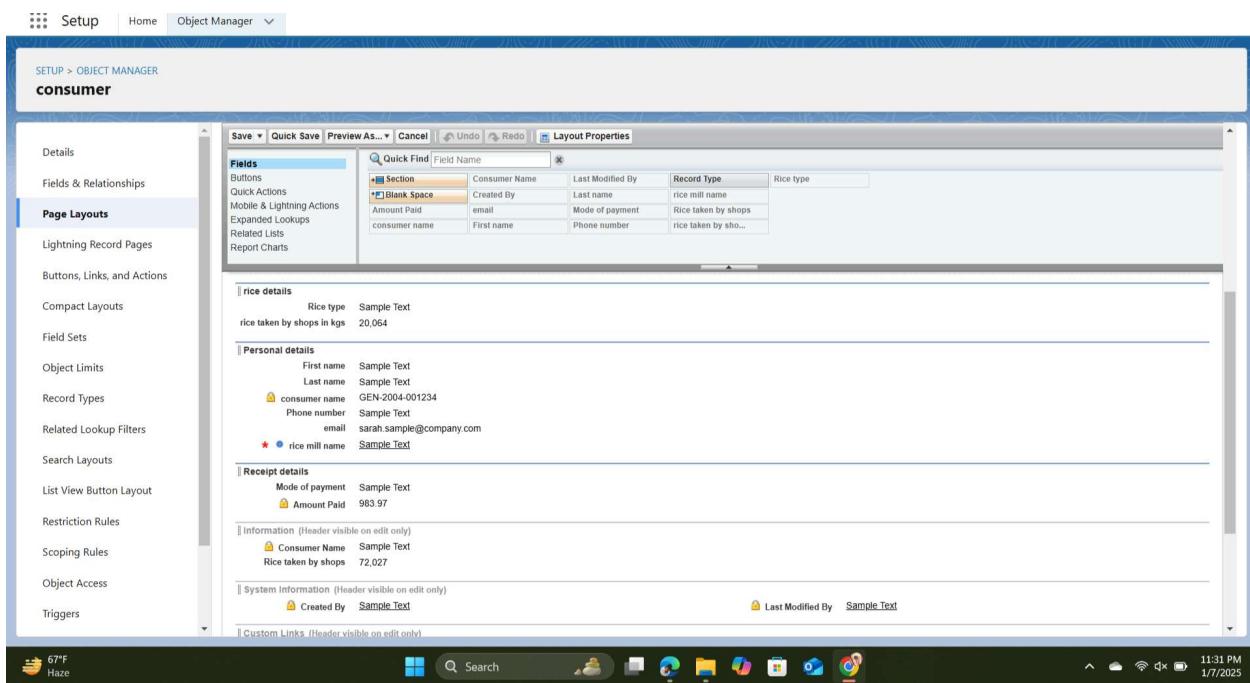
- Go to setup >> click on Object Manager >> type object name (supplier) in the search bar >> click on the object.
- Now click on “Fields & Connections” >> New
- Select the data type as “Rollup summary”, and click Next.
- Give the Field label as “sum of rice Shared”, Field Name will be Auto brought forth, and click Next. Select the summarised object as “rice details”.
- Select the Rollup type as “sum”.
- Select the field to aggregate as “rice Shared”, and click Next >>Next >>Save
- Follow the same steps for the rice mill Object from 1 to 3
- Give the Field label as “rice Shared to shops”, Field Name will be Auto bring forth, and click Next.
- Select the summarised object as “rice details”.
- Select the Rollup type as “sum”.
- Select the field to aggregate as “rice Shared”, and click Next >> Next >> Save.
- Note: create the field as “rice taken by shops in kegs” using number datatype in consumer object
- Follow the same steps for the rice mill Object from 1 to 3
- Give the Field label as “rice taken”, Field Name will be Auto brought forth, and click Next.
- Select the summarised object as “consumer”.
- Select the Rollup type as “sum”.
- Select the field to aggregate as “rice taken in shops”, and click Next >> Next >> Save.

### **Creating the proof rule**

- Go to the setup page >>click on the object manager >> From the drop-down, click edit for consumer object.Click on the proof rule >> click New. Enter the Rule name as “Phone number or email blank rule”.
- Enter the description as “phone number and email number should not be blank”.
- Enter the formula as “OR( ISBLANK( phone\_number\_c ), ISBLANK( email\_c ) )” and check the syntax.
- Under the error message, write as “please fill in your phone number.”
- Select error location “top of page”.
- Save the proof rule.

## PAGE LAYOUTS

- Go to Setup > Click on Object Manager >> Search for the object (consumer) >> From the dropdown, select the object and click on it.
- Click on Page layout >> Click on New.
- Select the existing page layout, and give the page layout name as "consumer layout", and click save.
- Drag and drop the section field to the consumer details and create the section.
- Enter the section name as "Personal details", - click Ok.
- Drag the mentioned fields into this section.
  - First name, last name, consumer name, phone number, email, rice mill name.
  - Follow the same process for another two sections as shown above; they are
    - One section is "rice details"; drag the fields that are
    - Rice taken by the shop, rice type.
    - Another section is "Receipt details", and drag the fields that are
    - Mode of payment, Amount paid.
    - Then, Click save.



## PROFILES

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

### Owner Profile:

- Go to setup >> type profiles in the quick find box >> click on profiles >> clone the desired profile (Standard User) >> enter the profile name (owner) >> Save.
- 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.
- Give access and save it.

The screenshot shows the Salesforce Setup interface with the 'Profiles' tab selected. The main content area displays the 'owner' profile details. The 'Profile Detail' section shows the profile name 'owner', user license 'Salesforce', and creation information ('Created By: Sai Yatish Kinthali, 07/01/2025, 3:24 pm'). The 'Custom Profile' checkbox is checked. The 'Page Layouts' section lists various standard object layouts, such as Global, Email Application, Home Page Layout, Account, Alternative Payment Method, Appointment Invitation, Asset, and Asset Action, along with their respective layout assignments. The bottom of the page shows the browser taskbar with various icons and the date/time '11:27 PM 1/7/2025'.

## Employer Profile

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

The screenshot shows the Salesforce Setup interface with the 'Profiles' page open. The profile is named 'employer'. The 'Profile Detail' section shows the profile has been created by 'Sai Yatish Kinthali' on 07/01/2025 at 3:32 pm. The 'Page Layouts' section lists various standard object layouts assigned to the profile. The bottom of the screen shows the Windows taskbar with icons for File Explorer, Search, Task View, Edge, File Explorer, and Google Chrome, along with system status indicators like battery level and signal strength.

Profile employer

Profile Detail

Name	employer	User License	Salesforce Platform	Description	Created By	Modified By
Custom Profile	<input checked="" type="checkbox"/>				Sai Yatish Kinthali	07/01/2025, 3:39 pm

Page Layouts

Standard Object Layouts	Global	Global Layout [View Assignment]	Fulfillment Order Item Tax	Fulfillment Order Item Tax Layout [View Assignment]
Email Application	Not Assigned	[View Assignment]	Fulfillment Order Product	Fulfillment Order Product Layout [View Assignment]
Home Page Layout	Home Page Default	[View Assignment]	Idea	Varies by Record Type [View Assignment]
Account	Account Layout	[View Assignment]	Individual	Individual Layout [View Assignment]
Alternative Payment Method	Alternative Payment Method Layout	[View Assignment]	Invoice	Invoice Layout [View Assignment]
Appointment Invitation	Appointment Invitation Layout	[View Assignment]	Invoice Line	Invoice Line Layout [View Assignment]
Asset	Asset Layout	[View Assignment]	Lead	Lead Layout [View Assignment]
Asset Relationship	Asset Relationship Layout	[View Assignment]	Location	Location Layout [View Assignment]

## Worker Profile

- Go to setup >> type profiles in the quick find box >> click on profiles >> clone the desired profile (Standard Platform User) >> enter profile name (worker) >> Save.
- While still on the profile page, then click Edit.
- Select the Custom App settings as default for the rice mill. Scroll down to Custom Object Permissions and Give access permissions for consumer, rice details, rice mill, and suppliers objects as mentioned in the below.

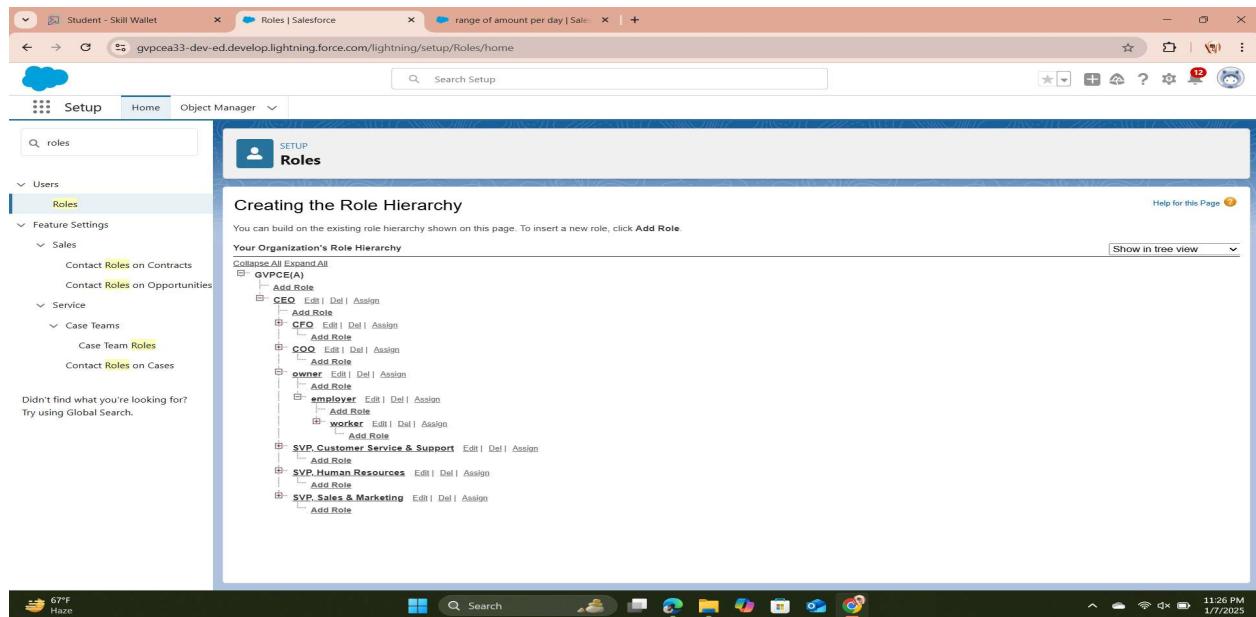
The screenshot shows the Salesforce Setup interface with the 'Profiles' tab selected. A search bar at the top contains 'profiles'. On the left, a sidebar has 'Users' expanded and 'Profiles' selected. The main content area displays the 'worker' profile details:

- Profile Detail:** Name: worker, User License: Salesforce Platform, Description: (empty), Created By: Sai Yatish Kinthali, 07/01/2025, 3:34 pm, Modified By: Sai Yatish Kinthali, 07/01/2025, 3:59 pm. A 'Custom Profile' checkbox is checked.
- Page Layouts:** A table showing standard object layouts for various objects like Global, Fulfillment Order Item Tax, etc.

## Role & Role Hierarchy

### Creating owner Role:

- Go to find Search for Roles quick >> click on set up roles.
- Go to find Search for Roles quick >> click on set up roles.
- Click on Expand All and click on add role under whom this role works.
- Give Label as “owner” and Role name gets auto Filled. Then click on Save. Creating employer roles
  - Go to find Search for Roles quick >>click on set up roles.
  - Click plus on the CEO role, and click add role under owner.
  - Give Label as “employer” and Role name gets auto Filled. Then click on Save.
  - Repeat the same steps for another role.
  - Click plus on the CEO role, and click plus on the owner, and click add role under employer.
  - Give Label as “worker” and Role name gets auto Filled. Then click on Save.



## Report Create Report

- Go to the app >>click on the reports tab
- Click New Report.
- Select for report type, search for “rice mill with consumers” and click on it. And click on start report.
- The outline pane is already open; select the fields listed below in the column section.  
1.consumer name

2.rice type

3.rice price/kg

4.mode of payments

5.amount paid

- Remove the Excess fields.
- Select the fields listed below in the GROUP ROWS section.
- Rice taken by shops
- Click save and run and save the report as “range of amount per day”.and save it.

The screenshot shows a Salesforce report interface. The title bar includes the URL [gvpccea33-dev-ed.lightning.force.com/lightning/r/Report/00OdL000009MYyVUAW/view?queryScope=userFolders](https://gvpccea33-dev-ed.lightning.force.com/lightning/r/Report/00OdL000009MYyVUAW/view?queryScope=userFolders). The main content is a table titled "Report: rice mills with consumers range of amount per day". The table has the following data:

Total Records	Total rice price/kg	Total Amount Paid
10	144	1,18,445.00
<input type="checkbox"/> Rice taken by shops ↑	consumer: consumer name	Rice type
<input type="checkbox"/> 11 (1)	consumers-006	2.normal ric
Subtotal		15
<input type="checkbox"/> 50 (1)	consumers-001	1.basmati
Subtotal		5
<input type="checkbox"/> 80 (1)	consumers-007	1.basmati
Subtotal		18
<input type="checkbox"/> 90 (1)	consumers-008	2.normal ric
Subtotal		8
<input type="checkbox"/> 100 (1)	consumers-003	1.basmati
Subtotal		5
<input type="checkbox"/> 190 (1)	consumers-009	1.basmati
Subtotal		8
<input type="checkbox"/> 200 (1)	consumers-002	2.normal ric
Subtotal		10
<input type="checkbox"/> 250 (2)	consumers-004	1.basmati
Subtotal		15
<input type="checkbox"/> 1,200 (1)	consumers-005	1.basmati
Subtotal		10
	consumers-010	1.basmati
Row Counts	Detail Rows	Subtotals
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Grand Total	<input checked="" type="checkbox"/>

## **5. Testing and Check:**

### **Creating an Apex Class(ConsumerRecord):**

- Login to the Salesforce account and navigate to the gear account in the top right corner.
- Then we can see the Programmer console. Click on the Programmer console, and you will navigate to a new console window.
- Then you can see many tools in the Toolbar of the new console window. Click on File, New, and Apex Class.
- Enter the name of the class(ConsumerRecord) to create a new class file.

### **Code Snippet :**

```
class ConsumerRecord {  
    public static void sendEmailNotification (List<consumer_c> con){  
        for(consumer_c c:con)  
        {  
            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();  
            email.setToAddresses( new List<String>{c.email_c});  
            email.setSubject('Welcome to our company');  
            email.setPlainTextBody('Dear ' + ' '+ '\n\nWelcome to MY RICE!'+'You have been seen as a  
valuable customer to us. Please continue your journey with us, while we try to provide you with  
good quality resources.'+'\n'+  
                "We are proud to associate with valuable customers like you and we look  
forward to collaborating with you by providing more and more exciting discounts or even product  
offers too.' + '\n'  
                +'So why taking a step back, take a leap of faith and shop with us more,  
while we provide with the valuable products and offers'+'\n'+'\n'+'\n'+  
                'Thankyou for buying '+'Here are some of the products that are  
brought by the customers who similarly bought products like this'+'\n\n');  
            Messaging.sendEmail(new List<Messaging.SingleEmailMessage>{email});  
        }  
    }  
}
```

### **Creating an Apex Trigger :**

While still in the trailhead account, navigate to the gear icon in the top right corner. Click on Programmer console and you will be voyage to a new console window. Click on the File menu in the toolbar, and click on new? Trigger. Enter the trigger name and the object to be triggered.

### **Code Snippet :**

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

## CONCLUSION

The Rice Mill CRM Application on Salesforce provides a comprehensive and scalable solution tailored to the unique needs of the rice milling industry. By integrating key business functions such as sales, customer service, inventory management, and order processing into a single, user-friendly platform, it enables rice mills to operate more efficiently and effectively. The powerful automation and real-time insights offered by Salesforce enhance decision-making, improve customer satisfaction, and foster stronger relationships with clients.

Furthermore, the cloud-based architecture ensures seamless collaboration and access to critical data from anywhere, reducing operational bottlenecks and promoting greater agility in a competitive market. As rice mills continue to evolve and expand, this CRM application will play a pivotal role in driving growth, optimizing operations, and positioning businesses for long-term success in the dynamic agricultural sector.