

A CRM APPLICATION FOR WHOLESALE RICE MILL

MUGADA GAYATHRI YADAV

21501a05c1@pvpsit.ac.in

1. Project Overview :

The **Rice Mill CRM Application** is a comprehensive solution for managing and simplifying rice production and sales tracking. It enables daily reporting on rice quantity, type, and sales, which is then communicated to the owners. This CRM leverages customer relationship management to enhance customer engagement, streamline operations, and improve efficiency in the rice mill factory. The project aims to deliver a user-friendly application that meets the specific operational needs of a rice mill.

2. Objectives :

Business Goals: The Rice Mill CRM Application will automate daily production and revenue reporting, providing owners with clear insights into operational performance. It will also implement customer analytics to identify buying trends and popular rice varieties, enabling targeted marketing and better customer understanding. Additionally, the application will streamline resource allocation by forecasting demand and analyzing sales patterns, helping the business optimize inventory and manage resources efficiently.

Specific Outcomes: The Rice Mill CRM Application will automate daily production and revenue reporting, track customer buying trends, and optimize resource allocation based on demand forecasts and sales patterns, providing clear insights for operational efficiency.

3. Salesforce Key Features and Concepts Utilized :

1. Reporting and Dashboards:

- **Daily Sales and Production Reports:** Generates detailed reports on how much rice is produced & sold each day.
- **Revenue Reports:** Provides insights into daily revenue generated.
- **Customer Analytics:** Tracks popular rice types and most frequent buyers.
- **Resource Allocation:** Helps owners understand data for better resource allocation and future

planning.

2. Rollup Summary Field:

- **Purpose:** Summarizes data from a child object to a parent object that shares a master-detail relationship.
- **Functions:** Can use COUNT, SUM, MIN, and MAX functions.

3. Cross-Object Formula Field:

- **Purpose:** References fields from another object in Salesforce.
- **Function:** Calculates the total amount payable by multiplying the number of rice units taken by the price per kg.

4. Validation Rules:

- **Purpose:** Ensures data integrity by validating 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:**
- **Organization Owner:** Can view records of employers and workers.
- **Employer:** Can view records of workers.

4. Detailed Steps to Solution Design :

Activity 1: Creating Developer Account and Account activation.

Steps:

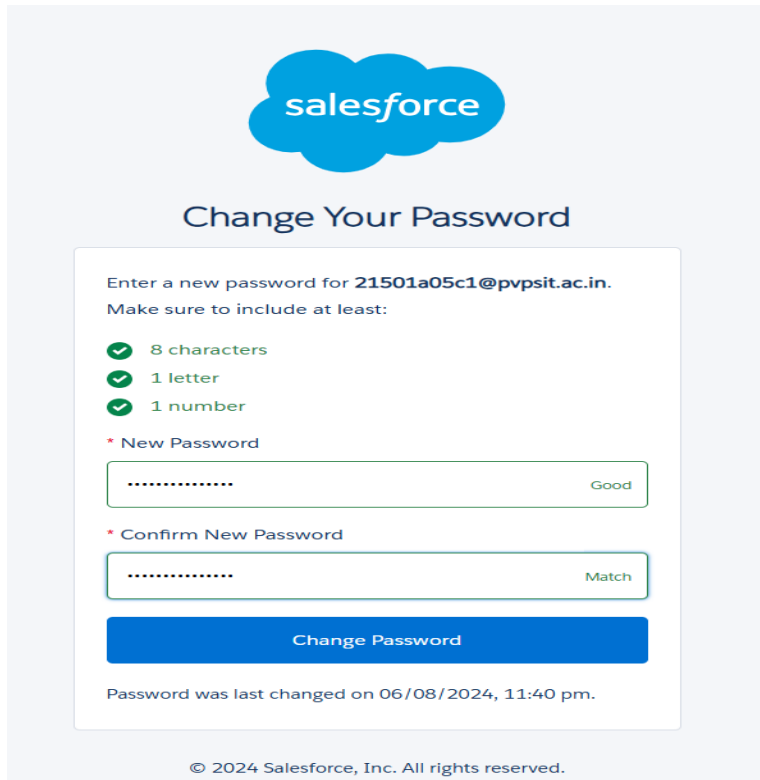
1. On the sign up form, enter the following details
2. Click on sign me up after filling these.
3. First name & Last name

4. Email
5. Role : Developer
6. Company : College Name
7. Country : India
8. Postal Code : pin code
9. Username : should be a combination of your name and company
10. This need not be an actual email id, you can give anything in the format.

username@organization.com

ACTIVATION :

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



The image shows the Salesforce 'Change Your Password' interface. At the top is the Salesforce logo. Below it, the title 'Change Your Password' is centered. The main form area contains the following elements: a prompt to enter a new password for the user '21501a05c1@pvpsit.ac.in.', a list of password requirements (8 characters, 1 letter, 1 number) each with a green checkmark, two password input fields labeled '* New Password' and '* Confirm New Password' with 'Good' and 'Match' status indicators respectively, a blue 'Change Password' button, and a note stating 'Password was last changed on 06/08/2024, 11:40 pm.'. The footer shows the copyright notice '© 2024 Salesforce, Inc. All rights reserved.'.

Activity 2: Objects

Salesforce objects are of two types:

1. **Standard Objects**: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.
2. **Custom Objects**: Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. are the heart of any application and provide a structure for sharing data.

Steps:

Create Supplier Object

1. From the setup page >> Click on Object Manager>> Click on Create>>Click on Custom Object.
2. Enter the label name>>supplier
3. Plural label name>>supplier
4. Enter Record Name Label and Format
5. Record Name >> supplier Name
6. Data Type>>Text
7. Click on Allow reports and Track Field History and allow search

8. Allow search >> Save.

The screenshot shows the Salesforce Setup interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. Below this, the 'New Custom Object' page is displayed. The page has a header 'SETUP New Custom Object' and a sub-header 'Custom Object Definition Edit' with 'Save', 'Save & New', and 'Cancel' buttons. The main section is 'Custom Object Information' with a red exclamation mark icon and the text 'Required Information'. It contains several input fields: 'Label' (supplier), 'Plural Label' (supplier), 'Object Name' (supplier), and 'Description'. There are also checkboxes for 'Starts with vowel sound' and 'Context-Sensitive Help Setting'. At the bottom, there's a section 'Enter Record Name Label and Format' with a 'Record Name' field (supplier Name) and a 'Data Type' dropdown (Text). A warning message is displayed at the bottom: 'Warning: If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.'

Create Rice mill Object

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

Setup Home Object Manager

SETUP > OBJECT MANAGER

rice mill

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

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.
Be careful when changing the name or label as it may affect existing integrations and merge templates.

Label Example: Account

Plural Label Example: Accounts

Starts with vowel sound ☐

The Object Name is used when referencing the object via the API.

Object Name Example: Account

Description

Context-Sensitive Help Setting ☒ Open the standard Salesforce.com Help & Training window
☐ Open a window using a Visualforce page

Content Name

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name Example: Account Name

Data Type Warning: If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.

Display Format Example: A-100001. What is This?

Create consumer Objects

1. Use these display format for the consumer
2. label name >> consumer
3. Plural label name >> consumers
4. Display Format >> consumers-{000}
5. Starting number >> 1

Setup Home Object Manager

SETUP

New Custom Object

Custom Object Definition Edit Save Save & New Cancel

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.

Label Example: Account

Plural Label Example: Accounts

Starts with vowel sound ☐

The Object Name is used when referencing the object via the API.

Object Name Example: Account

Description

Context-Sensitive Help Setting ☒ Open the standard Salesforce.com Help & Training window
☐ Open a window using a Visualforce page

Content Name

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name Example: Account Name

Data Type Warning: If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.


Create rice details Objects

1. Use these display format for the rice details
2. label name >> rice details
3. Plural label name >> rice details
4. Display Format >> rice-{000}
5. Starting Number >>1

The screenshot shows the Salesforce Setup interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. Below this, the 'New Custom Object' page is displayed. The page has a header 'SETUP New Custom Object' and a 'Custom Object Definition Edit' section with 'Save', 'Save & New', and 'Cancel' buttons. The 'Custom Object Information' section includes fields for 'Label' (rice details), 'Plural Label' (rice details), 'Starts with vowel sound' (unchecked), 'Object Name' (rice_details), and 'Description'. Below this is the 'Context Sensitive Help Setting' section with two radio buttons: 'Open the standard Salesforce.com Help & Training window' (selected) and 'Open a window using a Visualforce page'. The 'Content Name' dropdown is set to 'None'. The 'Enter Record Name Label and Format' section includes a 'Record Name' field (rice details Name) and a 'Data Type' dropdown (Auto Number). A warning message states: 'Warning: If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.'

Activity 3: Tabs

1. Creating a Custom Tab
2. To create a Tab:(supplier)
3. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)
4. 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 .
5. Make sure that the Append tab to users' existing personal customizations is checked.
6. Click save.



★


+

🔍

?

⚙️

🔔



Setup

Home

Object Manager

▼ User Interface

Rename **Tabs** and Labels

Tabs

Didn't find what you're looking for?
Try using Global Search.

SETUP

Tabs

New Custom Object Tab

Help for this Page

Step 1. Enter the Details

Step 1 of 3

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

New Custom Object Tab

Required Information

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

Object

supplier

Tab Style

Box

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

Splash Page Custom Link


--None--

Enter a short description.

Description

Next

Cancel



★


+

🔍

?

⚙️

🔔



Setup

Home

Object Manager

▼ User Interface

Rename **Tabs** and Labels

Tabs

Didn't find what you're looking for?
Try using Global Search.

SETUP

Tabs

New Custom Object Tab

Help for this Page

Step 1. Enter the Details

Step 1 of 3

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

New Custom Object Tab

Required Information

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

Object

rice mill

Tab Style

Box

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

Splash Page Custom Link

--None--

Enter a short description.

Description

Next

Cancel

The screenshot shows the Salesforce Setup interface. On the left, the 'Setup' menu is open, showing 'User Interface' > 'Rename Tabs and Labels' > 'Tabs'. The main content area is titled 'New Custom Object Tab' and is part of a 3-step process (Step 1 of 3). The first step is 'Enter the Details'. Below this, there's a section 'New Custom Object Tab' with a red error message 'Required Information'. The 'Object' dropdown is set to 'consumer'. The 'Tab Style' is set to 'Box'. There's an optional section for 'Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.' with a 'Splash Page Custom Link' dropdown set to '--None--'. At the bottom, there's a 'Description' field. 'Next' and 'Cancel' buttons are at the bottom right.

This screenshot is similar to the one above, showing the 'New Custom Object Tab' setup page. The 'Object' dropdown is now set to 'rice details'. The 'Tab Style' remains 'Box'. The 'Splash Page Custom Link' is still '--None--'. The 'Description' field is empty. The 'Next' and 'Cancel' buttons are at the bottom right.

Activity 4: The Lightning App

Create a Lightning App

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:
5. Select the items (supplier, rice mill, consumer , Rice details) from the search bar and move it using the arrow button >> Next.
6. To Add User Profiles:
7. Search profiles (System administrator) in the search bar >> click on the arrow button >> save & finish.

New Lightning App

App Details & Branding

Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.


App Details

*App Name ⓘ
MY_RICE

*Developer Name ⓘ
MY_RICE

Description ⓘ
Enter a description...

App Branding

Image ⓘ

Clear

Primary Color Hex Value ⓘ
#0070D2

Org Theme Options
☐ Use the app's image and color instead of the org's

Next

New Lightning App

Navigation Items

Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.

Available Items

🔍 Type to filter list...

- Accounts
- All Sites
- Alternative Payment Methods
- Analytics
- App Launcher
- Appointment Categories

Selected Items

- supplier
- consumers
- rice details
- rice mills

Back Next

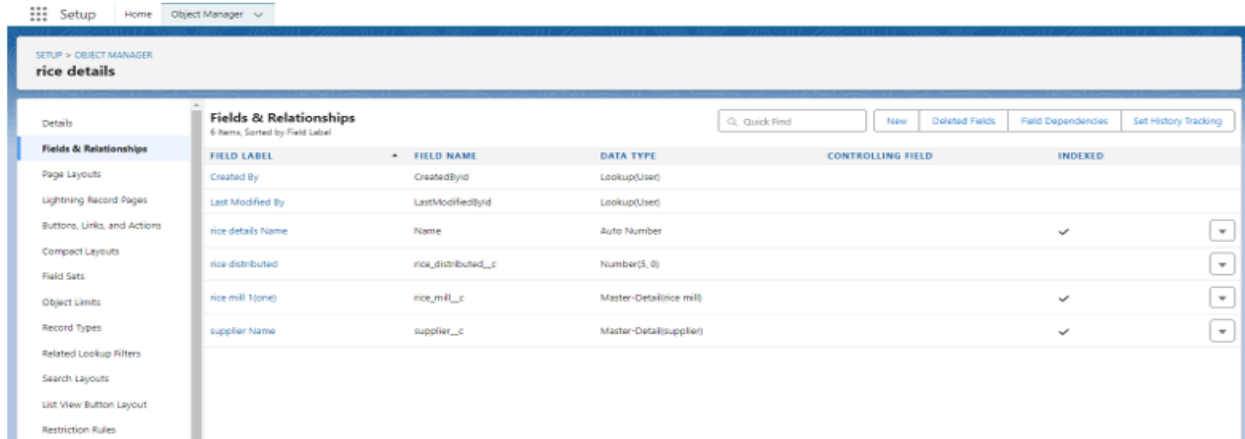
Activity 5: Fields

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.



FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
rice details Name	Name	Auto Number		✓
rice distributed	rice_distributed_c	Number(5, 0)		✓
rice mill 1(one)	rice_mill_c	Master-Detail(ice mill)		✓
supplier Name	supplier_c	Master-Detail(supplier)		✓

Creating Junction Object:

Creating junction object as rice details with supplier & rice mill

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.
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.

Creating 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.

The screenshot shows the Salesforce Setup interface. The breadcrumb trail is: SETUP > OBJECT MANAGER > consumer. The left sidebar shows the 'Fields & Relationships' menu item selected. The main content area is titled 'New Relationship' and 'Step 5 of 6: Add reference field to Page Layouts'. It displays the following field information:

Field Label	rice mill name
Data Type	Master-Detail
Field Name	rice_mill
Description	

Below this, a message states: 'These are the page layouts that will include this field. Because this is a Master-Detail relationship, the field is required.' A table lists the page layouts:

Add Field	Page Layout Name
<input checked="" type="checkbox"/>	consumer Layout

Navigation buttons 'Previous', 'Next', and 'Cancel' are visible at the bottom right of the step.

Creating the Roll-up Summary

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.
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
8. 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.
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.
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.
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 Salesforce Setup interface for the 'supplier' object. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, and others. The main content area is titled 'New Custom Field' and is at 'Step 5 of 5: Add to page layouts'. A table displays the field configuration: Field Label is 'sum of rice distributed', Data Type is 'Roll-Up Summary', Field Name is 'sum_of_rice_distributed', and Description is blank. Below the table, there is a section to select page layouts. The 'Add Field' checkbox is checked, and 'supplier Layout' is selected in the 'Page Layout Name' dropdown. Navigation buttons at the bottom include 'Previous', 'Save & New', 'Save', and 'Cancel'.

The screenshot shows the Salesforce Setup interface for the 'rice mill' object. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, and others. The main content area is titled 'New Custom Field' and is at 'Step 5 of 5: Add to page layouts'. A table displays the field configuration: Field Label is 'rice distributed to shops', Data Type is 'Roll-Up Summary', Field Name is 'rice_distributed_to_shops', and Description is blank. Below the table, there is a section to select page layouts. The 'Add Field' checkbox is checked, and 'rice mill Layout' is selected in the 'Page Layout Name' dropdown. Navigation buttons at the bottom include 'Previous', 'Save & New', 'Save', and 'Cancel'.

Creating the validation rule

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.

The screenshot shows the Salesforce Setup interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. Below this, the 'Object Manager' section is active, showing details for the 'consumer' object. The 'Validation Rule Detail' section is expanded, displaying the following information:

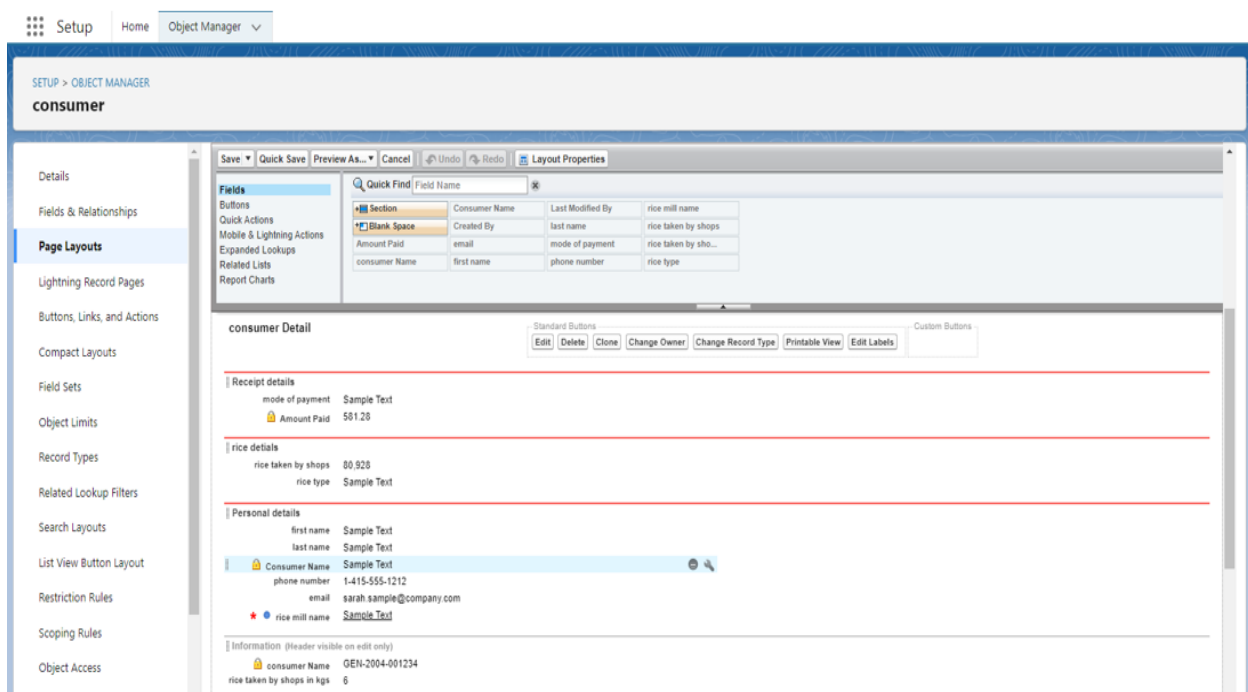
Validation Rule Detail		Edit	Clone
Rule Name	Phonenumberoremailblankrule	Active	<input checked="" type="checkbox"/>
Error Condition Formula	OR(ISBLANK(Phone_number__c) , ISBLANK(email__c))		
Error Message	please fill in your phone number.	Error Location	Top of Page
Description	phone number and email number should not be blank		
Created By	GAYATHRI YADAV MUGADA 18/11/2024, 1:35 pm	Modified By	GAYATHRI YADAV MUGADA 18/11/2024, 1:35 pm

At the bottom of the detail section, there are [Edit](#) and [Clone](#) buttons.

PAGE LAYOUTS

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
7. First name, last name , consumer name , phone number, email, rice mill name.
8. Follow the same process for another two sections as shown above , they are
9. One section is “ rice details ” , drag the fields that are
10. Rice taken by shop, rice type.
11. Another section is “Receipt details ” , and drag the fields that are
12. Mode of payment, Amount paid.
13. 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, 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.

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.
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.

3. Give access and save it.

The screenshot shows the Salesforce Setup interface. On the left, there's a navigation menu with 'Setup', 'Home', and 'Object Manager'. Below it, a search bar contains 'profil'. The main content area is titled 'Profiles' and shows the 'owner' profile. The profile details include: Name: owner, User License: Salesforce, Custom Profile: checked, Description: (empty), Created By: GAYATHRI YADAV MUGADA, 18/11/2024, 1:59 pm, Modified By: GAYATHRI YADAV MUGADA, 18/11/2024, 1:59 pm. Below the details, there's a 'Page Layouts' section with 'Standard Object Layouts' for Global, Email Application, Home Page Layout, Account, and Alternative Payment Method. Each layout has a 'View Assignment' link. The right side of the page shows a list of enabled permissions for the profile, including Login IP Ranges, Apex Class Access, Visualforce Page Access, External Data Source Access, Named Credential Access, External Credential Principal Access, Custom Metadata Type Access, Custom Setting Definitions Access, Flow Access, Service Presence Status Access, and Custom Permissions.

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.

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 for the 'employer' profile. The profile details include: Name: employer, User License: Salesforce Platform, Custom Profile: checked, Description: (empty), Created By: GAYATHRI YADAV MUGADA, 18/11/2024, 2:16 pm, Modified By: GAYATHRI YADAV MUGADA, 18/11/2024, 2:26 pm. Below the details, there's a 'Page Layouts' section with 'Standard Object Layouts' for Global, Email Application, Home Page Layout, Account, and Alternative Payment Method. Each layout has a 'View Assignment' link. The right side of the page shows a list of enabled permissions for the profile, including Login IP Ranges, Apex Class Access, Visualforce Page Access, External Data Source Access, Named Credential Access, External Credential Principal Access, Custom Metadata Type Access, Custom Setting Definitions Access, Flow Access, Service Presence Status Access, and Custom Permissions.

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.

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. The left sidebar has a search bar with 'profil' and a 'Profiles' link under the 'Users' section. The main content area is titled 'SETUP Profiles' and shows the details for the 'worker' profile. It includes a list of enabled features, a 'Profile Detail' section with fields for Name, User License, Description, Created By, and Modified By, and a 'Page Layouts' section with a table of assignments.

Page Layouts				
Standard Object Layouts	Global	Global Layout [View Assignment]	Lead	Lead Layout [View Assignment]
	Email Application	Not Assigned [View Assignment]	Object Milestone	Object Milestone Layout [View Assignment]
	Home Page Layout	Home Page Default [View Assignment]	Operating Hours	Operating Hours Layout [View Assignment]
	Account	Account Layout [View Assignment]	Order	Order Layout [View Assignment]
	Alternative Payment Method	Alternative Payment Method Layout [View Assignment]	Order Product	Order Product Layout [View Assignment]

Role & Role Hierarchy

Creating owner Role:

1. Go to quick find >> Search for Roles >> click on set up roles.
2. Go to quick find >> Search for Roles >> click on set up roles.
3. Click on Expand All and click on add role under whom this role works.
4. Give Label as “owner” and Role name gets auto populated. Then click on Save.

Creating employer roles

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

The screenshot shows the Salesforce Setup interface. The left sidebar contains a search bar with 'roles' and a navigation menu with 'Users', 'Roles' (selected), and 'Feature Settings'. The 'Feature Settings' section is expanded, showing 'Sales', 'Service', and 'Case Teams'. The main content area is titled 'Creating the Role Hierarchy' and displays 'Your Organization's Role Hierarchy' for the 'PVPST' role. The hierarchy is a tree structure starting with 'PVPST' at the top, followed by 'CEO', 'CFO', 'COO', 'owner', 'SVP_Customer Service & Support', 'SVP_Human Resources', and 'SVP_Sales & Marketing'. Each role in the hierarchy has an 'Add Role' link next to it. The top of the page has a 'Setup' tab and a search bar.

Report 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.
 - a. consumer name
 - b. rice type
 - c. rice price/kg
 - d. mode of payments
 - e. amount paid
5. Remove the unnecessary fields.
6. Select the fields that are mentioned below in the GROUP ROWS section.
7. Rice taken by shops
8. Click save and run and save the report as “range of amount per day”.and save it.

5. Testing and Validation:

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.

Code Snippet :

```
public 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

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 the File menu in the toolbar, and click on new? Trigger.
4. Enter the trigger name and the object to be triggered.

Syntax For creating trigger :

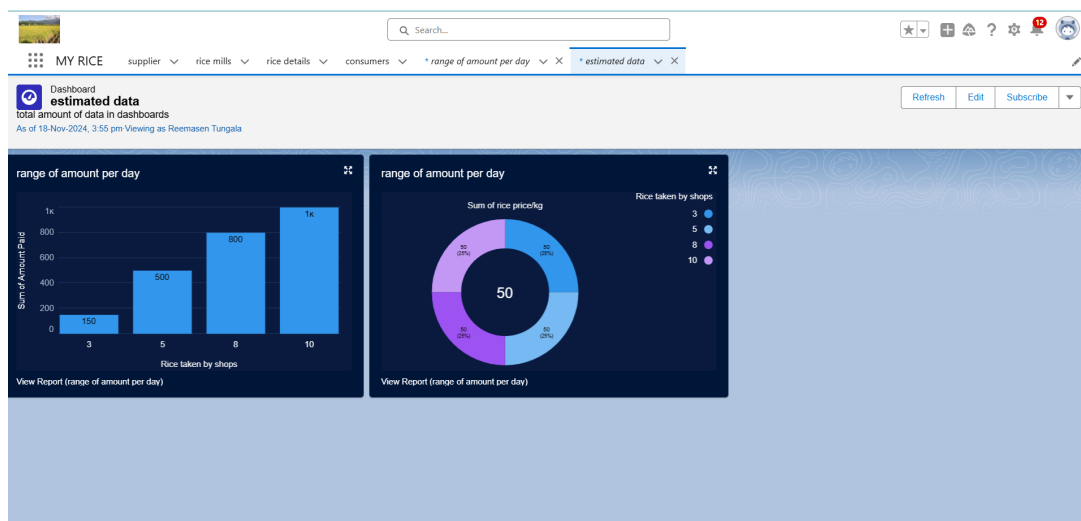
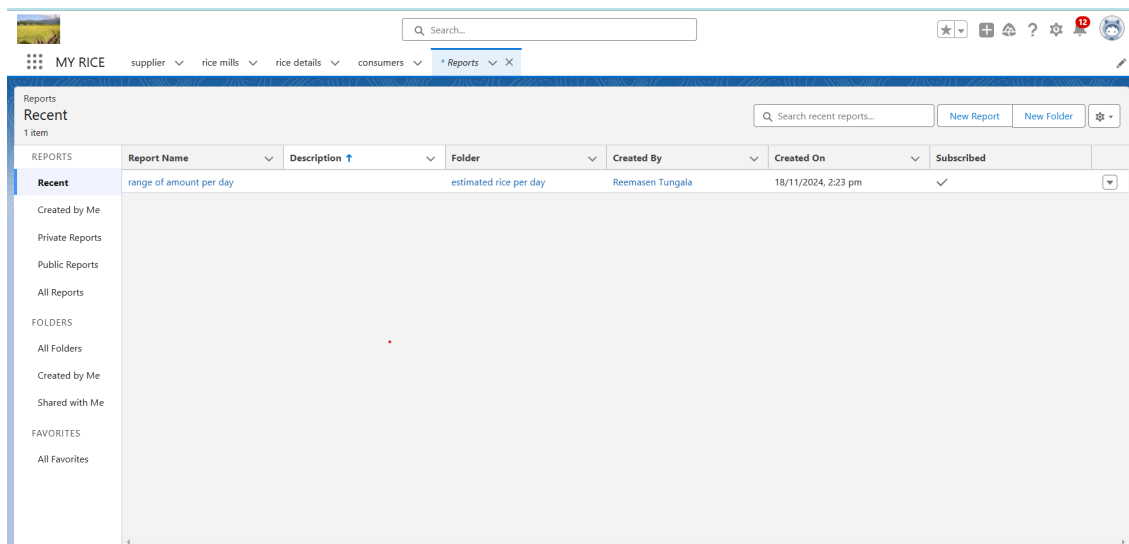
The syntax for creating trigger is :

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

Code Snippet :

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

6.DASHBOARDS:



Resource Management: Salesforce can help allocate resources efficiently based on business needs.

7. **Conclusion:**

In this project, Salesforce streamlined operational processes by enabling automated data calculations, real-time reporting, and secure access control. Custom widgets provided visual insights into rice sales, production, and revenue, enhancing decision-making. Validation rules ensured data accuracy, while role-based access protected sensitive information. Rollup summaries and formulas reduced manual effort in calculations. Overall, Salesforce optimized business operations, contributing to improved productivity and planning.