

PROJECT TITLE : CRM APPLICATION FOR WHOLESALE RICE MILL

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:

- a. **Daily Sales and Production Reports:** Generates detailed reports on how much rice is produced & sold each day.
- b. **Revenue Reports:** Provides insights into daily revenue generated.

- c. **Customer Analytics:** Tracks popular rice types and most frequent buyers.
- d. **Resource Allocation:** Helps owners understand data for better resource allocation and future planning.

2. Rollup Summary Field:

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

3. Cross-Object Formula Field:

- a. **Purpose:** References fields from another object in Salesforce.
- b. **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.

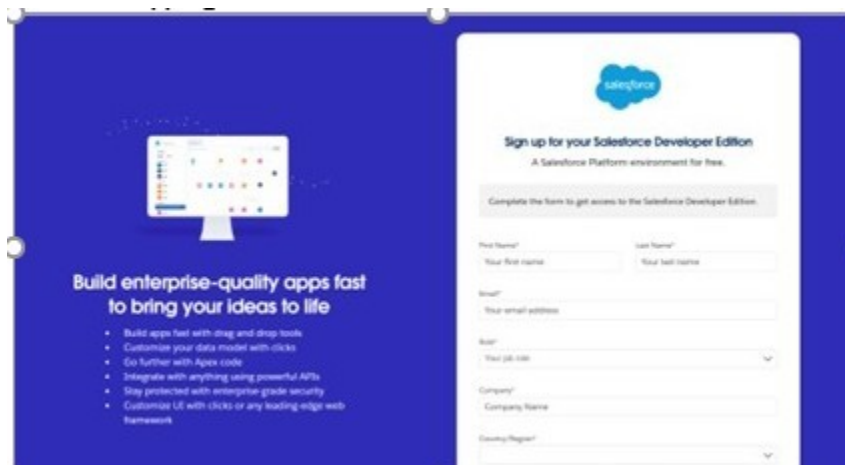
Employer: Can view records of workers.

6. Detailed Steps to Solution Design:

Activity 1: Creating Developer Account and Account activation.

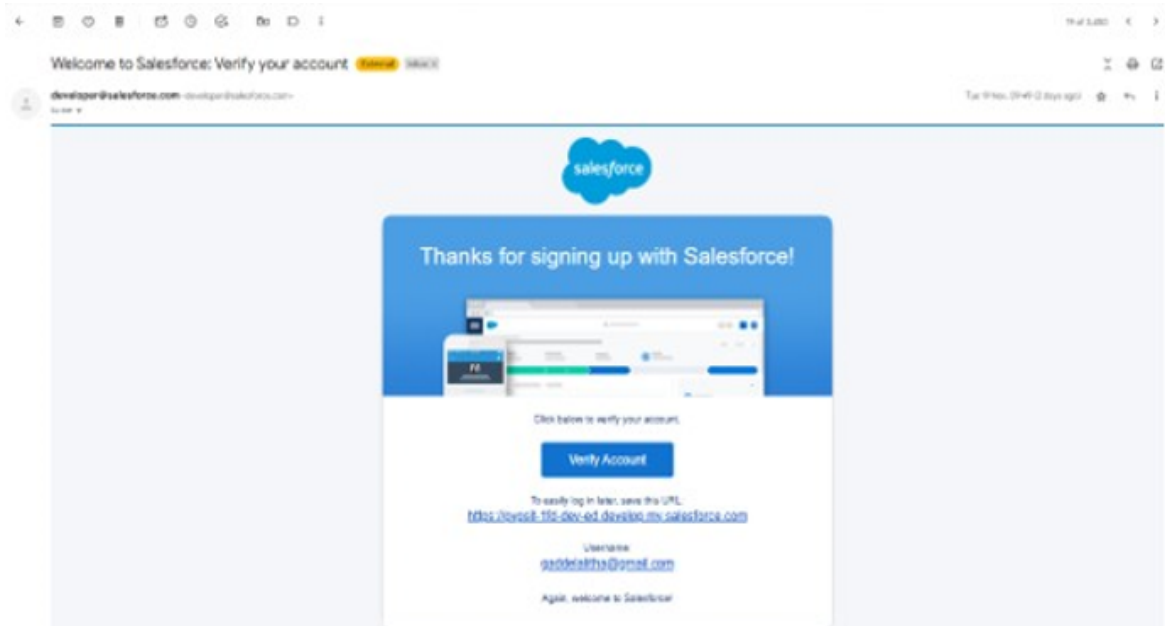
Steps:

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 : CollegeName
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.
11. 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 5-10 mins



Activity 2: Objects

Salesforce objects are of two types:

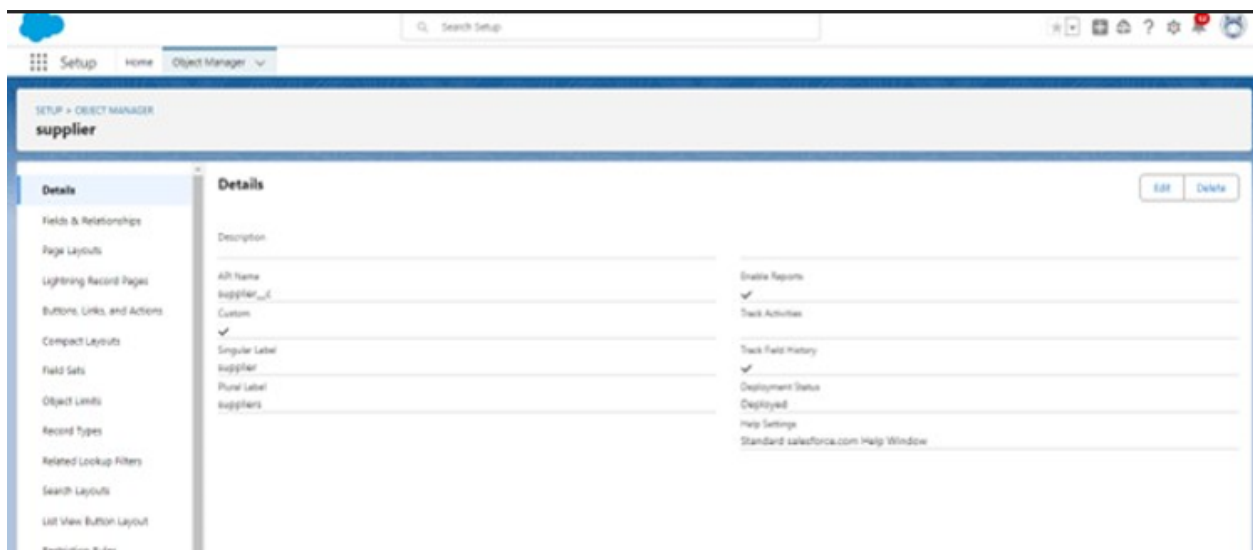
1. **Standard Objects**: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.
2. **Custom Objects**: Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization,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

Steps:

Create Supplier Object

1. From the setup page >> Click on Object Manager>> Click on Create>>Click on CustomObject.
2. Enter the label name>>supplier

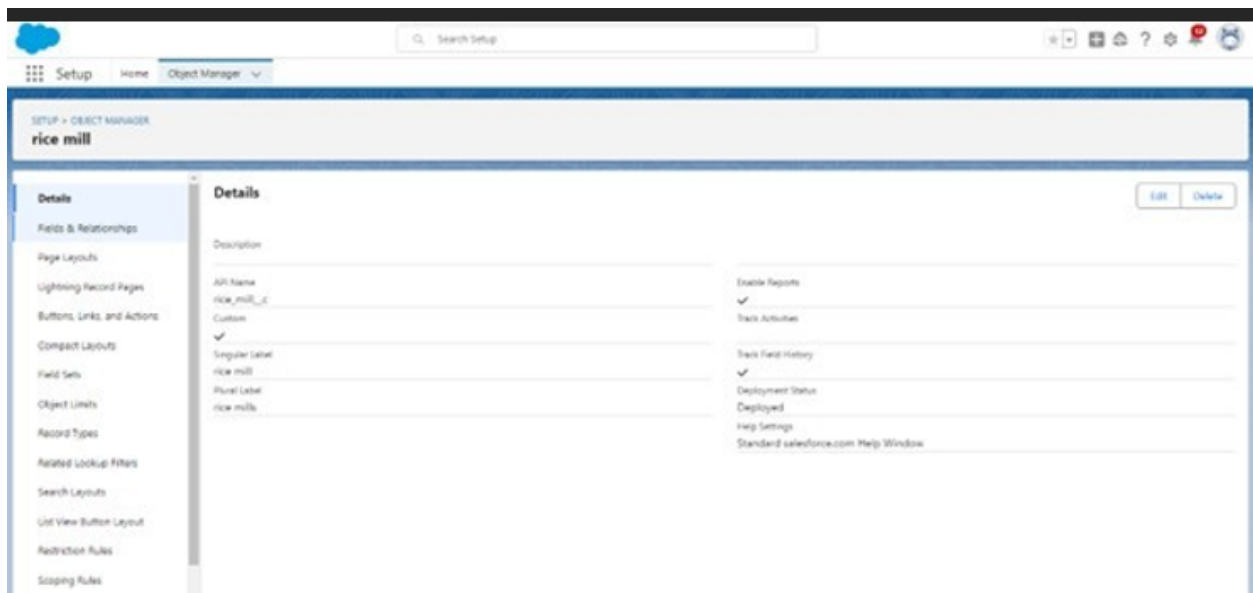
3. Plurallabel name>>supplier
4. Enter Record Name Label and Format
5. Record Name >>supplierName
6. Data Type>>Text
7. Click on Allow reportsand Track Field History and allow search
8. Allow search >>Save.



Create Rice mill Object

1. From the setup page >> Click on ObjectManager>>Click on Create >>Clickon CustomObject.

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. DisplayFormat >> rice-{000}
8. Starting number >>1
9. Click on Allow reports and Track Field History, Allow Search and Save



Create consumer Objects

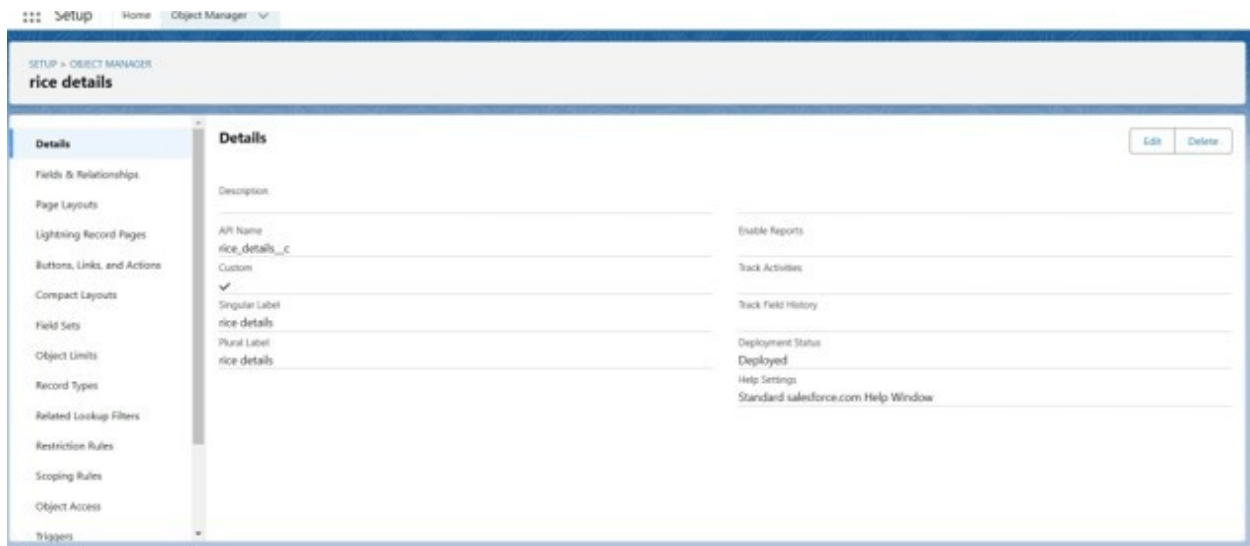
1. Use these displayformat for theconsumer

2. label name >>consumer
3. Plural label name >>consumers
4. DisplayFormat >> consumers-{000}
5. Starting number >>1



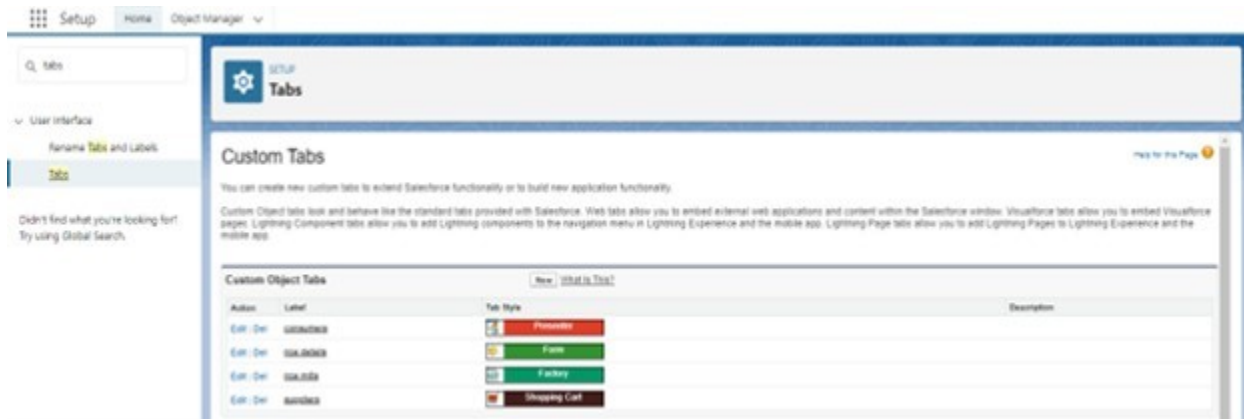
Create rice detailsObjects

1. Use these displayformat for the rice details
2. label name >>rice details
3. Plural label name >> rice details
4. DisplayFormat >> rice-{000}
5. Starting Number >>1



Activity 3: Tabs

1. Creating a CustomTab
2. To create a Tab:(supplier)
3. Go to setup page >> type Tabs in Quick Find bar >>click on tabs >> New (under customobject tab)
4. Select Object(supplier) >>Select the tab style >>Next (Add to profiles page) keep it asdefault
>> Next (Add to CustomApp) uncheck the includetab .
5. Make sure that the Append tab to users'existing personal customizations is checked.
6. Click save.



Activity 4: The Lightning App

Create a Lightning App

1. Goto setup page >>search“app manager” in quick find >> select“appmanager” >>click on New lightning App
2. Fill the app name in app details as MY RICE >> Next >> (App option page)keep it asdefault >>Next >> (UtilityItems) keep it as default>> Next.
3. Upload a photothat is related to your app.
4. To add NavigationItem:
5. Select the items (supplier,rice mill, consumer,Rice details) from thesearchbar andmoveit using the arrow button>> Next.
6. To Add User Profiles:
7. Search profiles (System administrator) in the search bar >>click on the arrowbutton>>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 ⓘ
Name your app...

* Developer Name ⓘ
Enter a developer name...

Description ⓘ
Enter a description...

App Branding

Image ⓘ



Upload

Primary Color Hex Value ⓘ

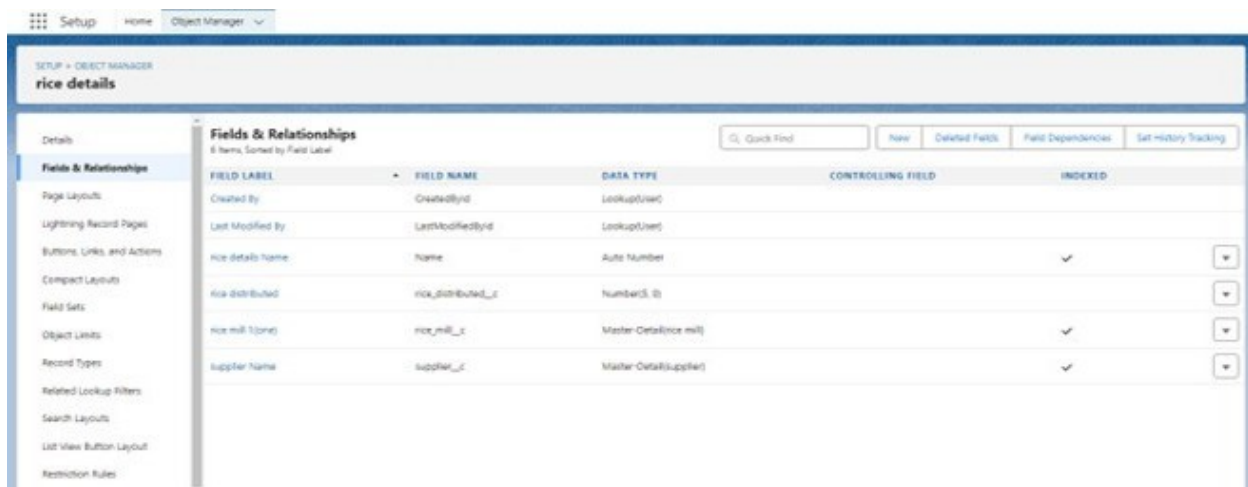
Org Theme Options
☐ Use the app's image and color instead of the org's custom theme

App Launcher Preview

Activity 5: Fields

Creating the number field in rice details object

1. Goto the setup page >> click on object manager >> From drop down click editfor ricedetails object
2. Click on fields & relationship >> click on New.
3. Select Data type as "Number"and click Next.
4. Given the FieldLabel as "rice distributed " and lengthas" 5".
5. Field Name will beauto populated, and click on Next- Next >> Save.



CreatingJunction Object

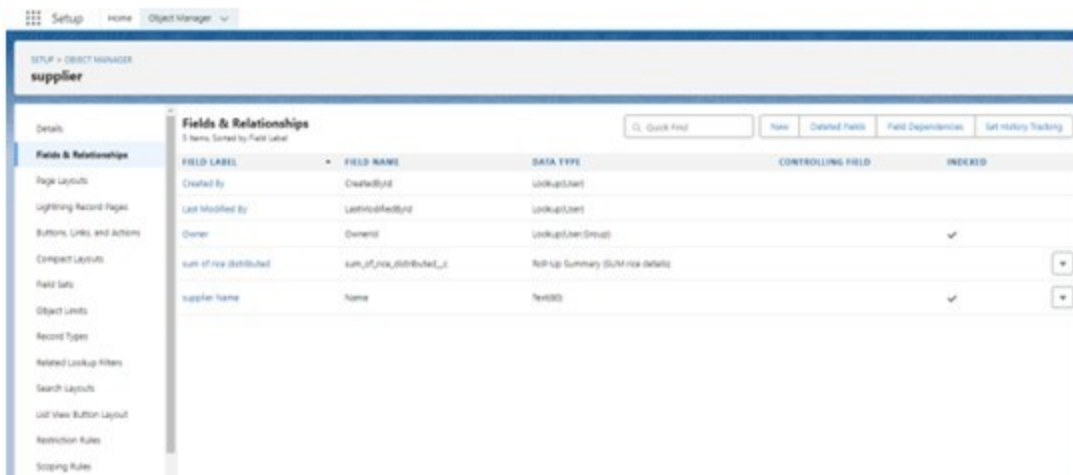
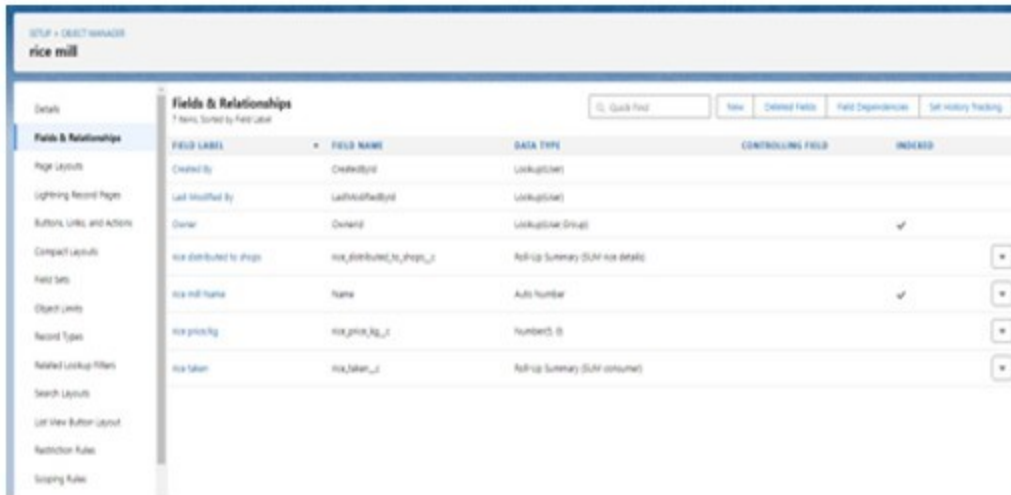
Creating junction objectas rice detailswith supplier & rice mill

1. Goto the setup page >> click on object manager >> From drop down click editfor ricedetails object
2. Click on fields & relationship - click on New.
3. Select "Master-Detail relationship" as data type and click Next.
4. Select the relatedobject "supplier" and click next.
5. Give Field Labelas "supplier Name"and click Next
6. Next >> Next >> Save & New.

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

Creating a Master-Detail Relationship

11. Goto the setup page >>click on object manager>>From drop down clickedit forconsumer object.
12. Click on fields & relationship >> click on New.
13. Select "Master-Detail relationship" as data type and click Next.
14. Select the relatedobject "rice mill".
15. Give Field Label as "ricemill name" and click Next.
16. Next >> Next >> Save.



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 CustomApp settings as default for the rice mill.
4. Scroll down to Custom Object Permissions and Give access permissions for consumer, ricedetails, ricemill and suppliers objects as mentioned in the below

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

supplier

New Custom Field

Step 1. Choose the field type

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

Date Type

☐ None Selected

Select one of the data types below.

☐ Auto Number

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

☐ Formula

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

☒ Roll-Up Summary

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

Edit supplier Custom Field

sum of rice distributed

Custom Field Definition Edit

Save Cancel

Field Information

Field Label

Field Name

Description

Help Text

Data Owner

Field Storage

Data Sensitivity Level

Compliance Categorization

Available
PII
HIPAA
GDPR
PCI
Chosen

Roll-Up Summary Options

Data Type Roll-Up Summary

Calculation Options ☒ Automatic calculation (Recommended)

☐ Force a mass recalculation of this field

Select Object to Summarize

Master Object supplier

Summarized Object rice details

Select Roll-Up Type

☐ COUNT

☒ SUM

☐ MIN

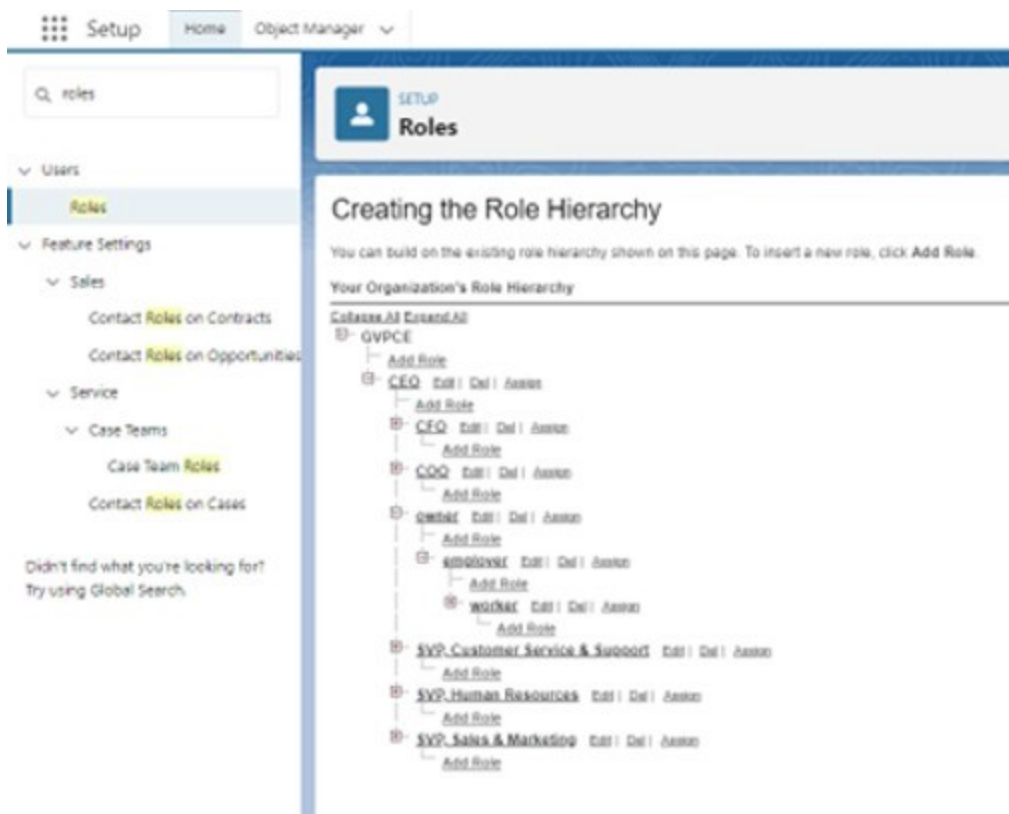
☐ MAX

Field to Aggregate

1. Go to quickfind >> Searchfor Roles >>click on set up roles.
2. Go to quickfind >> Searchfor 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

5. Go to quick find >>Search for Roles >>click on set up roles.
6. Click plus on CEO role, and click add role under owner.
7. Give Label as "employer" and Role name gets auto populated. Then click on Save.
8. Repeat the same steps, for another role.
9. Click plus on CEO role, and click plus on owner, and click add role under employer.
10. Give Label as "worker" and Role name gets auto populated. Then click on Save.



Report

Create Report:

1. Go to the app>>click on the reportstab
2. Click New Report.
3. select for report type, search for "rice mill with consumers" click on it. And clickon startreport.
4. Their outlinepane is opened already, select the fields that are mentionedbelowinthecolumn section.
5. 1.consumer name
6. 2.rice type
7. 3.rice price/kg
8. 4.mode of payments
9. 5.amount paid
10. Remove the unnecessary fields.
11. Select the fields that are mentioned below in the GROUP ROWS section.
12. Rice taken by shops
13. Click save and run and save the report as "range of amount per day".and save it.

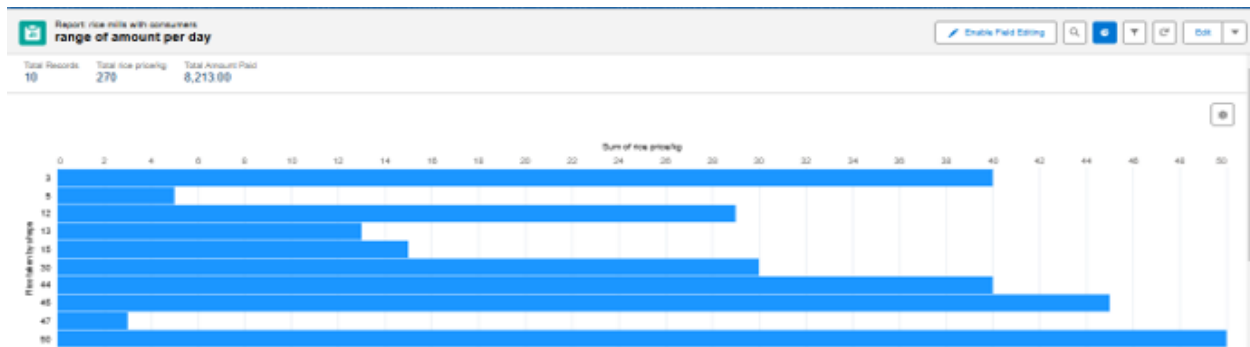
MY RICE supplier rice mills consumers rice details * range of amount per day X

Report: rice mills with consumers
range of amount per day

Total Records: 10 Total rice price/kg: 270 Total Amount Paid: 8,213.00

<input type="checkbox"/> Rice taken by shops	consumer: consumer Name	Rice type	rice price/kg	Mode of payment	Amount Paid
<input type="checkbox"/> 3 (1)	consumers-001	1.basmati	40	UPI	120.00
Subtotal			40		120.00
<input type="checkbox"/> 5 (1)	consumers-005	1.basmati	5	Debit card	25.00
Subtotal			5		25.00
<input type="checkbox"/> 12 (1)	consumers-002	1.basmati	29	Cash	348.00
Subtotal			29		348.00
<input type="checkbox"/> 13 (1)	consumers-006	2.normal rice	13	Debit card	169.00
Subtotal			13		169.00
<input type="checkbox"/> 15 (1)	consumers-007	1.basmati	15	Net banking	225.00
Subtotal			15		225.00
<input type="checkbox"/> 30 (1)	consumers-003	2.normal rice	30	Debit card	900.00
Subtotal			30		900.00
<input type="checkbox"/> 44 (1)	consumers-009	1.basmati	40	Debit card	1,760.00
Subtotal			40		1,760.00
<input type="checkbox"/> 45 (1)	consumers-008	2.normal rice	45	Cash	2,025.00
Subtotal			45		2,025.00
<input type="checkbox"/> 47 (1)	consumers-010	2.normal rice	3	Cash	141.00

Row Counts ☒ Detail Rows ☒ Subtotals ☒ Grand Total ☒



1. Testing and Validation:

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 Developer console. Click on the developer console and you will navigate to a new console

window.

- c. Then you can see many tools in the Toolbar of the new console window. Click on File,

New and Apex Class.

- d. 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'+  
                        'Thank you 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 developer console and you will be navigated 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.

Syntax For creating trigger :

The syntax for creating trigger is :

```
Trigger [triggername] on [objectname]( Before/After event){  
    //Trigger Logic  
}
```

Code Snippet :

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

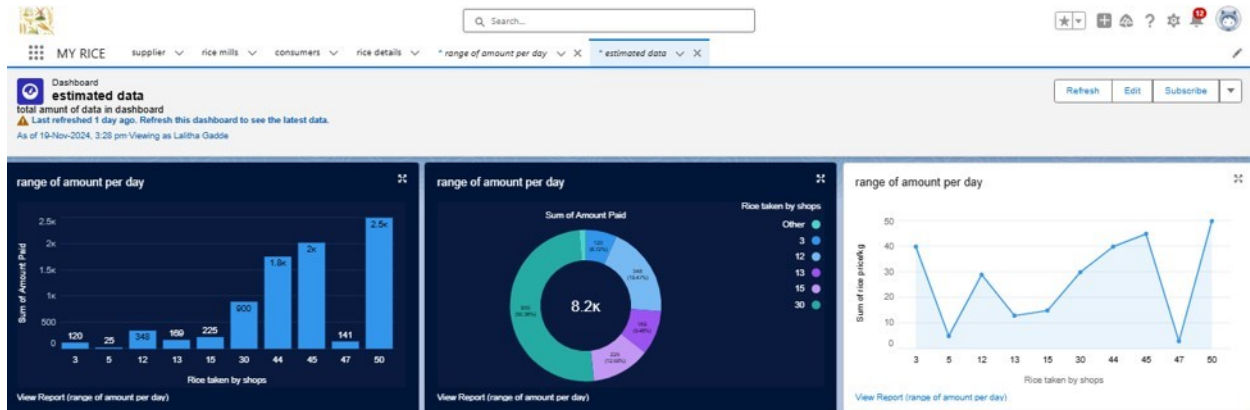
2. Key Scenarios Addressed by Salesforce in the Implementation Project.

- a. **Sales Process Automation:** Salesforce can automate sales workflows, reducing manual tasks.
- b. **Customer Support:** Salesforce can provide tools to manage customer service cases and track resolutions.
- c. **Data Analytics and Reporting:** Salesforce can generate detailed reports for business

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DASHBOARDS:



ResourceManagement: Salesforce can help allocate resource 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.