A CRM APPLICATION FOR WHOLESALE RICE MILL

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

1. **Cross-Object Formula Field:**

    a. **Purpose**: mention fields from another object in Salesforce.

    b. **Function**: Calculates the total amount payable by procreate the number of rice units taken by the price per kg.

2. **proof Rules:**

    a. **Purpose**: Ensures data unity by confirming user inputs.

    b. **Is Blank Formula**: Verifies if a field is blank and displays an error message if the rule returns a value of "True."

3. **Permission Sets:**

    a. **Wide Defaults (OWD)**: Defines the baseline level of access for the most restricted user.

    b. **Roles and Access**:

    c. **Company Owner**: Can view records of employers and workers.

    d. **Employer**: Can view records of workers.

4. Detailed Steps to Solution Design :

action 1: Creating Programmer Account and Account Initiation.

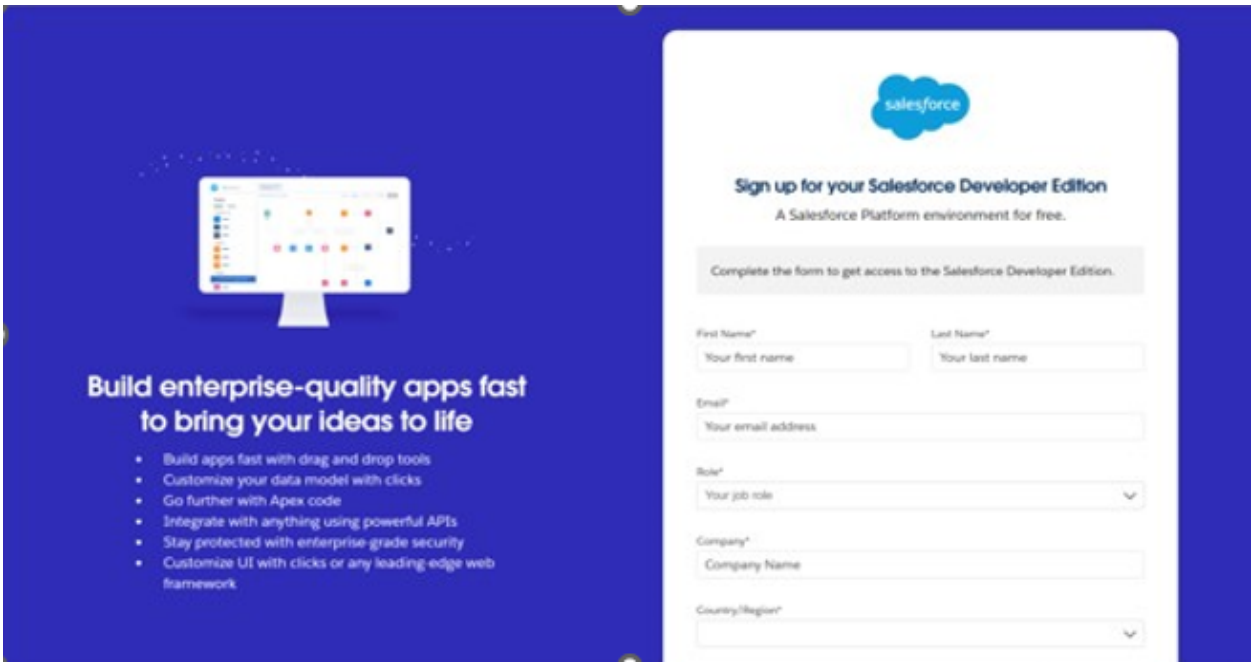
Steps:

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 : Programmer

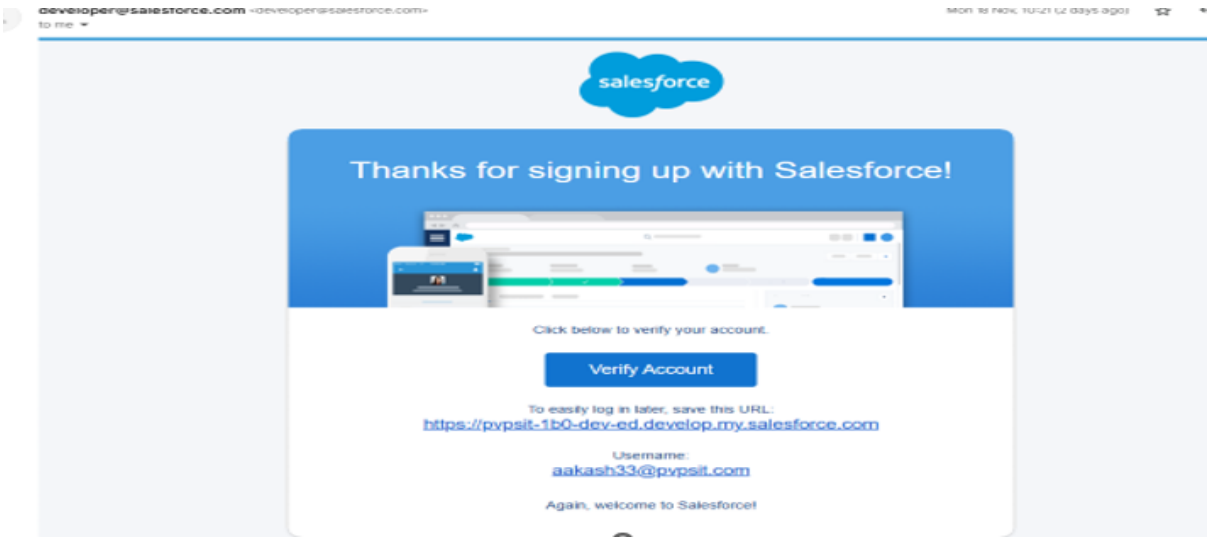
6. Company : College Name

Country : India



induction :

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



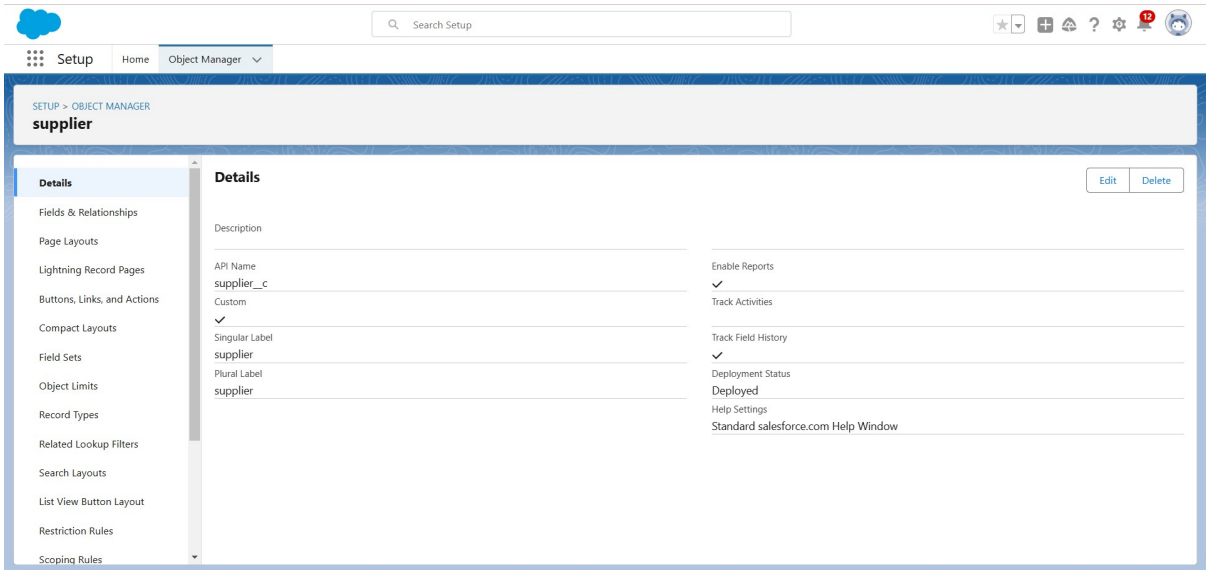
action 2: Objects

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

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 ● Allow search >>Save.

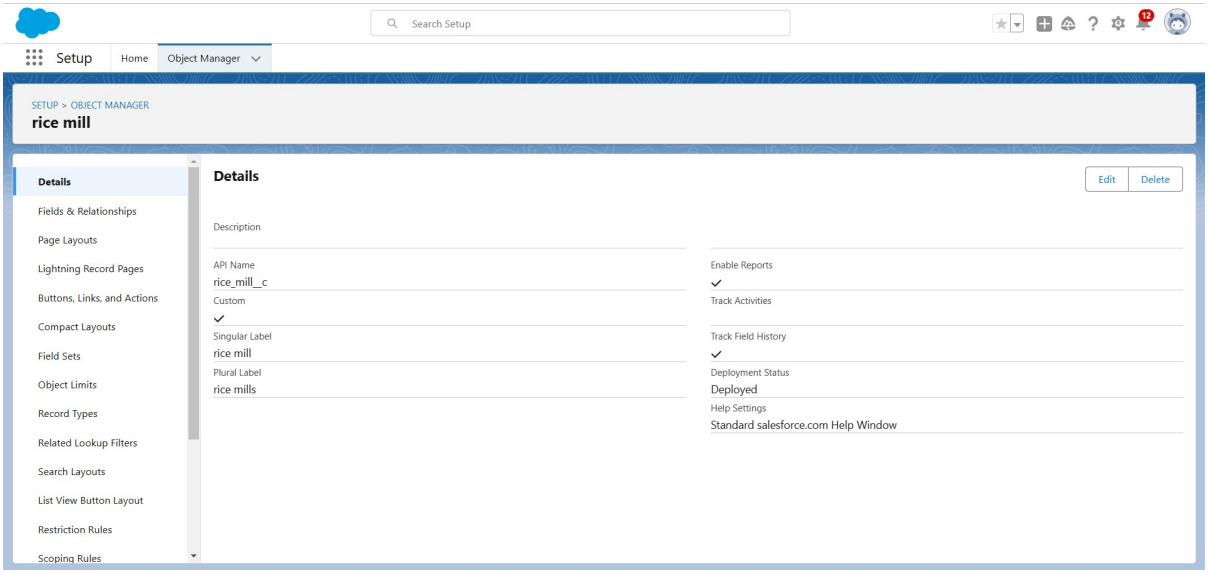


Create Rice mill Object

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

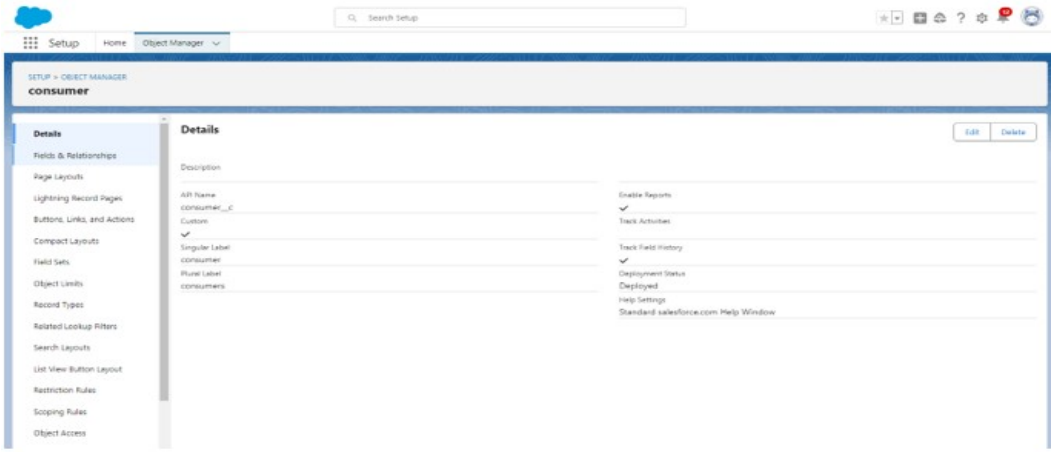
5. Record Name >>
6. Data Type >> Auto Number
7. Display Format >> rice-{000}
8. Starting number >> 1

Click on Allow reports and Track Field History, Allow Search and Save



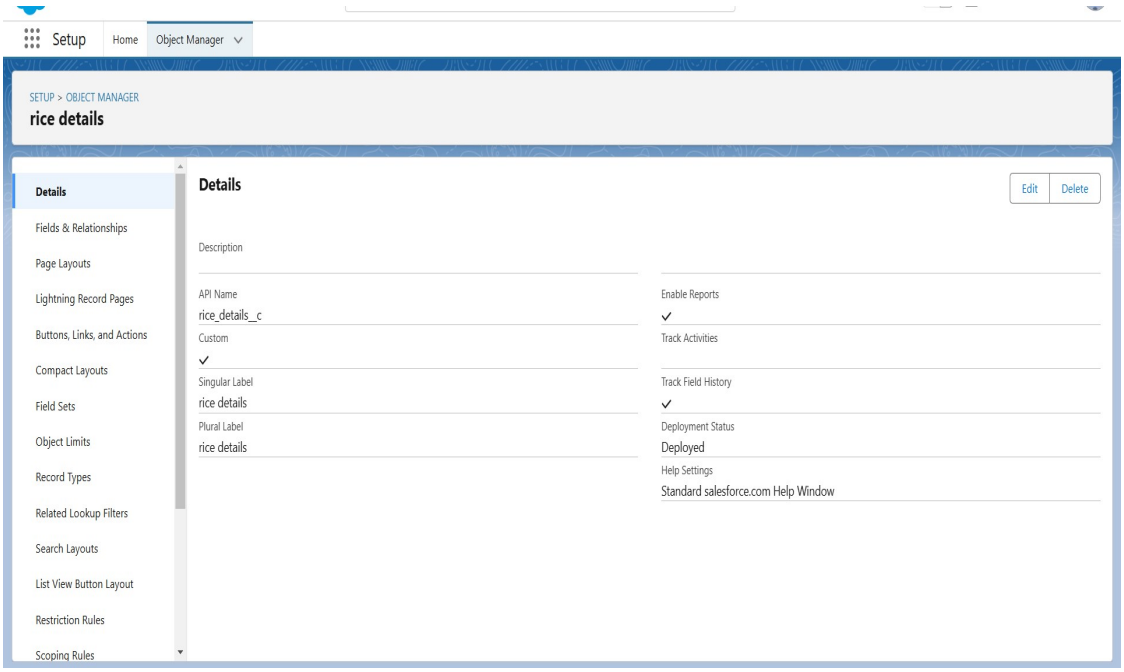
Create consumer Objects

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



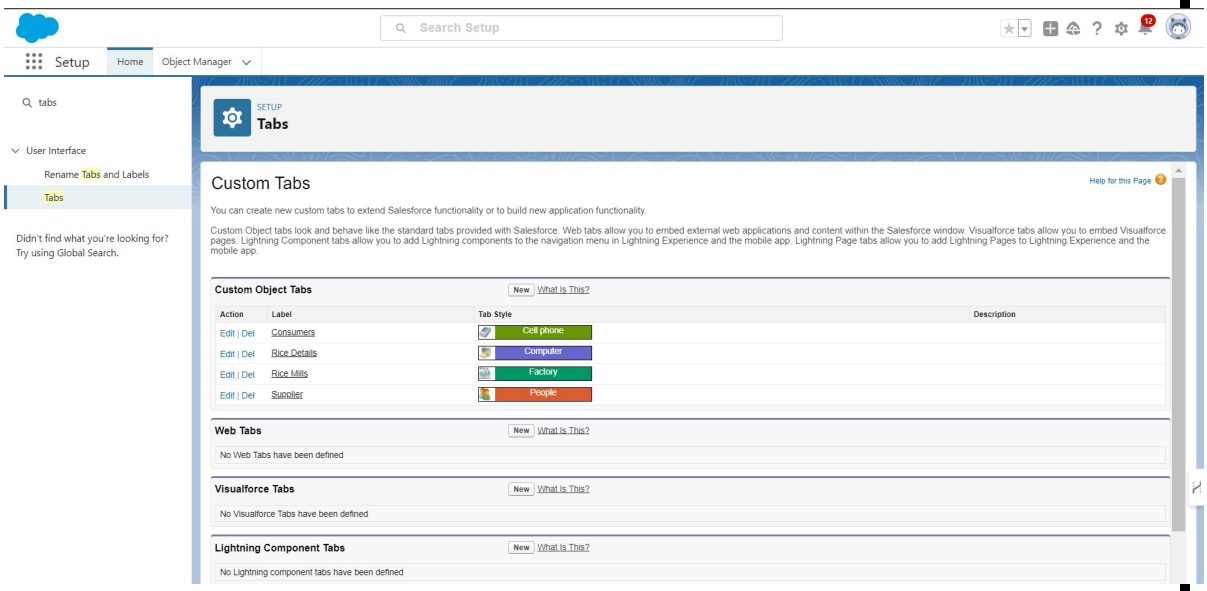
Create rice details Objects

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



Action 3: Tabs

1. Creating a Custom Tab
2. To create a Tab:(supplier)
3. Go to the setup page >> type Tabs in the Quick Find bar >> click on tabs >> New (under the custom object tab)
4. 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.
5. Ensure you check the "Add tab to users' existing personal Adjustments" option.
6. Click save.



Action 4: The Lightning App

Create a Lightning App

1. Go to the 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 >> (Tool Items) keep it as default >> Next.

3. Upload a photo related to your app.
4. To add Direction Item:
5. Select the items (supplier, rice mill, consumer, Rice details) from the search bar and move them using the arrow button >> Next.
6. To Add User Profiles:
7. Search profiles (System Manager) in the search bar >> click on the arrow button >> save & finish.

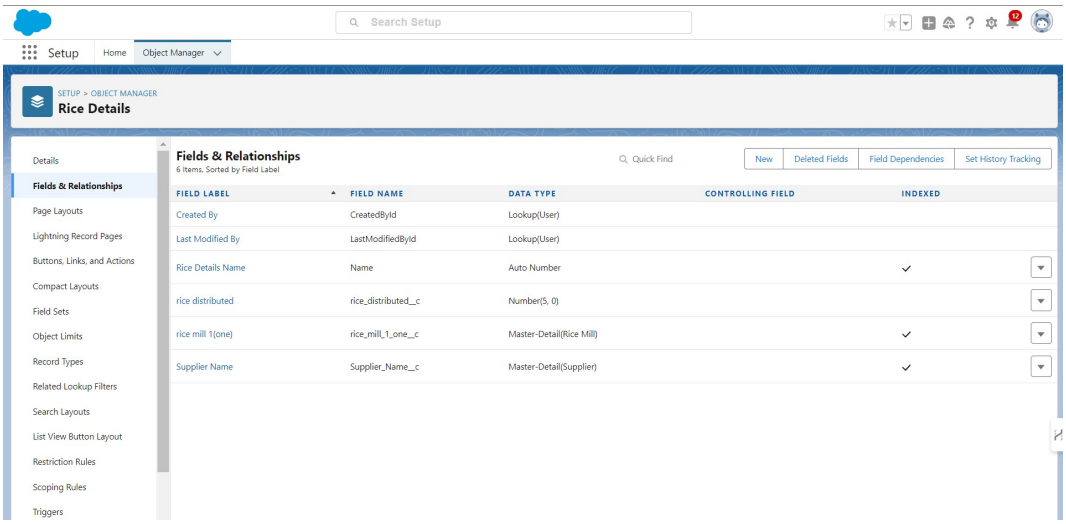
action 5: Fields

Creating the number field in rice details object

1. 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.

2. Select Data type as “Number” and click Next.
3. Given the Field Label as “rice Shared ” and length as “ 5 ”.
4. Field Name will be auto-Filled, and click on Next- Next >> Save.



Creating Junction Object:

Creatingjunction object as rice details with supplier & rice mill

1. Go to the setup page >> click on the object manager >> From the drop-down, click edit for rice details object
2. Click on fields & kinship - click on New.
3. Select “Master-Detail kinship” 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.

   Next >> Next >> Save.

Creating a Master-Detail kinship

1. Go to the setup page >> click on the object manager >> From the drop-down, click edit for consumer object.

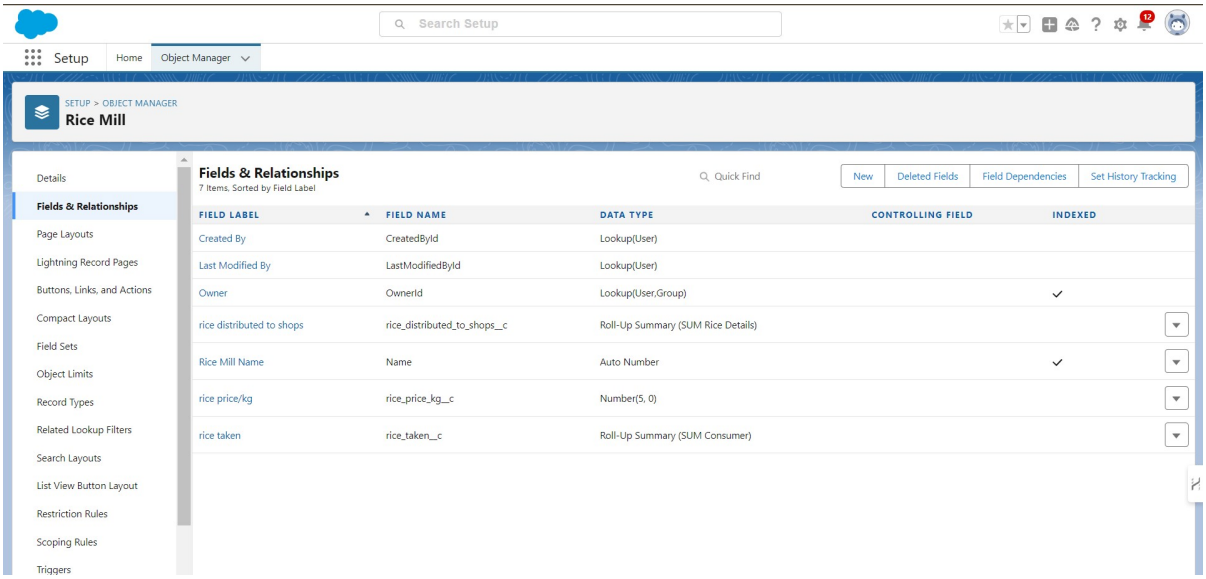
2. Click on fields & kinship >> click on New.

3. Select “Master-Detail kinship” 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.



Creating the Roll-up Summary

1. Go to setup >> click on Object Manager >> type object name (supplier) in the search bar >> click on the object.

2. Now click on “Fields & Connections” >> New

3. Select the data type as “Rollup summary”, and click Next.

4. 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”.

5. Select the Rollup type as “sum”.
6. Select the field to aggregate as “rice Shared”, and click Next >>Next >>Save
7. Follow the same steps for the rice mill Object from 1 to 3
8. Give the Field label as “rice Shared to shops”, Field Name will be Auto bring forth, and click Next.
9. Select the summarised object as “rice details”.
10. Select the Rollup type as “sum”.
11. Select the field to aggregate as "rice Shared", and click Next >> Next >> Save.
12. Note: create the field as “ rice taken by shops in kegs” using number datatype in consumer object
13. Follow the same steps for the rice mill Object from 1 to 3
14. Give the Field label as “rice taken”, Field Name will be Auto brought forth, and click Next.
15. Select the summarised object as “consumer”.
16. Select the Rollup type as “sum”.
17. Select the field to aggregate as “rice taken in shops”, and click Next >> Next >> Save.

Creating the proof rule

1. 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”.

2. Enter the description as “phone number and email number should not be blank”.

3. Enter the formula as “OR(ISBLANK(phone_number__c) , ISBLANK(email__c))” and check the syntax.

4. Under the error message, write as “please fill in your phone number.”

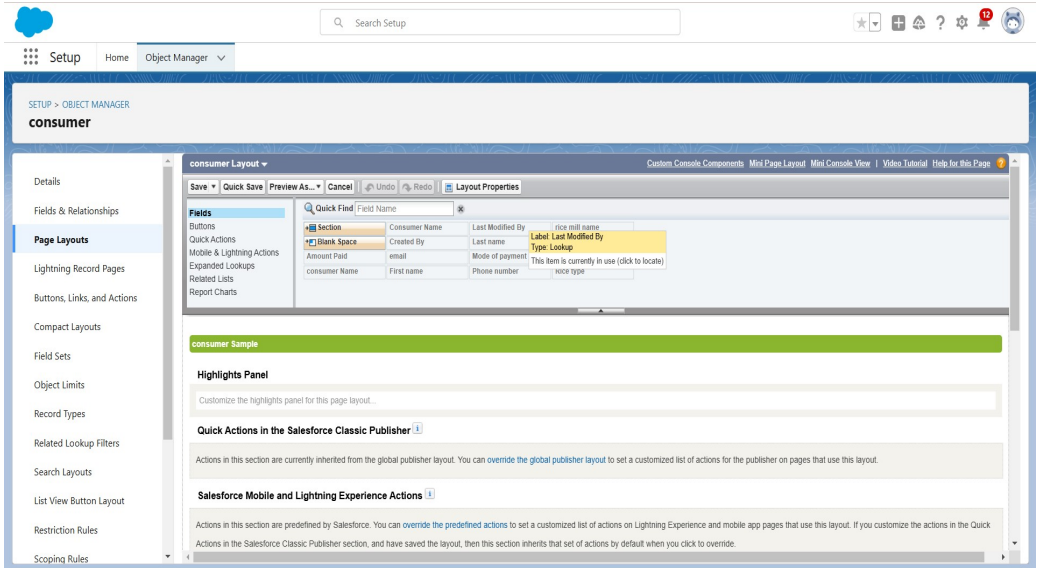
5. Select error location “top of page”.

6. Save the proof rule.

PAGE LAYOUTS

1. Go to Setup >> Click on Object Manager >>Search for the object (consumer) >> From the dropdown, 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 the consumer details and create the section.
5. Enter the section name as “Personal details”, - click Ok.
6. Drag the mentioned fields into this section.
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 the 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.

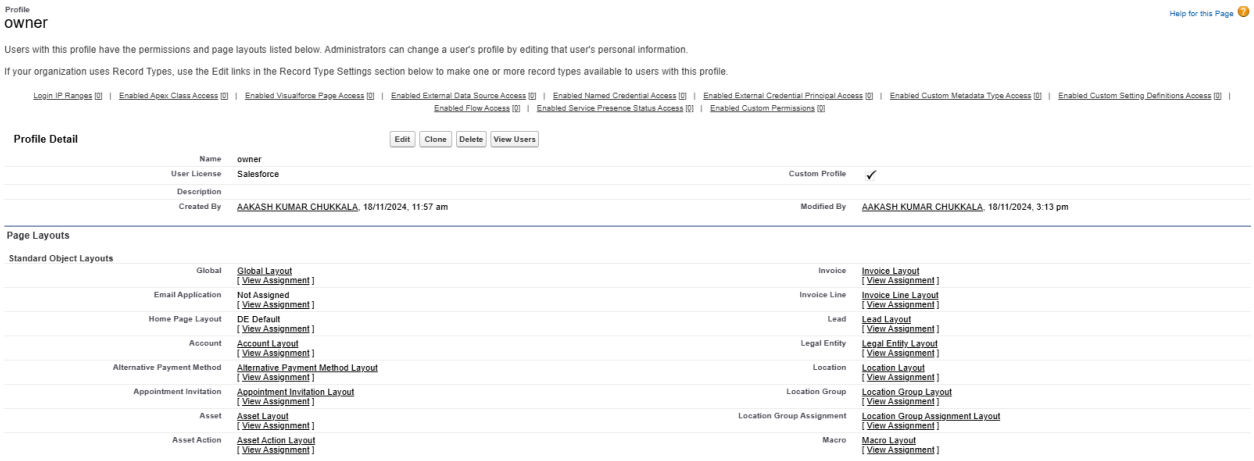


PROFILES

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, 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:

1. 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.
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.



Profile
owner

Help for this Page

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.

Login IP Ranges [0] | Enabled Apex Class Access [0] | Enabled Visualforce Page Access [0] | Enabled External Data Source Access [0] | Enabled Named Credential Access [0] | Enabled External Credential Principal Access [0] | Enabled Custom Metadata Type Access [0] | Enabled Custom Setting Definitions Access [0] | Enabled Flow Access [0] | Enabled Service Presence Status Access [0] | Enabled Custom Permissions [0]

Profile Detail — Edit | Clone | Delete | View Users

Name	owner		
User License	Salesforce	Custom Profile	✓
Description			
Created By	AAKASH KUMAR CHUKKALA, 18/11/2024, 11:57 am	Modified By	AAKASH KUMAR CHUKKALA, 18/11/2024, 3:13 pm

Page Layouts

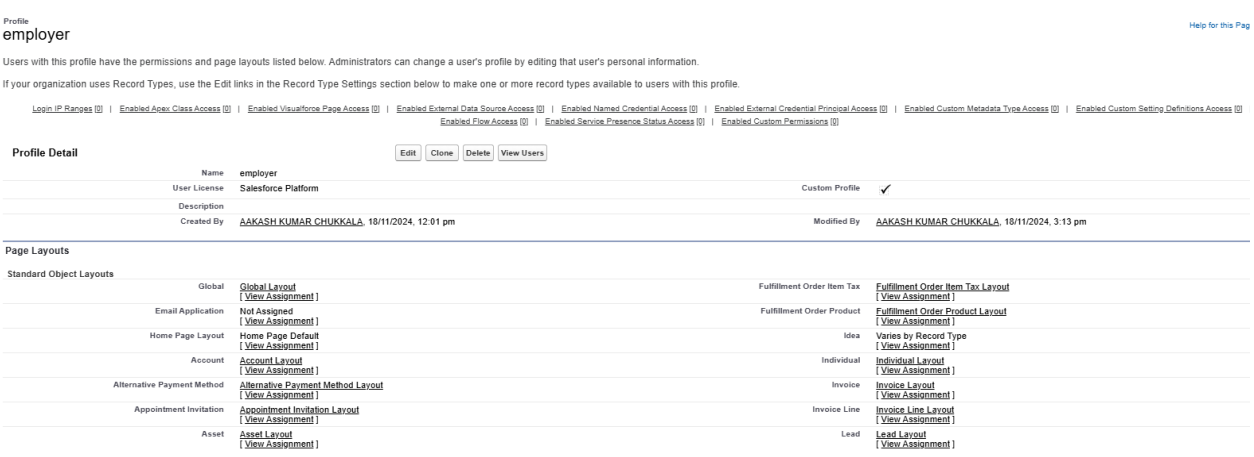
Standard Object Layouts

Global	Global Layout [View Assignment]	Invoice	Invoice Layout [View Assignment]
Email Application	Not Assigned [View Assignment]	Invoice Line	Invoice Line Layout [View Assignment]
Home Page Layout	DE Default [View Assignment]	Lead	Lead Layout [View Assignment]
Account	Account Layout [View Assignment]	Legal Entity	Legal Entity Layout [View Assignment]
Alternative Payment Method	Alternative Payment Method Layout [View Assignment]	Location	Location Layout [View Assignment]
Appointment Invitation	Appointment Invitation Layout [View Assignment]	Location Group	Location Group Layout [View Assignment]
Asset	Asset Layout [View Assignment]	Location Group Assignment	Location Group Assignment Layout [View Assignment]
Asset Action	Asset Action Layout [View Assignment]	Macro	Macro Layout [View Assignment]

Employer Profile

1. 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.
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.



Profile
employer

Help for this Pag

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.

Login IP Ranges [0] | Enabled Apex Class Access [0] | Enabled Visualforce Page Access [0] | Enabled External Data Source Access [0] | Enabled Named Credential Access [0] | Enabled External Credential Principal Access [0] | Enabled Custom Metadata Type Access [0] | Enabled Custom Setting Definitions Access [0] | Enabled Flow Access [0] | Enabled Service Presence Status Access [0] | Enabled Custom Permissions [0]

Profile Detail — Edit | Clone | Delete | View Users

Name	employer		
User License	Salesforce Platform	Custom Profile	✓
Description			
Created By	AAKASH KUMAR CHUKKALA, 18/11/2024, 12:01 pm	Modified By	AAKASH KUMAR CHUKKALA, 18/11/2024, 3:13 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]

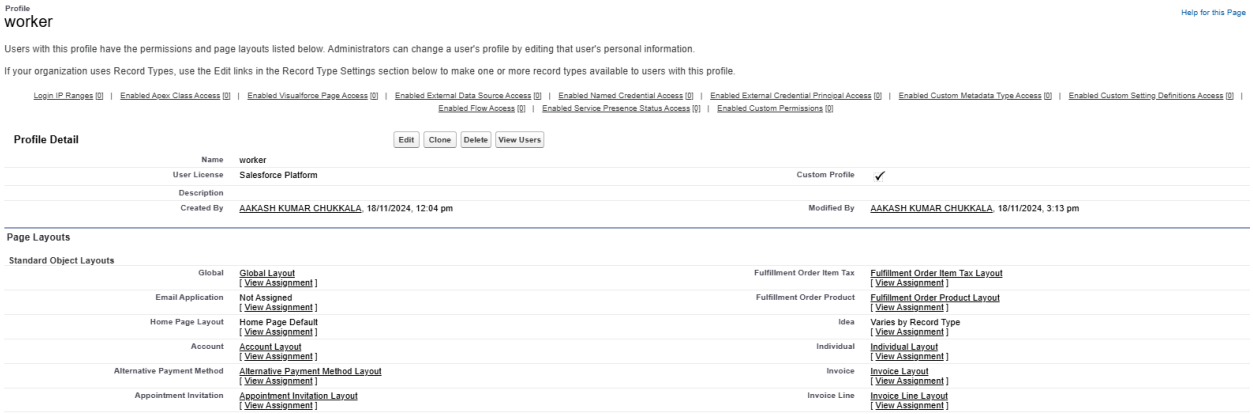
Worker Profile

1. 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.

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.



Profile
worker

Help for this Page

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.

Login IP Ranges [0] | Enabled Apex Class Access [0] | Enabled Visualforce Page Access [0] | Enabled External Data Source Access [0] | Enabled Named Credential Access [0] | Enabled External Credential Principal Access [0] | Enabled Custom Metadata Type Access [0] | Enabled Custom Setting Definitions Access [0] | Enabled Flow Access [0] | Enabled Service Presence Status Access [0] | Enabled Custom Permissions [0]

Profile Detail Edit Clone Delete View Users

Name	worker		
User License	Salesforce Platform	Custom Profile	✓
Description			
Created By	AAKASH KUMAR CHUKKALA, 18/11/2024, 12:04 pm	Modified By	AAKASH KUMAR CHUKKALA, 18/11/2024, 3:13 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]

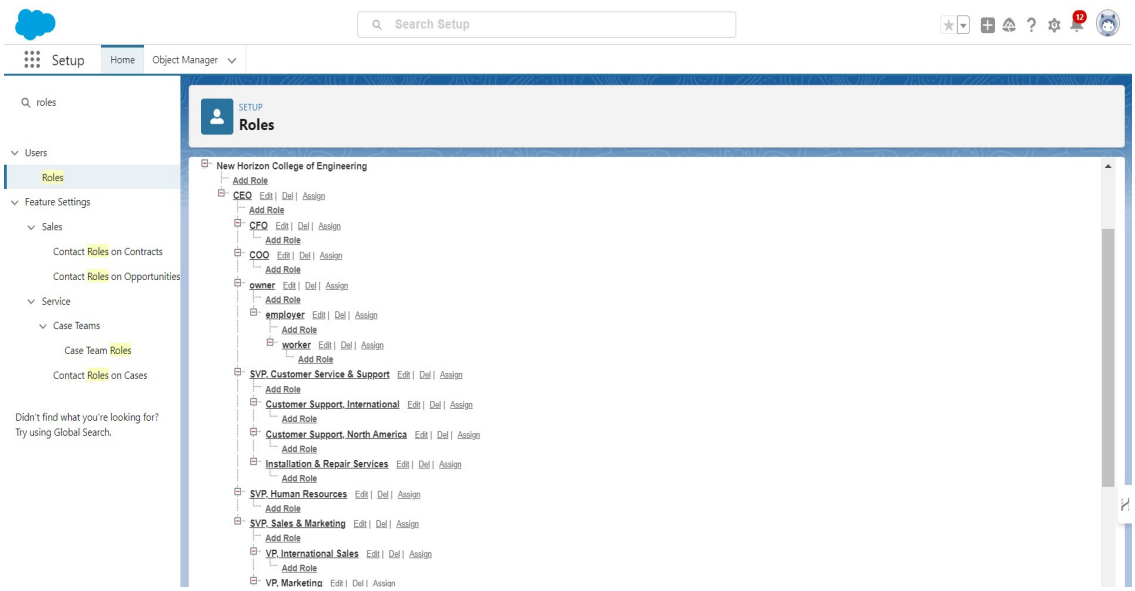
Role & Role Hierarchy

Creating owner Role:

1. Go to find Search for Roles quick >> click on set up roles.
2. Go to find Search for Roles quick >> 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 Filled. Then click on Save.

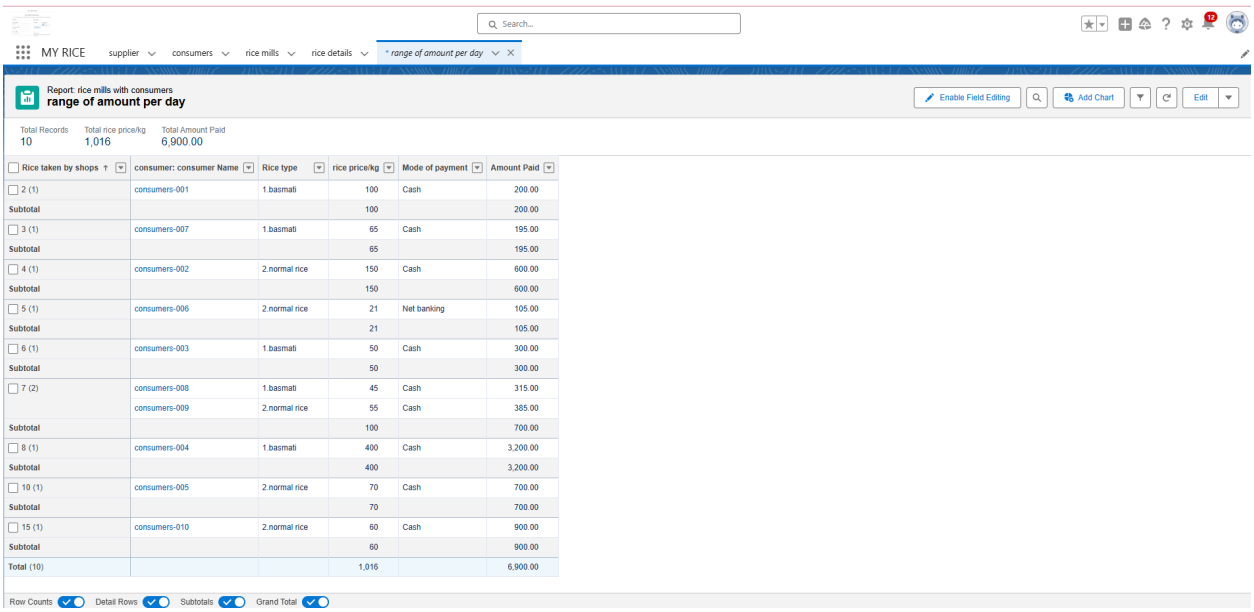
Creating employer roles

1. Go to find Search for Roles quick >>click on set up roles.
2. Click plus on the CEO role, and click add role under owner.
3. Give Label as “employer” and Role name gets auto Filled. Then click on Save.
4. Repeat the same steps for another role.
5. Click plus on the CEO role, and click plus on the owner, and click add role under employer.
6. Give Label as “worker” and Role name gets auto Filled. Then click on Save.



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” and click on it. And click on start report.
4. The outline pane is already open; select the fields listed below in the column 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 Excess fields.
11. Select the fields listed 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.



Testing and Check:

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 Programmer console. Click on the Programmer 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 ' + customerName + ',\n\n' + 'Welcome to MY RICE! You
are recognized as a Important customer to us. Please continue your journey with us as we strive
to provide you with high-quality resources.\n\n' + 'Best regards,\n' + 'The MY RICE Team'); 'We
are proud to companion with Important customers like you, and we look forward to join forces
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 Important  products and offers'+'\n'+'\n'+'\n'+
                                'Thankyou for buying '+ '' +'Here are some of the products that are
brought by the customers who Likewise 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.

Syntax For creating trigger :

The syntax for creating trigger is :

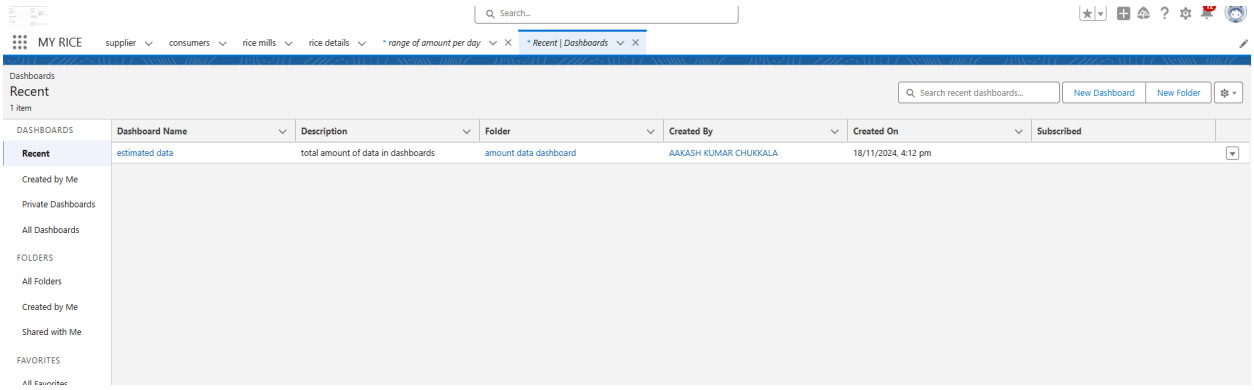
```
Trigger [trigger name] on [object name]( Before/After event) {
    //Trigger Logic
}
```

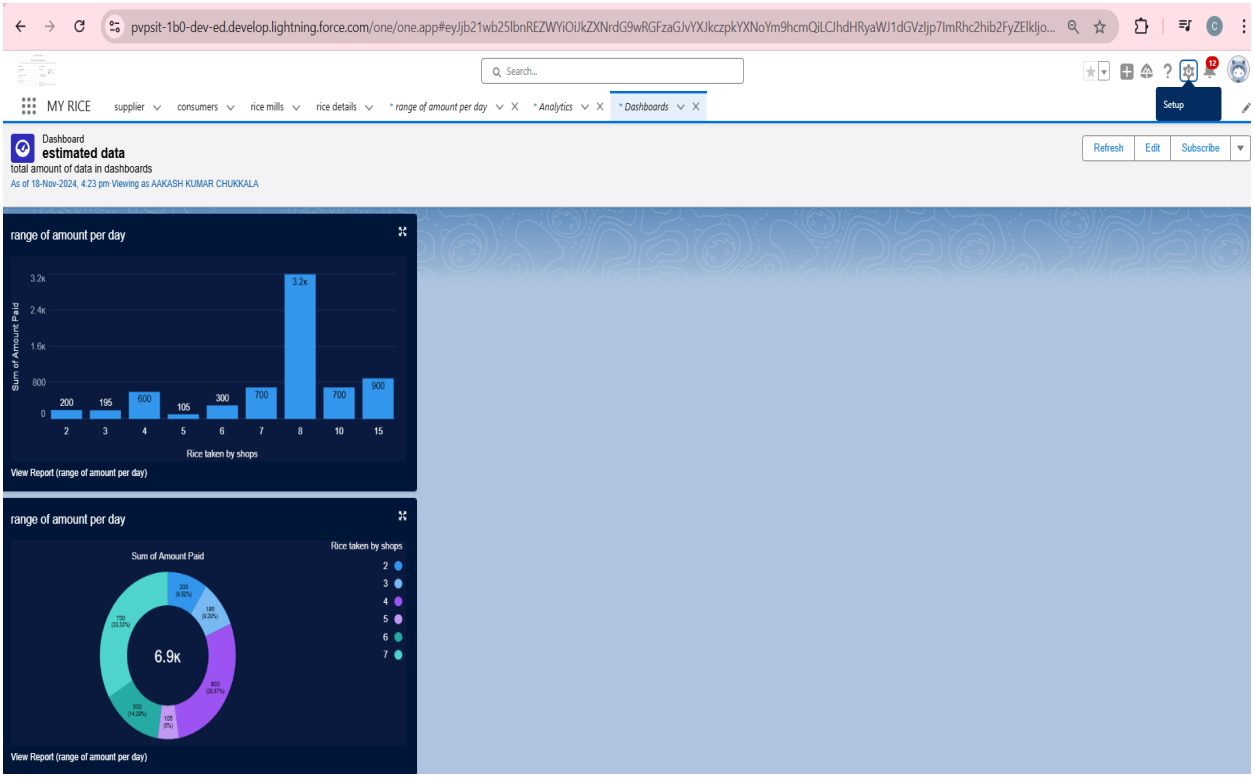
Code Snippet :

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

6.DASHBOARDS:

Resource Control: Salesforce can help allocate resources Quickly based on business needs.





7. Conclusion:

In this project, Salesforce streamlined Running processes by enabling Self-operating data computing, real-time reporting, and secure access control. Custom widgets provided visual insights into rice sales, production, and revenue, enhancing decision-making. proof rules ensured data Correctness, while role-based access protected sensitive info. Rollup summaries and formulas reduced manual effort in computing. Overall, Salesforce optimised business Tasks, conducive to improved Output and planning.