

A CRM Application for Wholesale Rice Mill **Report**

Prepared By

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1. Project Overview

The Rice Mill CRM Application is a comprehensive solution designed to streamline and optimize the daily operations of a rice mill factory. The primary objective is to track and report daily rice production, sales, and revenue while providing valuable insights to stakeholders. This project leverages Salesforce's capabilities, including custom objects, workflows, and dashboards, to enhance operational efficiency, improve customer satisfaction, and ensure data accuracy. Through this initiative, we aim to provide a centralized platform for managing and analyzing rice mill activities, empowering the organization to make data-driven decisions and achieve long-term growth.

Key aspects of the project include automated reporting, role-based access control, and data visualization, all tailored to the unique requirements of a wholesale rice mill.

2. Objectives

Business Goals:

- Enhance operational transparency for the rice mill owner.
- Automate the generation of daily reports for production, sales, and revenue.
- Improve customer experience by providing personalized updates and insights.
- Provide role-based data access for improved security and accountability.

Specific Outcomes:

- Enable automated tracking of rice supply, sales, and revenue through custom reports and dashboards.
- Improve decision-making by providing detailed analytics on customer preferences and product performance.

- Streamline operational workflows using master-detail relationships, roll-up summary fields, and formula fields.
 - Establish efficient communication channels with consumers through email notifications.
-

3. Salesforce Key Features and Concepts Utilized

1. Custom Objects:

- **Supplier Object:** Manages supplier details, including total rice supplied.
- **Rice Mill Object:** Tracks daily operations, rice inventory, and pricing.
- **Consumer Object:** Stores customer information, rice purchases, and payment details.
- **Rice Details Object:** Captures granular data on rice types, quantities, and transactions.

1. Roll-Up Summary Fields:

- Summarize data such as total rice supplied to a mill or total rice taken by shops.

1. Cross-Object Formula Fields:

- Calculate total payment amounts (e.g., Rice Taken by Shops × Price per Kilogram).

1. Validation Rules:

- Ensure data integrity by validating fields such as phone numbers, email addresses, and mandatory entries.

1. Permission Sets and Role Hierarchy:

- Implement role-based access control:
 - Owners can access all data.
 - Employers can view worker records and related data.
 - Workers have restricted access to update daily transactions.

1. Reports and Dashboards:

- Generate daily summaries and visualize performance metrics, such as revenue trends and inventory levels, through bar and donut charts.

1. Apex Classes and Triggers:

- Automate email notifications to customers, enhancing communication and engagement.

4. Step-by-Step Implementation

Creating Developer Account:

1. Visit [Salesforce Developer Signup](#).
2. Fill in the required details: Name, Email, Role (Developer), Company, and Username (e.g., username@organization.com).
3. Verify the account through the email received and set up your password.

Objects:

Create Supplier Object:

- Navigate to Object Manager > Create > Custom Object.
- Label Name: Supplier; Plural Label: Suppliers.
- Enable "Allow Reports" and "Track Field History."
- Save the object.

The screenshot displays the Salesforce Setup interface for creating a custom object. The top navigation bar includes the Setup menu, Home, and Object Manager. The main content area is titled 'SETUP > OBJECT MANAGER' and 'supplier'. The 'Details' sidebar on the left lists various configuration options. The main panel, 'Custom Object Definition Edit', contains the following sections:

- Custom Object Information:** Includes fields for Label (supplier), Plural Label (suppliers), and Object Name (supplier). It also has a checkbox for 'Starts with vowel sound' and a description field.
- Context-Sensitive Help Setting:** Includes radio buttons for 'Open the standard Salesforce.com Help & Training window' and 'Open a window using a Visualforce page'.
- Enter Record Name Label and Format:** Includes a text area for the record name.
- Optional Features:** Includes checkboxes for 'Allow Reports', 'Allow Activities', 'Track Field History', 'Allow in Chatter Groups', and 'Enable Licensing'.

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Create Rice Mill Object:

- Label Name: Rice Mill; Plural Label: Rice Mills.
- Record Name: Auto Number (e.g., Rice-{000}); Starting Number: 1.
- Enable "Allow Reports" and "Track Field History."
- Save the object.

The screenshot shows the 'Custom Object Definition Edit' page in Salesforce. The 'Custom Object Information' section includes fields for 'Label' (rice mill), 'Plural Label' (rice mills), and 'Object Name' (rice_mill). The 'Optional Features' section has checkboxes for 'Allow Reports' (checked), 'Allow Activities' (unchecked), 'Track Field History' (checked), 'Allow in Chatter Groups' (unchecked), and 'Enable Licensing' (unchecked).

Create Consumer Object:

- Label Name: Consumer; Plural Label: Consumers.
- Record Name: Auto Number (e.g., Consumers-{000}); Starting Number: 1.
- Save and enable search functionality.

The screenshot shows the 'Custom Object Definition Edit' page in Salesforce for the 'consumer' object. The 'Custom Object Information' section includes fields for 'Label' (consumer), 'Plural Label' (consumers), and 'Object Name' (consumer). The 'Optional Features' section has checkboxes for 'Allow Reports' (checked), 'Allow Activities' (unchecked), 'Track Field History' (checked), 'Allow in Chatter Groups' (unchecked), and 'Enable Licensing' (unchecked). The 'Context Sensitive Help Setting' section has a radio button for 'Open the standard Salesforce.com Help & Training window' (selected) and a radio button for 'Open a window using a Visualforce page' (unchecked). The 'Content Name' field is set to '-None-'.

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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-{0000} [What Is This?](#)

Optional Features

- ☒ Allow Reports
- ☐ Allow Activities
- ☒ Track Field History
- ☐ Allow in Chatter Groups
- ☐ Enable Licensing [i](#)

Create Rice Details Object:

- Label Name: Rice Details; Plural Label: Rice Details.
- Record Name: Auto Number (e.g., Rice-{000}); Starting Number: 1.
- Save and enable search functionality.

rice details

Custom Object Definition Edit

SaveSave & NewCancel

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-{0000} [What Is This?](#)

Optional Features

☒ Allow Reports
☐ Allow Activities
☒ Track Field History
☐ Allow in Chatter Groups
☐ Enable Licensing [i](#)

Object Classification

When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object. [Learn more.](#)

☒ Allow Sharing
☒ Allow Bulk API Access
☒ Allow Streaming API Access

Read-Only Status

[What Is This?](#)

Tabs:

Creating a Custom Tab:

- Go to Setup > Tabs > New Custom Tab.
- Select the object (e.g., Supplier) and choose a tab style.
- Assign it to the appropriate profiles and save.

Edit Custom Object Tab

consumers

Fill in the fields below to define the custom tab.

Custom Tab Definition Edit

Custom Object Tab Information



Tab Label

consumers

Object

consumer

Tab Style

 People 

(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

Save

Cancel

Tab Style Selector

Create your own style

Hide styles which are used on other tabs

 Airplane

 Alarm clock

 Apple

 Balls

 Bank

 Bell

 Big top

 Boat

 Books

 Bottle

 Box[1]

 Bridge

 Building

 Building Block

 Caduceus

 Camera

 Can





 Car

 Castle

 CD/DVD

Creating Remaining Tabs:

- Repeat the above steps for Rice Mill, Consumer, and Rice Details objects.

Custom Object Tabs				
		<div>New</div> <div>What Is This?</div>		
Action	Label	Tab Style		Descri
Edit Del	consumers	 People		
Edit Del	rice details	 Form		
Edit Del	rice mills	 Factory		
Edit Del	supplier	 Box		

Web Tabs				
		<div>New</div> <div>What Is This?</div>		

The Lightning App:

Create a Lightning App:

- Navigate to Setup > Search for 'App Manager' > New Lightning App.
- Enter app details (e.g., Name: My Rice CRM) and customize branding.
- Add navigation items: Supplier, Rice Mill, Consumer, and Rice Details.
- Save and assign profiles.

← Lightning App Builder

⚙ App Settings

📄 Pages ▾

MY RICE

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

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 ⓘ

Rice Details

App Branding

Image ⓘ



Clear

Primary Color Hex Value ⓘ


■

#CAC525

Org Theme Options

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

App Launcher Preview



MY RICE
Rice Details

← Lightning App Builder

⚙ App Settings

📄 Pages ▾

MY RICE

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

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. 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

Appointment Invitations

Approval Requests

▶

◀

Selected Items

supplier

consumers

rice details

rice mills

▲

▼

ProjectReport

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

User Profiles

Choose the user profiles that can access this app.

Available Profiles

Analytics Cloud Integration User

Analytics Cloud Security User

Selected Profiles

System Administrator

employer

worker

Fields:

Creating the Rice Distributed Field in Rice Details Object:

- Go to the setup page >> click on object manager >> From drop down click edit for rice details object
- Click on fields & relationship >> click on New.
- Field Name: Rice Distributed; Data Type: Number; Length: 5.
- Save the field.

Edit rice details Custom Field
rice distributed

Custom Field Definition Edit Change Field Type Save Cancel

Field Information

Field Label

rice distributed

Data Type

Number

Field Name

rice_distributed

Description

rice_distributed

Help Text

rice_distributed_to_shops

Data Owner

User

Field Usage

--None--

Data Sensitivity Level

--None--

Compliance Categorization

Available

PII

HIPAA

GDPR

PCI

Chosen

Number Options

Length

5

Decimal Places

0

Change Field TypeSaveCancel

Creating Junction Object:

- Create relationships between Supplier and Rice Details, and Rice Mill and Rice Details using master-detail relationships.
- Go to the setup page >> click on object manager >> From drop down click edit for rice details object

Data Type

Select one of the data types below.

- ☐ None Selected
- ☐ Auto Number
- ☐ Formula
- ☐ Roll-Up Summary
- ☐ Lookup Relationship
- ☒ **Master-Detail Relationship**

Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of the values in the list.

Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent, or "master") where:

- The relationship field is required on all detail records.
- The ownership and sharing of a detail record are determined by the master record.
- When a user deletes the master record, all detail records are deleted.

Buyer New Relationship

Step 2. Choose the related object

Select the other object to which this object is related

Related To: **Supplier**

Step 2 of 6

Previous Next Cancel

Previous Next Cancel

Creating a Master-Detail Relationship:

- Example: Between Consumer and Rice Mill.
- Field Label: Rice Mill Name; Data Type: Master-Detail.
- Go to the setup page >> click on object manager >> From drop down click edit for consumer object.
- Click on fields & relationship >> 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.

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rice mill name

[Have feedback on lookup filters?](#) [Comments](#)

Custom Field Definition Edit Save Cancel

Field Information

Field Label	<input type="text" value="rice mill name"/>	Data Type	Master-Detail
Field Name	<input type="text" value="rice_mill_name"/>		
Description	<div></div>		
Help Text	<div></div>		
Data Owner	<div>User</div>		
Field Usage	<div>--None--</div>		
Data Sensitivity Level	<div>None</div>		

Master-Detail Options

Related To	<div>rice_mill</div>	Child Relationship Name	<div>consumers</div>
Related List Label	<div>consumers</div>		
Sharing Setting	<div>Select the minimum access level required on the Master record to create, edit, or delete related Detail records: <input type="radio"/> Read Only: Allows users with at least Read access to the Master record to create, edit, or delete related Detail records. <input checked="" type="radio"/> Read/Write: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records.</div>		
Allow reparenting	<input type="checkbox"/> Child records can be reparented to other parent records after they are created		

Lookup Filter

Creating the Roll-Up Summary:

- Summarize fields like total rice distributed in Supplier and Consumer objects.
- Use SUM as the aggregation type.

Edit supplier Custom Field

sum of rice distributed

Custom Field Definition Edit Save Cancel

Field Information

Field Label	<input type="text" value="sum of rice distributed"/>
Field Name	<input type="text" value="sum_of_rice_distributed"/>
Description	<div></div>
Help Text	<div></div>
Data Owner	<div>User</div>

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Roll-Up Summary Options	
Data Type	Roll-Up Summary
Calculation Options	<input checked="" type="radio"/> Automatic calculation (Recommended)
	<input type="radio"/> Force a mass recalculation of this field

Select Object to Summarize	
Master Object	supplier
Summarized Object	rice details

Select Roll-Up Type	
<input type="radio"/> COUNT	
<input checked="" type="radio"/> SUM	Field to Aggregate <input type="text" value="rice distributed"/>
<input type="radio"/> MIN	
<input type="radio"/> MAX	

Filter Criteria	
<input checked="" type="radio"/> All records should be included in the calculation	
<input type="radio"/> Only records meeting certain criteria should be included in the calculation	

Creating Fields in Objects:

- Add fields like Price per Kilogram, Rice Type (Picklist), and Mode of Payment (Picklist) in respective objects. Go to the setup page >> click on object manager >> From drop down click edit for rice details object.
- Click on fields & relationship >> click on New.
- Select Data type as “master detail” and click Next.
- Given the Field Label as “supplier name” and length as “ 5

supplier Name

[Have feedback on lookup filters? Comment o](#)

Custom Field Definition Edit	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	
Field Information	
Field Label	<input type="text" value="supplier Name"/> Data Type Master-Detail
Field Name	<input type="text" value="supplier"/>
Description	<input type="text"/>
Help Text	<input type="text"/>
Data Owner	<input type="text" value="User"/> <input type="button" value="Search"/>
Field Usage	<input type="text" value="--None--"/>
Data Sensitivity Level	<input type="text" value="--None--"/>
Compliance Categorization	<input type="text"/>
Master-Detail Options	
Related To	<input type="text" value="supplier"/> Child Relationship Name <input type="text" value="rice_details"/>
Related List Label	<input type="text" value="rice details"/>
Sharing Setting	Select the minimum access level required on the Master record to create, edit, or delete related Detail records: <input type="radio"/> Read Only: Allows users with at least Read access to the Master record to create, edit, or delete related Detail records. <input checked="" type="radio"/> Read/Write: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records.
Allow reparenting	<input type="checkbox"/> Child records can be reparented to other parent records after they are created

Creating Cross-Object Formula Field in Consumer Object:

- Field Name: Amount Paid; Formula: `Rice_Taken_by_Shops__c * Rice_Price_per_Kg__c`.
- Save the formula.

The screenshot shows the Salesforce 'Field Information' and 'Formula Editor' interface. The 'Field Information' section at the top has fields for 'Field Label' (Amount Paid), 'Field Name' (Amount_Paid), 'Description', and 'Help Text'. Below this is the 'Formula Editor' with tabs for 'Simple Formula' and 'Advanced Formula'. The 'Advanced Formula' tab is active, showing the formula: `rice_taken_by_shops_in_kgs__c * rice_price_per_kg__c`. To the right of the formula editor is a 'Functions' panel with a dropdown menu for 'All Function Categories' and a list of functions including ABS, ACOS, ADDMONTHS, AND, ASCII, and ASIN. There is also an 'Insert Operator' dropdown and an 'Insert Field' button.

Creating the Validation Rule:

- Example: For phone number/email validation in Consumer object.
- Formula: `OR(ISBLANK(Phone_Number__c), ISBLANK(Email__c))`.
- Error Message: "Phone number or email cannot be blank."

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The screenshot displays the Salesforce Object Manager interface for the 'consumer' object. The left sidebar shows navigation options: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules.

Custom Field Definition Detail

Field Information	
Field Label	Amount Paid
Field Name	Amount_Paid
API Name	Amount_Paid__c
Description	
Help Text	
Data Owner	
Field Usage	
Data Sensitivity Level	
Compliance Categorization	
Created By	Aashish Kumar_jha, 07/01/2025, 11:28 am
Modified By	Aashish Kumar_jha, 07/01/2025, 11:28 am

Formula Options

Data Type	Formula
Decimal Places	2
rice_taken_by_shops_in_kgs__c	rice_mill__c * rice_price_kg__c

Validation Rule Edit

Rule Name:

Active: ☒

Description:

Error Condition Formula

Example: [More Examples...](#)

Display an error if Discount is more than 30%

If this formula expression is **true**, display the text defined in the Error Message area

OR (ISBLANK (Phone_number__c) , ISBLANK (email__c))

Functions

-- All Function Categories --

- ABS
- ACOS
- ADDMONTHS
- AND
- ASCII
- ASIN

ABS(number)
Returns the absolute value of a number, a number without its sign

[Help on this function](#)

Page Layouts:

Creating the Page Layout:

- Navigate to Object Manager > Select Object(consumer) > Page Layouts > New.
- Customize sections:
 - Personal Details: Name, Phone, Email.
 - Rice Details: Rice Type, Quantity.
 - Payment Details: Mode of Payment, Amount Paid.
- Save and assign the layout to profiles.

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Create New Page Layout

As an option, you may select an existing layout to clone. If you create a page layout without cloning, your page layout will not include the standard sections.

Existing Page Layout: custom page

Page Layout Name: customer layout

Save Cancel

Section Properties

Section Name: personal details

Display Section Header On:

- ☒ Detail Page
- ☒ Edit Page

Layout:

☐ 1-Column ☒ 2-Column

Tab-key Order:

☒ Left-Right ☐ Top-Down

OK Cancel

Save Quick Save Preview As... Cancel Undo Redo Layout Properties

Fields

- Buttons
- Quick Actions
- Mobile & Lightning Actions
- Expanded Lookups
- Related Lists
- Report Charts

Quick Find Field Name

Section	Consumer Name	Last Modified By	rice mill name
Blank Space	Created By	Last name	Rice taken by shops
	Amount Paid	email	rice taken by sho...
consumer Name	First name	Phone number	Rice type

consumer Detail

Standard Buttons: Edit Delete Clone Change Owner Change Record Type Printable View Edit Labels

Custom Buttons:

Personal details

First name: Sample Text

Last name: Sample Text

Consumer Name: Sample Text

Phone number: 1-415-555-1212

email: sarah.sample@company.com

rice mill name: Sample Text

rice details

rice taken by shops in kgs: 85,037

Rice type: Sample Text

Rice taken by shops: 40,403

Profiles:

Owner Profile:

- Clone Standard User profile and rename it as Owner.
- Grant full access to all objects and tabs.

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owner

Set the permissions and page layouts for this profile.

Profile Edit

SaveSave & NewCancel

Nameowner

User LicenseSalesforce

Description

Custom Profile☒

SETUPProfiles

Custom Object Permissions

	Basic Access				Data Administration	
	Read	Create	Edit	Delete	View All	Modify All
Assets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asset Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brokers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
consumers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
energy audits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
item details	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
nick names	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
positions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ProjectTasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Properties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
purchasers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
rice details	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
rice mills	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SolarBots	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SolarBot Status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
studs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
super marts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
suppliers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
tickets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vendors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Session Settings

Employer Profile:

- Clone Standard Platform User profile and rename it as Employer.
- Restrict access to certain objects like Workers.

SETUPProfiles

Custom Object Permissions

	Basic Access				Data Administration	
	Read	Create	Edit	Delete	View All	Modify All
Assets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asset Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brokers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
consumers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
energy audits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
item details	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
nick names	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
positions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ProjectTasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Properties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
purchasers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
rice details	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
rice mills	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SolarBots	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SolarBot Status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
studs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
super marts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
suppliers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
tickets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vendors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Worker Profile:

- Clone Standard Platform User profile and rename it as Worker.

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- Allow limited access to update transactions only.

	Basic Access				Data Administration	
	Read	Create	Edit	Delete	View All	Modify All
Assets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asset Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brokers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
consumers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
energy audits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
item details	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
nick names	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
positions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Basic Access				Data Administration	
	Read	Create	Edit	Delete	View All	Modify All
purchasers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
rice details	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
rice mills	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SolarBots	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SolarBot Status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
studs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
super marts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
suppliers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
tickets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Role & Role Hierarchy:

Creating Owner Role:

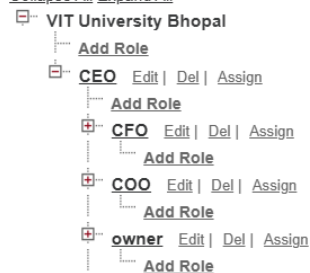
- Go to Setup > Roles > Set Up Roles.
- Click on Add Role under CEO and Give Label as “owner” and Role name gets auto populated.
- Role Label: Owner; Save the role.

Creating the Role Hierarchy

You can build on the existing role hierarchy shown on this page. To insert a new role, click **Add Role**.

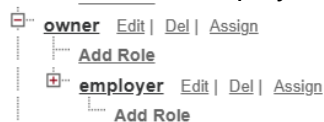
Your Organization's Role Hierarchy

[Collapse All](#) [Expand All](#)



Creating Employer Roles:

- Add a new role under Owner:
- Role Label: Employer; Save the role.



Creating Worker Roles:

- Add a role under Employer:
- Role Label: Worker; Save the role.

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Users:

Create User:

- Go to Setup > Users > New User.
- Enter details (e.g., Name: Arshad Y; Role: Owner).

The screenshot shows the Salesforce Setup interface. The left sidebar contains navigation options: Setup, Home, Object Manager, and a search bar. The main content area is titled 'All Users' and includes a table of users. The table has columns for Action, Full Name, Alias, Username, Role, Active, and Profile. The users listed are:

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatter.00ddm0000hdogbuaf.3mrohyaraptm@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	Jha, Aashish	AJ	try1aashish@gmail.com	owner	✓	owner
<input type="checkbox"/> Edit	Jha, Aashish Kumar	AJha	aashish@biel.sandbox		✓	System Administrator
<input type="checkbox"/> Edit	rai, raghu	rai	try1raghu@gmail.com	worker	✓	Standard Platform User
<input type="checkbox"/> Edit	User Integration	integ	integration@00ddm0000hdogbuaf.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User Security	sec	insightssecurity@00ddm0000hdogbuaf.com		✓	Analytics Cloud Security User
<input type="checkbox"/> Edit	yadav, amit	ay	try1amit@gmail.com	employer	✓	Standard Platform User

Permission Sets:

Creating OWD Setting:

- Go to Setup > type 'Sharing Settings' in Quik search box.
- Set default internal access to "Public Read Only" for Rice Mill and Supplier objects.

Sharing Settings

This page displays your organization's sharing settings. These settings specify the level of access your users have to each others' data. Go to [Background Jobs](#) to monitor the progress of a change to an default or a parallel sharing recalculation.

Manage sharing settings for: All Objects

Default Sharing Settings

Organization-Wide Defaults Edit Organization-Wide Defaults H

Object Name	Sharing Model	Controlled by Sharing Settings	Default Access	Default Access (Inherited)	Default Access (User)
Work Plan Template	Private	<input checked="" type="checkbox"/>	Private		
Work Step Template	Private	<input checked="" type="checkbox"/>	Private		
Work Type	Private	<input checked="" type="checkbox"/>	Private		
Work Type Group	Public Read/Write	<input checked="" type="checkbox"/>	Private		
rice mill	Public Read Only	<input checked="" type="checkbox"/>	Private		
supplier	Public Read Only	<input checked="" type="checkbox"/>	Private		

Other Settings

Manual User Record Sharing ☐ Manager Groups ☐ Secure guest user record access ☐ Require permission to view record names in lookup fields ☐

Save Cancel

Reports:

Create Report:

- Go to Reports > New Report > Select "Rice Mills with Consumers".
- Add fields: Consumer Name, Rice Type, Mode of Payment, Amount Paid.
- Group rows by Rice Taken by Shops and save as "Range of Amount Per Day".

Setup Home Object Manager

Search Setup

App Launcher

repd

Apps

No results

Items

Reports

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The screenshot shows a Salesforce report titled "range of amount per day" for the report "rice mills with consumers". The report is displayed in a table format with the following data:

<input type="checkbox"/> Rice taken by shops ↑	consumer: consumer Name	Rice type	rice price/kg	Mode of payment	Amount Paid
<input type="checkbox"/> 50 (1)	consumers-005	Sona masuri	40	Debit card	2,000.00
Subtotal			40		2,000.00
<input type="checkbox"/> 60 (1)	consumers-004	1.basmati	44	Net banking	4,400.00
Subtotal			44		4,400.00
<input type="checkbox"/> 500 (1)	consumers-001	1.basmati	25	Cash	12,500.00
Subtotal			25		12,500.00
<input type="checkbox"/> 1,000 (1)	consumers-002	2.normal rice	40	UPI	40,000.00
Subtotal			40		40,000.00
<input type="checkbox"/> 5,000 (1)	consumers-003	1.basmati	70	Credit card	3,50,000.00
Subtotal			70		3,50,000.00
Total (5)			179		4,08,900.00

Sharing Report to Owner:

1. Go to the created report, click on the dropdown menu next to the report name.
2. Select **Subscribe**.
3. In the settings window, choose:
 - **Send report as another user** (Owner's email).
 - Set the frequency as **Daily**.
4. Click **Save**. The owner will receive a daily email with updated rice mill data.

ProjectReport

The image shows a software interface with a top toolbar containing buttons for 'Add Chart', a filter icon, a refresh icon, and an 'Edit' button with a dropdown arrow. The dropdown menu is open, showing options: 'Save As', 'Save', 'Subscribe' (highlighted), 'Export', 'Delete', and 'Add to Dashboard'. Below this is a large dialog box titled 'Edit Subscription'. The dialog has several sections: 'Settings' with 'Frequency' (Daily, Weekly, Monthly buttons), 'Time' (8:00 am dropdown), 'Attachment' (Attach File button), 'Recipients' (Send email to Me, Edit Recipients button), and 'Run Report As' (radio buttons for Me and Another Person, with 'Another Person' selected). At the bottom right of the dialog are 'Cancel' and 'Save' buttons.

Create Report Folder:

1. Go to **Reports** from the App Launcher.
2. Click on **New Folder**.
3. Name the folder: "Estimated Rice Per Day."
4. Move the created report **Range of Amount Per Day** into this folder:
 - Select the report dropdown.
 - Choose **Move** > Select folder: Estimated Rice Per Day > Save.

Search recent reports...

New Report

New Folder

Created On

Subscribed

6/12/2024, 3:26 pm

Create folder

* Folder Label

estimated rice per day

* Folder Unique Name

estimatedriceperday

Cancel

Save

Reports

Recent

2 items

REPORTS

Report Name

Description

Folder

Created By

Created On

Subscribed

Recent

Copy of range of amount per day

estimated rice per day

Syed Maaz Meer

6/12/2024, 3:26 pm

Created by Me

range of amount per day

Private Reports

Syed Maaz Meer

6/12/2024, 3:23 pm

✓

Private Reports

Public Reports

All Reports

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

Run

Edit

Subscribe

Export

Delete

Add to Dashboard

Favorite

Move

Move range of amount per day

All Folders

 Search folders...

All Folders	▶	📁 Einstein Bot Reports	▶
Created by Me	▶	📁 Einstein Bot Reports Spring '23	▶
Shared with Me	▶	📁 Einstein Bot Reports Summer '23	▶
Private Reports	▶	📁 Einstein Bot Reports Summer '22	▶
Public Reports	▶	📁 Einstein Bot Reports Winter '23	▶
		📁 Enablement Dashboard Reports Spring '24	▶
		📁 Enablement Dashboard Reports Summer '24	▶
		📁 <u>estimated rice per day</u>	▶

📁 New Folder
Cancel
Select Folder

Dashboards

1. Create Dashboard Folder:

1. Navigate to **Dashboards** in the App Launcher.
2. Click **New Folder**, and name it **Amount Data Dashboard**.
3. Save the folder.

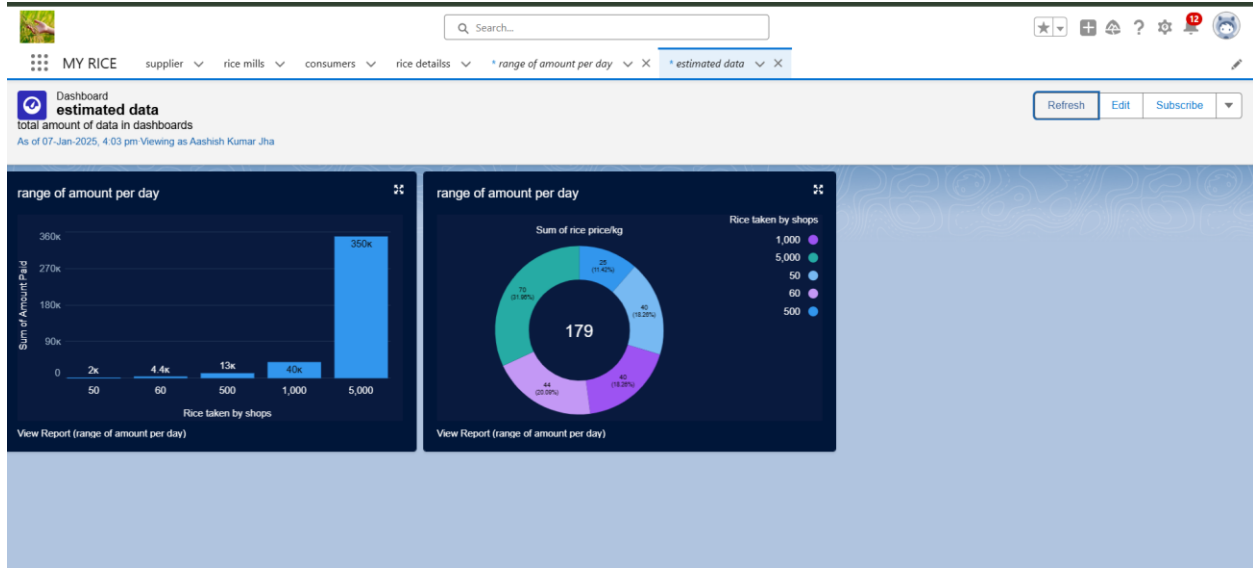
2. Create Dashboard:

1. Go to the **Dashboards** tab > **New Dashboard**.
2. Enter the name: "Rice Mill Summary" and save it in **Amount Data Dashboard**.
3. Add components:
 - Select **Reports** (e.g., "Range of Amount Per Day").
 - Component 1: **Vertical Bar Chart**:
 - X-axis: Rice Taken by Shops.

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- Y-axis: Sum of Amount.
- Component 2: **Donut Chart**:
- Sort by: Sum of Amount Paid.

4. Preview and click **Save & Done**.



APEX

1. Creating an Apex Class (ConsumerRecord):

1. Open **Developer Console** (Gear icon > Developer Console).
2. Go to File > New > **Apex Class**.
3. Add the following code:

```
1 public class ConsumerRecord {
2     public static void sendEmailNotification(List<consumer__c>
   con) {
3         for (consumer__c c : con) {
4             Messaging.SingleEmailMessage email = new
   Messaging.SingleEmailMessage();
5
6             // Setting the recipient email address
7             email.setToAddresses(new List<String>{c.email__c});
8
9             // Setting the subject of the email
10            email.setSubject('Welcome to our company');
11
12            // Constructing the email body
13            email.setPlainTextBody(
14                'Dear ' + c.Name + ',\n\n' +
15                'Welcome to MY RICE!\n\n' +
16                '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\n' +
17                '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\n' +
18                'So why take a step back? Take a leap of faith
   and shop with us more, while we provide valuable products and
   offers.\n\n\n' +
19                'Thank you for buying! Here are some of the
   products that are bought by customers who similarly purchased
   products like this.\n\n'
20            );
21
22            // Sending the email
23            Messaging.sendEmail(new
   List<Messaging.SingleEmailMessage>{email});
24        }
25    }
26 }
```

4. Save the class.

2. Creating an Apex Trigger:

1. Go to **Developer Console** > File > New > Trigger.
2. Name the trigger: **ConsumerTrigger**. Set the object to **Consumer__c**.
3. Add the following code:

```
1 trigger ConsumerTrigger on Consumer__c (after insert)
2     {
3     if (Trigger.isAfter && Trigger.isInsert) {
4         ConsumerRecord.sendEmailNotification(Trigger.new);
5     }
6 }
7
```

4. Save the trigger. This ensures an email is sent whenever a new Consumer record is created.

5. Testing and Validation

Unit Testing:

- Apex classes and triggers were validated to ensure error-free email notifications.
- Roll-up summary and formula fields were tested for accurate calculations.

User Interface Testing:

- Verified functionality of page layouts, ensuring seamless navigation and usability.
- Ensured accurate rendering of reports and dashboards.

End-to-End Testing:

- Simulated daily workflows, including data entry, report generation, and dashboard updates, to validate system reliability.
- Tested role-based access controls to ensure proper data visibility and security.

6. Key Scenarios Addressed by Salesforce in the Implementation Project

1. Daily Reporting:

- Automating the generation of daily production, sales, and revenue reports for the owner.

1. Role-Based Data Access:

- Providing tailored access to data based on user roles (e.g., Owner, Employer, Worker).

1. Enhanced Customer Engagement:

- Sending email notifications to customers with details of their purchases and payments.

1. Data Integrity:

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- Ensuring data consistency and reliability through validation rules and error handling.

1. **Business Insights:**

- Delivering actionable insights through reports and dashboards, enabling data-driven decisions.

7. Conclusion

Summary of Achievements:

The Rice Mill CRM Application successfully automated and optimized the rice mill's operational processes. Key achievements include:

- **Operational Efficiency:**

- Streamlined workflows and improved resource allocation through automated data management.

Data Visualization:

- Developed dynamic reports and dashboards to provide real-time insights into production, sales, and revenue.

- **Enhanced Security:**

- Implemented robust role-based access control, ensuring data confidentiality and integrity.

- **Improved Customer Communication:**

- Automated email notifications and integrated customer engagement tools.

- **Scalability:**

- Built a scalable and modular solution using Salesforce's flexible framework, ensuring adaptability for future enhancements.

The Rice Mill CRM Application exemplifies the transformative power of Salesforce to meet specific industry needs, driving operational excellence and enabling long-term success for the rice mill.