

# **A CRM APPLICATION FOR WHOLESALE RISE MILL**

**Name – Himanshu Yadav**

**Email ID: hy148964@gmail.com**

**College Name: Jai Narain College of technology Bhopal**

The Project “Rice Mill CRM Application” is a comprehensive solution designed to streamline and simplify how much rice per day, how many were sold that rice, and which type of rice all reports sent to owners daily. It leverages the power of customer relationship management (CRM) to enhance customer experiences, optimize store operations, and improve overall efficiency in the rice mill factory. This project aims to develop a user-friendly and feature-rich application that addresses the specific needs of a rice mill factory.

## **Objectives**

The primary goal of the CRM (Customer Relationship Management) application for the wholesale rice mill is to streamline the management of customer relationships, optimize sales operations, and enhance overall business efficiency. The CRM will act as a centralized system for managing customer interactions, tracking sales, and improving service delivery, which is essential for the smooth functioning of the rice mill's wholesale operations.

## **Business Goals:**

1. **Streamlined Sales and Order Management:** Automate the sales process, from order placement to delivery, ensuring efficient handling of bulk and retail orders for rice products.
2. **Enhanced Customer Relationship Management (CRM):** Build a robust CRM system to maintain and manage customer data, preferences, order history, and communication, improving customer service and retention.
3. **Improved Supply Chain Coordination:** Enhance collaboration between different departments (like production, warehousing, and distribution) to improve supply chain efficiency and reduce bottlenecks.

## **Specific Outcomes:**

1. **Faster Order Processing:** Reduce the order processing time by 30%, allowing customers to place and receive their orders more quickly through an automated sales workflow.

2. **Increased Customer Retention:** Achieve a 20% increase in repeat purchases by implementing a personalized customer experience, tracking customer preferences, and sending targeted promotions.

## • **Salesforce Key Features and Concepts Utilized**

“**Salesforce**” is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers. Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.

“**CRM** stands for **Customer Relationship Management**.” It refers to the strategies, processes, and technologies that companies use to manage interactions with current and potential customers. The primary goal of CRM is to improve business relationships, streamline processes, and enhance customer service to boost customer satisfaction, retention, and sales.

“**The lightning app**” is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps give your users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar.

“**Reporting and Dashboards:**” The application can generate detailed reports and analytics regarding daily how much rice sold and total income per daily, revenue generated, popular amenities, and most buy customers. Easy to understand the data to the owner, improving resource allocation, and planning future development.

“**A rollup summary field:**” This is a field that summarizes data from a child object to a parent object that shares a master-detail relationship. Rollup summary fields can use the COUNT, SUM, MIN, and MAX functions. For example, you could use a rollup summary field to display the total value (amount of rice supplied) from rice details on a related supplier.

“**A cross-object formula field:**” It is a formula field that references fields from another object in Salesforce. This formula allows users to calculate the total amount from several rice taken\*price/kg and displays the total amount they have to pay.

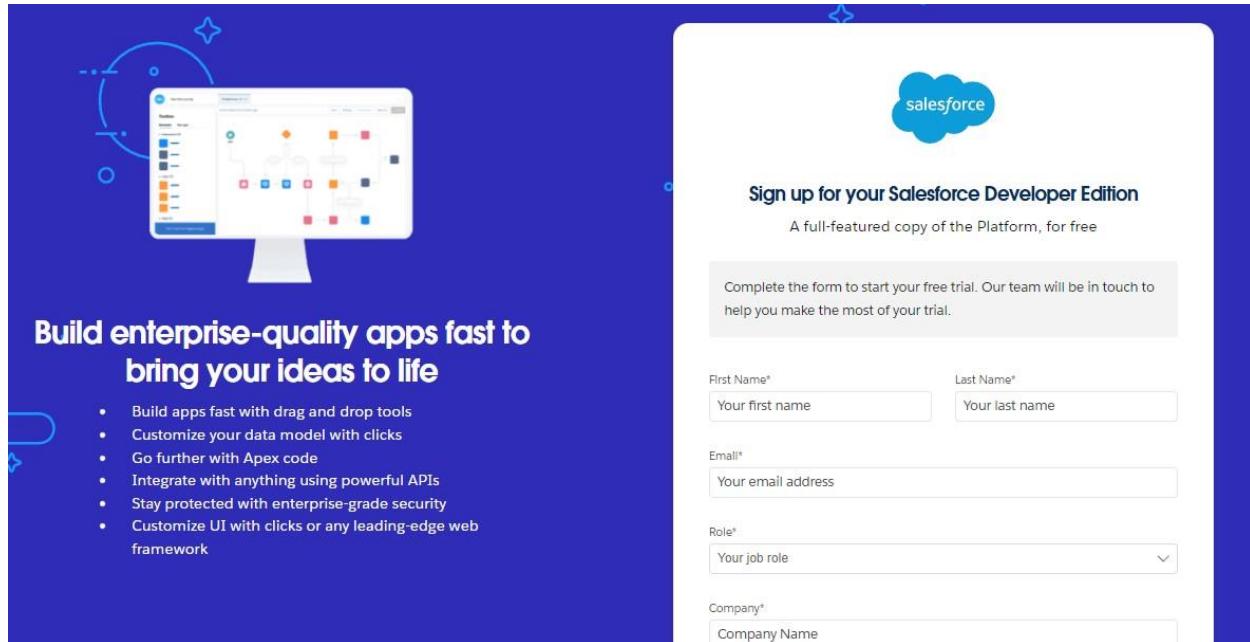
“**Validation rules**” also include an error message to display to the user when the rule returns a value of “True” due to an invalid value. So, in this project, I gave the Isblank formula. The Isblank formula is used to verify whether it is blank and shows an error.

“**A permission set**” is a collection of settings and permissions that give users access to various tools and functions. Permission sets extend users’ functional access without changing their profiles and are the recommended way to manage your users’ permissions.

# Steps to Solution

## Step 1:

1. Creating a developer org in Salesforce.



**Step 2:** Salesforce objects are database tables that permit you to store data that is specific to an organization.

### 1. To create an object:

- i. From the setup page - Click on Object Manager -Click on Create - Click on Custom Object.
- ii. On the Custom object defining page: Enter the label name, and plural label name, click on Allow reports, and Allow search.
- iii. Click on Save.
- iv. Now we have to create objects like suppliers, rice mills, consumers, and rice details.

- Supplier Object

The screenshot shows two separate screenshots of the Salesforce Object Manager interface.

**Top Screenshot (Supplier Object):**

- Object Name:** supplier
- Description:** API Name: supplier\_c, Custom: ✓, Singular Label: supplier, Plural Label: suppliers
- Enable Reports:** ✓
- Track Activities:** ✓
- Track Field History:** ✓

**Bottom Screenshot (rice mill Object):**

- Object Name:** rice\_mill\_c
- Description:** Custom: ✓, Singular Label: rice mill, Plural Label: rice mills
- Enable Reports:** ✓
- Track Activities:** ✓
- Track Field History:** ✓
- Deployment Status:** Deployed
- Help Settings:** Standard salesforce.com Help Window

- **Rice mill Object**

The screenshot shows a single screenshot of the Salesforce Object Manager interface for the 'consumer' object.

**Object Name:** consumer

**Description:** API Name: consumer\_c, Custom: ✓, Singular Label: consumer, Plural Label: consumers

**Enable Reports:** ✓

**Track Activities:** ✓

**Track Field History:** ✓

**Deployment Status:** Deployed

**Help Settings:** Standard salesforce.com Help Window

- **Rice Detail Object**

in the objects.

### Step 3: A

tab is like a user interface that is used to build records for objects and to view the records

#### 1. To create a Tab

- i. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)
- ii. Select Object( supplier) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) uncheck the include tab.
- iii. Make sure that the Append tab to users' existing personal customizations is checked.
- iv. Click save.

Custom Tab Definition Detail	
Tab Label	supplier
Object	supplier
Description	
Created By	Arti Kumari, 23/10/2024, 9:31 pm
Modified By	Arti Kumari, 23/10/2024, 9:31 pm

- v. Now we create other tabs with the same steps.

**SETUP**

**Tabs**

### Custom Tabs

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Action	Label	Tab Style	Description
Edit   Del	consumers	Credit card	
Edit   Del	rice details	Factory	
Edit   Del	rice mills	Building	
Edit   Del	supplier	Box	

## Lightning App

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

**Lightning App Builder**

**App Settings**

**App Details & Branding**

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

<b>App Options</b>	<b>App Details</b>	<b>App Branding</b>
Utility Items (Desktop Only)	* App Name <input type="text" value="MY RICE"/>	Image <input type="file"/> Primary Color Hex Value <input type="text" value="#0070D2"/>
Navigation Items	* Developer Name <input type="text" value="MY_RICE"/>	
User Profiles	Description <input type="text" value="Enter a description..."/>	Org Theme Options <input type="checkbox"/> Use the app's image and color instead of the org's custom theme
		App Launcher Preview

## Step 5:

- a) Create the number field in the rice details object.

1. Go to the setup page >> click on object manager >> From the drop-down click edit for rice details object.
2. Click on fields & relationship >> click on New.

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

**Custom Field Definition Detail**

Field Information	
Field Label	rice distributed
Field Name	rice_distributed
API Name	rice_distributed_c
Description	rice details Custom Field: rice distributed – Salesforce – Developer Edition
Help Text	
Data Sensitivity Level	
Compliance Categorization	

Created By: Arati Kumari 23/10/2024, 10:00 pm Modified By: Arati Kumari 23/10/2024, 10:00 pm

## b) Creating junction objects

A Junction object is a custom object that serves as a bridge between two related objects in a many-to-many relationship. It allows you to create a relationship between records of two different objects by creating a many-to-many relationship model. Creating junction objects as rice details with supplier & rice mill.

To create a junction object

1. Go to the setup page >> click on object manager >> From drop-down click edit for rice details object
2. Click on fields & relationship - click on New.
3. Select “Master-Detail relationship” as the data type and click Next.
4. Select the related object “supplier” and click next.
5. Give the Field Label as “supplier Name” and click Next.
6. Next >> Next >> Save & New.

**Custom Field Definition Detail**

Field Information	
Field Label	supplier Name
Field Name	supplier
API Name	supplier_c
Description	
Help Text	
Data Owner	
Field Usage	
Data Sensitivity Level	
Compliance Categorization	

Created By: Arati Kumari 23/10/2024, 10:03 pm Modified By: Arati Kumari 23/10/2024, 10:03 pm

**Master-Detail Options**

Related To	supplier	Child Relationship Name	rice_details
Related List Label	rice details		
Sharing Setting	Read/Write: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records.		
Reparentable Master Detail	<input checked="" type="checkbox"/>		

7. Follow the same steps from 1 to 3.
8. Select the related object “rice mill” and click Next.

9. Give the Field Label as “rice mill 1(one)” and click Next.

10. Next >> Next >> Save.

The screenshot shows the Salesforce Setup interface under the Object Manager section for the 'rice details' object. A custom field named 'rice mill 1(one)' is being created. The 'Field Information' section shows the following details:

Field Label	rice mill 1(one)	Object Name	rice_details
Field Name	rice_mill	Data Type	Master-Detail
API Name	rice_mill_c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			

The 'Master-Detail Options' section includes:

Related To	rice_mill	Child Relationship Name	rice_details
Related List Label	rice details		
Sharing Setting	Read/Write: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records.		
Reparentable Master Detail	<input checked="" type="checkbox"/>		

### c) Creating a Master-detail relationship

A master-detail relationship is a type of relationship between two objects where the master object controls certain behaviors and settings of the detail object. Here are a few use cases that demonstrate the use of master-detail relationships. Creating Master-Detail Relationship between Consumer & Rice Mill Object

#### To Create a Master-Detail relationship

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

SETUP > OBJECT MANAGER

### consumer

**Fields & Relationships**

Details  
Fields & Relationships  
Page Layouts  
Lightning Record Pages  
Buttons, Links, and Actions  
Compact Layouts  
Field Sets  
Object Limits  
Record Types  
Related Lookup Filters  
Search Layouts  
List View Button Layout  
Restriction Rules

**consumer Custom Field**  
**rice mill name**  
Back to consumer

**Custom Field Definition Detail**

Validation Rules [0]

**Field Information**

Field Label	rice mill name	Object Name	consumer
Field Name	rice_mill_name	Data Type	Master-Detail
API Name	rice_mill_name_c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			

Created By Arti Kumar, 23/10/2024, 10:08 pm Modified By Arti Kumar, 23/10/2024, 10:08 pm

**Master-Detail Options**

Related To	rice_mill	Child Relationship Name	consumers
Related List Label	consumers		
Sharing Setting	Read/Write: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records.		
Reparentable Master Detail	[checkbox]		

## d) Creating the Roll-up Summary

Creating the Roll-up summary field on supplier & rice mill Objects.

1. Go to setup >> click on Object Manager >> type object name(supplier) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New.
3. Select the data type as “Rollup summary”, and click Next.
4. Give the Field label as “sum of rice distributed” The field Name will be Autogenerated, and click Next.

SETUP > OBJECT MANAGER

### supplier

**Fields & Relationships**

Details  
Fields & Relationships  
Page Layouts  
Lightning Record Pages  
Buttons, Links, and Actions  
Compact Layouts  
Field Sets  
Object Limits  
Record Types

**Custom Field Definition Edit**

Save Cancel

**Field Information**

Field Label	sum of rice distributed
Field Name	sum_of_rice_distributed
Description	
Help Text	
Data Owner	User
Field Usage	None
Data Sensitivity Level	None

5. Select the summarized object as “rice details”.
6. Select the Rollup type as “sum”.
7. Select the field to aggregate as “rice distributed”, and click Next >>Next >>Save.

8. Select the field to aggregate as “rice distributed”, and click Next >>Next >>Save. Follow the same steps for the rice mill Object from 1 to 3
9. Give the Field label “rice distributed to shops” The field Name will be Autogenerated, and click next.

10. Select the summarized object as “rice details”.
11. Select the Rollup type as “sum”.
12. Select the field to aggregate as “rice distributed”, and click Next >> Next >> Save.

13. Note: create the field as “rice taken by shops in kgs” using the number datatype in the consumer object
14. Follow the same steps for the rice mill Object from 1 to 3.

15. Give the Field label as “rice taken”, Field Name will be Auto-generated, and click Next.
16. Select the summarized object as “consumer”.
17. Select the Rollup type as “sum”.
18. Select the field to aggregate as “rice taken in shops”, and click Next > Next > Save

### e) Creating fields in the object

1. Creating the number field in the rice details object
2. Go to the setup page >> click on object manager >> From drop-down click edit for rice details object.
3. Click on fields & relationship >> click on New.
4. Select the Data type as “master-detail” and click Next.
5. Given the Field Label as “supplier name” and length as “5.

6. Field Name will be auto-populated, and click on Next>> Next >>Save.

## f) Creating Fields in rice mill Objects

1. Select the Data type as “Number” and click Next.
2. Given the Field Label as “rice price/kg” and length as “5”.

The screenshot shows the Salesforce Object Manager interface for creating a custom field. The top navigation bar says "SETUP > OBJECT MANAGER" and the object name is "rice mill". On the left, there's a sidebar with various options like Details, Fields & Relationships (which is selected), Page Layouts, Lightning Record Pages, etc. The main content area is titled "rice mill Custom Field rice price/kg". It shows the "Custom Field Definition Detail" page with the following details:

Field Information	Object Name	Data Type
Field Label: rice price/kg Field Name: rice_price_kg API Name: rice_price_kg_c	rice_mill	Number
Description: Help Text: Data Owner: Field Usage: Data Sensitivity Level: Compliance Categorization: Created By: Arti Kumari, 23/10/2024, 10:26 pm		
		Modified By: Arti Kumari, 23/10/2024, 10:26 pm

Below this, there are sections for "General Options" (Required, Unique, External ID, AI Prediction, Default Value), "Number Options" (Length: 5, Decimal Places: 0), and "Validation Rules" (New, Valid). The "Data Owner" section at the bottom also lists Arti Kumari as the creator.

## g) Creating Fields in Consumer Objects

Now create the field names as First name, Last name, Phone number, E-mail, Rice taken by shops, Rice Type, and mode of payment with the data type as Text, phone, email, number, and picklist under the object consumer.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount Paid	Amount_Paid__c	Formula (Number)		
Consumer Name	Consumer_Name__c	Formula (Text)		
consumer Name	Name	Auto Number		<input checked="" type="checkbox"/>
Created By	CreatedById	Lookup(User)		
email	email__c	Email (Unique)		<input checked="" type="checkbox"/>
First name	First_name__c	Text(18)		
Last Modified By	LastModifiedById	Lookup(User)		
Last name	Last_name__c	Text(18)		
Mode of payment	Mode_of_payment__c	Picklist		

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
email	email__c	Email (Unique)		<input checked="" type="checkbox"/>
First name	First_name__c	Text(18)		
Last Modified By	LastModifiedById	Lookup(User)		
Last name	Last_name__c	Text(18)		
Mode of payment	Mode_of_payment__c	Picklist		
Phone number	Phone_number__c	Phone		
rice mill name	rice_mill__c	Master-Detail(rice mill)		<input checked="" type="checkbox"/>
Rice taken by shops	Rice_taken_by_shops__c	Number(5, 0)		
rice taken by shops in kgs	rice_taken_by_shops_in_kgs__c	Number(18, 0)		
Rice type	Rice_type__c	Picklist		

## h) Creating Cross Object Formula Field in consumer Object

A cross-object formula field is a formula field that references fields from another object in Salesforce. This type of formula allows users to calculate and display data from multiple objects on a single record.

1. Go to setup >> click on Object Manager >> type object name(consumer) in search bar >> click on the object.
2. Click on fields & relationship >> click on New.
3. Select the Data type as “Formula” and click Next.

4. Give Field Label and Field Name as “Amount Paid” select formula return type as “Number” and click next.

The screenshot shows the Salesforce Object Manager interface. A new custom field is being created for the 'consumer' object. The 'Field Information' section includes:

- Field Label:** Amount Paid
- Field Name:** Amount\_Paid
- Description:** (empty)
- Help Text:** (empty)
- Data Owner:** User
- Field Usage:** --None--
- Data Sensitivity Level:** --None--

5. Insert fields formula should be :  
6. rice\_taken\_by\_shops\_c \* rice\_mill\_name\_r.rice\_price\_kg\_c.

7. Under Advanced Formula write down the formula and click “Check Syntax” and Save.

The screenshot shows the 'Advanced Formula' tab in the formula editor. The formula is defined as:

```
Amount Paid (Number) =  
rice_taken_by_shops_c * rice_mill_r.rice_price_kg_c
```

The formula return type is set to 'Number' with 'Decimal Places' set to 2. A dropdown menu on the right lists various functions like ABS, ACOS, ADDMONTHS, AND, ASCII, ASIN, etc.

1. Creating the Formula field in consumer Object
2. Go to setup >> click on Object Manager >> type object name(consumer) in search bar >> click on the object.
3. Click on fields & relationship >> click on New.

4. Select the Data type as “Formula” and click Next.
5. Give Field Label and Field Name as “Consumer Name” and select formula return type as “TEXT” and click next.
6. Insert field formula should be: First\_Name\_\_c + ' ' + Last\_Name\_\_c
7. Click“CheckSyntax” and save.

### i) Creating the validation rule

Creating the validation rule for the phone number field in the consumer object.

1. Go to the setup page >>click on object manager >> From drop-down click edit for consumer object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “Phonenumberoremailblankrule”.
4. Enter the description as “phone number and email number should not be blank”.

5. Enter the formula as “OR( ISBLANK( phone\_number\_\_c ), ISBLANK( email\_\_c ) )” and check the syntax

consumer Validation Rule

Validation Rule Edit

Rule Name: Phonenumberoremailblankrule

Active:

Description: phone number and email number should not be blank

Error Condition Formula:

Example: Discount\_Percent <0.30 | More Examples

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

Functions: All Function Categories

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

Insert Field | Insert Operator | OR( ISBLANK( Phone\_number\_\_c ), ISBLANK( Email\_\_c ) )

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

6. Under the error message write as “please fill in your phone number.”  
 7. Select the error location “top of the page”.  
 8. Save the validation rule.

Error Message

Example: Discount percent cannot exceed 30%

This message will appear when Error Condition formula is true

Error Message: please fill in your phone number.

Error Location: Top of Page | Field

consumer Validation Rule

Validation Rule Detail

Rule Name: Phonenumberoremailblankrule

Error Condition Formula: OR( ISBLANK( Phone\_number\_\_c ), ISBLANK( Email\_\_c ) )

Error Message: please fill in your phone number

Description: phone number and email number should not be blank

Created By: Anil Kumar | 23/10/2024, 11:35 pm

Active:

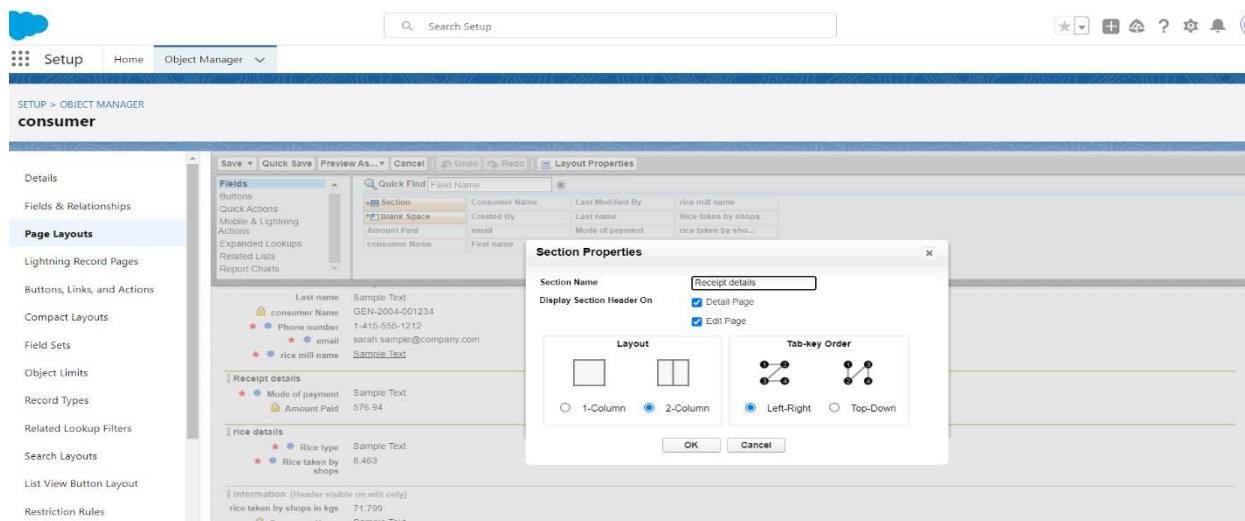
Error Location: Top of Page

Modified By: Anil Kumar | 23/10/2024, 11:35 pm

## **Step 6: Creating the page layout**

To Create a Page Layout:

1. Go to Setup >> Click on Object Manager >>Search for the object (consumer) >> From drop-down select the object and click on it.
2. Click on Page Layout>> Click on New.
3. Select the existing page layout, give the page layout name as “consumer layout”, and click save.
4. Drag and drop the section field to consumer details and create the section.
5. Enter the section name as “Personal details”, - click Ok.
6. Now drag the fields to this section mentioned, they are
  - First name, last name, consumer name, phone number, email, rice mill name.
7. Follow the same process for another two sections, as shown above, they are
8. One section is “rice details”, drag the fields that are - Rice was taken by the shop, rice type.



9. Another section is “Receipt details”, and drag the fields that are - Mode of payment, Amount paid.
10. Click Save.

## Step 7: Create Profiles

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

To create a new profile: a)

Owner profile:

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Standard User) >> enter profile name (owner) >> Save.

2. Scroll down to Custom Object Permissions and Give access permissions for consumers, rice details, rice mill, and suppliers objects as mentioned in the below diagram.

### 3. Give access and save it.

#### b) Employer profile:

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

4. Scroll down to Custom Object Permissions and Give access permissions for consumer, rice details, rice mill, and suppliers objects as mentioned in the below diagram.

The screenshot shows the Salesforce Setup interface with the 'Profiles' page open. The left sidebar has 'Users' and 'Profiles' selected. The main content area shows session settings (Session Times Out After: 2 hours of inactivity) and password policies (User passwords expire in: 90 days, Minimum password length: 8, etc.).

## 5. Give access and save it.

### c) Worker profile:

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

The screenshot shows the 'Profile Edit' page for the 'worker' profile. The 'Custom App Settings' section lists various apps with checkboxes for 'Visible' and 'Default'. For example, 'All Tabs (standard\_\_AllTabSet)' is set to Visible and Default. Other apps like 'Analytics Studio (standard\_\_Insights)', 'App Launcher (standard\_\_AppLauncher)', and 'Automation (standard\_\_FlowsApp)' are also listed with their respective settings.

4. Scroll down to Custom Object Permissions and Give access permissions for consumer, rice details, rice mill, and suppliers objects as mentioned in the below diagram.

The screenshot shows the Salesforce Setup interface. In the top-left corner, there's a blue cloud icon. The top navigation bar includes 'Search Setup' and various system icons. The left sidebar has a tree view with 'Hyperforce Assistant', 'Users' (with 'Profiles' selected), 'Data' (including 'Mass Transfer Approval Requests'), 'Feature Settings' (with 'Prospector Preferences' and 'Prospector Users'), 'Decision Explorer' (with 'Business Process Type Definition'), 'Functions', 'Marketing' (with 'Lead Processes'), and 'Sales' (with 'Products'). The main content area is titled 'SETUP Profiles'. It shows session settings (e.g., 'Session Times Out After' set to '2 hours of inactivity') and password policies (e.g., 'User passwords expire in' set to '90 days'). There are four profile sections at the top: 'consumers' (checkboxes checked for 'View & edit data', 'Create new records', 'Edit existing records', 'Delete existing records', and 'View & edit formulas, reports, and dashboards'), 'rice details' (checkboxes checked for 'View & edit data', 'Create new records', and 'Edit existing records'), 'rice mills' (checkboxes checked for 'View & edit data', 'Create new records', 'Edit existing records', and 'Delete existing records'), and 'supplier' (checkboxes checked for 'View & edit data', 'Create new records', and 'Edit existing records'). Below these are 'Session Settings' and 'Password Policies' sections, followed by a 'Save' button.

5. And click save.

## Step 8: Create Role & Role Hierarchy

A role in Salesforce defines a user's visibility access at the record level. Roles may be used to specify the types of access that people in your Salesforce organization can have to data. Simply put, it describes what a user could see within the Salesforce organization.

a) Creating owner Role:

1. Go to quick find >> Search for Roles >> click on set up roles.

The screenshot shows the Salesforce Setup interface. The left sidebar shows 'Users' and 'Roles' selected under 'Setup'. The main content area is titled 'SETUP Roles'. It features a 'Understanding Roles' section with a heading 'Set up your Role Hierarchy to control how your organization reports on and accesses data.' Below this is a 'Sample Role Hierarchy' section with a dropdown menu 'View other sample Role Hierarchies: Territory-based Sample'. A diagram illustrates a role hierarchy: 'Executive Staff' (CEO, President, CFO, VP, Sales) is at the top level. Arrows point from 'Executive Staff' to 'Western Sales Director' (Director of W. Sales) and 'Eastern Sales Director' (Director of E. Sales). Arrows point from 'Western Sales Director' to 'Western Sales Rep' (CA Sales Rep, OR Sales Rep) and from 'Eastern Sales Director' to 'Eastern Sales Rep' (NY Sales Rep, MA Sales Rep). Arrows point from 'International Sales Rep' (Asian Sales Rep, European Sales Rep) to 'International Sales Rep'. At the bottom right of the main content area is a 'Set Up Roles' button.

2. Click on Expand All and click on add role under whom this role works.

**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**

- LNCT
  - CEO
  - CFO
  - COO
  - owner
  - SVP\_Customer\_Service & Support
  - SVP\_Human\_Resources

**Add Role**

3. Give the Label as “owner” and the Role name gets auto-populated. Then click on Save.

**New Role**

**Role Edit**

Label	owner
Role Name	Owner
This role reports to	CEO
Role Name as displayed on reports	

**Save** **Save & New** **Cancel**

**Role Detail**

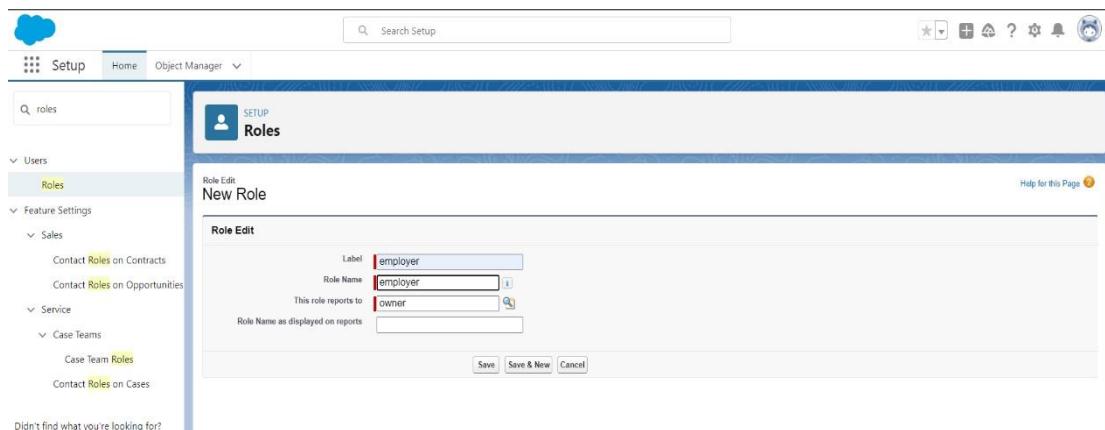
Label	owner	Role Name	owner
This role reports to	CEO	Role Name as displayed on reports	
Modified By	Ari Kumari	Sharing Groups	Role, Role and Internal Subordinates
Opportunity Access	Users in this role can edit all opportunities associated with accounts that they own, regardless of who owns the opportunities		
Case Access	Users in this role can edit all cases associated with accounts that they own, regardless of who owns the cases		

**Users in owner Role [1]**

Action	Full Name	Alias	Username	Active
Edit	vicky_y	yy	vicky@yyys	✓

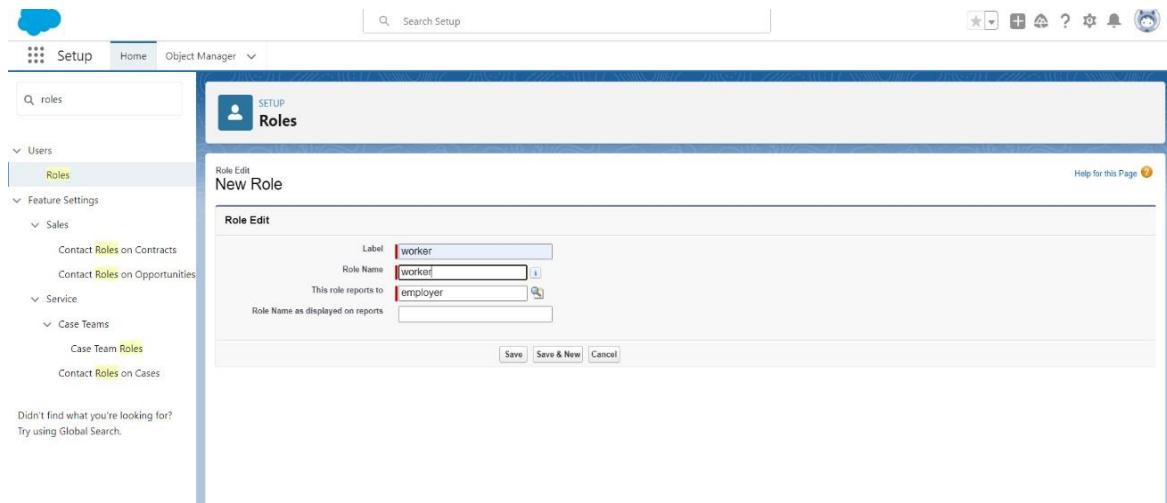
## Creating another two roles under the manager

1. Go to quick find >>Search for Roles >>click on set up roles. 2. Click plus on the CEO role, and click add role under owner.
3. Give the Label as “employer” and Role name gets auto populated. Then click on Save.



The screenshot shows the Salesforce Setup interface. The left sidebar shows 'roles' selected under 'Users'. The main area displays the details of the 'employer' role. The role's name is 'employer' and its label is also 'employer'. It reports to 'OWNER'. The 'Modified By' field shows 'Ari Kumar' with a timestamp of '24/10/2024, 12:35 am'. The 'Opportunity Access' section indicates users can edit all opportunities associated with accounts they own. The 'Case Access' section indicates users can edit all cases associated with accounts they own. At the bottom, a sub-section titled 'Users in employer Role' lists one user: 'ram' (Full Name: 'ram', Alias: 'ram', Username: 'ram@ram.rams', Active status checked). A help link 'Users in employer Role Help' is available.

4. Repeat the same steps, for another role.
5. Click plus on the CEO role, click plus on the owner, and click add role under the employer.



6. give the Label “worker” and the Role name gets auto-populated. Then click on Save.

Action	Full Name	Alias	Username	Active
Edit	Ragu	Ragu	ragu@ragu.jarr	✓

## Step 9: Creating Users

A user is anyone who logs in to Salesforce. Users are employees at your company, such as sales reps, managers, and IT specialists, who need access to the company's records. Every user in Salesforce has a user account. The user account identifies the user, and the user account settings determine what features and records the user can access.

### Create User

1. Go to setup >> type users in quick find box >> select users >> click New user.
2. Fill in the fields
3. First Name: Vicky

#### 4. Last Name: y

#### 5. Alias: Give an Alias Name

The screenshot shows the Salesforce Setup Roles page. The left sidebar is titled 'SETUP' and has sections for 'Users' (selected), 'Roles', 'Feature Settings', 'Sales', 'Service', and 'Case Teams'. The main content area is titled 'Role worker' and shows the 'worker' role assigned to the 'employer' user. The 'Role Detail' section includes fields for 'Label' (worker), 'This role reports to' (employer), 'Modified by' (Ari Kumar, 24/10/2024, 12:37 am), 'Opportunity Access' (Users in this role can edit all opportunities associated with accounts that they own, regardless of who owns the opportunities), and 'Case Access' (Users in this role can edit all cases associated with accounts that they own, regardless of who owns the cases). Below this is a table titled 'Users in worker Role' with no records displayed.

#### 6. Email ID: Give your email ID

#### 7. Username: The username should be in this form: text@text.text

#### 8. Nick Name: Give a Nickname

#### 9. Role: owner

#### 10. User license: Salesforce 11. Profile: Owner

#### 12. Save it.

The screenshot shows the Salesforce User Edit page for a user named 'vicky y'. The 'General Information' section contains the following fields: First Name (vicky), Last Name (y), Alias (vy), Email (justarti281@gmail.com), Username (vicky@y.vys), Nickname (User172971068383293298), Title (empty), Company (empty), Department (empty), Division (empty), Role (owner), User License (Salesforce), Profile (owner), Active (checked), Marketing User (unchecked), Offline User (unchecked), Knowledge User (unchecked), Flow User (unchecked), Service Cloud User (unchecked), Site.com Contributor User (unchecked), Site.com Publisher User (unchecked), WDC User (unchecked), Data.com User Type (None), Data.com Monthly Addition Limit (300), Accessibility Mode (Classic Only) (unchecked), and High-Contrast Palette on Charts (unchecked).

#### Creating another user

#### 1. Go to setup. type users in the quick find box? select users? click New user.

2. Fill in the fields
3. First Name: ram
4. Last Name: ram
5. Alias: Give an Alias Name
6. Email ID: Give your Personal Email id
7. Username: The username should be in this form: text@text.text
8. Nick Name: Give a Nickname
9. Role: employer
10. User license: Salesforce platform
11. Profiles : standard platform user

The screenshot shows the Salesforce 'User Edit' page. At the top, there's a header with a user icon, 'SETUP', and 'Users'. Below it, the page title is 'User Edit' with the ID 'ram ram'. On the right, there's a 'Help for this' link. The main area is titled 'General Information' and contains the following data:

First Name	ram	Role	employer
Last Name	ram	User License	Salesforce Platform
Alias	rram	Profile	Standard Platform User
Email	justarti281@gmail.com	Active	<input checked="" type="checkbox"/>
Username	ram@ram.rams	Marketing User	<input type="checkbox"/>
Nickname	User172971091714575893	Offline User	<input type="checkbox"/>
Title		Knowledge User	<input type="checkbox"/>
Company		Flow User	<input type="checkbox"/>
Department		Service Cloud User	<input type="checkbox"/>
Division		Site.com Contributor User	<input type="checkbox"/>
		Site.com Publisher User	<input type="checkbox"/>
		WDC User	<input type="checkbox"/>
		Data.com User Type	--None--
		Data.com Monthly Addition Limit	300
		Accessibility Mode (Classic Only)	<input type="checkbox"/>
		High-Contrast Palette on Charts	<input type="checkbox"/>

### Create Another User

1. Go to setup ? type users in quick find box ? select users ? click New user.
2. Fill in the fields
3. First Name: ragu
4. Last Name: raj
5. Alias: Give a Alias Name
6. Email id: Give your Personal Email id
7. Username: Username should be in this form: text@text.text
8. Nick Name: Give a Nickname
9. Role: worker
10. User license: Salesforce platform
11. Profiles: standard platform user.

User Edit Help for this

**User Edit** ragu raj

**User Edit** Save Save & New Cancel

**General Information**

First Name	ragu	Role	worker
Last Name	raj	User License	Salesforce Platform
Alias	rraj	Profile	Standard Platform User
Email	justarti281@gmail.com	Active	<input checked="" type="checkbox"/>
Username	raj@ragu.jarr	Marketing User	<input type="checkbox"/>
Nickname	User172971102708083150	Offline User	<input type="checkbox"/>
Title		Knowledge User	<input type="checkbox"/>
Company		Flow User	<input type="checkbox"/>
Department		Service Cloud User	<input type="checkbox"/>
Division		Site.com Contributor User	<input type="checkbox"/>
		Site.com Publisher User	<input type="checkbox"/>
		WDC User	<input type="checkbox"/>
		Data.com User Type	—None--
		Data.com Monthly Addition Limit	300
		Accessibility Mode (Classic Only)	<input type="checkbox"/>

## Step 10: Creating OWD setting

1. Go to setup >> type “sharing settings ” in quick search >> Click edit.
2. Scroll down, and change the default internal access to “ public read-only” for rice mill and supplier object.

Search Setup

share

Security Sharing Settings

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

User Provisioning Request	Private	Private	✓
Waitlist	Private	Private	✓
Web Cart Document	Private	Private	✓
Work Order	Private	Private	✓
Work Plan	Private	Private	✓
Work Plan Template	Private	Private	✓
Work Step Template	Private	Private	✓
Work Type	Private	Private	✓
Work Type Group	Public Read/Write	Private	✓
consumer	Controlled by Parent	Controlled by Parent	✓
rice details	Controlled by Parent	Controlled by Parent	✓
rice mill	Public Read Only	Private	✓
supplier	Public Read Only	Private	✓

Other Settings

Manager Groups

Secure guest user record access

Require permission to view record names in lookup fields

3. Click save.

## Step 11:

## a) Create a 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. Their outline pane is opened already, select the fields that are mentioned below in the column section
  - Consumer name • Mode of payment.
  - Amount paid
  - Rice price/kg.
5. Remove unnecessary steps.
6. Select the fields that are mentioned below in the GROUP ROWS section
  - Rice taken by shops.

The screenshot shows the Salesforce Reports interface. On the left, there's a sidebar with categories like 'REPORTS', 'FOLDERS', and 'PRIVATE REPORTS'. The main area displays a table with columns: Report Name, Description, Folder, Created By, Created On, and Subscribed. Two reports are listed:

Report Name	Description	Folder	Created By	Created On	Subscribed
range of amount per day	estimated rice per day	Arti Kumari	24/10/2024, 1:12 am	✓	✗
range of amount per day	Public Reports	Arti Kumari	24/10/2024, 3:12 pm	✓	✗

7. Click save and run and save the report as “range of amount per day” and save it.

The screenshot shows the Salesforce report editor for the 'range of amount per day' report. The report has a group header 'Rice taken by shops' and a detail row for each consumer. The columns are: consumer: consumer Name, rice price/kg, Rice type, Mode of payment, and Amount Paid.

Rice taken by shops	consumer: consumer Name	rice price/kg	Rice type	Mode of payment	Amount Paid
Subtotal		50			400.00
10 (1)	consumers-003	50	1 basmati	- Cash	500.00
Subtotal		50			500.00
46 (3)	consumers-010	47	1 basmati	- Cash	2,162.00
	consumers-007	-	1 basmati	- UPI	0.00
	consumers-008	48	1 basmati	- UPI	2,208.00
Subtotal		95			4,370.00
48 (1)	consumers-009	64	1 basmati	- Cash	3,072.00
Subtotal		64			3,072.00
50 (1)	consumers-004	50	1 basmati	- Cash	2,500.00
Subtotal		50			2,500.00
56 (1)	consumers-005	50	2 normal rice	- Net banking	2,800.00
Subtotal		50			2,800.00
58 (2)	consumers-006	50	2 normal rice	- Cash	2,900.00
	consumers-011	35	2 normal rice	- Cash	2,030.00
Subtotal		85			4,930.00
Total (10)		444			18,572.00

## b) Sharing report to the owner

1. Click edit drop-down and select the subscribe option
2. Follow as per the below image.

3. After selecting the run report as “another person” select your account or to whom you want to send that mail.
4. Click save.

### Edit Subscription

Frequency

Daily    Weekly    Monthly

Time

8:00 am ▾

Attachment

Attach File

Recipients

⚠ Recipients see the same report data as the person running the report.

Send email to

Me

Edit Recipients

Run Report As

Me    Another Person

 Arti Kumari

Unsubscribe  Cancel  Save

**range of amount per day**

As of 26/10/24 at 8:00 AM - Viewing as Arti Kumari

OPEN IN SALESFORCE

**Details**

**Filters**

My rice mills    rice mill: Created Date: All time

**Summary**

Total Records	Total rice price/kg	Total Amount Paid
10	444	18,572.00

Rice taken by shops ↑	consumer: consumer Name	rice price/kg Sum	Rice type	Mode of payment	Amount Paid Sum
8 (1 record)	consumers-001	50	2.normal rice	- Cash	400.00
		50			400.00
10 (1 record)	consumers-003	50	1.basmati	- Cash	500.00
		50			500.00
46 (2 records)	consumers-010	47	1.basmati	- Cash	2,162.00
	consumers-008	48	1.basmati	- UPI	2,208.00
		48			4,370.00

### c) Create a report folder

1. Click on the app launcher and search for reports.
2. Double-click on the report, and the “reports tab” will be auto-populated in the navigation bar.
3. Click on the report tab, and click on the new folder.
4. Give the Folder label “estimated rice per day”, Folder's unique name will auto-populate.
5. Click save.

Reports						
Public Reports						
7 items						
REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	range of amount per day		Public Reports	Arti Kumari	24/10/2024, 3:12 pm	✓
Created by Me	Sample Flow Report: Screen Flows	Which flows run, what's the status of each interview, and how long do users take to complete the screens?	Public Reports	Automated Process	23/10/2024, 8:03 pm	▼
Private Reports	Sample Report: Orchestration Run Logs	What orchestration run logs were created and what happened in their associated orchestration runs?	Public Reports	Automated Process	23/10/2024, 8:03 pm	▼
Public Reports	Sample Report: Orchestration Runs	What orchestration runs have been created and what's the current status of each run?	Public Reports	Automated Process	23/10/2024, 8:03 pm	▼
All Reports	Sample Report: Orchestration Stage Runs	What orchestration stage runs have been created and what's the current status of each run?	Public Reports	Automated Process	23/10/2024, 8:03 pm	▼
FOLDERS	Sample Report: Orchestration Step Runs	What orchestration step runs have been created and what's the current status of each run?	Public Reports	Automated Process	23/10/2024, 8:03 pm	▼
All Folders	Sample Report: Orchestration Work Items	What orchestration work items were created and what's the current status of each item?	Public Reports	Automated Process	23/10/2024, 8:03 pm	▼
Created by Me						
Shared with Me						
FAVORITES						
All Favorites						

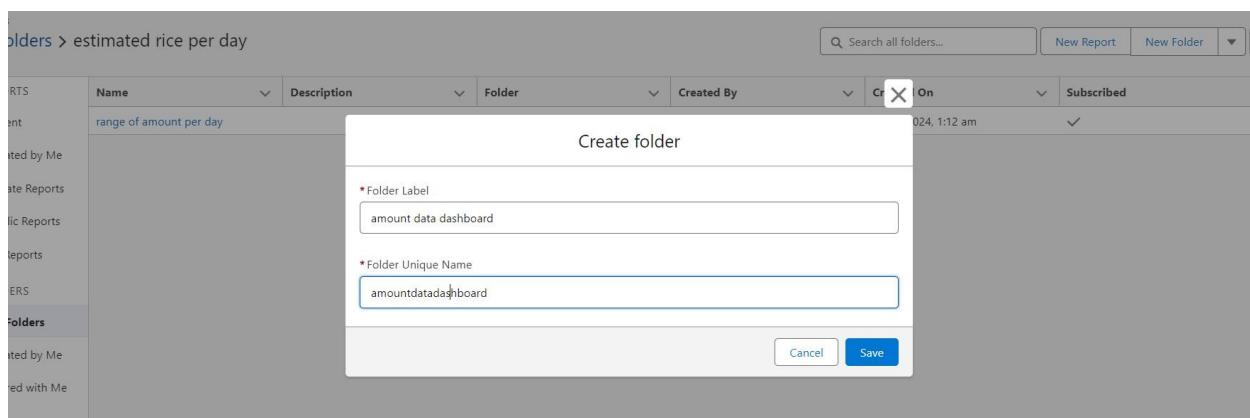
6. navigate to the app launcher and click reports on that.
7. click all reports.
8. Select the range of amount per day drop down in that click move.
9. Select the estimated rice per day folder and select a folder.

## **Step 12: Dashboards**

Dashboards help you visually understand changing business conditions so you can make decisions based on the real-time data you've gathered with reports. Use dashboards to help users identify trends, sort out quantities, and measure the impact of their activities. Before building, reading, and sharing dashboards, review these dashboard basics.

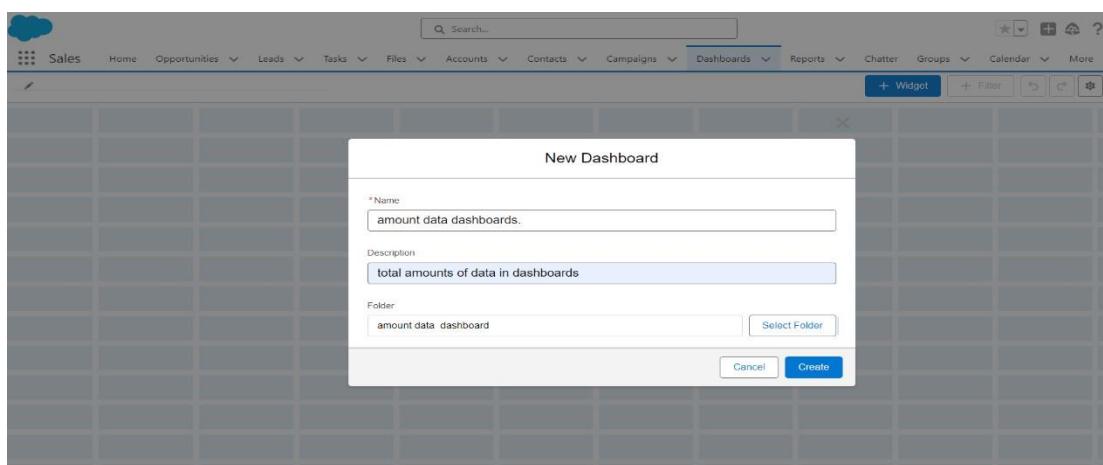
### a) Create a Dashboard Folder

1. Click on the app launcher and search for the dashboard.
2. Click on the dashboard tab.
3. Click the new folder, and give the folder label “amount data dashboard”.
4. Folder unique names will be auto-populated.
5. Click Create.



### b) Create a Dashboard

1. Go to the app >> click on the Dashboards tabs.
2. Give a Name select the folder that was created, and click on create

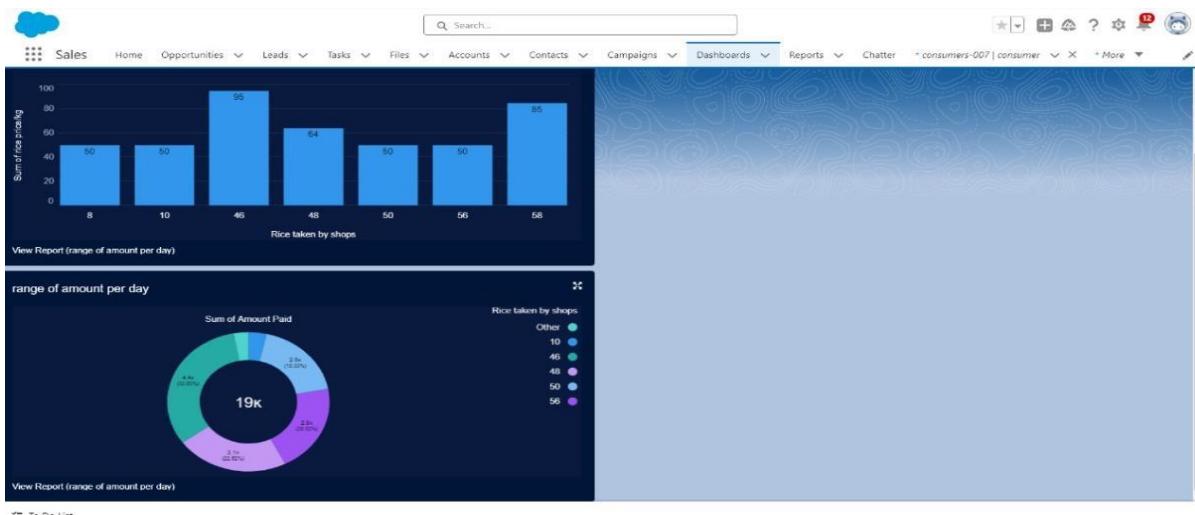
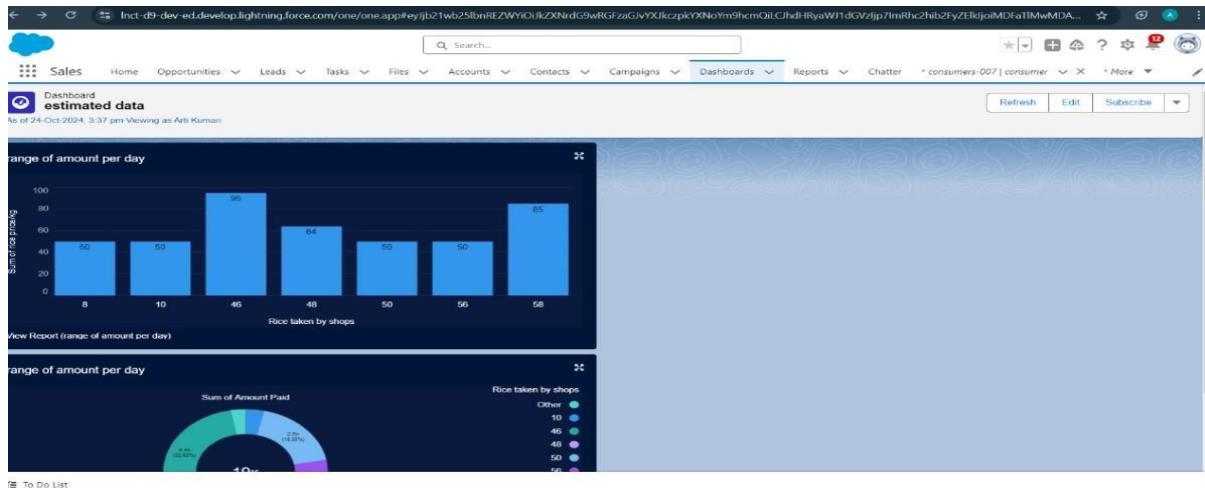


3. Select Add Component.

4. Select a Report and click on Select.
5. To add charts, select any one of them as:

- Display as>> vertical bar chart
- X-axis >> rice taken by shops
- Y-axis >> sum of amount
- Y-axis range >> automatic
- Sort by >> rice taken by shops • Component theme >> dark.

### Add the component



Again select Add Component with the above steps

- display as a donut chart
- sort by >> sum of amount
- title>>range of amount per day • component theme dark • Click add.
- Click save and done.

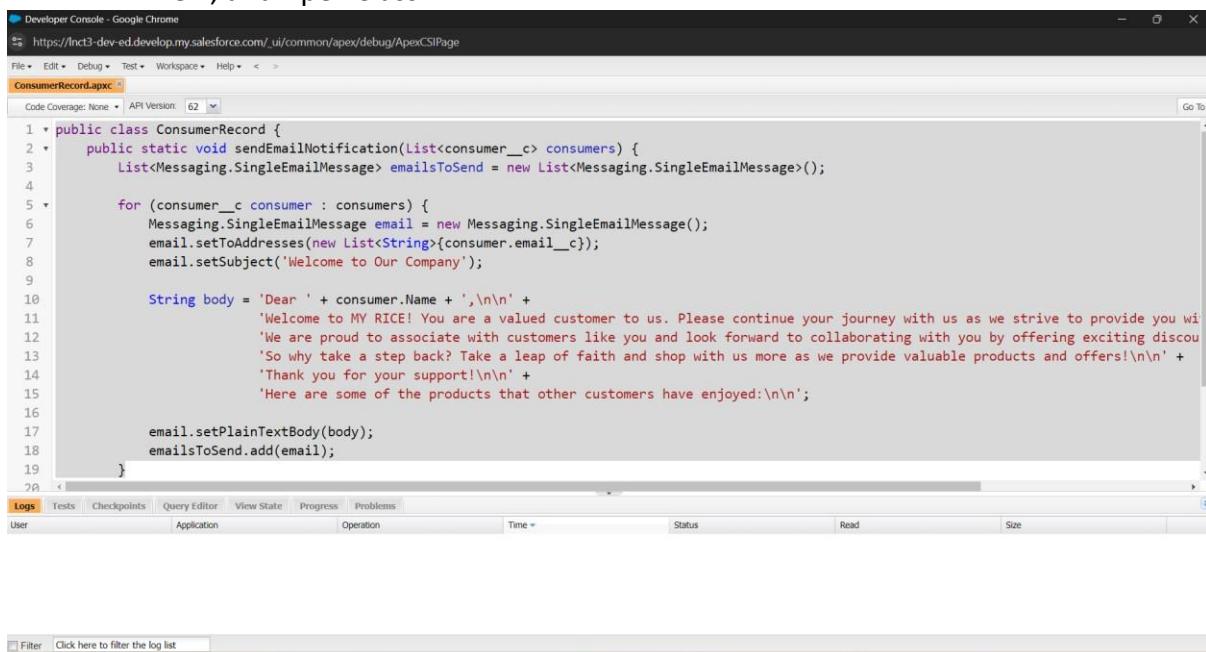
## Step 13: APEX

Apex is a strongly typed, object-oriented programming language that allows developers to execute flow and transaction control statements on the Lightning platform server in conjunction with calls to the Lightning Platform API. Using syntax that looks like Java and acts like database stored procedures, Apex enables developers to add business logic to most system events, including button clicks, related record updates, and Visualforce pages. Apex code can be initiated by Web service requests and from triggers on objects.

It is similar to Java i.e., it also supports OOP(Object-oriented programming) like Classes, objects, and methods.

### a) Creating an Apex Class(ConsumerRecord)

1. log in to the Salesforce account and navigate to the gear account in the top right corner.
2. Then we can see the Developer console. Click on the developer console and you will navigate to a new console window.
3. Then you can see many tools in the Toolbar of the new console window. Click on File, New, and Apex Class.



The screenshot shows the Salesforce Developer Console interface. The title bar says "Developer Console - Google Chrome". The address bar shows the URL "https://lnct3-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage". The menu bar includes "File", "Edit", "Debug", "Test", "Workspace", "Help". The toolbar has icons for "Logs", "Tests", "Checkpoints", "Query Editor", "View State", "Progress", and "Problems". The main area displays the code for "ConsumerRecord.apex":

```
1 public class ConsumerRecord {
2     public static void sendEmailNotification(List<consumer__c> consumers) {
3         List<Messaging.SingleEmailMessage> emailsToSend = new List<Messaging.SingleEmailMessage>();
4
5         for (consumer__c consumer : consumers) {
6             Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
7             email.setToAddresses(new List<String>{consumer.email__c});
8             email.setSubject('Welcome to Our Company');
9
10            String body = 'Dear ' + consumer.Name + ',\n\n' +
11                'Welcome to MY RICE! You are a valued customer to us. Please continue your journey with us as we strive to provide you wi
12                'We are proud to associate with customers like you and look forward to collaborating with you by offering exciting discou
13                'So why take a step back? Take a leap of faith and shop with us more as we provide valuable products and offers!\n\n' +
14                'Thank you for your support!\n\n' +
15                'Here are some of the products that other customers have enjoyed:\n\n';
16
17            email.setPlainTextBody(body);
18            emailsToSend.add(email);
19        }
20    }
21 }
```

Below the code editor, there is a "Logs" tab and a table with columns: User, Application, Operation, Time, Status, Read, Size. The "Logs" tab is selected. At the bottom, there is a "Filter" input field with the placeholder "Click here to filter the log list".

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> consumers) {
    List<Messaging.SingleEmailMessage> emailsToSend = new
    List<Messaging.SingleEmailMessage>();

    for (consumer__c consumer : consumers) {

        Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
        email.setToAddresses(new List<String>{consumer.email__c});
        email.setSubject('Welcome to Our Company');

        String body = 'Dear ' + consumer.Name + ',\n\n' +
                     'Welcome to
                     MY RICE! You are a valued customer to us. Please continue your
                     journey with us as we strive to provide you with quality
                     resources.\n\n' +
                     'We are proud to associate with customers like you and look forward to collaborating with you by
                     offering exciting discounts and product offers.\n\n' +
                     'So why take a step back? Take a leap of faith and shop with us more as we provide valuable
                     products and offers!\n\n' +
                     'Thank you for your support!\n\n' +
                     'Here are some of the products that other customers have enjoyed:\n\n';

        email.setPlainTextBody(body);
        emailsToSend.add(email);
    }
}

```

### **b) Creating an Apex Trigger**

#### **Syntax For creating trigger :**

The syntax for creating trigger is :

```

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

```

#### Trigger code:

```

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

```

The screenshot shows the Salesforce Developer Console interface. At the top, there's a menu bar with File, Edit, Undo, Redo, Test, Workspace, Help, and a Go To button. Below the menu is a tabs section with 'ConsumerRecord.apxc' and 'ConsumerTrigger.apxt' selected. The main area contains a code editor with the following trigger code:

```
1 trigger consumerTrigger on consumer__c (After insert) {
2     if(trigger.isAfter && trigger.isInsert) {
3         ConsumerRecord.sendEmailNotification(trigger.new);
4     }
5 }
```

Below the code editor is a table titled 'Logs' with columns: User, Application, Operation, Time, Status, and Size. The table is currently empty. At the bottom of the interface, there's a 'Logs' tab and a 'Click here to filter the log list' link.

- Key Scenarios Addressed by Salesforce in the CRM Implementation for Wholesale Rice Mill

### 1. Customer Onboarding and Data Management

Salesforce enables the seamless onboarding of new customers by providing an easy-to-use interface for capturing customer details. The CRM organizes customer information, order history, and communication records in a centralized location, allowing the rice mill to manage relationships efficiently.

### 2. Sales Pipeline and Order Management

Salesforce automates the sales pipeline, allowing the rice mill to track leads, manage orders, and follow up with prospects effortlessly. Sales representatives can monitor each stage of the sales process, from initial inquiry to order fulfillment, ensuring no deals are missed.

### 3. Inventory and Supply Chain Integration

Salesforce provides real-time inventory tracking by integrating with existing systems. The rice mill can monitor stock levels, match orders with available products, and prevent overstocking or stockouts. This helps improve order accuracy and reduces operational inefficiencies.

#### **4. Sales Analytics and Forecasting**

Salesforce generates comprehensive sales reports and predictive analytics based on customer purchase patterns and historical data. The rice mill can use these insights to forecast demand, set sales targets, and adjust inventory levels, leading to better business planning and decisionmaking.

#### **5. Upselling and Cross-selling Opportunities**

With Salesforce, the rice mill can analyze customer buying behaviors to identify opportunities for upselling and cross-selling related products. By providing tailored product recommendations, the CRM helps maximize revenue from existing customers.

- **Conclusion**

Summary of Achievements:

The "Wholesome Rice Mill CRM" project successfully implements a comprehensive Salesforce solution to streamline the operations of a rice milling business. By centralizing customer data, the CRM provides a unified platform to manage interactions with buyers, distributors, and suppliers, ensuring accurate records and improved customer service. The system enhances sales tracking through detailed reporting and dashboards, enabling data-driven decision-making and identifying growth opportunities. The CRM also improves communication by automating notifications, managing tasks, facilitating follow-ups, strengthening relationships, and ensuring consistent engagement. Its scalable design allows the system to grow with the business, supporting future expansions and new product introductions. Through data analytics, the CRM offers valuable insights into market trends, demand forecasting, and inventory management, helping the rice mill meet market needs efficiently. Overall, this project provides a robust tool for managing relationships, optimizing processes, and driving growth, giving the business a competitive edge in the rice milling industry.