

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

**BY**

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## **Abstract:**

This project introduces a CRM solution designed for rice mill operations, enabling efficient tracking of daily production, sales, and revenue. It features detailed reporting, rollup summary fields for rice supply data, and cross-object formula fields to calculate payments. Validation rules ensure data accuracy, while role-based permissions provide tailored access for owners, employers, and workers. The system leverages Salesforce CRM to optimize operations and improve resource management, making it a valuable tool for rice mill factories.

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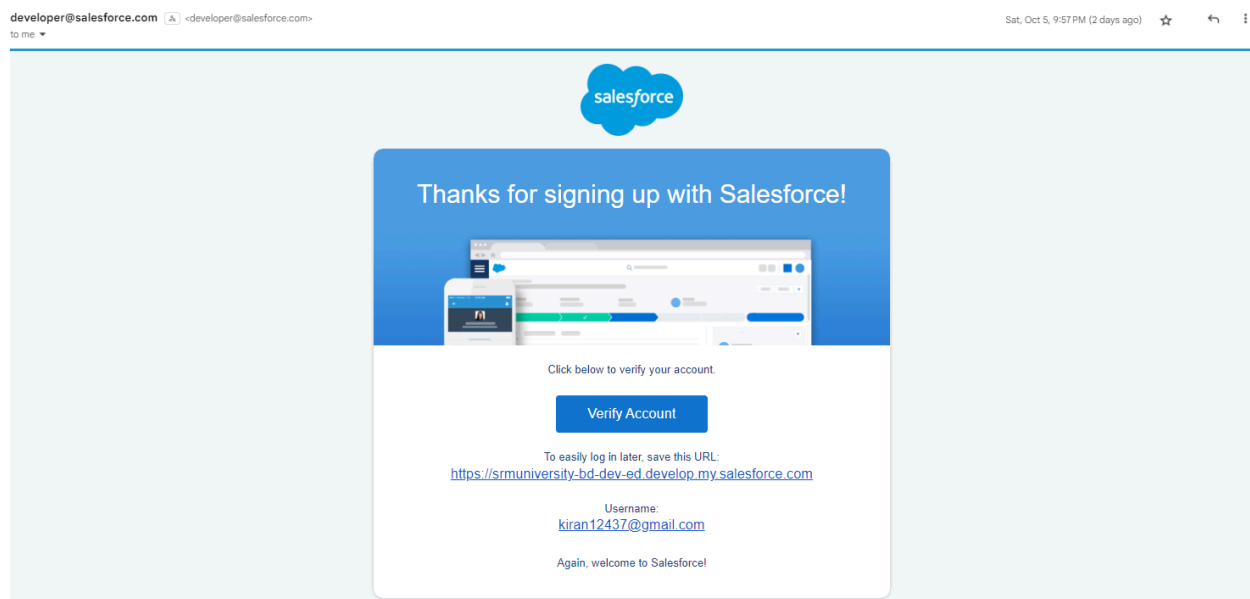
# 1. Introduction to Salesforce

## 1.1 Creating a Developer Account

- Visit [Salesforce Developer Signup](#)
- Fill in the required details (name, email, role, etc.) and click "Sign Me Up."

## 1.2 Account Activation

- Check your email, click "Verify Account," set your password, and complete the security question setup.

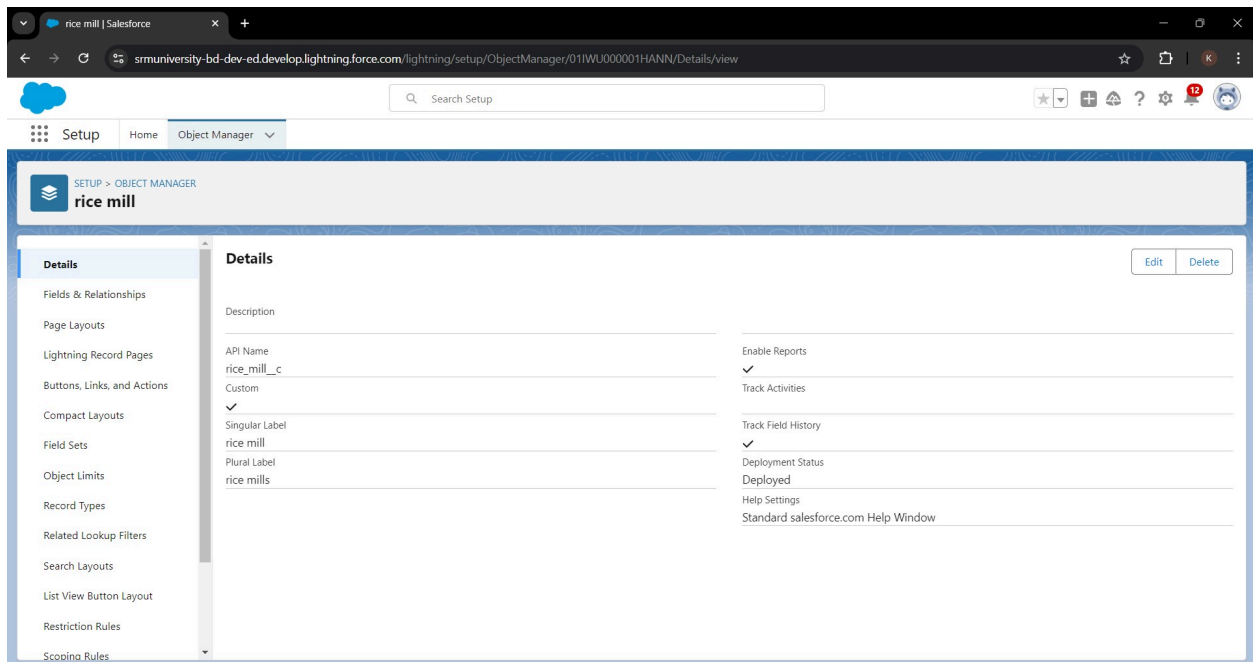


# 2. Create Objects

## 2.1 Rice Mill Object

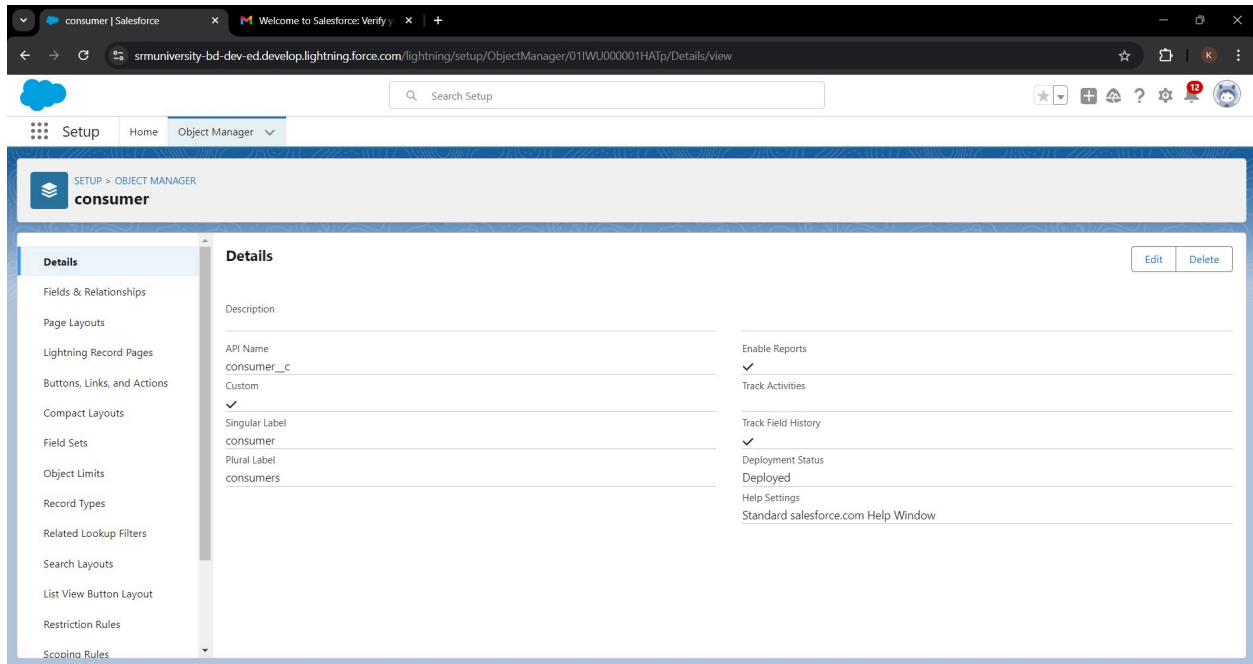
- Go to **Setup > Object Manager > Create > Custom Object**
- Enter:

- **Label Name:** Rice Mill
- **Plural Label:** Rice Mills
- **Record Name:** Auto Number (Format: rice-{000})
- **Starting Number:** 1
- Enable **Reports**, **Track Field History**, and **Allow Search**
- Click **Save**.



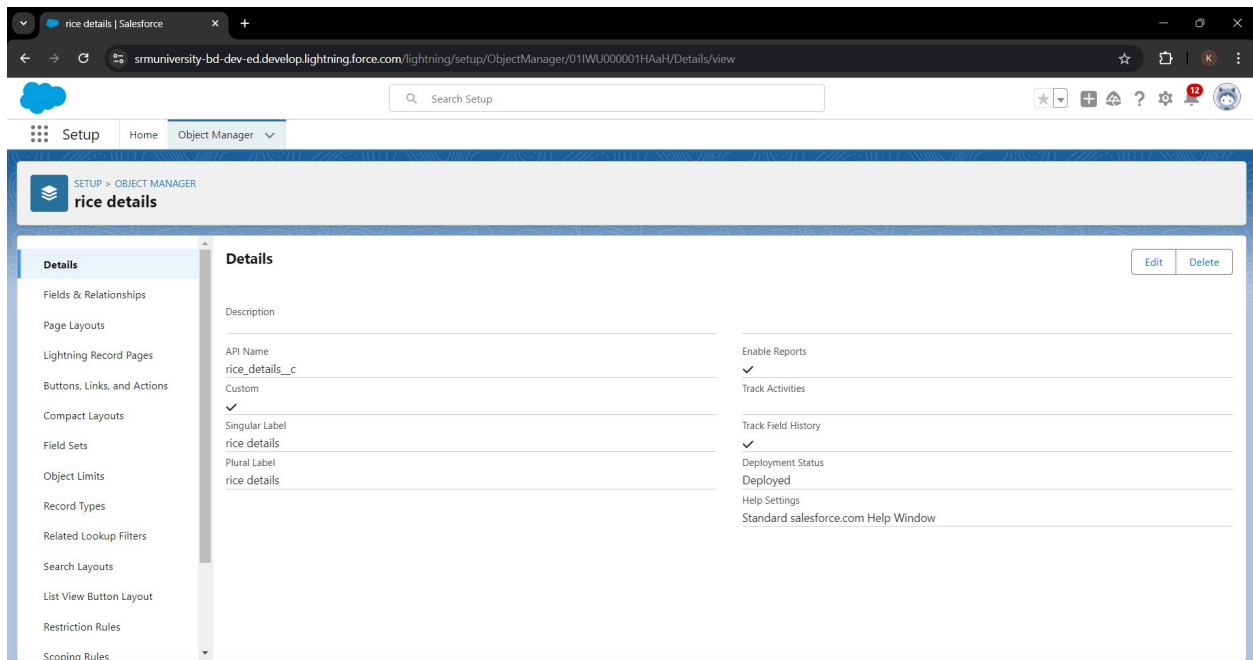
## 2.2 Consumer Object

- Same steps as Rice Mill Object
- Use:
  - **Label Name:** Consumer
  - **Plural Label:** Consumers
  - **Display Format:** consumers-{000}
  - **Starting Number:** 1



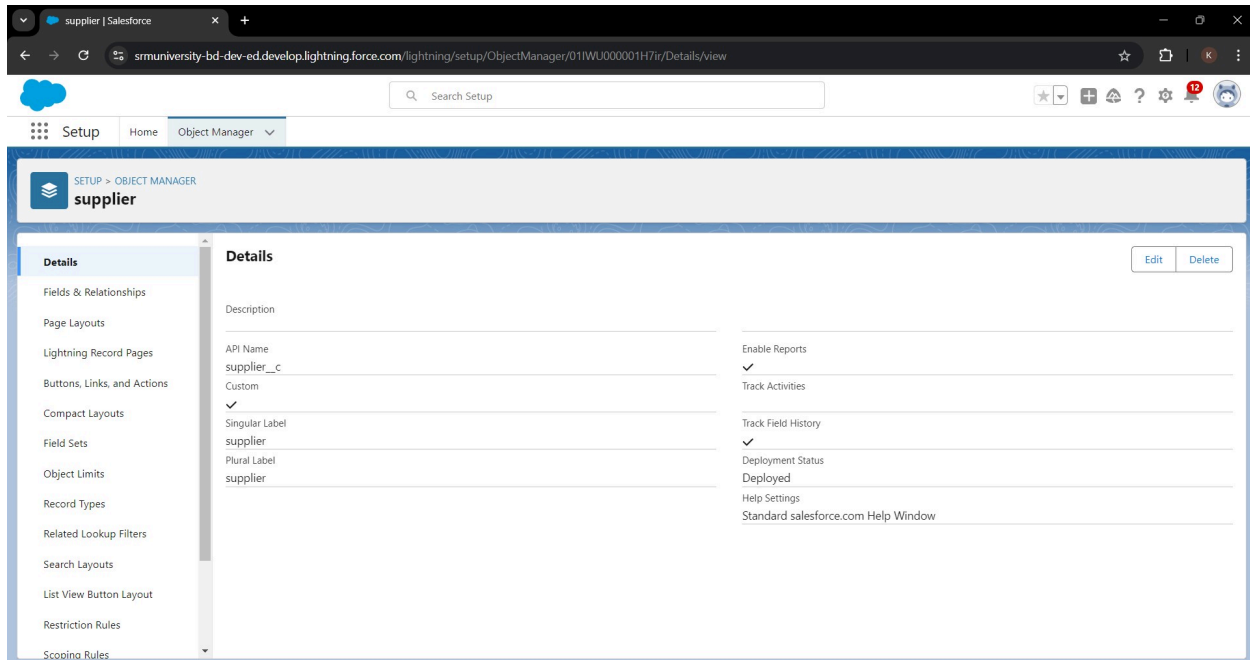
## 2.3 Rice Details Object

- Same steps as Rice Mill Object
- Use:
  - **Label Name:** Rice Details
  - **Plural Label:** Rice Details
  - **Display Format:** rice-{000}
  - **Starting Number:** 1



## 2.4 Supplier Object

- Same steps as Rice Mill Object
- Use:
  - **Label Name:** Supplier
  - **Plural Label:** Suppliers
  - **Record Name:** Supplier Name (Text)
- Enable **Reports**, **Track Field History**, and **Allow Search**
- Click **Save**.



## 3. Tabs

**Tab:** A UI element for creating and viewing object records.

### Types of Tabs:

1. **Custom Tabs:** For custom objects, similar to standard tabs.
2. **Web Tabs:** Display external web content inside Salesforce.
3. **Visualforce Tabs:** Show custom Visualforce pages.
4. **Lightning Component Tabs:** Add Lightning components to the navigation.
5. **Lightning Page Tabs:** Add Lightning Pages to mobile app navigation.

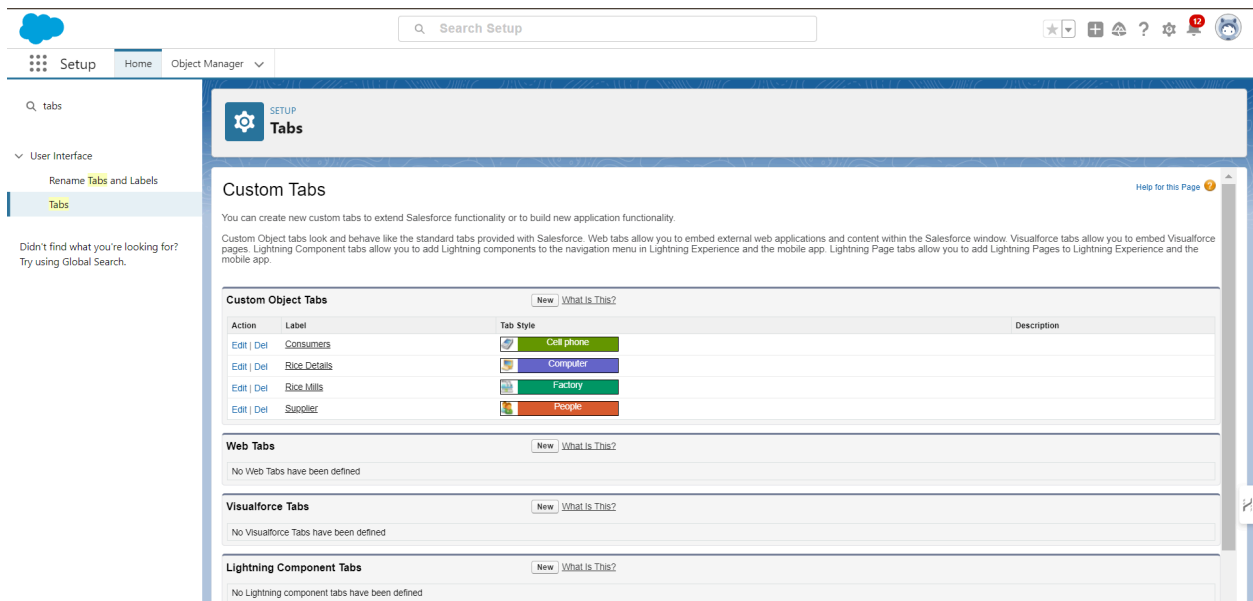
### 3.1 Creating a Custom Tab (Supplier)

1. Go to **Setup** > search "Tabs" > click **Tabs** > **New** under Custom Object Tab.
2. Select **Supplier** object > choose a style > click **Next**.
3. Keep default settings > click **Next**.
4. Uncheck **Include Tab in Custom App**, ensure **Append Tab** is checked.
5. Click **Save**.



## 3.2 Creating Remaining Tabs

- Repeat the same steps for **Rice Mill, Consumer, and Rice Details**.

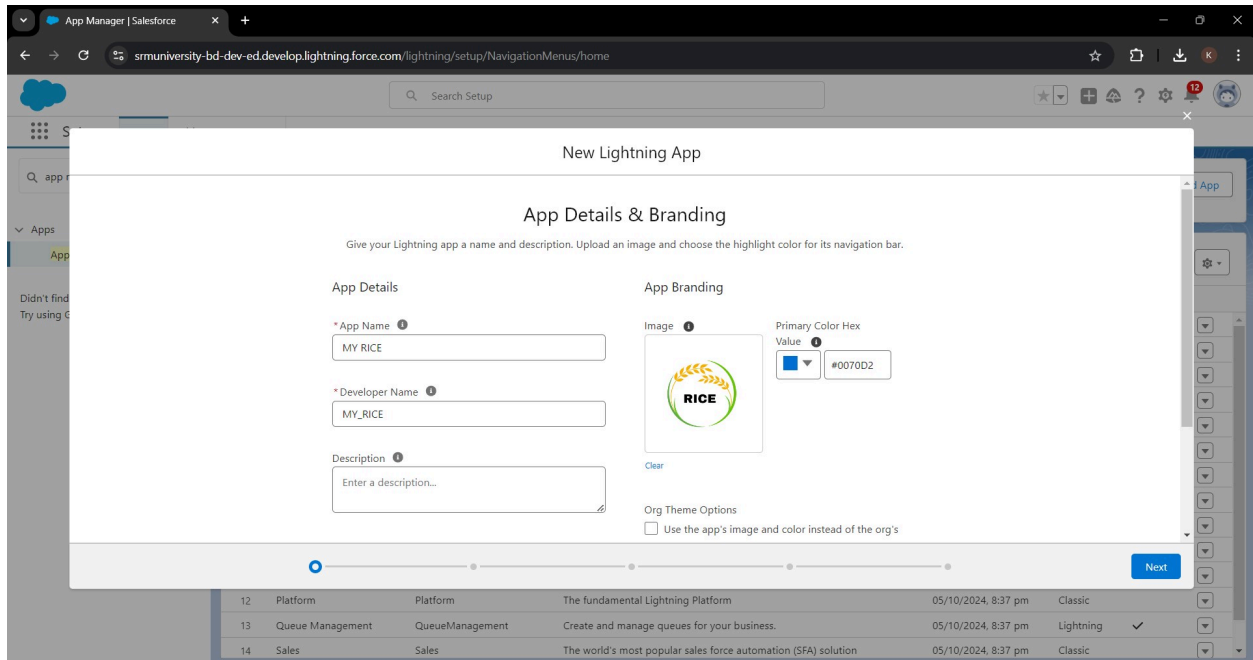


## 4. The Lightning App

A Lightning App bundles objects, tabs, and tools for easy access, with options for branding and a utility bar for quick navigation.

### 4.1 Create a Lightning App

1. **Access Setup:** Go to the Setup page and search for **App Manager** in the quick find box.
2. **Create New App:** Select **App Manager** and click on **New Lightning App**.
3. **App Details:**
  - Enter the app name as **MY RICE** and click **Next**.
  - Leave the App Options page as default and click **Next**.
  - Keep the Utility Items as default and click **Next**.
4. **Upload Photo:** Upload a photo related to your app.
5. **Add Navigation Items:**
  - Select items (Supplier, Rice Mill, Consumer, Rice Details) from the search bar and move them using the arrow button. Click **Next**.
6. **Add User Profiles:**
  - Search for **System Administrator** in the search bar and click the arrow button to add it. Click **Save & Finish**.



## 5. Fields

In Salesforce, fields store data in the columns of a relational database, making it easier to search, delete, and edit records.

### Types of Fields

#### 1. Standard Fields:

- Predefined fields performing standard tasks.
- Cannot be deleted if required; otherwise, they can be removed.
- Common examples: Created By, Owner, Last Modified.

#### 2. Custom Fields:

- Flexible fields that users can modify as needed.
- Users can choose to add or remove them from records.

### 5.1 Creating the Number Field in Rice Details Object

1. Go to **Setup > Object Manager > Edit** for the **Rice Details** object.
2. Click **Fields & Relationships > New**.
3. Select **Number** as the data type and click **Next**.
4. Enter **Field Label** as **Rice Distributed** (length: 5) and click **Next > Next > Save**.

## 5.2 Creating Junction Object

1. Go to **Setup > Object Manager > edit Rice Details** object.
2. Click **Fields & Relationships > New > select Master-Detail** relationship.
3. Select related object as **Supplier > Field Label: "Supplier Name" > Next > Save**.
4. Repeat for **Rice Mill** object with label "Rice Mill 1".

The screenshot shows the Salesforce Setup interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. Below this, the 'Supplier' object is selected. The left sidebar lists various setup options, with 'Fields & Relationships' highlighted. The main content area displays a table of fields for the 'Supplier' object. The table has columns for 'FIELD LABEL', 'FIELD NAME', 'DATA TYPE', 'CONTROLLING FIELD', and 'INDEXED'. The fields listed are 'Created By', 'Last Modified By', 'Owner', 'sum of rice distributed', and 'supplier Name'. The 'supplier Name' field is highlighted in blue, indicating it is the current selection.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
sum of rice distributed	sum_of_rice_distributed__c	Roll-Up Summary (SUM Rice Details)		
supplier Name	Name	Text(80)		✓

## 5.3 Creating a Master-Detail Relationship

1. Go to **Setup > Object Manager > edit Consumer** object.
2. Click **Fields & Relationships > New > select Master-Detail** relationship.
3. Select **Rice Mill** as related object > Field Label: "Rice Mill Name" > **Next > Save**.

Setup > OBJECT MANAGER

Rice Mill

Fields & Relationships

7 Items. Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
rice distributed to shops	rice_distributed_to_shops__c	Roll-Up Summary (SUM Rice Details)		
Rice Mill Name	Name	Auto Number		✓
rice price/kg	rice_price_kg__c	Number(5, 0)		
rice taken	rice_taken__c	Roll-Up Summary (SUM Consumer)		

## 5.4 Creating Roll-Up Summary Field

1. Go to **Setup > Object Manager > select Supplier > Fields & Relationships > New**.
2. Select **Roll-Up Summary > Field Label: "Sum of Rice Distributed"**.
3. Select summarized object as **Rice Details > Roll-up type: Sum > field to aggregate: Rice Distributed**.
4. Repeat for **Rice Mill** object.

Setup > OBJECT MANAGER

Rice Details

Fields & Relationships

6 Items. Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Rice Details Name	Name	Auto Number		✓
rice distributed	rice_distributed__c	Number(5, 0)		
rice mill 1(one)	rice_mill_1_one__c	Master-Detail(Rice Mill)		✓
Supplier Name	Supplier_Name__c	Master-Detail(Supplier)		✓

## 5.5 Creating Fields in Rice Details Object

1. Go to **Setup > Object Manager > Edit** for the **Rice Details** object.
2. Click **Fields & Relationships > New**.
3. Select **Data Type** as **Master-Detail** and click **Next**.
4. Enter **Field Label** as **Supplier Name** (Length: 5).
5. Field Name will auto-populate; click **Next > Next > Save**.

## 5.6 Creating Fields in Rice Mill Object

1. Go to **Setup > Object Manager > Edit** for the **Rice Mill** object.
2. Click **Fields & Relationships > New**.
3. Select **Number** as the data type and click **Next**.
4. Enter **Field Label** as **Rice Price/kg** (length: 5) and click **Next > Next > Save**.

## 5.7 Creating Fields in Consumer Objects

- First Name: **Text**
- Last Name: **Text**
- Phone Number: **Phone**
- Email: **Email**
- Rice Taken by Shops: **Number (5)**
- Rice Type: **Picklist (Basmati, Normal Rice)**
- Mode of Payment: **Picklist (Credit Card, Debit Card, Net Banking, UPI, Cash)**

The screenshot shows the Salesforce Setup interface for the 'Consumer' object. The 'Fields & Relationships' section is active, displaying a table of 14 fields. The table has columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed. The fields listed are: Amount Paid (Formula (Number)), Consumer Name (Formula (Text)), Consumer Name (Auto Number), Created By (Lookup(User)), email (Email), First Name (Text(50)), Last Modified By (Lookup(User)), Last Name (Text(50)), Mode of payment (Picklist), Phone Number (Phone), rice\_mill\_name (Master-Detail(Rice Mill)), Rice taken by shops (Number(5, 0)), and rice taken by shops in kgs (Number(5, 0)).

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		✓
Created By	CreatedById	Lookup(User)		
email	email__c	Email		
First Name	First_Name__c	Text(50)		
Last Modified By	LastModifiedById	Lookup(User)		
Last Name	Last_Name__c	Text(50)		
Mode of payment	Mode_of_payment__c	Picklist		
Phone Number	Phone_Number__c	Phone		
rice_mill_name	rice_mill_name__c	Master-Detail(Rice Mill)		✓
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(5, 0)		

## 5.8 Creating Cross-Object Formula Field in Consumer Object

1. Go to **Setup > Object Manager > edit Consumer** object.
2. Click **Fields & Relationships > New > select Formula > Formula return type: Number**.
3. Field Label: "Amount Paid" > Formula: `rice_taken_by_shops__c * rice_mill_name__r.rice_price_kg__c`.
4. Click **Check Syntax > Save**.

## 5.9 Creating Validation Rule (Phone Number & Email)

1. Go to **Setup > Object Manager > edit Consumer** object.
2. Click **Validation Rules > New**.
3. Rule Name: "Phonenumberoremailblankrule" > Formula:  
`OR(ISBLANK(phone_number__c), ISBLANK(email__c))`.
4. Error Message: "Please fill in your phone number" > Error location: "Top of page" > **Save**.

## 6. Page Layouts

Page Layouts in Salesforce allow us to customize the design and organization of detail and edit pages for records. They control the display of fields, related lists, and custom links for both standard and custom objects, enhancing the user interface and experience.

## 6.1 Creating a Page Layout

To create a Page Layout:

1. Go to **Setup > Object Manager**.
2. Search for and select the **Consumer** object.
3. Click on **Page Layouts > New**.
4. Choose an existing layout, name it **"Consumer Layout,"** and click **Save**.
5. Drag and drop fields into the section named **Personal Details**: First Name, Last Name, Consumer Name, Phone Number, Email, Rice Mill Name.
6. Create another section called **Rice Details** and add: Rice Taken by Shop, Rice Type.
7. Create a final section called **Receipt Details** and add: Mode of Payment, Amount Paid.
8. Click **Save**.

The screenshot shows the Salesforce Setup interface. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts (selected), Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules, and Triggers. The main content area is titled 'Consumer' and shows a 'Page Layout Properties' dialog box. The dialog box has a 'Fields' tab and a 'Layout Properties' tab. The 'Fields' tab shows a list of fields for the 'Consumer' object, including First Name, Last Name, Consumer Name, Phone Number, Email, and Rice Mill Name. The 'Layout Properties' tab shows a preview of the page layout with sections: Personal details, Rice details, and Receipt details. The Personal details section contains fields for First Name, Last Name, Consumer Name, Phone Number, Email, and Rice Mill Name. The Rice details section contains fields for Rice taken by shops and Rice Type. The Receipt details section contains fields for Mode of payment and Amount Paid. The preview also shows system information and custom links at the bottom.

Field Name	Field Name	Field Name	Field Name
Consumer Name	Last Modified By	rice mill name	
Created By	Last Name	Rice taken by shops	
Amount Paid	email	rice taken by sho...	
Consumer Name	First Name	Phone Number	Rice Type

**Personal details**

First Name	Sample Text	Last Name	Sample Text
Consumer Name	GEN-2004-001234	Phone Number	1-415-555-1212
email	sarah.sample@company.com	rice mill name	Sample Text
Consumer Name	Sample Text		

**Rice details**

Rice taken by shops	57,888	Rice Type	Sample Text
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**Receipt details**

Mode of payment	Sample Text	Amount Paid	754.64
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**Information (Header visible on edit only)**

rice taken by shops in kgs	32,730
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**System Information (Header visible on edit only)**

Created By	Sample Text	Last Modified By	Sample Text
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**Custom Links (Header visible on edit only)**

The screenshot shows a web application interface for 'MY RICE'. The main content area is titled 'New Consumer'. The form is structured as follows:

- Personal details:**
  - First Name (text input)
  - Last Name (text input)
  - Consumer Name (text input)
  - Phone Number (text input)
  - email (text input)
  - \* rice mill name (text input with a search icon and placeholder 'Search Rice Mills...')
- rice details:**
  - Rice taken by shops (text input)
  - Rice Type (dropdown menu with '--None--' selected)
- Receipt details:**
  - Mode of payment (dropdown menu with '--None--' selected)
- Information:**
  - rice taken by shops in kg (text input)

At the bottom of the form are three buttons: 'Cancel', 'Save & New', and 'Save'. The left sidebar shows a list of consumers under 'Recently Viewed' with checkboxes and IDs like 'consumers-008', 'consumers-007', etc. The top navigation bar includes 'MY RICE', 'Supplier', and 'Consumers'.

## 7. Profiles

A profile is a collection of settings and permissions that define user capabilities within the system, controlling aspects like object and field permissions, app settings, and login restrictions. Profiles can be aligned with job functions such as System Administrator or Sales Representative.

### Types of Profiles

#### Standard Profiles:

- Default profiles provided by Salesforce (e.g., Contract Manager, Read Only, Marketing User, Standard User, System Administrator).
- Cannot be deleted and come with default permissions for standard objects.

#### Custom Profiles:

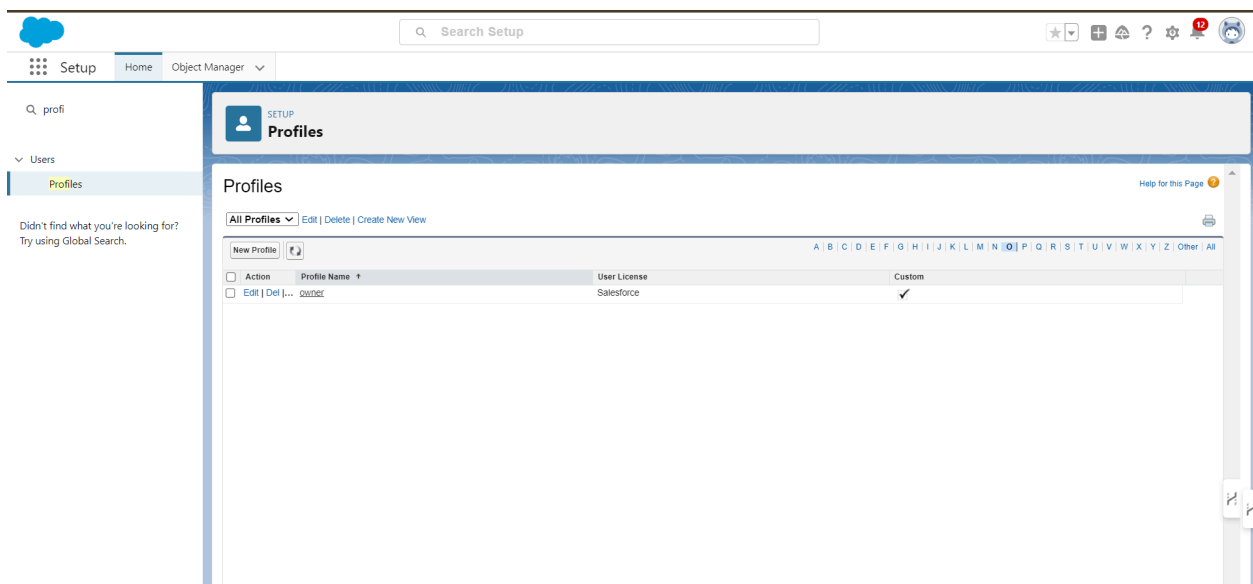
- Defined by users and can be deleted if not assigned to any users.



## 7.1 Owner Profile

To create a new Owner Profile:

1. Go to **Setup** and type **Profiles** in the Quick Find box.
2. Click on **Profiles** and clone the desired profile (e.g., **Standard User**).
3. Enter the profile name as **Owner** and click **Save**.
4. Scroll down to **Custom Object Permissions** and grant access permissions for the following objects:
  - Consumers
  - Rice Details
  - Rice Mill
  - Suppliers
5. Click **Save** to finalize the permissions.



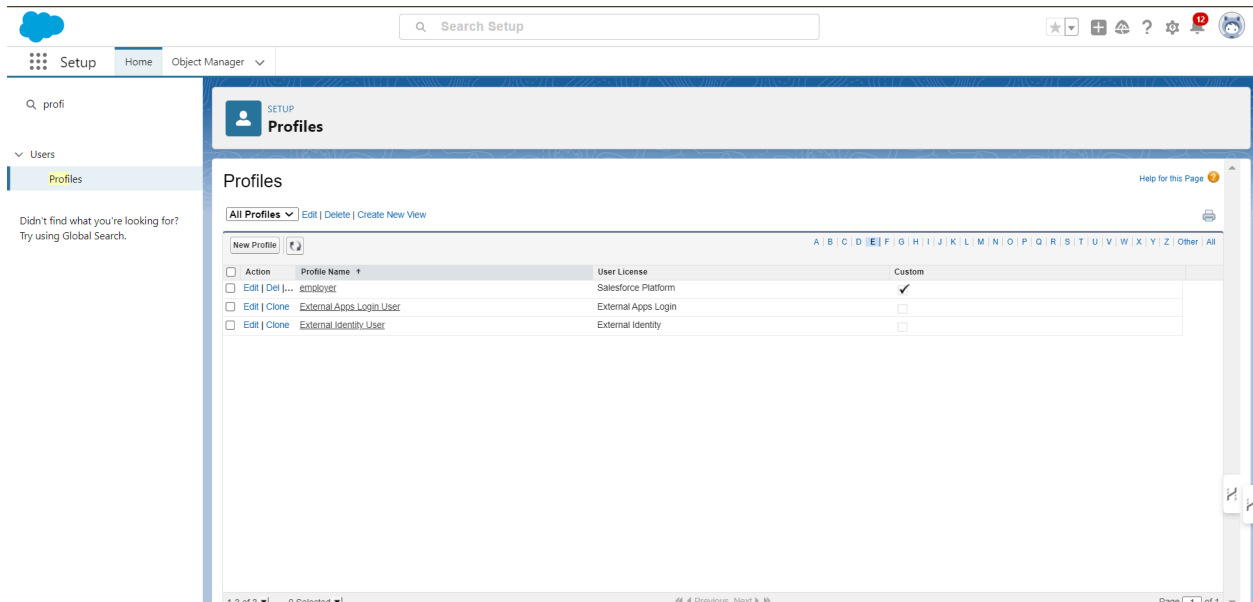
## 7.2 Employer Profile

To create a new Employer Profile:

1. Go to **Setup** and search for **Profiles**.
2. Clone the **Standard Platform User** profile and name it **Employer**. Click **Save**.
3. Click **Edit** and set the **Custom App Settings** to default for the Rice Mill.
4. In **Custom Object Permissions**, grant access for:

- Consumers
- Rice Details
- Rice Mill
- Suppliers

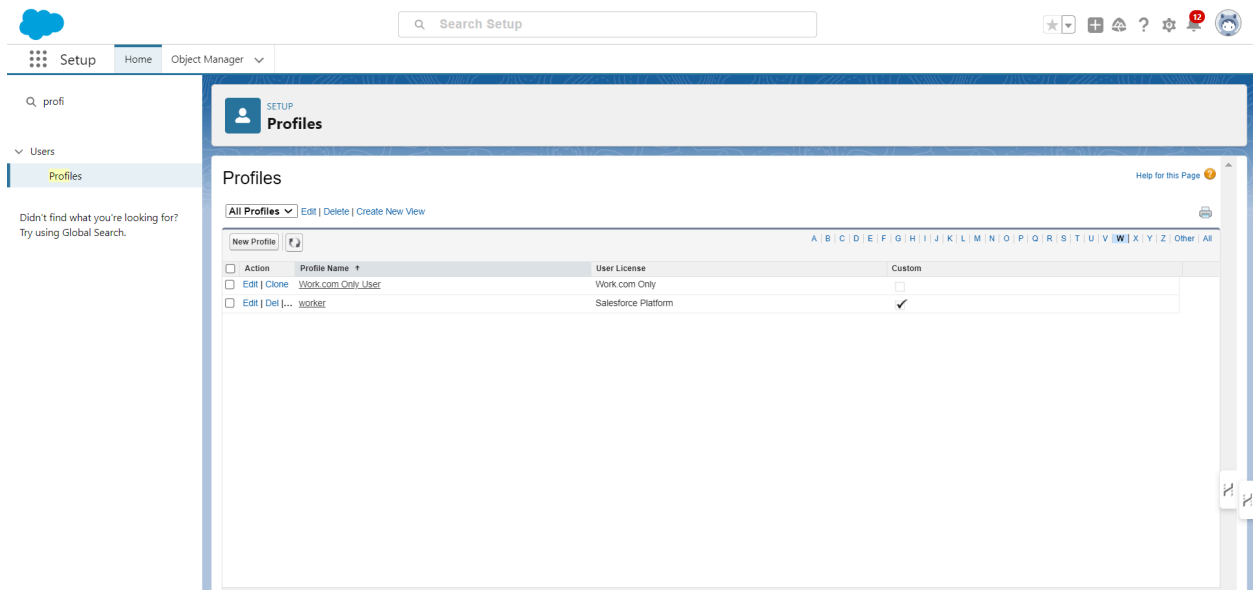
5. Click **Save**.



## 7.3 Worker Profile

To create a new Worker Profile:

1. Go to **Setup** and search for **Profiles**.
2. Clone the **Standard Platform User** profile and name it **Worker**. Click **Save**.
3. Click **Edit** on the profile page.
4. Set the **Custom App Settings** to default for the Rice Mill.
5. In **Custom Object Permissions**, grant access for:
  - Consumers
  - Rice Details
  - Rice Mill
  - Suppliers
6. Click **Save** to finalize the changes.



## 8. Role & Role Hierarchy

In Salesforce, a **role** defines a user's visibility and access at the record level. Roles specify the types of access users can have to data, determining what they can see within the organization. Essentially, roles help control data visibility and sharing based on the user's position within the role hierarchy.

### 8.1 Creating Owner Role

To create an Owner Role:

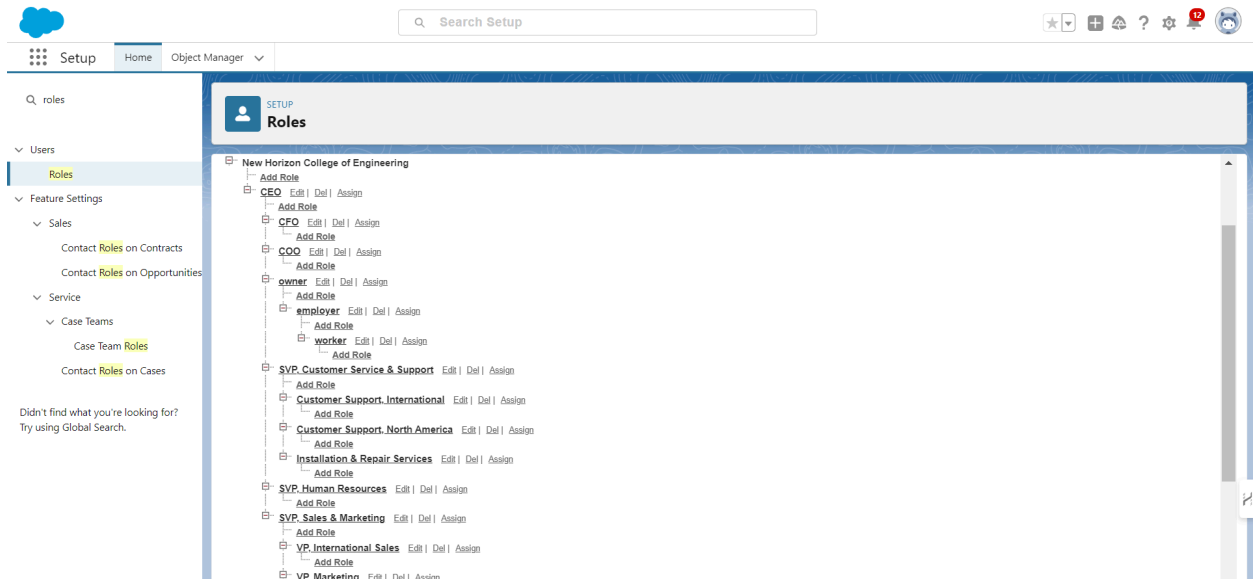
1. Go to **Quick Find** and search for **Roles**.
2. Click on **Setup Roles**.
3. Click **Expand All** and then click **Add Role** under the relevant parent role.
4. Enter **Owner** as the label (Role name auto-populates).
5. Click **Save**.

### 8.2 Creating Employer Roles

To create Employer and Worker roles under Manager:

1. Go to **Quick Find** and search for **Roles**.

2. Click on **Setup Roles**.
3. Click the **plus (+)** next to the **CEO** role and select **Add Role** under **Owner**.
4. Enter **Employer** as the label (Role name auto-populates) and click **Save**.
5. Repeat the process: click the **plus (+)** next to **CEO**, then under **Owner**, click the **plus (+)** next to **Employer** and select **Add Role**.
6. Enter **Worker** as the label (Role name auto-populates) and click **Save**.



## 9. Users

A **user** in Salesforce is anyone who logs in to the platform, including employees like sales reps, managers, and IT specialists. Each user has an account that identifies them and defines their access to features and records within the system.

### 9.1 Create User

To create a new user:

1. Go to **Setup** and type **Users** in the Quick Find box.
2. Select **Users** and click **New User**.
3. Fill in the fields:
  - **First Name:** Vicky
  - **Last Name:** Y
  - **Alias:** (Enter an alias)

- **Email:** (Enter your personal email)
- **Username:** (Use the format text@text.text)
- **Nickname:** (Enter a nickname)
- **Role:** Owner
- **User License:** Salesforce
- **Profile:** Owner

#### 4. Click **Save**.

The screenshot shows the Salesforce Setup interface. On the left, the 'Setup' menu is open, and 'Users' is selected under the 'Users' section. The main area displays the 'User Detail' form for a user named 'vicky y'. The form includes various fields for user information, roles, and settings. The 'Role' is set to 'Owner', 'User License' is 'Salesforce', and 'Profile' is 'Owner'. The 'Active' checkbox is checked. The 'Marketing User' checkbox is unchecked. The 'Accessibility Mode (Classic Only)' checkbox is unchecked. The 'Debug Mode' checkbox is unchecked. The 'High-Contrast Palette on Charts' checkbox is unchecked. The 'Load Lightning Pages While Scrolling' checkbox is checked. The 'Salesforce CRM Content User' checkbox is checked. The 'Receive Salesforce CRM Content Email Alerts' checkbox is checked. The 'Receive Salesforce CRM Content Alerts as Daily Digest' checkbox is checked. The 'Make Setup My Default Landing Page' checkbox is unchecked.

## 9.2 Creating Another User

To create another user:

1. Go to **Setup** and type **Users** in the Quick Find box.
2. Select **Users** and click **New User**.
3. Fill in the fields:
  - **First Name:** Ram
  - **Last Name:** Ram
  - **Alias:** (Enter an alias)
  - **Email:** (Enter your personal email)
  - **Username:** (Use the format text@text.text)
  - **Nickname:** (Enter a nickname)
  - **Role:** Employer
  - **User License:** Salesforce Platform

- **Profile:** Standard Platform User

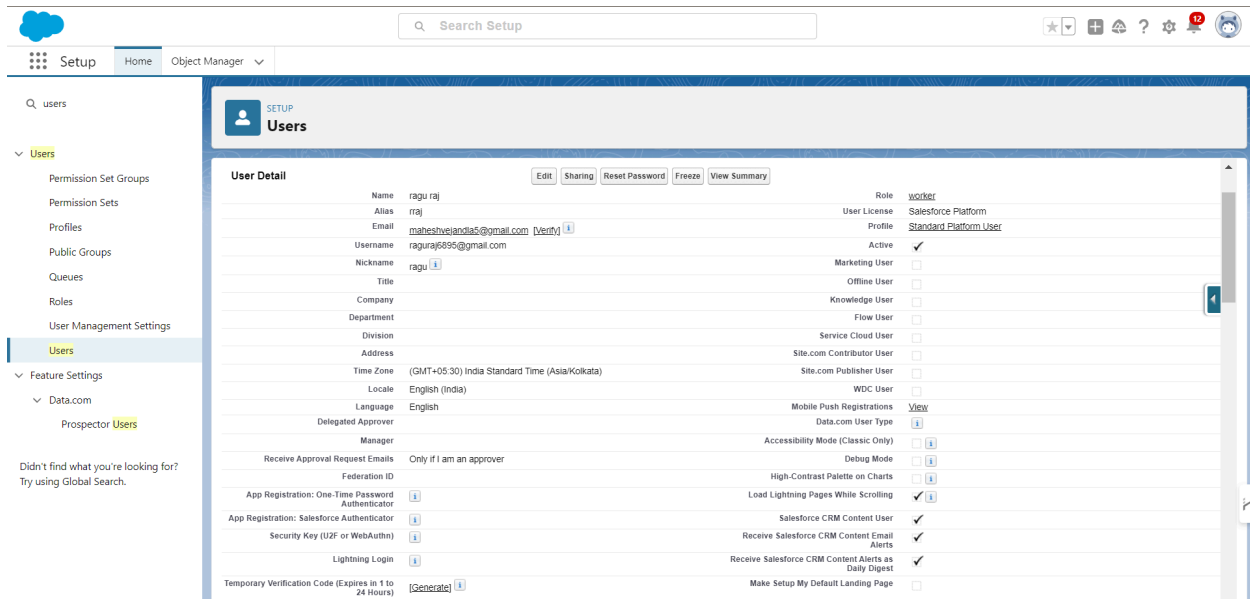
4. Click **Save**.

The screenshot shows the Salesforce Setup interface with the 'Users' section selected. The 'User Detail' form for a user named 'ram ram' is displayed. The form includes fields for Name, Alias, Email, Username, Nickname, Title, Company, Department, Division, Address, Time Zone, Locale, Language, Delegated Approver, Manager, Receive Approval Request Emails, Federation ID, App Registration: One-Time Password Authenticator, App Registration: Salesforce Authenticator, Security Key (U2F or WebAuthn), Lightning Login, Temporary Verification Code, Role, User License, Profile, Active, Marketing User, Offline User, Knowledge User, Flow User, Service Cloud User, Site.com Contributor User, Site.com Publisher User, WDC User, Mobile Push Registrations, Data.com User Type, Accessibility Mode (Classic Only), Debug Mode, High-Contrast Palette on Charts, Load Lightning Pages While Scrolling, Salesforce CRM Content User, Receive Salesforce CRM Content Email Alerts, Receive Salesforce CRM Content Alerts as Daily Digest, and Make Setup My Default Landing Page. The user's role is 'employee', user license is 'Salesforce Platform', and profile is 'Standard Platform User'. The user is active and has various permissions checked.

## 9.3 Creating Another User

To create another user:

1. Go to **Setup > Users**.
2. Click **New User**.
3. Fill in the fields:
  - **First Name:** Ragu
  - **Last Name:** Raj
  - **Alias:** (Enter an alias)
  - **Email:** (Enter your personal email)
  - **Username:** (Format: text@text.text)
  - **Nickname:** (Enter a nickname)
  - **Role:** Worker
  - **User License:** Salesforce Platform
  - **Profile:** Standard Platform User
4. Click **Save**.



## 10. Permission Sets

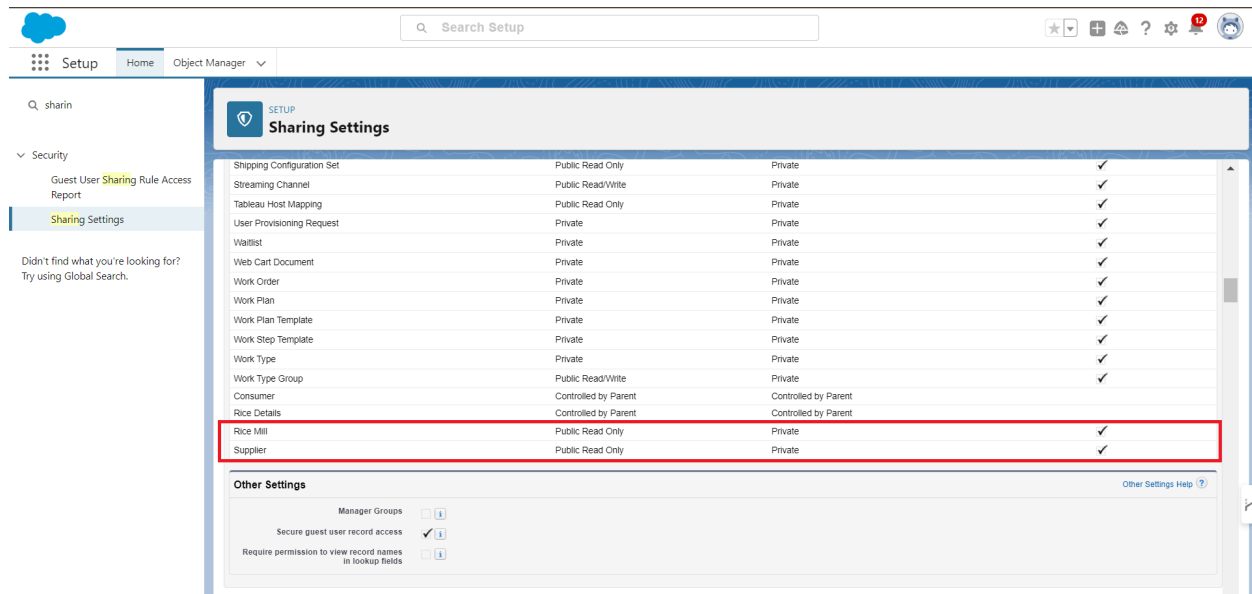
A **permission set** is a collection of settings and permissions that grants users access to various tools and functions. They extend functional access without modifying user profiles and are the recommended method for managing user permissions.

### 10.1 Creating OWD Settings

To create OWD settings:

1. Go to **Setup** and type **Sharing Settings** in the Quick Find box.
2. Click **Edit**.
3. Scroll down and change the default internal access to **Public Read-Only** for the Rice Mill and Supplier objects.
4. Click **Save**.

**Note:** Each profile has its own access. In this case, roles are structured so that the owner can see employer and worker records, while the employer can see worker records.

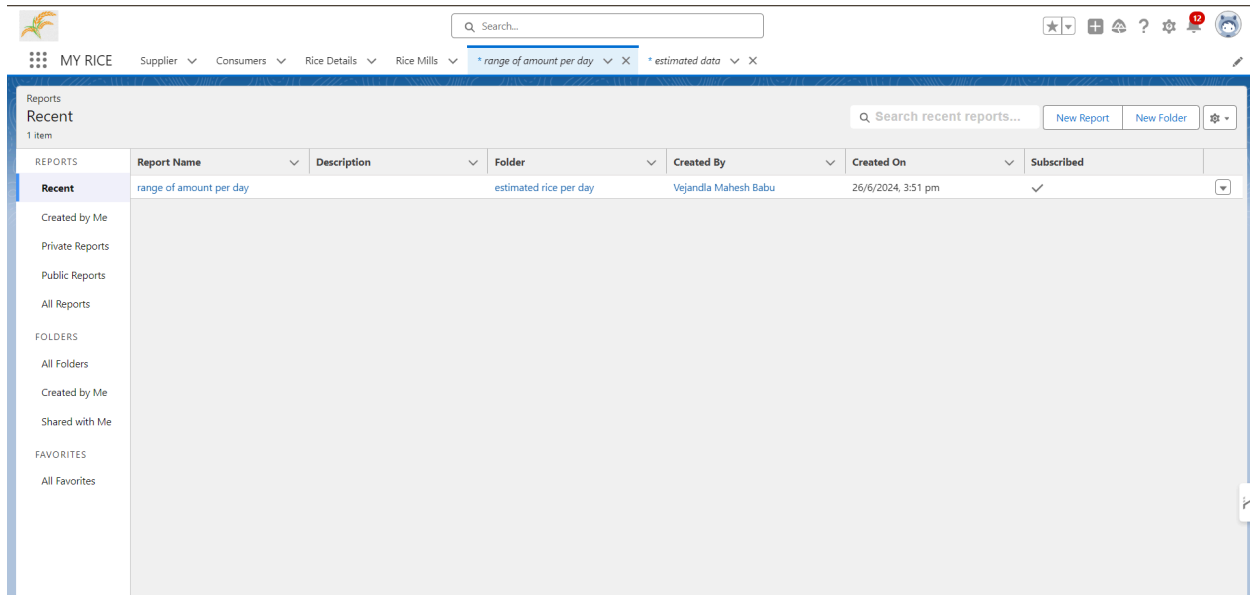


## 11. Report

### 11.1 Create Report

1. **Prepare Data:** Create the latest **10** records in the Consumer object, filling in every field.
2. Go to the app and click on the **Reports** tab.
3. Click **New Report**.
4. Search for the report type **Rice Mill with Consumers**, click on it, and then click **Start Report**.
5. In the Outline pane, select the following fields for the columns:
  - Consumer Name
  - Rice Type
  - Rice Price/kg
  - Mode of Payments
  - Amount Paid
6. Remove unnecessary fields.
7. In the **GROUP ROWS** section, select:
  - Rice Taken by Shops
8. Click **Save and Run**, naming the report **Range of Amount per Day** and saving it.





## 11.2 Sharing Report to Owner

1. Click the **Edit** dropdown and select the **Subscribe** option.
2. Follow the prompts as per the provided image.
3. In the **Run Report** section, select **Another Person** and choose your personal account or the intended recipient.
4. Click **Save**.

**Note:** The owner will receive daily email notifications of the Rice Mill report, allowing them to view all data remotely.

## 11.3 Create a Report Folder

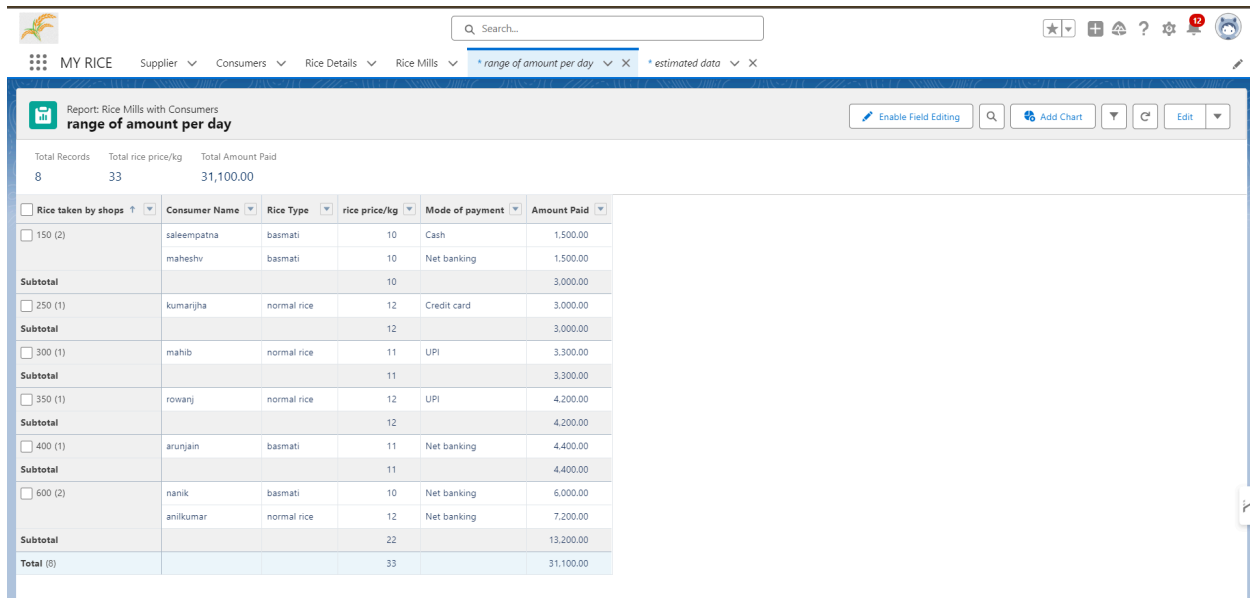
1. Click on the **App Launcher** and search for **Reports**.
2. Double-click on the report; the **Reports** tab will auto-populate in the navigation bar.
3. Click on the **Reports** tab and select **New Folder**.
4. Enter the folder label as **Estimated Rice per Day** (the unique name will auto-populate).
5. Click **Save**.

### Move Report to the New Folder

1. Navigate to the **App Launcher** and click on **Reports**.

2. Click **All Reports**.
3. Select the **Range of Amount per Day** report and click **Move**.
4. Choose the **Estimated Rice per Day** folder and confirm the selection.

**Note:** To view the report, go to **Reports > All Folders > Estimated Rice per Day**; your report will be listed there.



Rice taken by shops	Consumer Name	Rice Type	rice price/kg	Mode of payment	Amount Paid
150 (2)	saleempatna	basmati	10	Cash	1,500.00
	mareshv	basmati	10	Net banking	1,500.00
<b>Subtotal</b>			10		3,000.00
250 (1)	kumarijha	normal rice	12	Credit card	3,000.00
<b>Subtotal</b>			12		3,000.00
300 (1)	mahib	normal rice	11	UPI	3,300.00
<b>Subtotal</b>			11		3,300.00
350 (1)	rowanj	normal rice	12	UPI	4,200.00
<b>Subtotal</b>			12		4,200.00
400 (1)	arunjain	basmati	11	Net banking	4,400.00
<b>Subtotal</b>			11		4,400.00
600 (2)	nanik	basmati	10	Net banking	6,000.00
	anilkumar	normal rice	12	Net banking	7,200.00
<b>Subtotal</b>			22		13,200.00
<b>Total (8)</b>			33		31,100.00

## 12. Dashboards

Dashboards provide a visual representation of changing business conditions, enabling decision-making based on real-time data from reports. They help users identify trends, quantify data, and measure the impact of their activities. Before creating, reading, or sharing dashboards, it's essential to understand the basic principles of dashboards.


### 12.1 Create Dashboard Folder

1. Click on the **App Launcher** and search for **Dashboards**.
2. Click on the **Dashboards** tab.







3. Select **New Folder** and enter the folder label as **Amount Data Dashboard** (the unique name will auto-populate).
4. Click **Save**.

## 12.2 Create Dashboard

1. Go to the app and click on the **Dashboards** tab.
2. Enter a **Name** for the dashboard and select the folder you created, then click **Create**.
3. Click **Add Component**.
4. Select a report and click **Select**.
5. Configure the first component:
  - **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
6. Click **Add**.
7. Repeat the above steps for the second component:
  - **Display as:** Donut Chart
  - **Sort by:** Sum of Amount
  - **Title:** Range of Amount per Day
  - **Component Theme:** Dark
8. Click **Add**.
9. Click **Save** and then **Done**.



Search...



MY RICE

Supplier

Consumers

Rice Details

Rice Mills

\* range of amount per day

\* estimated data

Dashboards

Recent

1 item

Search recent dashboards

New Dashboard

New Folder

Settings

DASHBOARDS	Dashboard Name	Description	Folder	Created By	Created On	Subscribed
Recent	estimated data	total amount of data in dashboards	amount data dashboard	Vejandla Mahesh Babu	26/6/2024, 7:10 pm	

Created by Me

Private Dashboards

All Dashboards

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites


←

→

↺

🔍

srmuniversity-bd-dev-ed.develop.lightning.force.com/lightning/r/Dashboard/01ZWU0000012n5i2AA/view?queryScope=userFolders



Search...

MY RICE

supplier

consumers

rice details

rice mills

Reports

Dashboards

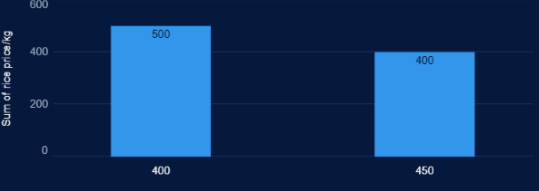
Dashboard

**estimated data**

total amount of data in dashboards

As of 07-Oct-2024, 3:56 pm Viewing as Kiran Tummala


range of amount per day



Rice taken by shops	Sum of rice price/kg
400	500
450	400

View Report (range of amount per day)

range of amount per day



Rice taken by shops	Sum of rice price/kg	Percentage
400	400	44.44%
450	500	55.56%

View Report (range of amount per day)

## 13 APEX

Apex is a strongly typed, object-oriented programming language similar to Java, allowing developers to execute flow and transaction control statements on the Lightning platform server. It enables the addition of business logic to system events, such as button clicks and record updates. Apex can be initiated by web service requests and triggers.

### Key Concepts

- **Classes:** In Apex, classes serve as templates from which objects are created. You can define, instantiate, and extend classes, as well as work with interfaces and properties.
- **Objects:** An object is an instance of a class that can access all the properties (variables and methods) defined in that class.

### 13.1 Creating an Apex Class (ConsumerRecord)

1. **Log In:** Log in to your Salesforce account and click the gear icon in the top right corner.
2. **Access Developer Console:** Select **Developer Console** from the dropdown.
3. **Create New Class:**
  - Click on **File > New > Apex Class**.
  - Enter the class name **ConsumerRecord**.
4. **Code Snippet:**

Write the code to define the ConsumerRecord class and include a method for sending email notifications to consumers.
5. **Save the Class.**

### 13.2 Creating an Apex Trigger

1. **Log In:** While still in your Salesforce account, click on the gear icon in the top right corner.
2. **Access Developer Console:** Click on **Developer Console** to open a new console window.

3. **Create New Trigger:**

- Click on the **File** menu in the toolbar and select **New > Trigger**.
- Enter the trigger name and specify the object to be triggered.

4. **Trigger Syntax:**

The syntax for creating a trigger is as follows:

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

5. **Trigger Code:**

Write the trigger to execute after a consumer record is inserted and call the method to send email notifications.

6. **Save the Trigger.**