

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

By

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# Project Abstract

Title: Comprehensive CRM Application for Wholesale Rice Mill.

This project involves the development of a comprehensive Customer Relationship Management (CRM) application tailored for a wholesale rice mill using Salesforce. The primary goal was to create an integrated system that enhances operational efficiency, data management, and customer relations within the rice mill factory. The application features custom objects such as Consumers, Rice Mill, Rice Details, and Suppliers, each with its own dedicated tab for streamlined access. A custom Lightning App was designed to unify these components into a cohesive user experience, integrating various objects with relevant fields and page layouts.

Profiles and role hierarchies were meticulously configured to establish clear access levels and permissions, ensuring that different user roles—from owners to workers—have appropriate visibility and control over the data. User accounts were created and assigned profiles, with permission sets used to extend access rights as needed, ensuring tailored access to specific functionalities.

The application's reporting and dashboard capabilities deliver actionable insights into key metrics such as daily sales volumes, revenue, inventory levels, and customer purchasing patterns. These features facilitate real-time data analysis, aiding in strategic decision-making and operational planning. Custom Apex code was developed to address complex business logic, automate critical workflows, and manage sales transactions and inventory processes efficiently. Validation rules and cross-object formula fields were implemented to ensure data accuracy, with ISBLANK formulas enforcing mandatory field completion. This Salesforce CRM application thus provides a robust and scalable solution for managing the rice mill's operations, improving operational efficiency, and enhancing customer engagement, while also enabling comprehensive data analysis and reporting for strategic business growth.

Additionally, the integration with external systems for data import and export was set up to facilitate seamless synchronization with existing databases and third-party applications. This ensures that the CRM system operates as a central hub for all business processes, providing a comprehensive view of operations and customer interactions. This Salesforce CRM application thus provides a robust and scalable solution for managing the rice mill's operations, improving operational efficiency, and enhancing customer engagement, while also enabling comprehensive data analysis and reporting for strategic business growth.

**Keywords:** Salesforce, CRM Application, Custom Objects, Lightning App, Fields, Page Layouts, Profiles, Role Hierarchy, Permission Sets, Reports, Dashboards, Apex, Validation Rules.

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# Task 1: Introduction to Salesforce

## 1.1 Creating Developer Account

Creating a developer org in salesforce.

Go to <https://developer.salesforce.com/signup>

On the sign up form, enter the following details :

First name & Last name

Email

Role : Developer

Company : College Name

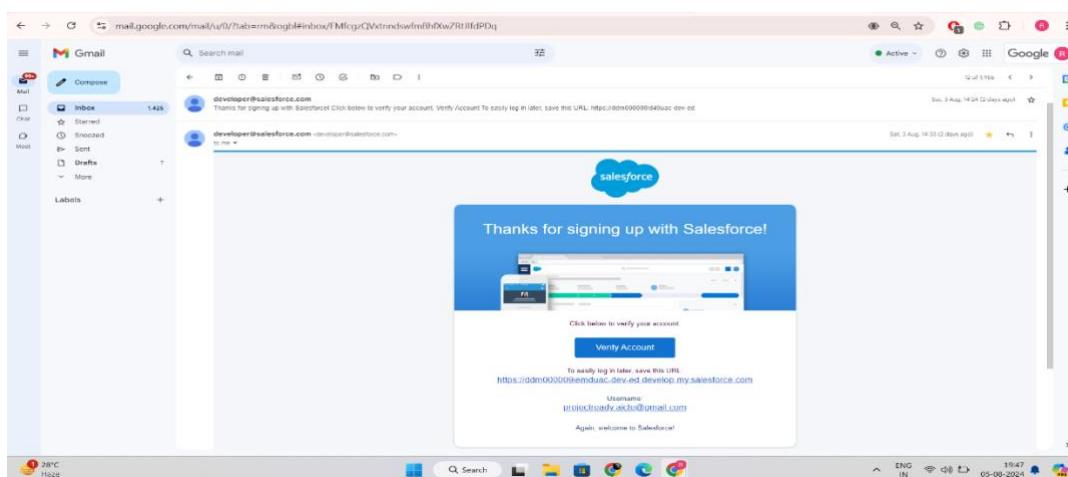
Country : India

Postal Code : pin code

Username : should be a combination of your name and company

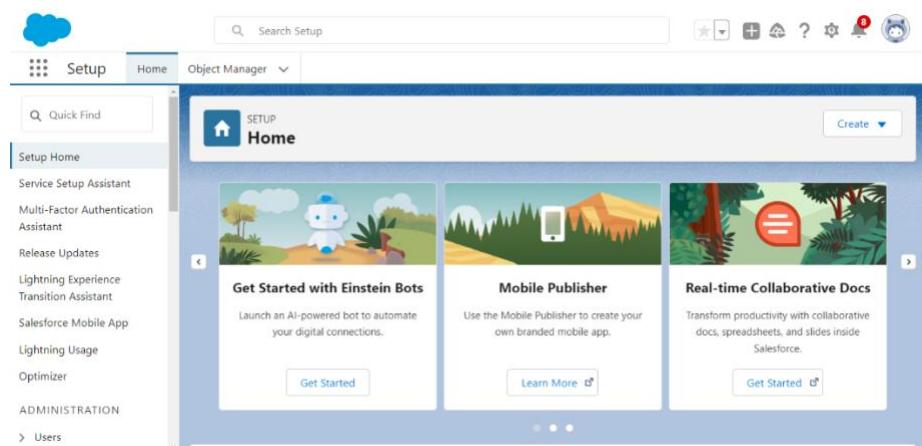
This need not be an actual email id, you can give anything in the format :username@organization.com

Click on sign me up after filling these.



## 1.2. Account Activation

Then you will redirect to your salesforce setup page.



## Task 2: Object

Salesforce objects are of two types:

Standard Objects: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.

Custom Objects: Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. They are the heart of any application and provide a structure for sharing data.

To Navigate to Setup page:

Click on gear icon -click setup.

To create an object:

1. From the setup page - Click on Object Manager -Click on Create - Click on Custom Object.
2. On Custom object defining page:
3. Enter the label name, plural label name, click on Allow reports, Allow search.
4. Click onSave.

### 2.1. Create Supplier Object

To create an object:

From the setup page >> Click on Object Manager>> Click on Create>>Click on Custom Object.

1. Enter the label name>>supplier
2. Plural label name>>supplier
3. Enter Record Name Label and Format
  - Record Name >> supplier Name
  - Data Type>>Text
4. Click on Allow reports and Track Field History and allow search
5. Allow search >> Save.

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main title is 'SETUP > OBJECT MANAGER supplier'. The left sidebar lists various object configuration options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The right panel displays the 'supplier' object details. The 'Details' section contains fields for API Name ('supplier\_c'), Singular Label ('supplier'), and Plural Label ('supplier'). Under the 'Description' section, checkboxes are checked for 'Enable Reports' and 'Track Activities'. Below these, under 'Track Field History', 'Deployment Status' is set to 'Deployed', and 'Help Settings' is linked to 'Standard salesforce.com Help Window'. At the bottom right of the panel are 'Edit' and 'Delete' buttons. The status bar at the bottom of the screen shows 'ENGLISH IN 19:52 05-08-2024'.

## 2.2. Create Rice mill Object

To create an object:

From the setup page >> Click on Object Manager>>Click on Create >> Click on Custom Object.

1. Enter the label name>>rice mill
2. Plural label name>> rice mills
3. Enter Record Name Label and Format
  - Record Name >>
  - Data Type >> Auto Number
  - Display Format >> rice-{000}
  - Starting number >> 1

- 4 Click on Allow reports and Track Field History, Allow Search and Save.

The screenshot shows the 'rice mill' object details in the Object Manager. The left sidebar lists various configuration tabs: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The main 'Details' tab is selected. The 'Fields & Relationships' section shows the API Name as 'rice\_mill\_c'. The 'Custom' checkbox is checked. The 'Singular Label' is 'rice mill' and the 'Plural Label' is 'rice mills'. The 'Details' section includes checkboxes for 'Enable Reports' (checked), 'Track Activities' (checked), and 'Track Field History' (checked). The 'Deployment Status' is set to 'Deployed'. The 'Help Settings' link points to the Standard salesforce.com Help Window. The top navigation bar shows 'Setup > OBJECT MANAGER' and the bottom status bar shows system information like battery level, signal strength, and date/time.

## 2.3. Create consumer Objects

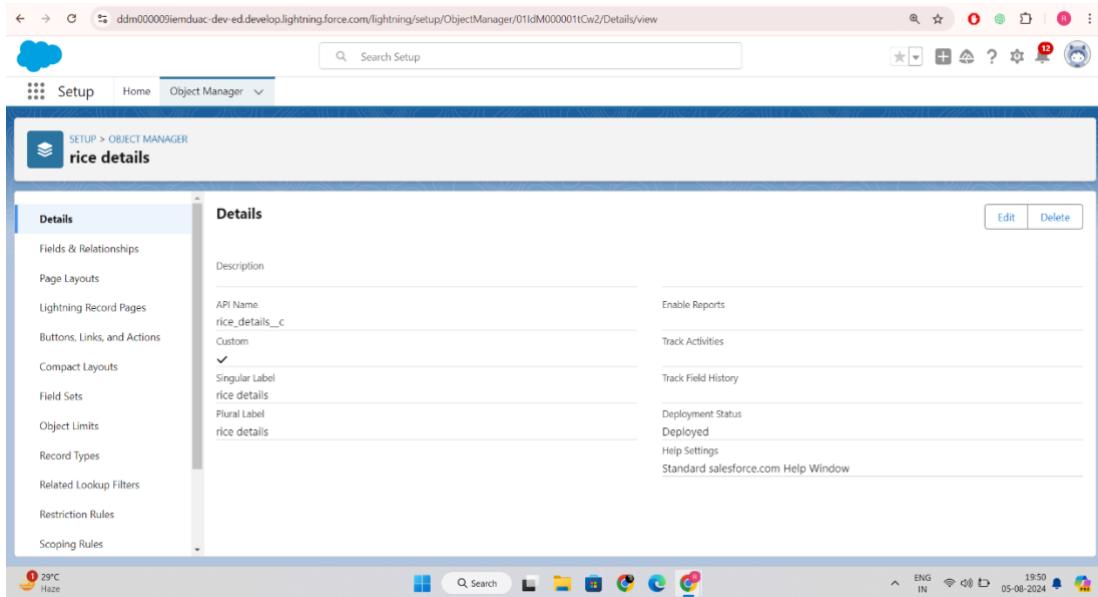
Note:Follow the same steps as mentioned in Activity 2 for theand Receipt objects.

1. Use these display format for the consumer
  - label name >> consumer
  - Plural label name >> consumers
  - Display Format >> consumers-{000}
  - Starting number >> 1

The screenshot shows the 'consumer' object details in the Object Manager. The left sidebar lists the same configuration tabs as the previous screenshot. The main 'Details' tab is selected. The 'Fields & Relationships' section shows the API Name as 'CONSUMER\_\_c'. The 'Custom' checkbox is checked. The 'Singular Label' is 'consumer' and the 'Plural Label' is 'consumers'. The 'Details' section includes checkboxes for 'Enable Reports' (checked), 'Track Activities' (checked), and 'Track Field History' (checked). The 'Deployment Status' is set to 'Deployed'. The 'Help Settings' link points to the Standard salesforce.com Help Window. The top navigation bar shows 'Setup > OBJECT MANAGER' and the bottom status bar shows system information like battery level, signal strength, and date/time.

## Create rice details Objects

1. Use these display format for the rice details
  - label name >> rice details
  - Plural label name >> rice details
  - Display Format >> rice-{000}
  - Starting Number >>1



## Task 3 : Tabs

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

### Types of Tabs:

#### Custom Tabs

Custom object tabs are the user interface for custom applications that you build in salesforce.com. They look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.

#### Web Tabs

Web Tabs are custom tabs that display web content or applications embedded in the salesforce.com window. Web tabs make it easier for your users to quickly access content and applications they frequently use without leaving the salesforce.com application.

#### Visualforce Tabs

Visualforce Tabs are custom tabs that display a Visualforce page. Visualforce tabs look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.

#### Lightning Component Tabs

Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app.

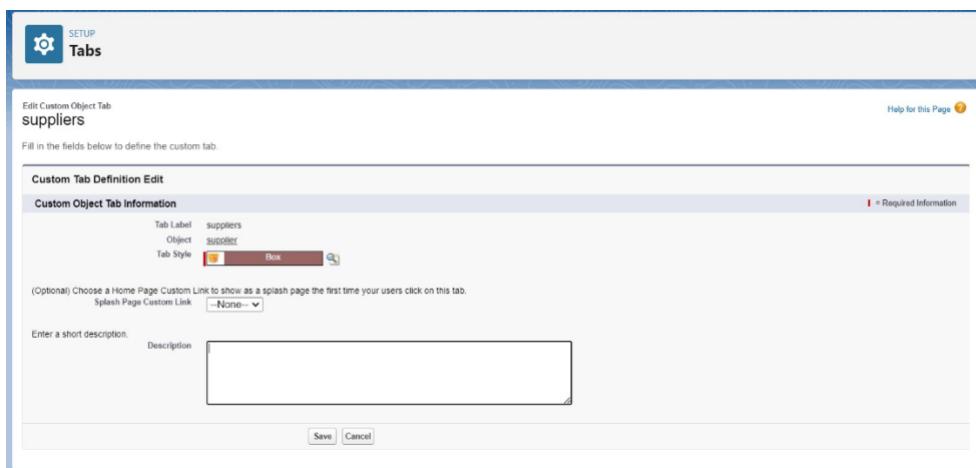
#### Lightning Page Tabs

Lightning Page Tabs let you add Lightning Pages to the mobile app navigation menu.

Lightning Page tabs don't work like other custom tabs. Once created, they don't show up on the All Tabs page when you click the Plus icon that appears to the right of your current tabs. Lightning Page tabs also don't show up in the Available Tabs list when you customize the tabs for your apps.

### 3.1. Creating a Custom Tab

- To create a Tab:(supplier)
- Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)
- 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 .
- Make sure that the Append tab to users' existing personal customizations is checked.
- Click save.



### 3.2. Creating Remaining Tabs

1. Now create the Tabs for the remaining Objects, they are “rice mill, consumer, rice details”.
2. Follow the same steps as mentioned in Activity -1 .

The screenshot shows the Salesforce Setup interface with the 'Custom Tabs' page open. The left sidebar includes links for Setup Home, Service Setup Assistant, Commerce Setup Assistant, Multi-Factor Authentication Assistant, Hyperforce Assistant, Release Updates, Lightning Experience Transition Assistant, Salesforce Mobile App, Lightning Usage, Optimizer, Sales Cloud Everywhere, and Administration (Users, Data, Email). The main content area displays three sections: 'Custom Object Tabs', 'Web Tabs', and 'Visualforce Tabs'. The 'Custom Object Tabs' section lists four tabs: 'consumers' (Cast), 'rice details' (Guitar), 'rice mills' (Flag), and 'supplier' (Chess piece). The 'Web Tabs' and 'Visualforce Tabs' sections both indicate 'No Web Tabs have been defined' and 'No Visualforce Tabs have been defined' respectively. A status bar at the bottom shows weather information (29°C Haze) and system status (ENG IN).

Action	Label	Tab Style	Description
Edit   Del	consumers	Cast	
Edit   Del	rice details	Guitar	
Edit   Del	rice mills	Flag	
Edit   Del	supplier	Chess piece	

## Task 4 : The Lightning App

An 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.

Lightning apps let you brand your apps with a custom color and logo. You can even include a utility bar and Lightning page tabs in your Lightning app. Members of your org can work more efficiently by easily switching between apps.

### 4.1.Create a Lightning App

- To create a lightning app page:
- Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.
- 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.
- Upload a photo that is related to your app.
- 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.
- To Add User Profiles:
- Search profiles (System administrator) in the search bar >> click on the arrow button >> save & finish.

The screenshot shows the Lightning App Builder interface. The top navigation bar includes links for Lightning App Builder, App Settings, Pages, and MY RICE. The main content area is titled "App Details & Branding". It contains sections for "App Details" and "App Branding". Under "App Details", fields are filled with "MY RICE" for App Name and "MY\_RICE" for Developer Name. A "Description" field has "Enter a description..." placeholder text. Under "App Branding", there is an "Image" field containing a thumbnail of a rice bowl, a "Primary Color Hex Value" field set to "#0070D2", and a "Clear" button. Below these are "Org Theme Options" with a checked checkbox for "Use the app's image and color instead of the org's custom theme". An "App Launcher Preview" section shows a preview card with the image and the text "MY RICE". The bottom of the screen shows a taskbar with various icons and a status bar indicating the date as 05-08-2024 and time as 19:58.

**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
- Authenticated Website
- Authenticated Website
- B2B Reordering Portal Buyer Profile
- Contract Manager
- Custom: Marketing Profile
- Custom: Sales Profile
- Custom: Support Profile
- Customer Community Login User
- Customer Community Plus Login User
- Customer Community Plus User
- Customer Community User

**Selected Profiles**

- System Administrator
- employer
- worker

**App Settings**

- App Details & Branding
- App Options**
- Utility Items (Desktop Only)
- Navigation Items
- User Profiles

**App Options**

**Navigation and Form Factor**

- Standard navigation (radio button selected)
- Console navigation

**Supported Form Factors**

- Desktop and phone (radio button selected)
- Desktop
- Phone

**Setup and Personalization**

**Setup Experience**

- Setup (full set of Setup options) (radio button selected)
- Service Setup

**App Personalization Settings**

- Disable end user personalization of nav items in this app
- Disable temporary tabs for items outside of this app
- Use Omni-Channel sidebar

**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 that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.

**Available Items**

- Accounts
- All Sites
- Alternative Payment Methods
- Analytics
- App Launcher
- Appointment Categories
- Appointment Invitations
- Approval Requests
- Asset Action Sources
- Asset Actions
- Asset State Periods
- Assets

**Selected Items**

- supplier
- rice mills
- consumers
- rice details

## Task 5 : Fields

When we talk about Salesforce, Fields represent the data stored in the columns of a relational database. It can also hold any valuable information that you require for a specific object. Hence, the overall searching, deletion, and editing of the records become simpler and quicker.

### Types of Fields

1. Standard Fields
2. Custom Fields

### Standard Fields:

As the name suggests, the Standard Fields are the predefined fields in Salesforce that perform a standard task. The main point is that you can't simply delete a Standard Field until it is an required standard field. Otherwise, users have the option to delete them at any point from the application freely. Moreover, we have some fields that you will find common in every Salesforce application. They are,

1. Created By
2. Owner
3. Last Modified
4. Field Made During object Creation

### Custom Fields:

On the other side of the coin, Custom Fields are highly flexible, and users can change them according to requirements. Moreover, each organization or company can use them if necessary. It means you need not always include them in the records, unlike Standard fields. Hence, the final decision depends on the user, and he can add/remove Custom Fields of any given form.

### 5.1. Creating the number field in rice details object

Creating the number field in rice details 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 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.

The screenshot shows the Salesforce Object Manager Fields & Relationships page for the 'rice details' object. The page lists various fields with their labels, field names, data types, and controlling fields. The 'rice distributed' field is highlighted, showing it has a data type of Number(5,0) and is controlled by the 'rice\_mill\_1(one)' master-detail relationship. Other fields listed include 'Created By', 'Last Modified By', 'Name', 'rice\_mill\_1(one)', and 'supplier Name'.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedBy	Lookup(User)		
Last Modified By	LastModifiedBy	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)		

## 5.2. Creating Junction Object

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.

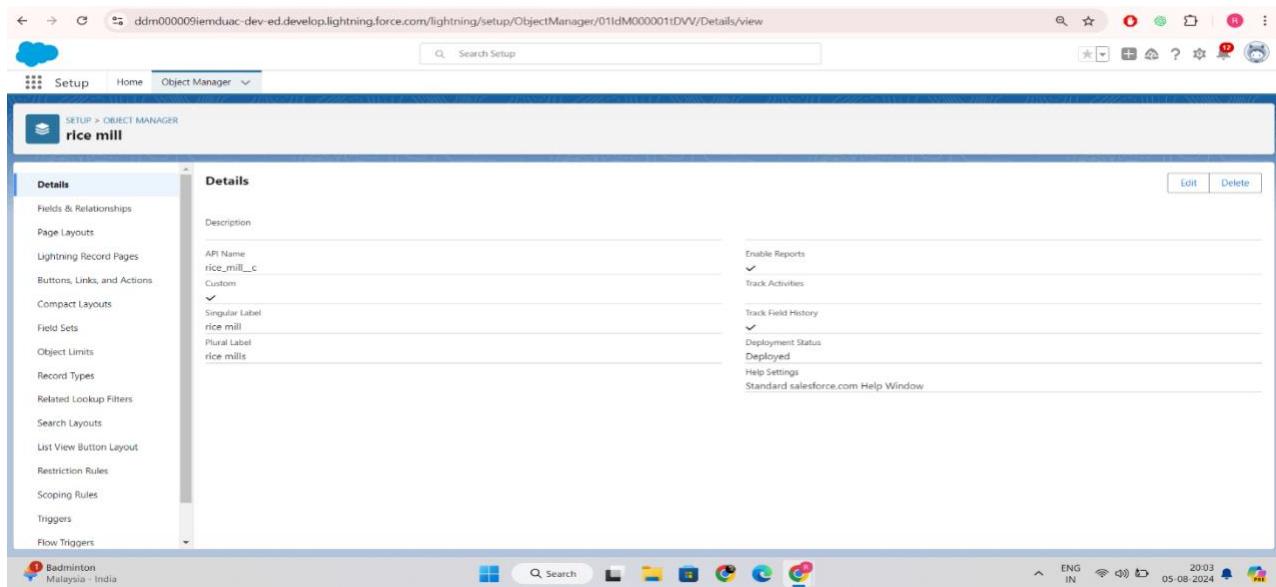
Creating junction object as rice details with supplier & rice mill

To create junction 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.

Select “Master-Detail relationship” as data type and click Next.

1. Select the related object “ supplier ” and click next.
  2. Give Field Label as “supplier Name” and click Next.
  3. Next >> Next >> Save & New.
- 
4. Follow the same steps from 1 to 3.
  5. Select the related object “ rice mill ” and click Next.
  6. Give Field Label as “rice mill 1(one)” and click Next.
  7. Next >> Next >> Save.



## 5.3. Creating a Master-Detail Relationship

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 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.

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

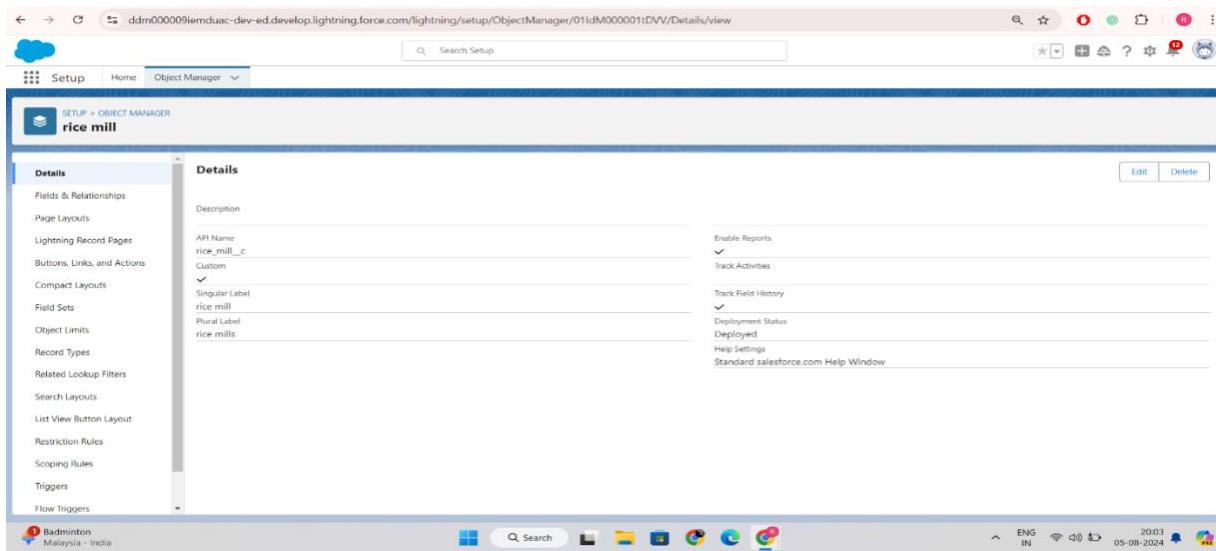
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount Paid	Amount_Paid__c	Formula (Number)		
consumer Name	Name	Auto Number		
Consumer Name	Consumer_Name__c	Formula (Text)		
Created By	CreatedById	LookupUser		
email	email__c	Email		
First Name	First_name__c	Text(20)		
Last Modified By	LastModifiedById	LookupUser		
Last name	Last_name__c	Text(20)		
Mode of payment	Rice_type_Picklist_values_1_basmati_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(10, 0)		
Rice type	Rice_type__c	Picklist		

## 5.5. Creating the number field in rice details object

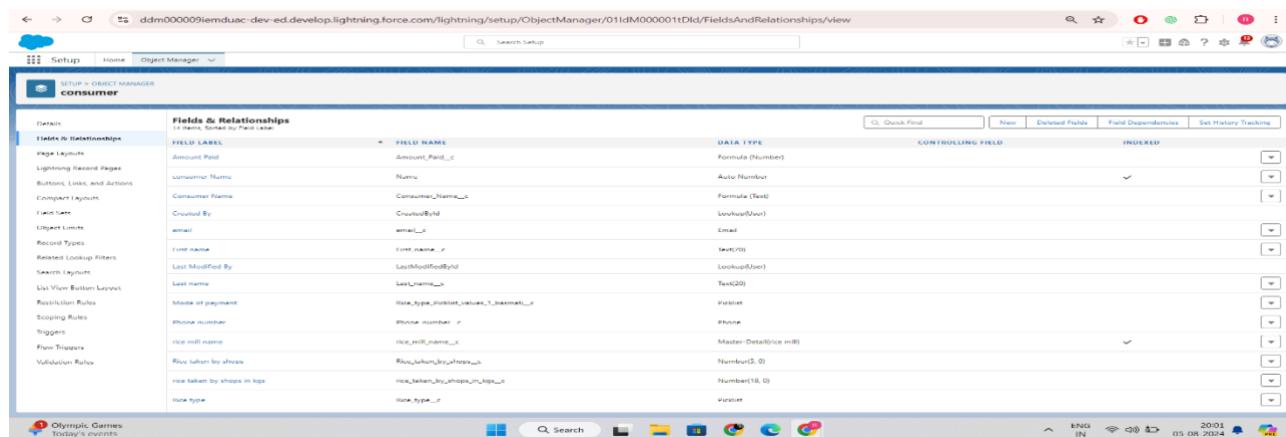
1. Go to the setup page >> click on object manager >> From drop down click edit for rice details object.
2. Click on fields & relationship >> click on New.
3. Select Data type as “master detail” and click Next.
4. Given the Field Label as “ supplier name ” and length as “ 5 ”
5. Field Name will be auto populated, and click on Next>> Next >>Save.

## 5.6. Creating Fields in rice mill Objects

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



## 5.7. Creating Fields in consumer Objects



## 5.8. 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.

Note :check whether the fields mentioned in the formula field are created or not , if not go to activity 9 and create those fields mentioned in consumer object.

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 Data type as “Formula” and click Next.
4. Give Field Label and Field Name as “Amount Paid ” and select formula return type as “Number” and click next.
5. Insert fields formula should be :  
rice\_taken\_by\_shops\_c \* rice\_mill\_name\_r.rice\_price\_kg\_c
6. Under Advanced Formula write down the formula and click “Check Syntax” and Save.



## 5.9. Creating the validation rule

Improve the quality of your data using validation rules. Validation rules verify that the data a user enters in a record meets the standards you specify before the user can save the record. A validation rule can contain a formula or expression that evaluates the data in one or more fields and returns a value of “True” or “False”. 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.

Creating the validation rule for phone number field in consumer object

Note :check whether the fields mentioned in the formula field are created or not , if not go to activity 9 and create those fields mentioned in consumer object.

Go to the setup page >>click on object manager >> From drop down click edit for consumer object. Click on the validation rule >> click New.

SETUP > OBJECT MANAGER  
consumer

Details	Validation Rules				
	RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
	phonenumeroremailblankrule	Top of Page	please fill phone number	<input checked="" type="checkbox"/>	udayrishi yelagandula, 05/07/2023, 12:57 pm

- 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

1. Enter the Rule name as “Phonenumeroremailblankrule”
2. Enter the description as “phone number and email number should not be blank”
3. Enter the formula as “OR( ISBLANK( phone\_number\_c ), ISBLANK( email\_c ) )” and check the syntax.
4. Under the error message write as “please fill in your phone number.”
5. Select error location “top of page”.
6. Save the validation rule.

The save will be delayed and the error message will be displayed. The user can correct the error and try again.

**Validation Rule Edit**

Rule Name	Save	Save & New	Cancel
phonenumeroremailblankrule			
Active <input checked="" type="checkbox"/>			
Description phone number and email should not be blank			
<b>Error Condition Formula</b> <p>Example: Discount_Percent_c&gt;0.30 <a href="#">More Examples...</a></p> <p>Display an error if Discount is more than 30% <a href="#">Insert Field</a> <a href="#">Insert Operator</a> Functions</p> <pre>OR( ISBLANK( phone_number_c ), ISBLANK( email_c ) )</pre> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <b>ACOS</b>  <b>ADDMONTHS</b>  <b>AND</b>  <b>ASCII</b>  <b>ASIN</b>  <input type="button" value="Insert Selected Function"/>  <b>ABS(number)</b>          Returns the absolute value of a number, a number without its sign       </div> <p><a href="#">Check Syntax</a></p>			
<b>Error Message</b> <p>Example: Discount percent cannot exceed 30%</p> <p>This message will appear when Error Condition formula is true</p> <p>Error Message please fill phone number</p> <p>This error message can either appear at the top of the page or below a specific field on the page</p> <p>Error Location <input checked="" type="radio"/> Top of Page <input type="radio"/> Field <a href="#">Help on this function</a></p>			
<input type="button" value="Save"/> <input type="button" value="Save &amp; New"/> <input type="button" value="Cancel"/>			

## Task 6 : Page Layouts

Page Layout in Salesforce allows us to customize the design and organize detail and edit pages of records in Salesforce. Page layouts can be used to control the appearance of fields, related lists, and custom links on standard and custom objects' detail and edit pages.

## 6.1.creating the page layout

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

The screenshot shows the Salesforce Object Manager interface for the 'consumer' object. The left sidebar is open, showing various setup options under 'SETUP > OBJECT MANAGER'. The 'Page Layouts' option is selected. The main area displays the 'consumer Layout' configuration. The 'Fields' tab is active, showing a table of fields and their properties. The table includes columns for 'Section' (with 'Blank Space' selected), 'Field Name', and 'Label'. Fields listed include consumer Name, Last Modified By, rice mill name, Created By, Last name, rice taken by shop, email, Mode of payment, Consumer Name, First name, Phone number, and Rice type. Below the table, there are sections for 'Highlights Panel' and 'Quick Actions in the Salesforce Classic Publisher'. The bottom of the screen shows the Windows taskbar and system tray.

ddm00009iemduac-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01IdM000001tDld/PageLayouts/00hdM000006N65fQAK/view

Setup > OBJECT MANAGER consumer

**Page Layouts**

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  
Scoping Rules  
Triggers  
Flow Triggers

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

Field Name	consumer Name	Last Modified By	rice mill name
Section			Rice taken by shops
Blank Space			Rice mill name
Amount Paid			Rice taken by shops
			Rice type
Consumer Name			Rice taken by shops
			Rice type
			Rice mill name
			Rice type
			Rice mill name
			Rice type
			Rice mill name
			Rice type

Rice taken by shops 48.010  
Rice type Sample Text

Mode of payment Sample Text  
Amount Paid 615.30

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 taken by shops in kgs 64.677

Created By Sample Text Last Modified By Sample Text

Sports Shooting China - India

ENG IN 20:06 05-08-2024

ddm00009iemduac-dev-ed.develop.lightning.force.com/lightning/o/consumer\_c/new?count=1&nooverride=1&useRecordTypeCheck=1&navigationLocation=LIST\_VIEW&ui...

MY RICE supplier rice mills consumers

Recently Viewed

2 items • Updated a few seconds ago

- consumer Name
- consumers-002
- consumers-001

New consumer

rice details

Rice taken by shops

Rice type --None--

Receipt details

Mode of payment --None--

Personal details

First name

Last name

Phone number

Email

Cancel Save & New Save

New Import Assign Label

this list...

Sports Shooting China - India

ENG IN 20:08 05-08-2024

## Task 7 : Profiles

profile is a group/collection of settings and permissions that define what a user can do in salesforce. Profile controls “Object permissions, Field permissions, User permissions, Tab settings, App settings, Apex class access, 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.

### Types of profiles in salesforce

1. Standard profiles:

By default salesforce provides below standard profiles.

- Contract Manager
- Read Only
- Marketing User
- Solutions Manager
- Standard User
- System Administrator.

We cannot deleted standard ones

Each of these standard ones includes a default set of permissions for all of the standard objects available on the platform.

2. Custom Profiles:

Custom ones defined by us.

They can be deleted if there are no users assigned with that particular one

### 7.1. owner Profile

To create a new profile:

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

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.

The screenshot shows the Salesforce Setup interface with the 'Profiles' tab selected. Under 'Custom Object Permissions', there are two tables of checkboxes for granting various permissions (Read, Create, Edit, Delete, View All, Modify All) to different objects for the 'consumers' profile. The first table covers standard objects like Assets, Asset Services, Books, Brokers, Employees, Energy Audits, Item Details, Nick Names, Positions, Projects, Project Tasks, and Properties. The second table covers custom objects like purchasers, reviews, rice details, rice mills, SolarBots, SolarBot Status, studs, students, super marts, suppliers, teachers, tickets, and vendors. Checkmarks indicate specific permission grants, such as 'Create' and 'Edit' for rice details and 'Modify All' for rice mills.

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

Give access and save it.

## 7.2. 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 two identical permission matrices side-by-side. Each matrix has columns for Basic Access (Read, Create, Edit, Delete, View All, Modify All) and Data Administration (View All, Modify All). The rows list various objects: Assets, Asset Services, books, Brokers, consumers, Employees, energy audits, item details, nick names, positions, Projects, ProjectTasks, Properties, purchasers, reviews, rice details, rice mills, SolarBots, SolarBot Status, studs, students, super marts, suppliers, teachers, tickets, and vendors. In the 'Basic Access' section, 'consumers' has a checked 'Read' box under 'Assets'. In the 'Data Administration' section, 'rice details' and 'rice mills' have checked 'View All' boxes under 'rice details' and 'rice mills' respectively.

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"/>	

5. And click save.

## 7.3. 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.
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.

	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"/>
studts	<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"/>

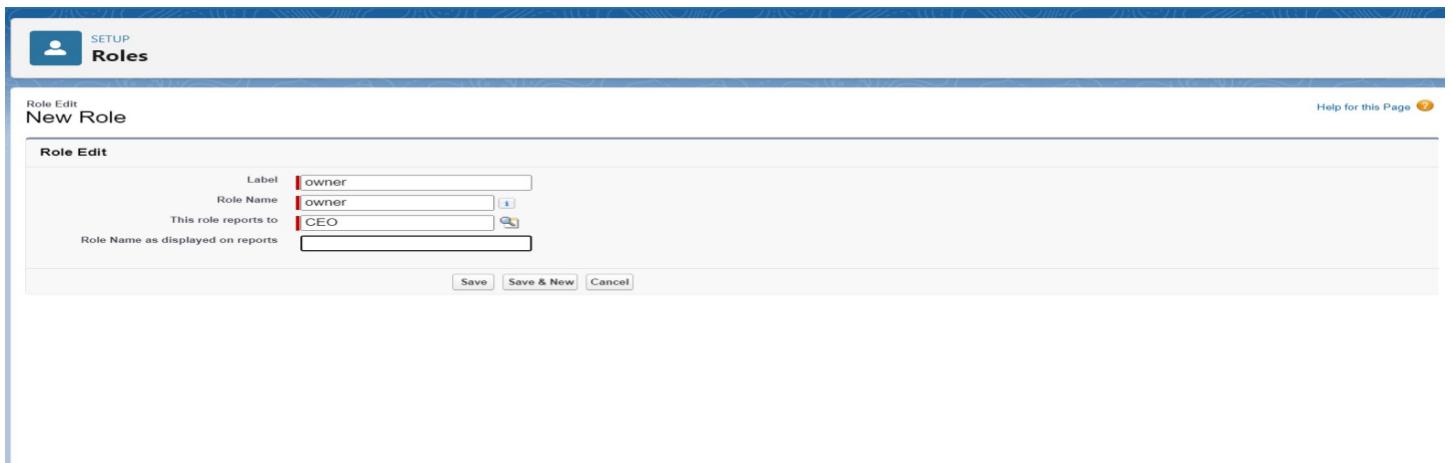
5. And click save.

## Task 8 : 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.

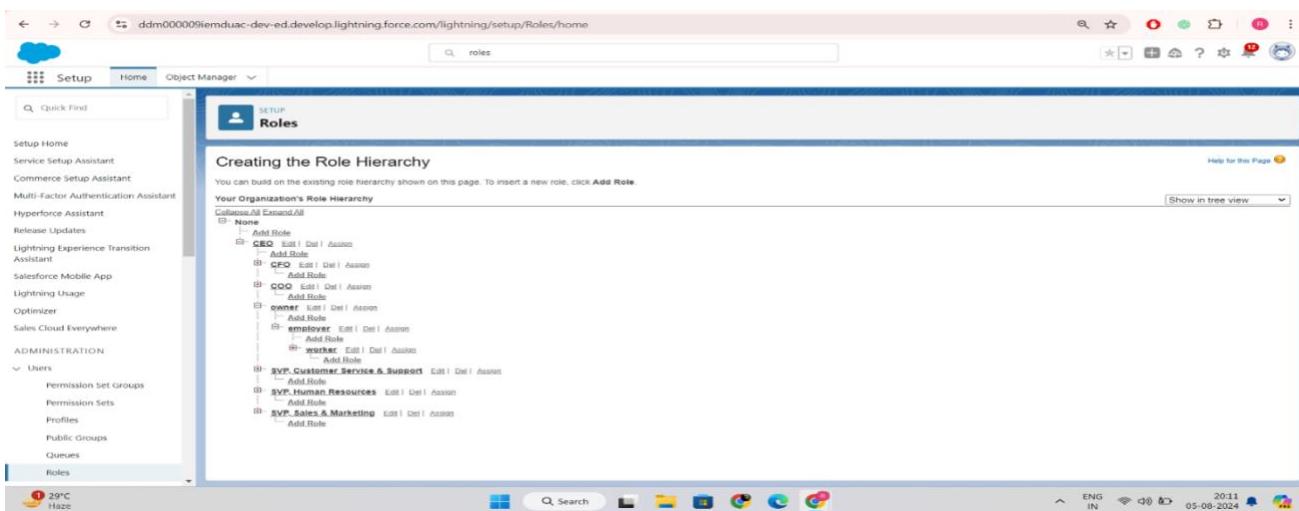
### 8.1. Creating owner Role

1. Creating owner Role:
2. Go to quick find >> Search for Roles >> click on set up roles.
3. Go to quick find >> Search for Roles >> click on set up roles.
4. Click on Expand All and click on add role under whom this role works.
5. Give Label as “owner” and Role name gets auto populated. Then click on Save.



### 8.2. Creating employer roles

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



## Task 9 : 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.

### 9.1. 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 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: owner
10. User license: Salesforce
11. Profiles: owner.
12. Save it.

The screenshot shows the 'User Edit' page in the Salesforce setup. The top navigation bar includes 'SETUP' and 'Users'. The page title is 'User Edit' with the name 'vicky y'. There are three buttons at the top right: 'Save', 'Save & New', and 'Cancel'. A note at the top right says 'Help for this Page' with a question mark icon. Below the title, there is a note 'I = Required Information' with a red exclamation mark icon. The main area is divided into sections: 'General Information' and 'Advanced Settings'. In the 'General Information' section, fields include: First Name (vicky), Last Name (y), Alias (vy), Email (ramesh0820@gmail.com), Username (ramesh0820@754123gmail), Nickname (vicky), Title (empty), Company (empty), Department (empty), and Division (empty). In the 'Advanced Settings' section, fields include: Role (owner, checked), 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), and Data.com Monthly Addition Limit (300).

### 9.2. Creating another users

1. Go to setup ? type users in quick find box ? select users ? click New user.
2. Fill in the fields
3. First Name: ram
4. Last Name: ram
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: employer
10. User license: Salesforce platform
11. Profiles: standard platform user.

### 9.3. Create Another User

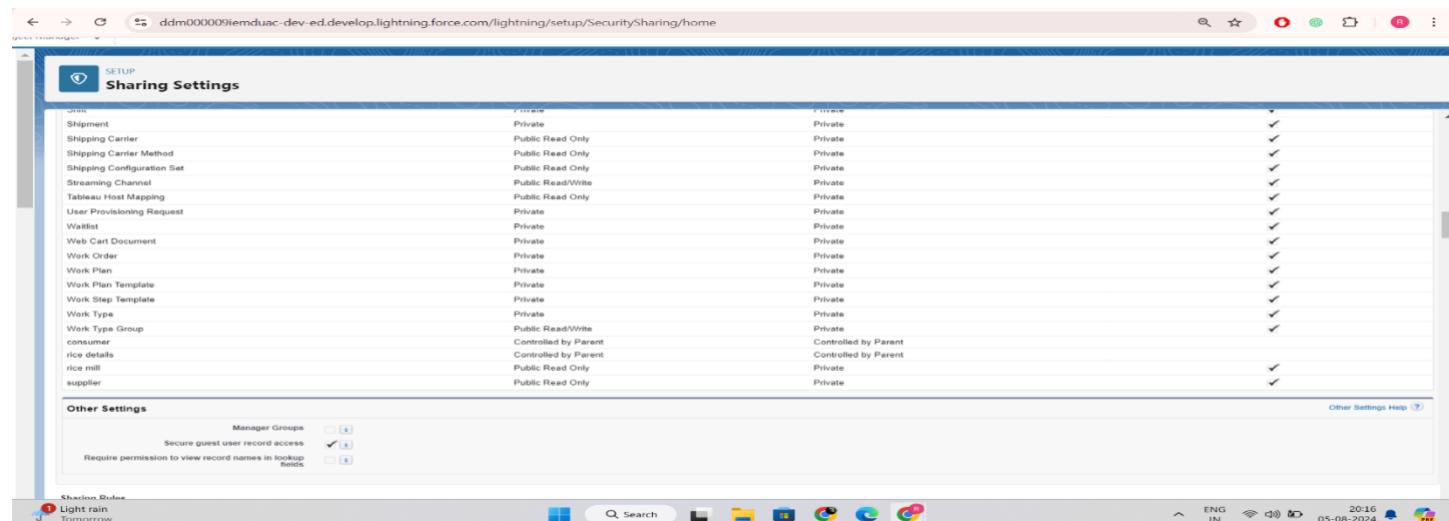
1. Go to setup ? type users in quick find box ? select users ? click New user.
2. Fill in the fields
3. First Name : ragu
4. Last Name : raj
5. Alias : Give a Alias Name
6. Email id : Give your Personal Email id
7. Username : Username should be in this form: text@text.text
8. Nick Name : Give a Nickname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

## Task 10 : Permission sets

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.

### 10.1. Creating OWD setting.

1. Go to setup >> type "sharing settings " in quick search >> Click edit.
2. Scroll down, change the default internal access to " public read-only" for rice mill and supplier object.
3. Click save.
4. Extra information, By these every profile has their own access, according to their profile.
5. But in our case we created roles and given the roles in such a way that the owner can see employer and worker records , and the employer can see the worker records.



The screenshot shows the 'Sharing Settings' page in the Salesforce setup. The main area displays a grid of sharing rules for various objects. The columns represent the object name, the current sharing rule (e.g., Private, Public Read Only), and the new sharing rule (e.g., Private, Public Read Only). A checkmark indicates if the change has been applied. The objects listed include Shipment, Shipping Carrier, Shipping Carrier Method, Shipping Configuration Set, Streaming Channel, Tableau Host Mapping, User Provisioning Request, Waitlist, Web Cart Document, Work Order, Work Plan, Work Plan Template, Work Step Template, Work Type, Work Type Group, consumer, rice details, rice mill, and supplier. In the 'Other Settings' section, there are checkboxes for 'Manager Groups' and 'Secure guest user record access'. The bottom of the screen shows the Windows taskbar with various icons and system status.

# Task 11 : Reports

Note : Before creating a report, create the latest “10” records in consumer objects.

Try to fill every field in each record for better experience.

1. Go to the app >>click on the reports tab
2. Click New Report.

select for report type, search for “rice mill with consumers” click on it. And click on start report.

Their outline pane is opened already, select the fields that are mentioned below in the column section.

1. consumer name
2. rice type
3. rice price/kg
4. mode of payments
5. amount paid
6. Remove the unnecessary fields.
7. Select the fields that are mentioned below in the GROUP ROWS section.
8. Rice taken by shops
9. Click save and run and save the report as “range of amount per day”.and save it.

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	range of amount per day	estimated rice per day	Vivek Racharia	4/8/2024, 11:22 pm	✓	

## 11.1. Sharing report to owner

Click edit drop down and select subscribe option

1. Follow as per below image.

**Edit Subscription**

**Settings**

Frequency

Daily     Weekly     Monthly

Time  
8:00 am ▾

Attachment  
 Attach File

**Recipients**

Send email to  
Me  
 Edit Recipients

Run Report As  
 Me  
 Another Person

Cancel     Save

## 11.2. create a report folder

1.navigate to app launcher and click reports on that.

2.click all reports.

3. Select the range of amount per day drop down in that click move.

5. Select estimated rice per day folder and select folder.

Note: if you want to see the report which you have created then go to reports - all folders - estimated rice per day - your report will appear in this way.

Search all reports... New

	Description	On	Subscrib
Matrix for Sales		3, 2:09 pm	
iBot Research to		3, 2:09 pm	
B Lead Report for		3, 2:09 pm	
product Names for		3, 2:09 pm	
unt per day		23, 2:41 pm	
Report: Screen Flows	Which flow of each interaction users take through screens?	23, 10:49 am	

Create folder

\* Folder Label  
estimated rice per day

\* Folder Unique Name  
estimatedriceperday

Cancel     Save

Reports

## Reports

Recent

Created by Me

Private Reports

Public Reports

All Reports

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites

range of amount per day

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?

Report Name	Description	Folder	Created By	Created On	Subscribed
Erin's SB Opp Matrix for Sales		Acquisition Reports	udayrushi yelagandula	5/6/2023, 2:09 pm	<input checked="" type="checkbox"/>
Lincoln's SolarBot Research to remove		Acquisition Reports	udayrushi yelagandula	5/6/2023, 2:09 pm	<input type="checkbox"/>
Marketing's SB Lead Report for Sales		Acquisition Reports	udayrushi yelagandula	5/6/2023, 2:09 pm	<input type="checkbox"/>
Potential SB Product Names for R&D		Acquisition Reports	udayrushi yelagandula	5/6/2023, 2:09 pm	<input type="checkbox"/>
range of amount per day		Private Reports	udayrushi yelagandula	10/7/2023, 2:41 pm	<input type="checkbox"/>
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	25/4/2023, 10:49 am	<input type="checkbox"/>

Run

Edit

Subscribe

Export

Delete

Add to Dashboard

Favorite

Move

iptvoid(0)

sellers

rice mills

rice details

### Move range of amount per day

All Folders

Report Name Description

Erin's SB Opp Matrix for Sales

Lincoln's SolarBot Research to remove

Marketing's SB Lead Report for Sales

Potential SB Product Names for R&D

range of amount per day

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?

New Folder

Cancel

Select

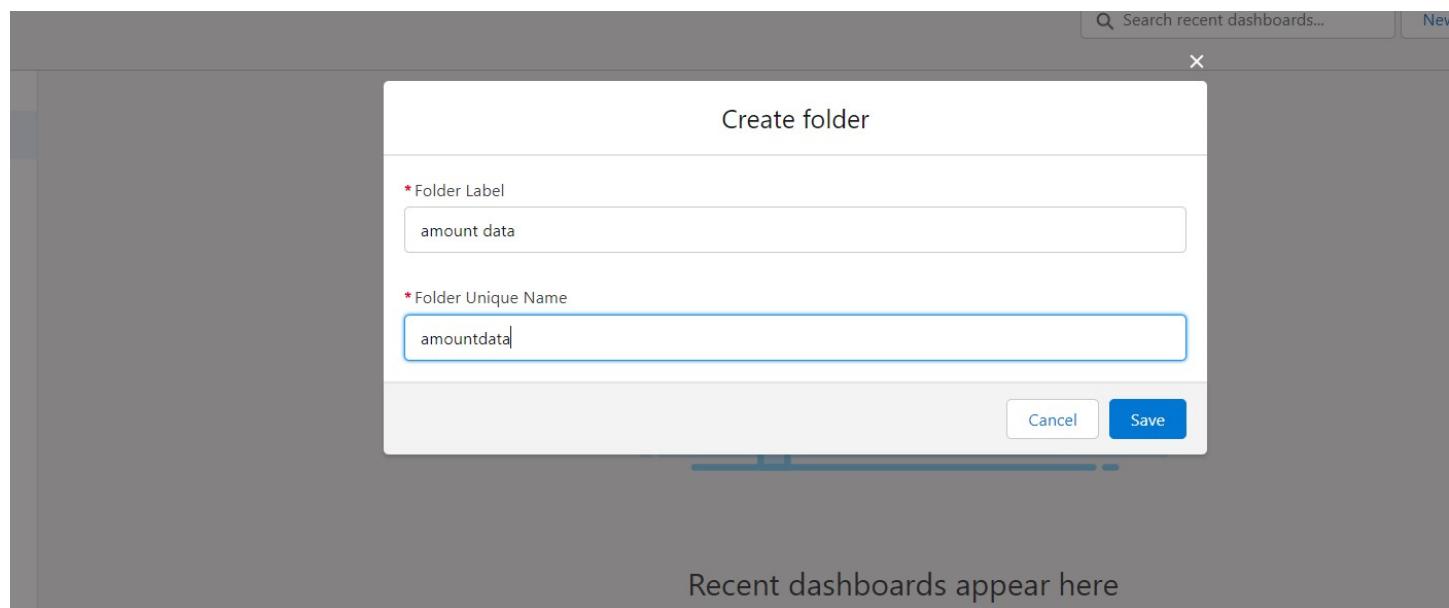
Report Name	Description	Folder	Created By	Created On	Subscribed
Erin's SB Opp Matrix for Sales		Acquisition Reports	udayrushi yelagandula	5/6/2023, 2:09 pm	<input checked="" type="checkbox"/>
Lincoln's SolarBot Research to remove		Einstein Bot Reports	udayrushi yelagandula	5/6/2023, 2:09 pm	<input type="checkbox"/>
Marketing's SB Lead Report for Sales		Einstein Bot Reports Summer '23	udayrushi yelagandula	5/6/2023, 2:09 pm	<input type="checkbox"/>
Potential SB Product Names for R&D		Einstein Bot Reports Summer '22	udayrushi yelagandula	5/6/2023, 2:09 pm	<input type="checkbox"/>
range of amount per day		Einstein Bot Reports Winter '23	udayrushi yelagandula	5/6/2023, 2:09 pm	<input type="checkbox"/>
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?	estimated rice per day	udayrushi yelagandula	10/7/2023, 2:41 pm	<input type="checkbox"/>
		Report Recycle Bin	estimator rice per day	23/4/2023, 10:49 am	<input type="checkbox"/>

## Task 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.

### 12.1. Create Dashboard Folder

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



### 12.2. Create Dashboard

1. Go to the app >> click on the Dashboards tabs.
2. Give a Name and select the folder that was created, and click on create.
3. Select add component
4. Select a Report and click on select.

Preview is shown below.

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

1. Component theme >> dark.
2. Add the component
3. Again select add component with above same steps
4. .display as donut chart
5. sort by >> sum of amount
6. .title>>range of amount per day
7. component theme dark
8. click add.
9. Click save and done.

The screenshot shows the Salesforce Lightning interface with the URL `ddm000009iemduac-dev-ed.develop.lightning.force.com/lightning/o/Dashboard/home?queryScope=mr`. The top navigation bar includes links for 'supplier', 'rice mills', 'consumers', 'rice details', 'range of amount per day', and 'Dashboards'. The main content area displays a table of recent dashboards. The table has columns for 'Dashboard Name', 'Description', 'Folder', 'Created By', 'Created On', and 'Subscribed'. One dashboard named 'estimated data' is listed, created by Vivek Racharla on 5/8/2024 at 5:45 pm. The sidebar on the left shows categories like 'Dashboards', 'Recent', 'Folders', and 'Favorites'. The bottom status bar shows weather (29°C Haze), system icons, and the date/time (05-08-2024, 20:19).

The screenshot shows the 'estimated data' dashboard with the URL `ddm000009iemduac-dev-ed.develop.lightning.force.com/lightning/r/Dashboard/01ZdM000001kWhxUAE/view?queryScope=userFolders`. The dashboard title is 'estimated data' and it was last updated on 05-Aug-2024, 8:29 pm by Vivek Racharla. It contains two visual components: a bar chart titled 'range of amount per day' and a donut chart also titled 'range of amount per day'. The bar chart shows two bars for 'Rice taken by shops' with values 125 and 150. The donut chart shows a single segment labeled '15k' with a note 'Sum of Amount Paid'. Both charts have a 'View Report' link below them. The bottom status bar shows weather (29°C Haze), system icons, and the date/time (05-08-2024, 20:20).

## Task 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 as similar as java i.e, it also supports OOP( Object oriented programming) like Classes, objects, methods.

### Creating Classes :

Apex classes are modeled on their counterparts in Java. You'll define, instantiate, and extend classes, and you'll work with interfaces, Apex class versions, properties, and other related class concepts.

- **Class:**

As in Java, you can create classes in Apex. A class is a template or blueprint from which objects are created. An object is an instance of a class.

- **Object**

Object is an instance of a class, where it can access all the properties that are present in a class i.e, variables and methods.

### 13.1. Creating an Apex Class(ConsumerRecord)

1. Login to the Salesforce account and navigate to the gear account in the top right corner.
2. Then we can see the 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.
4. Enter the name of the class(ConsumerRecord) to create a new class file.

### Code Snippet :

```
class ConsumerRecord {  
    public static void sendEmailNotification (List<consumer__c> con){  
        for(consumer__c c:con)  
        {  
            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();  
            email.setToAddresses( new List<String>{c.email__c});  
            email.setSubject('Welcome to our company');  
            email.setPlainTextBody('Dear ' + ' + '\n\nWelcome to MY RICE!'+'You have been seen  
as a valuable customer to us. Please continue your journey with us, while we try to provide you with  
good quality resources.'+'\n'+  
                "We are proud to associate with valuable customers like you and we look  
forward to collaborating with you by providing more and more exciting discounts or even product  
offers too.' + '\n'+  
                +'So why taking a step back, take a leap of faith and shop with us more,  
while we provide with the valuable products and offers'+'\n'+'\n'+'\n'+
```

'Thankyou for buying '+' '+Here are some of the products that are brought by the customers who similarly bought products like this+'\n\n');

```
Messaging.sendEmail(new List<Messaging.SingleEmailMessage>{email});
```

The screenshot shows the Salesforce IDE interface with the following details:

- Header:** ddm000009iemduac-dev-ed.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage
- Toolbar:** File, Edit, Debug, Test, Workspace, Help.
- Tab Bar:** ConsumerRecord.apxc, consumerTrigger.apxt, **RiceDetails.apxc**, riceDetailsTrigger.apxt.
- Code Coverage:** None, API Version: 61.
- Code Content:** The code for the `RiceDetails` class is displayed. It includes logic to process a list of `rice_details__c` records, a debug statement to log the list, and a loop to handle each record with specific actions like logging information or sending notifications.

```
1 public class RiceDetails {
2     // Method to process rice details records
3     public static void processRiceDetails(List<rice_details__c> riceDetailsList) {
4         // Check if the list is not empty
5         if (riceDetailsList == null || riceDetailsList.isEmpty()) {
6             return;
7         }
8
9         // Example logic: Debugging output (useful for testing)
10        System.debug('Processing rice details: ' + riceDetailsList);
11
12         // Implement your specific logic here
13        for (rice_details__c riceDetail : riceDetailsList) {
14            // Example: Log each rice detail record's information
15            System.debug('Rice Detail Record: ' + riceDetail);
16
17            // Implement specific actions for each record
18            // For instance, you might send notifications or update related records
19        }
20    }
21 }
22 }
```

- Bottom Navigation:** Logs, Tests, Checkpoints, Query Editor, View State, Progress, Problems.
- Status Bar:** Name: Sailing, Final result, ENG IN, 05-08-2024, 2022.

## 13.2. Creating an Apex Trigger

How to create a new trigger :

While still in the trailhead account, navigate to the gear icon in the top right corner.

Click on developer console and you will be navigated to a new console window.

Click on the File menu in the toolbar, and click on new? Trigger.

Enter the trigger name and the object to be triggered.

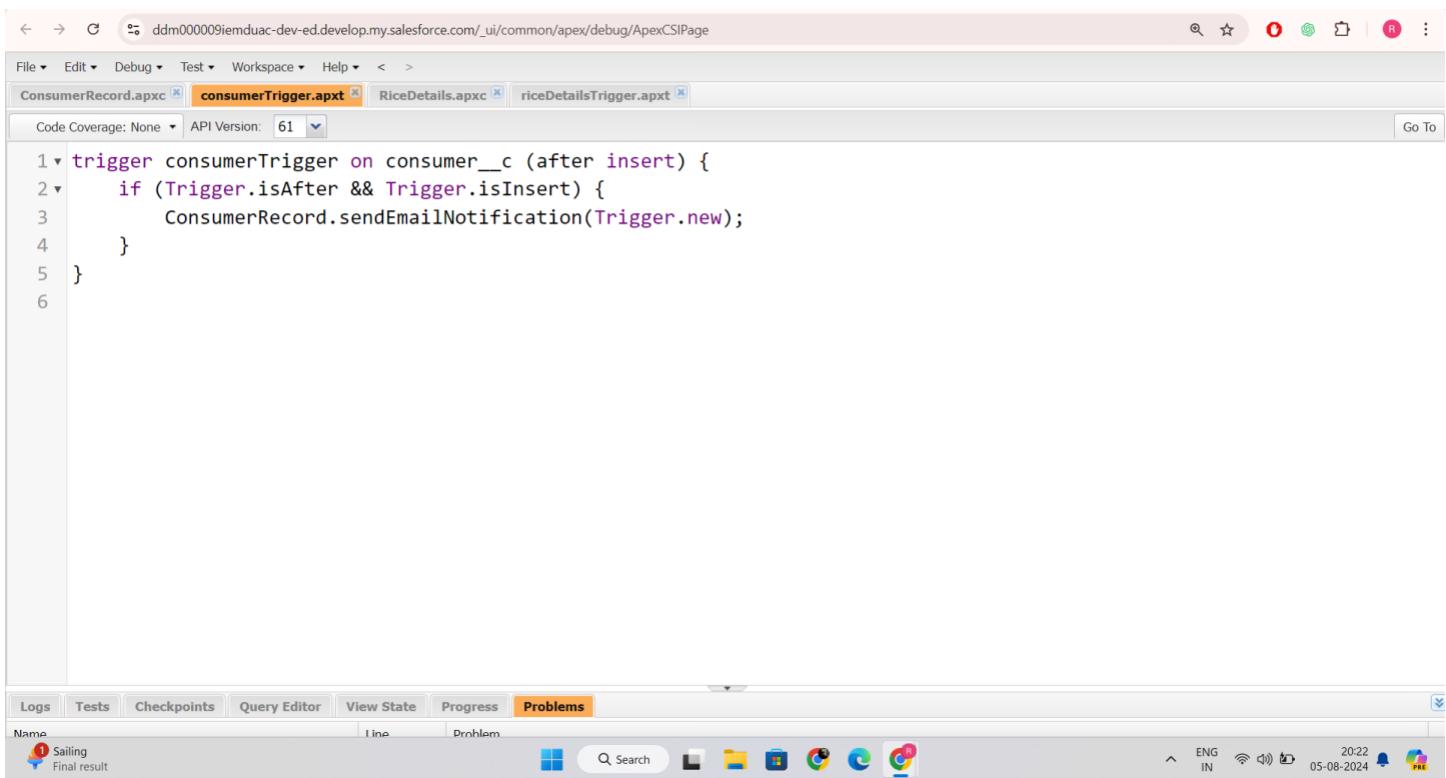
**Syntax For creating trigger :**

The syntax for creating trigger is :

```
Trigger [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. The title bar indicates the URL is ddm000009iemduac-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage. The tabs at the top show ConsumerRecord.apxc, consumerTrigger.apxt (which is the active tab), RiceDetails.apxc, and riceDetailsTrigger.apxt. Below the tabs, there are dropdown menus for File, Edit, Debug, Test, Workspace, Help, and a Go To button. The main area displays the trigger code in a syntax-highlighted editor. The code is as follows:

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

At the bottom of the screen, there is a navigation bar with tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The Problems tab is currently selected. A status bar at the bottom shows the name 'Sailing' with a 'Final result' badge, system icons like battery and signal strength, and the date and time '05-08-2024 20:22'.

ddm000009iemduac-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >

ConsumerRecord.apxc consumerTrigger.apxc RiceDetails.apxc riceDetailsTrigger.apxt

Code Coverage: None ▾ API Version: 61 ▾ Go To

```
1 trigger riceDetailsTrigger on rice_details__c (after insert) {
2     if (Trigger.isAfter && Trigger.isInsert) {
3         RiceDetails.processRiceDetails(Trigger.new);
4     }
5 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

Name Sailing Final result

Search

ENG IN 05-08-2024

# **Thank you**