

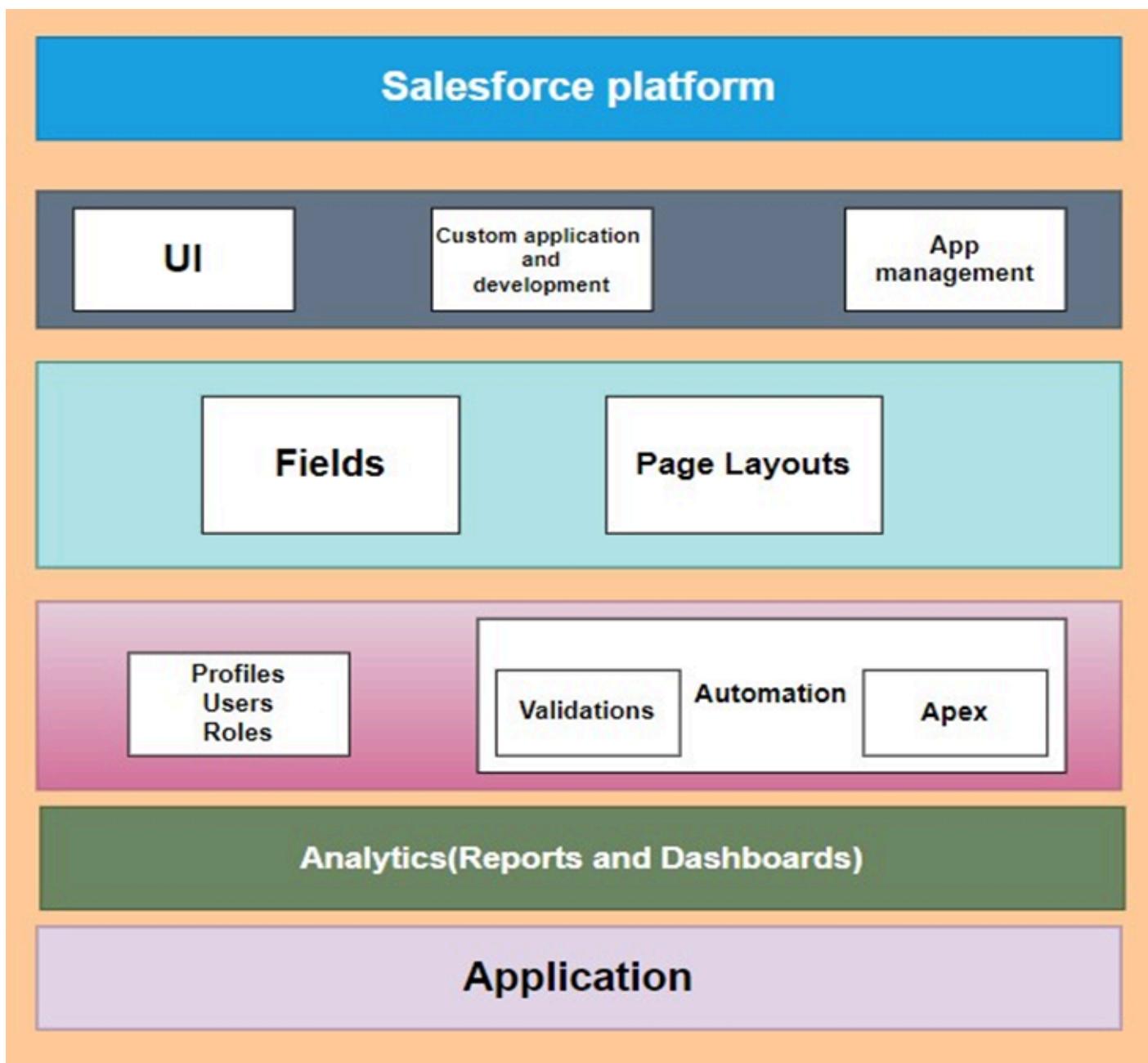
# A CRM APPLICATION FOR WHOLESALE RICE MILL

## Short Description:

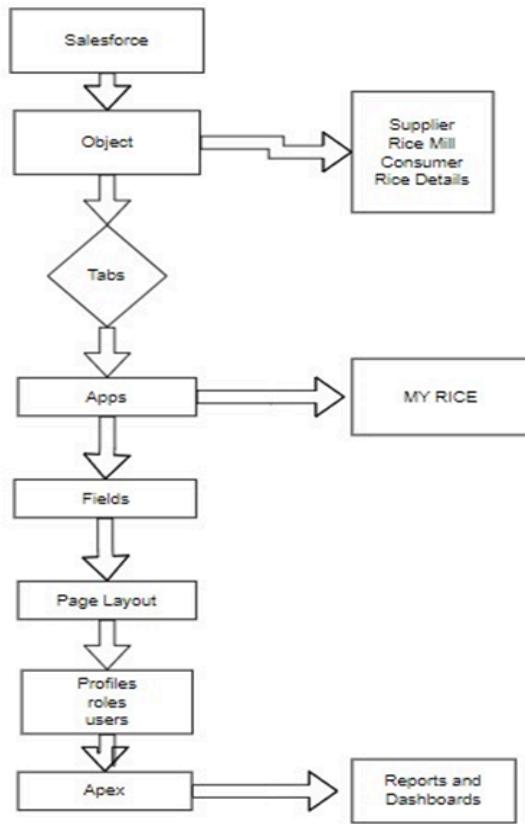
The Rice Mill Crm Streamlines Daily Rice Production and Sales Reporting, Enhancing Efficiency and Customer Experiences.

## Long Description:

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



## Project Flow:



## Features and Functionality:

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

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

**Cross Object Formula:** It is a formula field that references fields from another object in Salesforce. This type of formula allows users to calculate the total amount from number of rice taken\*price/kg and it displays the total amount I have to pay.

**Validation Rule:** 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. In this project i gave Isblank formula.Isblank formula is used to verify whether it is blank it shows error.

**Permission sets:** Organization Wide Defaults(OWD) in salesforce is the baseline level of access that the most restricted user should have. Organizational Wide Defaults are used to restrict access. 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.

## **Pre-requisites:**

Salesforce Developer account

Knowledge of the salesforce admin concepts.

Installed with 2 web browsers in the Machine

Good internet connectivity

## **What you'll learn:**

1. Real Time Salesforce Project
2. Object & Relationship in Salesforce
3. Formula fields and Validation rules.
4. Cross object formula fields.
5. Page layouts.
6. Rollup summary fields.
7. Reports and dashboards

## **Milestones and Activities:**

### **Milestone 1-Salesforce :**

#### **Introduction:**

Are you new to Salesforce? Not sure exactly what it is, or how to use it? Don't know where you should start on your learning journey? If you've answered yes to any of these questions, then you're in the right place. This module is for you.

Welcome to Salesforce! Salesforce is game-changing technology, with a host of productivity-boosting features, that will help you sell smarter and faster. As you work toward your badge for this module, we'll take you through these features and answer the question, "What is Salesforce, anyway?".

#### **What Is Salesforce?**

Salesforce is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers.

Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.

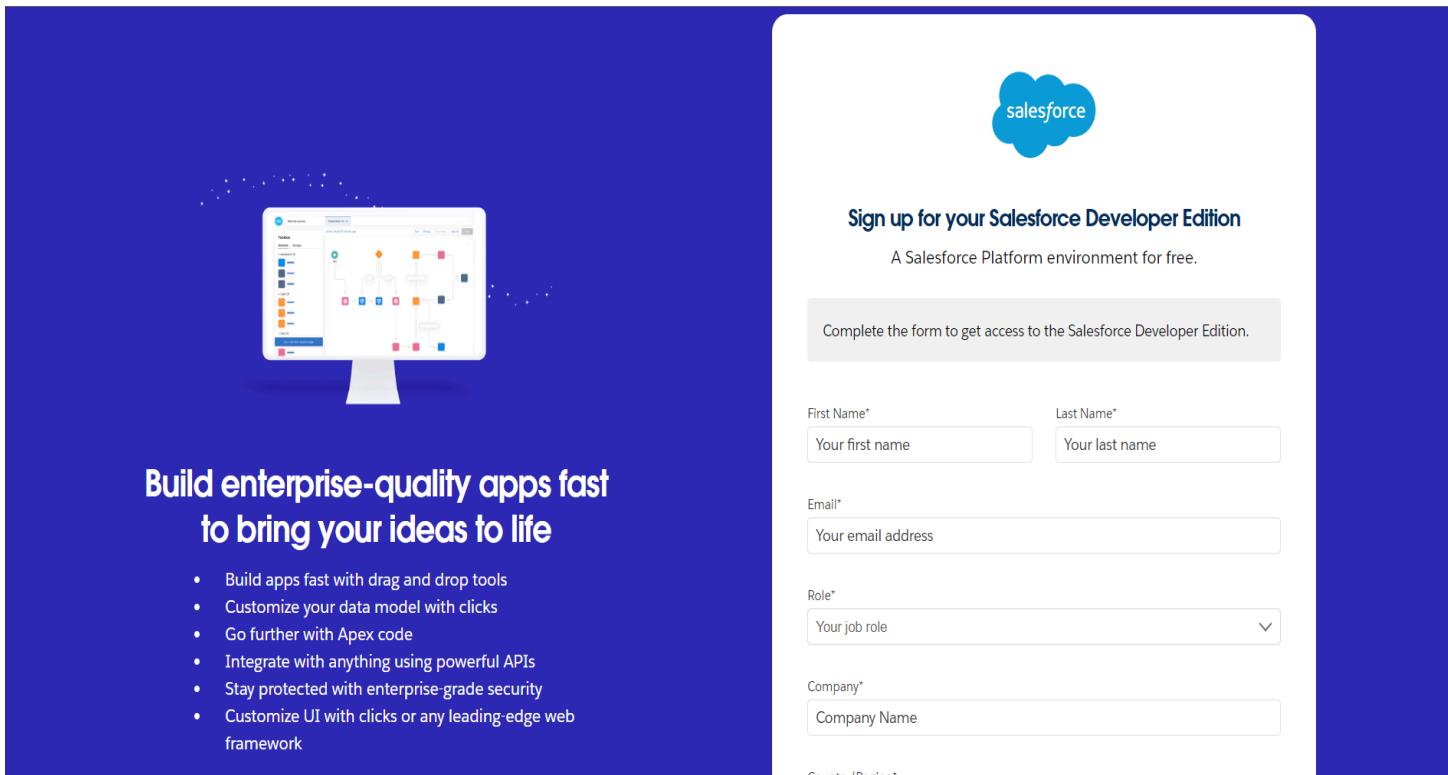
So what does that really mean? Well, before Salesforce, your contacts, emails, follow-up tasks, and prospective deals might have been organized something like this:

<https://youtu.be/r9EX3lGde5k>

### Activity 1: Creating Developer Account:

Creating a developer org in salesforce.

1. Go to <https://developer.salesforce.com/signup>
2. On the sign up form, enter the following details :



The image shows a composite view. On the left, there's a dark blue background featuring a white computer monitor displaying a complex diagram or interface, possibly a data model or application flowchart. Overlaid on this are the words "Build enterprise-quality apps fast to bring your ideas to life". Below this are seven bullet points listing features of the platform. On the right, there's a white sign-up form for the "Salesforce Developer Edition". The form includes fields for First Name\*, Last Name\*, Email\*, Role\*, Company\*, Country/Region\*, and a "Sign me up" button at the bottom.

**Sign up for your Salesforce Developer Edition**  
A Salesforce Platform environment for free.

Complete the form to get access to the Salesforce Developer Edition.

First Name\*

Last Name\*

Email\*

Role\*

Company\*

Country/Region\*

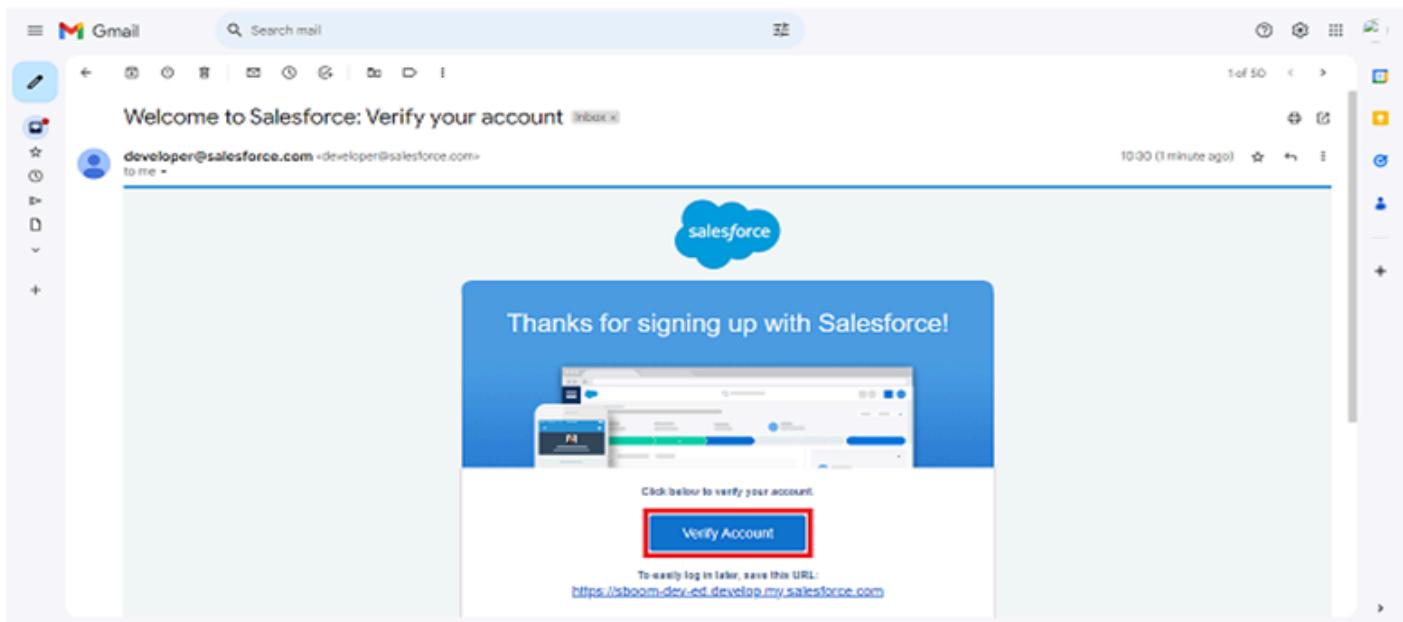
- 1) First name & Last name
- 2) Email
- 3) Role : Developer
- 4) Company : College Name
- 5) County : India
- 6) Postal Code : pin code
- 7) Username : should be a combination of your name and company

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

Click on sign me up after filling these.

### Activity 2: Account Activation:

1. Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.



2. Click on Verify Account
3. Give a password and answer a security question and click on change password.

The screenshot shows the "Change Your Password" page. At the top, it says "Enter a new password for lead@sboom.com. Make sure to include at least:

- 8 characters
- 1 letter
- 1 number

The form fields are as follows:

- \* New Password: A green input field containing "....." with a "Good" status message to its right.
- \* Confirm New Password: A green input field containing "....." with a "Match" status message to its right.
- Security Question: A dropdown menu showing "In what city were you born?"
- \* Answer: A blue input field containing "asdfghjkl".
- A large blue "Change Password" button at the bottom.

4. Then you will redirect to your salesforce setup page.

The screenshot shows the Salesforce Setup Home page. At the top, there's a navigation bar with icons for Home, Object Manager, and a search bar labeled "Search Setup". Below the navigation is a sidebar with links like "Setup Home", "Service Setup Assistant", "Multi-Factor Authentication Assistant", "Release Updates", "Lightning Experience Transition Assistant", "Salesforce Mobile App", "Lightning Usage", and "Optimizer". The main content area is titled "SETUP Home" and features three cards: "Get Started with Einstein Bots", "Mobile Publisher", and "Real-time Collaborative Docs". Each card has a small icon, a title, a brief description, and a "Get Started" or "Learn More" button.

## Milestone 2- Object

What Is an Object?

Salesforce objects are database tables that permit you to store data that is specific to an organization. What are the types of Salesforce objects .

**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.

This screenshot shows a browser window for "Home | Salesforce" with the URL "sbcom-5e-dev-ed.lightning.force.com/lightning/setup/SetupOneHome/home". The browser toolbar includes a gear icon, a question mark icon, and a refresh icon. A red arrow points from the gear icon to the "Setup" tab in the top navigation bar. Another red arrow points from the "Setup" tab to the "Setup" icon in the top right corner of the page content area.

## To create an object:

1. From the setup page → Click on Object Manager → Click on Create → Click on Custom Object.

The screenshot shows the Salesforce Setup interface. At the top, there's a navigation bar with 'Setup' and 'Object Manager'. A large black arrow points from the text above to the 'Object Manager' button. To the right of the 'Object Manager' button is a 'Create' button with a dropdown arrow. Below the navigation bar, the 'Object Manager' page is displayed, showing a table of objects. A red oval highlights the 'Custom Object' button in the top right corner of the table header area. A black arrow points from the text above to the 'Create' button.

2. On Custom object defining page:

3. Enter the label name, plural label name, click on Allow reports, Allow search.

The screenshot shows the 'New Custom Object' page in the Salesforce Setup. The page has several sections:

- Custom Object Information:** Fields for 'Label' (with example 'Account') and 'Plural Label' (with example 'Accounts').
- Object Name:** Field for 'Object Name' (with example 'A').
- Description:** A large text input field.
- Context-sensitive Help Setting:** Options for 'Open the standard Salesforce.com Help & Training window' (selected) and 'Open a window using a Visualforce page'.
- Enter Record Name Label and Format:** Fields for 'Record Name' (example 'AccountName') and 'Data Type' (set to 'Text').
- Optional Features:** A section with checkboxes for 'Allow Reports' (selected), 'Allow Activities', 'Track Field History', 'Allow in Chatter Groups', and 'Enable Licensing'.
- Object Classification:** A section about enterprise vs light application classification with checkboxes for 'Allow Sharing', 'Allow Bulk API Access', 'Allow Streaming API Access', and 'Allow Apex API Access'.
- Deployment Status:** Radio buttons for 'In Development' and 'Deployed' (selected).
- Search Status:** A checkbox for 'Allow Search' (selected).
- Object Creation Options:** Options for 'Add Notes and Attachments related list to default page layout' and 'Launch New Custom Tab Wizard after saving this custom object'.

Red arrows highlight the 'Label' and 'Plural Label' fields, the 'Object Name' field, the 'Allow Reports' checkbox, the 'Allow Search' checkbox, and the 'Save & New' button at the bottom.

4. Click on Save.

## **Activity 1: Create Supplier Object:**

**To create an object:**

1. 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
2. Click on Allow reports and Track Field History and allow search
3. Allow search → Save.

## **Activity 2: Create Rice mill Object:**

**To create an object:**

1. 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
2. Click on Allow reports and Track Field History, Allow Search.
3. Allow search → Save.

## **Activity 3: Create consumer Objects:**

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

1. Use these display format for the consumer
  - label name → consumer

- Plural label name → consumers
- Display Format → consumers-{000}
- Starting number → 1

#### **Activity 4: Create rice details Objects:**

2. Use these display formats for the rice details.

- label name → rice details
- Plural label name → rice details
- Display Format → rice-{000}
- Starting number → 1

### **Milestone 3- Tabs**

**What is Tab :** 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:**

##### **1. 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.

##### **2. 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.

##### **3. 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.

##### **4. Lightning Component Tabs**

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

## 5. 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.

### Activity 1: Creating a Custom Tab

#### To create a Tab:( supplier)

1. Go to setup page → type Tabs in Quick Find bar → click on tabs → New (under custom object tab)

The screenshot shows the Salesforce Setup interface with the following highlights:

- A red box highlights the "Setup" button in the top left corner.
- A red box highlights the "Tabs" icon in the top navigation bar.
- A red box highlights the "Custom Tabs" section in the main content area.
- A red box highlights the "New" button at the top right of the "Custom Object Tabs" table.

The "Custom Object Tabs" table lists various tabs with their details:

Action	Label	Tab Style	Description
Edit / Del	Activities	Desk	Created to setup with student activity/Junction object.
Edit / Del	Address	Anywhere	
Edit / Del	Courses	Chess piece	
Edit / Del	Goals	Jewel	This tab is related to Hotel Reservation App.
Edit / Del	Grocery	Anywhere	
Edit / Del	Mail	Phone	This tab is related to College Management System.
Edit / Del	Color_Cards	Camera	
Edit / Del	Codes	Desk	
Edit / Del	Cricket	Computer	
Edit / Del	Endorse	Desk	
Edit / Del	GasStation	Highway Sign	This tab is related to Hotel Reservation App.
Edit / Del	Gasita	Highway Sign	This tab is related to Hotel Reservation App.
Edit / Del	Sessions	Anywhere	
Edit / Del	Students	Phone	This tab is related to College Management System.

2. 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 .
3. Make sure that the Append tab to users' existing personal customizations is checked.
4. Click save.

The screenshot shows the "Edit Custom Object Tab" page for the "suppliers" object. The page includes the following sections:

- Custom Tab Definition Edit**: Shows the tab label "suppliers" and object "supplier".
- Custom Object Tab Information**: Shows the tab style as "Box".
- (Optional) Choose a Home Page Custom Link**: A dropdown menu set to "None".
- Description**: A text input field.
- Buttons**: "Save" and "Cancel" buttons at the bottom.

**Tab Style Selector**

**Create your own style**

**Hide styles which are used on other tabs**

Airplane	Alarm clock	Apple	Balls
Bank[1]	Bell	Big top	Boat[1]
Books	Bottle	Box	Bridge
Building	Building Block	Caduceus	Camera
Can	Car	Castle	CD/DVD
Cell phone	Chalkboard	Chess piece	Chip
Circle	Compass	Computer	Credit card
CRT TV	Cup	Desk[1]	Diamond
Dice	Factory	Fan	Flag
Form	Gears	Globe	Guitar
Hammer	Hands	Handsaw	Headset
Heart[1]	Helicopter	Hexagon	Highway Sign
Hot Air Balloon	Insect	IP Phone	Jewel
Keys	Laptop	Leaf	Lightning

**Save** **Cancel**

**Step 3, Add to Custom Apps**

**Step 3 of 3**

Choose the custom apps for which the new custom tab will be available. You may also examine or alter the visibility of tabs from the detail and edit pages of each Custom App.

Custom App	<input type="checkbox"/> Include Tab
Platform (standard__Platform)	<input type="checkbox"/>
Sales (standard__Sales)	<input type="checkbox"/>
Service (standard__Service)	<input type="checkbox"/>
Marketing (standard__Marketing)	<input type="checkbox"/>
Simple Console (standard__ServiceConsole)	<input type="checkbox"/>
High Volume Customer Portal User	<input type="checkbox"/>
Authenticated Website User	<input type="checkbox"/>
App Launcher (standard__AppLauncher)	<input type="checkbox"/>
Analytics Studio (standard__Insights)	<input type="checkbox"/>
Sales Console (standard__LightningSalesConsole)	<input type="checkbox"/>
Service Console (standard__LightningService)	<input type="checkbox"/>
Sales (standard__LightningSales)	<input checked="" type="checkbox"/>
Lightning Usage App (standard__LightningInstrumentation)	<input type="checkbox"/>
Digital Experiences (standard__SalesforceCM9)	<input type="checkbox"/>
Queue Management (standard__QueueManagement)	<input type="checkbox"/>
Bolt Solutions (standard__LightningBolt)	<input type="checkbox"/>
Data Manager (standard__DataManager)	<input type="checkbox"/>
Salesforce Scheduler Setup (standard__LightningScheduler)	<input type="checkbox"/>

Append tab to users' existing personal customizations

**Previous** **Save** **Cancel**

## Activity 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 .

## Milestone 4- The Lightning App:

1. 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.
2. 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.

### Activity 1: Create a Lightning App

To create a lightning app page:

1. Go to setup page → search “app manager” in quick find → select “app manager” → click on New lightning App.

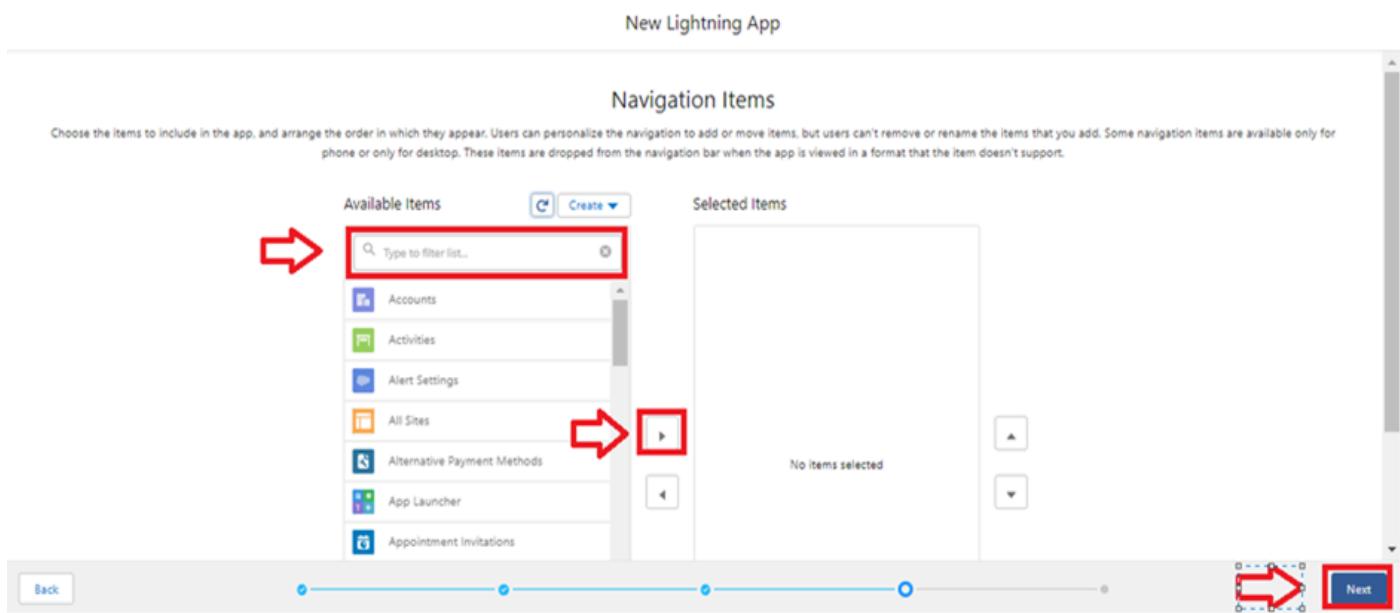
The screenshot shows the Salesforce App Manager interface. At the top, there's a search bar and a 'Search Setup' button. Below that, a navigation bar has 'app manager' and 'API Manager (Beta)' highlighted with red boxes. On the right, there are buttons for 'New Lightning App' and 'New Connected App'. A large table below lists various apps, including 'All Tabs', 'Analytics Studio', 'App Launcher', 'Bolt Solutions', 'Chatter Desktop', 'Chatter Mobile for BlackBerry', 'College Management System', 'Community', 'Content', and 'Data Manager'. The 'New Lightning App' button is highlighted with a red arrow.

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.

The screenshot shows the 'New Lightning App' configuration page. The 'App Details & Branding' section is visible. It includes fields for 'App Name' (with a placeholder 'Name your app.'), 'Developer Name' (with a placeholder 'Enter a developer name...'), and 'Description' (with a placeholder 'Enter a description...'). To the right, there's an 'App Branding' section with an 'Image' upload field, a color picker set to '#007002', and an 'Org Theme Options' checkbox. At the bottom, there's an 'App Launcher Preview' section and a 'Next' button highlighted with a red arrow.

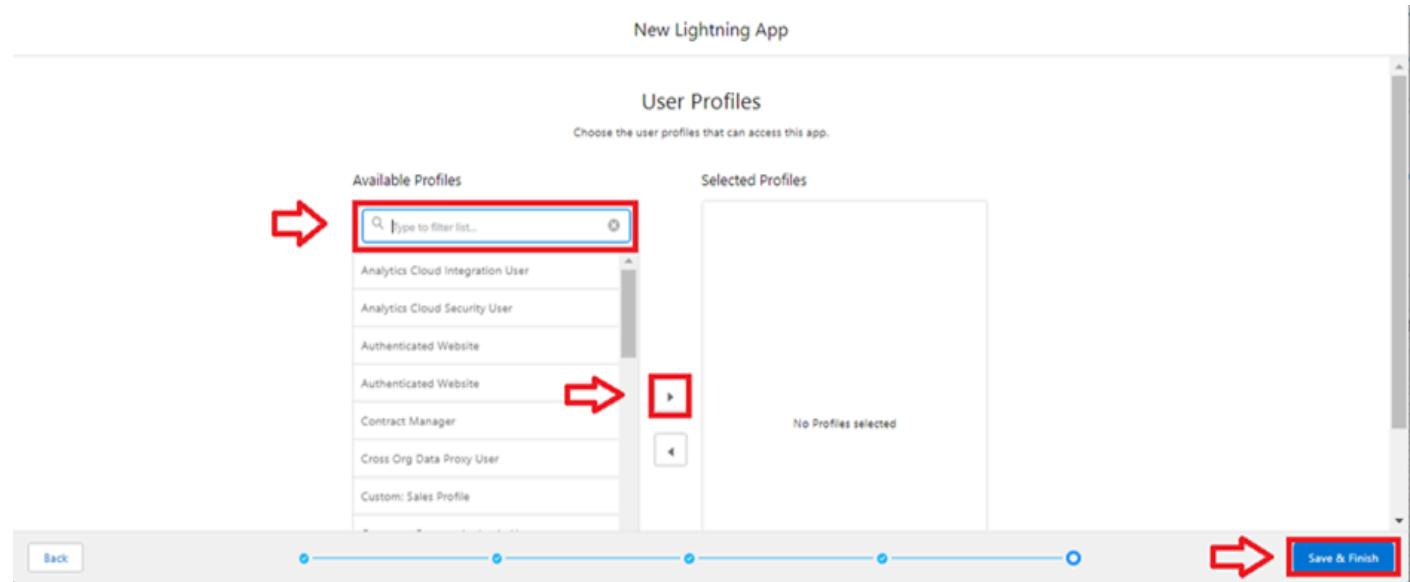
3. Upload a photo that is related to your app.

4. To Add Navigation Items:



Select the items (supplier, rice mill, consumer , Rice details ) from the search bar and move it using the arrow button → Next.

5. To Add User Profiles:



Search profiles (System administrator) in the search bar → click on the arrow button → save & finish.

## **Milestone 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 a non-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,

- Created By
- Owner
- Last Modified
- 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 organizer 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.

### Activity 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.

The screenshot shows the Salesforce Object Manager. A red box highlights the 'Object Manager' tab in the top navigation bar. Another red box highlights the search bar with 'student'. A third red box highlights the 'Label' column for the first object in the list, which is 'Student'. A fourth red box highlights the 'API Name' column for the same object, which is 'Apex\_\_c'. The interface includes a 'Create' button and a 'Search Setup' bar at the top.

Label	API Name	Type	Description	Last Modified	Deployed
Student	Apex__c	Custom Object	College Management System	16/10/2022	✓
Student Activity	Student_Activity__c	Custom Object	Created for the purpose of Junction object	26/01/2023	✓

2. Click on fields & relationship → click on New.

Fields & Relationships				
5 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)		✓
Sum of Fuel supplied	Sum_of_Fuel_supplied__c	Roll-Up Summary (SUM Fuel details)		
Supplier Name	Name	Text(80)		✓

3. Select Data type as “Number” and click Next.
4. Given the Field Label as “ rice distributed ” and length as “ 5 ”.

Step 2. Enter the details Step 2 of 4

Previous Next Cancel

Field Label	<input type="text"/>
Please enter the length of the number and the number of decimal places. For example, a number with a length of 8 and 2 decimal places can accept values up to "12345678.90".	
Length	<input type="text" value="18"/> Number of digits to the left of the decimal point
Decimal Places	<input type="text" value="0"/> Number of digits to the right of the decimal point
Field Name	<input type="text"/>
Description	<input type="text"/>
Help Text	<input type="text"/>
Required <input type="checkbox"/> Always require a value in this field in order to save a record Unique <input type="checkbox"/> Do not allow duplicate values External ID <input type="checkbox"/> Set this field as the unique record identifier from an external system AI Prediction <input type="checkbox"/> Use this field to store AI prediction scores Auto add to custom report type <input checked="" type="checkbox"/> Add this field to existing custom report types that contain this entity	

5. Field Name will be auto populated, and click on Next→ Next → Save.

## Activity 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

1. Go to the setup page → click on object manager → From drop down click edit for rice details object.

The screenshot shows the Salesforce Object Manager interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. A red box highlights 'Object Manager' with a red arrow pointing to it. In the main area, there's a search bar with 'student' typed in and a red box highlighting it with a red arrow. Below the search bar is a table with two rows. The first row has 'Student' highlighted with a red box and a red arrow. The second row has 'Student Activity' and 'StudentActivity\_\_c' listed. The columns are labeled 'LABEL', 'API NAME', 'TYPE', 'DESCRIPTION', 'LAST MODIFIED', and 'DEPLOYED'.

2. Click on fields & relationship → click on New.

The screenshot shows the 'Fields & Relationships' page for the 'Supplier' object. On the left, there's a sidebar with various options like 'Details', 'Fields & Relationships' (which is selected and highlighted with a red box and a red arrow), 'Page Layouts', etc. The main area is titled 'Fields & Relationships' with a sub-header '5 Items, Sorted by Field Label'. It contains a table with columns: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The table lists several fields: 'Created By' (CreatedById, Lookup(User)), 'Last Modified By' (LastModifiedById, Lookup(User)), 'Owner' (OwnerId, Lookup(User,Group)), 'Sum of Fuel supplied' (Sum\_of\_Fuel\_supplied\_\_c, Roll-Up Summary (SUM Fuel details)), and 'supplier Name' (Name, Text(80)). At the top right of the table area, there's a 'New' button highlighted with a red box and a red arrow.

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

The screenshot shows the 'Data Type' configuration screen. At the top, it says 'Specify the type of information that the custom field will contain.' On the right, there's a 'Next' button with a yellow arrow pointing to it. The main area has a 'Data Type' section with several options: 'None Selected' (radio button), 'Auto Number' (radio button), 'Formula' (radio button), 'Roll-Up Summary' (radio button), 'Lookup Relationship' (radio button), 'Master-Detail Relationship' (radio button selected and highlighted with a red box and a red arrow), and 'External Lookup Relationship' (radio button). Each option has a detailed description below it.

4. Select the related object “ supplier ” and click next.

The screenshot shows the 'New Relationship' configuration screen. At the top, it says 'Buyer' and 'New Relationship'. On the right, there's a 'Help for this Page' link. The main area has a 'Step 2. Choose the related object' section with a dropdown menu. The dropdown menu is open, showing a list of objects: Resource Absence, Return Order, Seller, Service Appointment, Service Contract, Service Resource, Service Territory, Session Hijacking Event Store, Shift, Solution, and Store. The word 'Supplier' is at the bottom of the list and is highlighted with a red box and a red arrow. At the bottom right of the screen, there are 'Previous', 'Next', and 'Cancel' buttons.

5. Give Field Label as “supplier Name” and click Next.
6. Next → Next → Save & New.
7. Follow the same steps from 1 to 3.
8. Select the related object “ rice mill ” and click Next.
9. Give Field Label as “rice mill 1(one)” and click Next.
10. Next → Next → Save.

### **Activity 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.

### **Activity 4 : Creating the Roll-up Summary**

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

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

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

The screenshot shows the Salesforce Object Manager. A new object named 'Supplier' has been created and is listed in the table. The table columns include Label, API Name, Type, Description, Last Modified, and Deployed. The 'Supplier' object has an API name of 'Supplier', is a Custom Object, and is part of the 'College Management System'. It was last modified on 15/12/2022. The 'Deployed' status is checked. The 'Student' object is also visible in the list.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Supplier	Supplier	Custom Object	College Management System	15/12/2022	✓
Student	Student	Custom Object	created for the purpose of junction object	26/01/2023	✓

2. Now click on “Fields & Relationships” → New

FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Adm_no	Auto Number		
Age	Number(2,0)		
Created By	CreatedBy	LookupUsers	
Date of Birth	Date_of_Birth__c	Date	
Date of Joining	Date_of_Joining__c	DateTime	
Gender	Gender__c	Picklist	
Last Modified By	LastModifiedBy	LookupUsers	
Name	Name__c	Text(20)	
Owner	Owner	Lookup(User Group)	
Phone no	Phone_number__c	Phone	
Rice Type	RiceType	Record Type	
seller	seller__r	LookupObject	

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

Specify the type of information that the custom field will contain.

**Data Type**

None Selected      Select one of the data types below.

Auto Number      A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

Formula      A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

Roll-Up Summary      A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.

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

Master-Detail Relationship      Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent, or "master") where:  
• The relationship field is required on all detail records.

4. Give the Field label as “ sum of rice distributed ”,Field Name will be Auto generated, and click Next.

seller  
New Custom Field      Help for this Page ?

Step 2. Enter the details      Step 2 of 5

Field Label

Field Name

Description

Help Text

Auto add to custom report type  Add this field to existing custom report types that contain this entity

5. Select the summarized object as “ rice details ”.

6. Select the Rollup type as “sum”.

7. Select the field to aggregate as “ rice distributed ”, and click Next → Next → Save.

Step 3. Define the summary calculation

Step 3 of 5

**Select Object to Summarize**

Master Object: seller  
 Summarized Object: rice details

**Select Roll-Up Type**

COUNT  
 SUM  
 MIN  
 MAX

Field to Aggregate: rice distributed

**Filter Criteria**

All records should be included in the calculation  
 Only records meeting certain criteria should be included in the calculation

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

## Activity 5 : Creating Fields in Objects

### 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.

SETUP > OBJECT MANAGER  
Supplier

Details

**Fields & Relationships**

5 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)		✓
Sum of Fuel supplied	Sum_of_Fuel_supplied__c	Roll-Up Summary (SUM Fuel details)		
supplierName	Name	Text(50)		✓

3. Select Data type as “Number” and click Next.
4. Given the Field Label as “ supplier name ” and length as “ 5 ”.

Step 2. Enter the details Step 2 of 4

Previous Next Cancel

Field Label

Please enter the length of the number and the number of decimal places. For example, a number with a length of 8 and 2 decimal places can accept values up to "12345678.90".

Length  Number of digits to the left of the decimal point

Decimal Places  Number of digits to the right of the decimal point

Field Name

Description

Help Text

Required  Always require a value in this field in order to save a record

Unique  Do not allow duplicate values

External ID  Set this field as the unique record identifier from an external system

AI Prediction  Use this field to store AI prediction scores

Auto add to custom report type  Add this field to existing custom report types that contain this entity

5. Field Name will be auto populated, and click on Next→ Next → Save.

### Activity 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 ”

S.no	Object name	Fields	Data type

1.	consumer	<table border="1"> <tr> <td>First name</td><td>Text</td></tr> <tr> <td>Last name</td><td>Text</td></tr> <tr> <td>Phone number</td><td>phone</td></tr> <tr> <td>email</td><td>email</td></tr> <tr> <td>Rice taken by shops</td><td>Number (length=5)</td></tr> <tr> <td>Rice type</td><td>           (Picklist values)            1.basmati            2.normal rice         </td></tr> <tr> <td>Mode of payment</td><td>           Picklist values  <ul style="list-style-type: none"> <li>• Credit card</li> <li>• Debit card</li> <li>• Net banking</li> <li>• UPI</li> <li>• Cash</li> </ul> </td></tr> </table>	First name	Text	Last name	Text	Phone number	phone	email	email	Rice taken by shops	Number (length=5)	Rice type	(Picklist values) 1.basmati 2.normal rice	Mode of payment	Picklist values <ul style="list-style-type: none"> <li>• Credit card</li> <li>• Debit card</li> <li>• Net banking</li> <li>• UPI</li> <li>• Cash</li> </ul>
First name	Text															
Last name	Text															
Phone number	phone															
email	email															
Rice taken by shops	Number (length=5)															
Rice type	(Picklist values) 1.basmati 2.normal rice															
Mode of payment	Picklist values <ul style="list-style-type: none"> <li>• Credit card</li> <li>• Debit card</li> <li>• Net banking</li> <li>• UPI</li> <li>• Cash</li> </ul>															

### Activity 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.

Step 2. Choose output type

Step 2 of 5

Field Label  Field Name

Auto add to custom report type  Add this field to existing custom report types that contain this entity [?](#)

**Formula Return Type**

None Selected Select one of the data types below.

Checkbox Calculate a boolean value.  
Example: `[TODAY() > CloseDate]`

Currency Calculate a dollar or other currency amount and automatically format the field as a currency amount.  
Example: `(Gross Margin = Amount - Cost__c)`

Date Calculate a date, for example, by adding or subtracting days to other dates.  
Example: `(Reminder Date = CloseDate - 7)`

Date/Time Calculate a date/time, for example, by adding a number of hours or days to another datetime.  
Example: `(Close Date + 12 * Hours__c)`

Number Calculate a numeric value.  
Example: `Fahrenheit = 1.8 * Celsius__c + 32`

Percent Calculate a percent and automatically add the percent sign to the number.  
Example: `Discount = (Amount - Discounted_Amount__c) / Amount`

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.

Simple Formula Advanced Formula

amount paid (Number) =

```
rice_taken_by_shops__c * rice_mill_name__r.rice_price_kg__c
```

Insert Field Insert Operator Functions

-- All Function Categories --

ABS  
ACOS  
ADDMONTHS  
AND  
ASCII  
ASIN

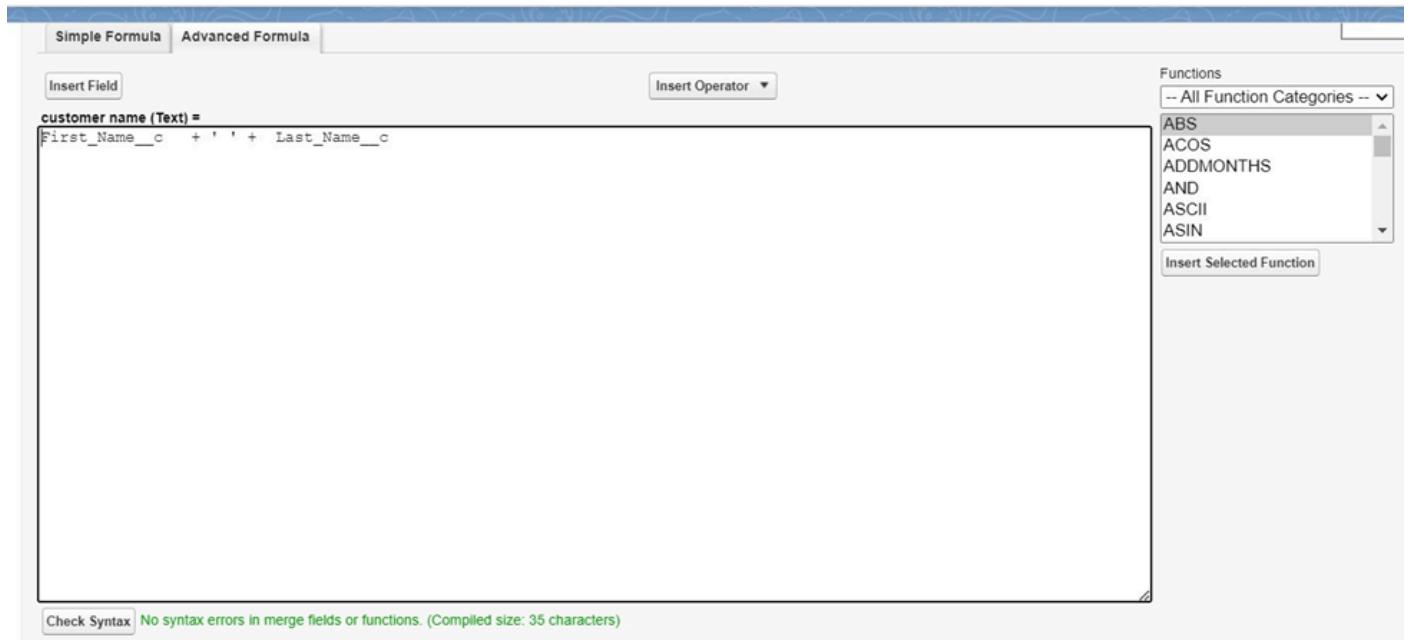
Insert Selected Function

Check Syntax No syntax errors in merge fields or functions. (Compiled size: 67 characters)

## **Creating the Formula field in consumer ObjectNote :**

check whether that the fields that mentioned in the formula field are created are not , if not go to activity 9 and create that 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 “Consumer Name” and select formula return type as “TEXT” and click next.
5. Insert field formula should be : First\_Name\_\_c + '' + Last\_Name\_\_c
6. click “Check Syntax” and Save.



## **Activity 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.

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

The screenshot shows the Salesforce Setup interface under Object Manager for the 'consumer' object. On the left, a sidebar lists various configuration options like Details, Fields & Relationships, Page Layouts, etc. The main area is titled 'Validation Rules' and shows one item: 'phonenumeroremailblankrule'. The table columns are RULE NAME, ERROR LOCATION, ERROR MESSAGE, ACTIVE, and MODIFIED BY. The rule details are: Rule Name - phonenumeroremailblankrule, Error Location - Top of Page, Error Message - please fill phone number, Active - checked, Modified By - udayrishi.yelagandula, Date - 05/07/2023, 12:57 pm.

4. Enter the Rule name as “Phonenumberoremailblankrule”.
5. Enter the description as “phone number and email number should not be blank”.
6. Enter the formula as “OR( ISBLANK( phone\_number\_\_c ) , ISBLANK( email\_\_c ) )” and check the syntax.

The screenshot shows the 'Validation Rule Edit' screen. The rule name is 'phonenumeroremailblankrule', active status is checked, and the description is 'phone number and email should not be blank'. The error condition formula is 'OR( ISBLANK( phone\_number\_\_c ) , ISBLANK( email\_\_c ) )'. A tooltip for the 'ABS' function is displayed, stating it returns the absolute value of a number. The 'Check Syntax' button at the bottom left shows 'No errors found'.

7. Under the error message write as "please fill in your phone number."
8. Select error location "top of page".

Insert Field | Insert Operator ▾

```
OR( ISBLANK( phone_number__c ), ISBLANK( email__c ) )
```

AUDS  
ADDMONTHS  
AND  
ASCII  
ASIN

Insert Selected Function  
ABS(number)  
Returns the absolute value of a number, a number without its sign  
[Help on this function](#)

[Check Syntax](#)

### Error Message

Example: Discount percent cannot exceed 30%

This message will appear when Error Condition formula is true

Error Message: please fill phone number

This error message can either appear at the top of the page or below a specific field on the page

Error Location:  Top of Page  Field [i](#)

[Save](#) [Save & New](#) [Cancel](#)

9. Save the validation rule.

## Milestone 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.

### Activity 1 : creating the page layout

#### To Create a Page layout:

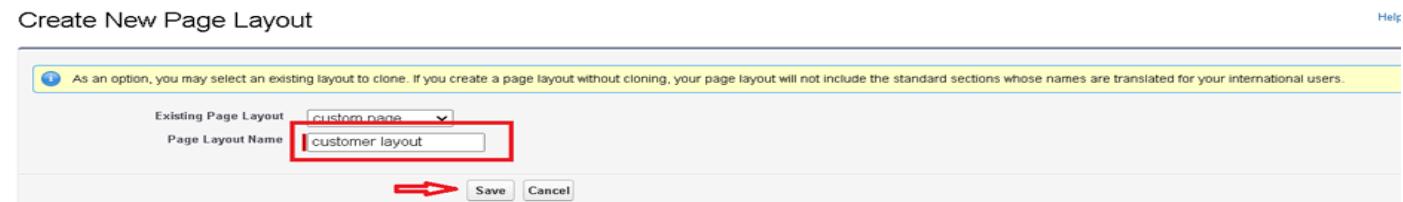
1. Go to Setup → Click on Object Manager → Search for the object (consumer) → From drop down select the object and click on it.
2. Click on Page layout → Click on New.

SETUP > OBJECT MANAGER consumer

Page Layouts		2 Items, Sorted by Page Layout Name	Quick Find	New	Page Layout Assignment
PAGE LAYOUT NAME	CREATED BY	MODIFIED BY			
Customer Layout	udayrushi yelagandula, 04/07/2023, 11:43 am	udayrushi yelagandula, 05/07/2023, 10:01 am			
Personal details	udayrushi yelagandula, 10/07/2023, 10:39 am	udayrushi yelagandula, 10/07/2023, 10:39 am			

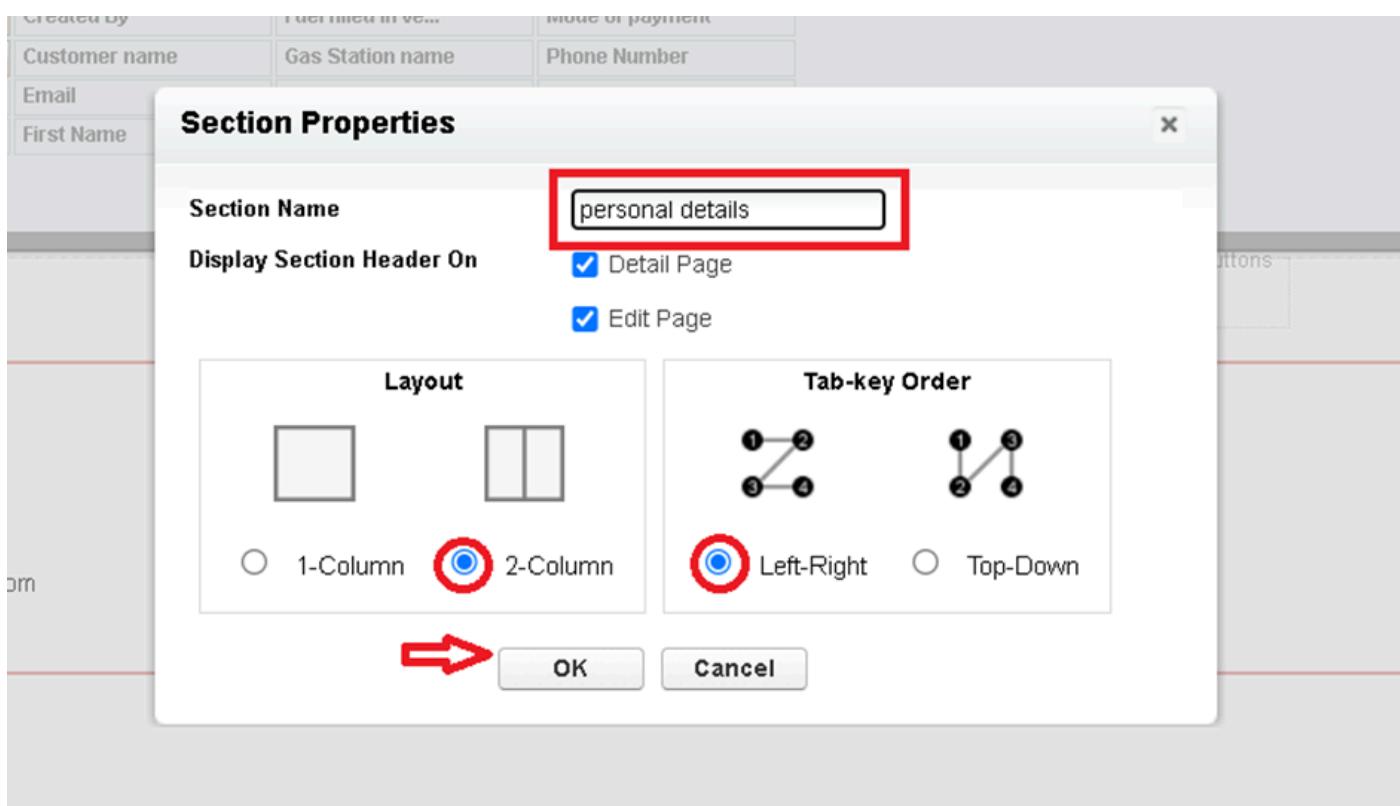
Details  
Fields & Relationships  
**Page Layouts**  
Lightning Record Pages  
Buttons, Links, and Actions  
Compact Layouts  
Field Sets  
Object Limits  
Record Types  
Related Lookup Filters  
Search Layouts  
List View Button Layout  
Restriction Rules

3. Select the existing page layout, and give the page layout name as “consumer layout”, and click save.



4. Drag and drop the section field to consumer details and create the section.

5. Enter the section name as “Personal details”, → click Ok.



6. Now drag the fields to this section that mentioned , they are

- First name , last name , consumer name , phone number, email, rice mill name

7. Follow the same process for another two sections as shown above , they are

8. One section is “ rice details ” , drag the fields that are

- Rice taken by shop, rice type.

9. Another section is “Receipt details ”, and drag the fields that are

- Mode of payment , Amount paid.

10. Then , Click save.

The screenshot shows the Salesforce Layout Properties interface. On the left, there's a sidebar with options like 'Fields', 'Buttons', 'Quick Actions', 'Mobile & Lightning Actions', 'Expanded Lookups', 'Related Lists', and 'Report Charts'. The main area has a 'Quick Find' search bar at the top. Below it, there's a grid of fields grouped into sections: 'Section' (customer Name, last name, mode of payments, rice type), 'Blank Space' (email, phone number), and 'Created By' (first name, Last Modified By, rice mill name). Below the grid, there are three sections: 'product info' (rice type: Sample Text, rice taken by shops: 47,917), 'personal details' (first name: Sample Text, last name: Sample Text, customer Name: GEN-2004-001234, phone number: 1-415-555-1212, email: sarah.sample@company.com, rice mill name: Sample Text), and 'receipt details' (mode of payments: Sample Text, amount paid: 313.59).

## Milestone 7 : Profiles

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

## Activity 1: owner Profile

To create a new profile:

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

The screenshot shows the Salesforce 'Profiles' page under 'SETUP'. The 'owner' profile is selected. Key details include:

- Profile Detail:** Name: owner, User License: Salesforce, Description: (empty), Created By: udayrishi.yelagandula, Created Date: 10/07/2023, 10:56 am, Modified By: udayrishi.yelagandula, Modified Date: 10/07/2023, 10:56 am.
- Page Layouts:** Shows assignments for various object layouts like Global Layout, Operating Hours Layout, Opportunity Layout, etc.

3. 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 'Custom Object Permissions' page under 'SETUP'. It displays two large tables representing access matrices for different objects:

	Basic Access						Data Administration					
	Read	Create	Edit	Delete	View All	Modify All	Read	Create	Edit	Delete	View All	Modify All
Assets	<input type="checkbox"/>											
Asset Services	<input type="checkbox"/>											
books	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
books	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" 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"/>											
ProjectTasks	<input type="checkbox"/>											
Properties	<input type="checkbox"/>											

	Basic Access						Data Administration					
	Read	Create	Edit	Delete	View All	Modify All	Read	Create	Edit	Delete	View All	Modify All
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"/>											
stud	<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"/>											

4. Give access and save it.

## Activity 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 the Salesforce Setup Profiles page. At the top left is a blue header bar with a person icon and the word "SETUP". Below it is a sub-header "Profiles". The main content area displays two permission sets as tables:

	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"/>				
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"/>
Project Tasks	<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"/>

	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 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"/>
stud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
student	<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.

## Activity 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.

The screenshot shows two side-by-side access matrices under the 'Profiles' tab in the Setup menu. Both matrices have columns for 'Basic Access' (Read, Create, Edit, Delete) and 'Data Administration' (View All, Modify All). The left matrix lists objects like Assets, Asset Services, Books, Brokers, Consumers, Employees, Energy Audits, Item Details, Nick Names, Positions, and Projects. The right matrix lists Purchasers, Reviews, Rice Details, Rice Mills, SolarBots, SolarBot Status, Studs, Students, Super Marts, Suppliers, Teachers, and Tickets. Checkmarks indicate specific access levels for certain objects.

	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"/>
stud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
student	<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.

## Milestone 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.

### Activity 1: Creating owner Role

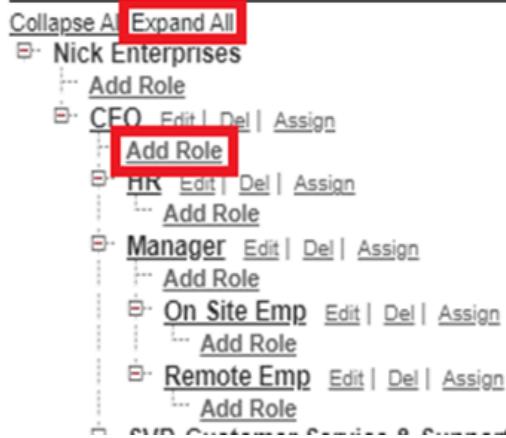
Creating owner Role:

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

The screenshot shows the 'Understanding Roles' page in the Setup menu. The left sidebar has a search bar ('roles') and navigation links for Users, Roles (highlighted), Feature Settings, Sales (Contact Roles on Contracts, Contact Roles on Opportunities), Service, Case Teams, and Contact Roles on Cases. The main content area is titled 'Understanding Roles' and includes a 'Sample Role Hierarchy' diagram and a 'Territory-based Sample' dropdown. The hierarchy shows 'Executive Staff' (CEO, President, CFO, VP, Sales) at the top, which branches down to 'Western Sales Director' (CA Sales Rep, OR Sales Rep) and 'Eastern Sales Director' (NY Sales Rep, MA Sales Rep). These further branch to 'International Sales Director' (Germany Sales Rep, Italy Sales Rep) and 'International Sales Rep' (Asian Sales Rep, European Sales Rep). Descriptions for each role level are provided. At the bottom right are 'Set Up Roles' and 'Don't show this page again' buttons.

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

## Your Organization's Role Hierarchy



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

Role Edit  
New Role

Role Edit

Role Name

This role reports to

Role Name as displayed on reports

Save Save & New Cancel

2. Click and save it.

## Activity 2: Creating employer roles

Creating another two roles under manager

1. Go to quick find → Search for Roles → click on set up roles.
2. Click plus on CEO role, and click add role under owner.



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

4. Repeat the same steps, for another role.

Click plus on CEO role, and click plus on owner, and click add role under employer.

The screenshot shows the Salesforce Setup Roles page. The tree view displays various roles categorized under 'OWNER' and 'EMPLOYER'. Under 'OWNER', there is a single role named 'owner'. Under 'EMPLOYER', there are three roles: 'Manager', 'On Site Employee', and 'Remote Employee'. Each of these three roles has an 'Add Role' option. Under 'Manager', there is one role named 'owner'. Under 'On Site Employee', there is one role named 'employer', which also has an 'Add Role' option. Under 'Remote Employee', there is one role named 'employer', which also has an 'Add Role' option. Other categories listed include 'SVP Customer Service & Support', 'SVP Human Resources', 'SVP Sales & Marketing', 'Customer Support International', 'Customer Support North America', 'Installation & Repair Services', 'VP International Sales', and 'VP Marketing', each with their respective 'Edit', 'Del', and 'Assign' options.

5. give Label as “worker” and Role name gets auto populated. Then click on Save.

## Milestone 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.

### Activity 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.

User Edit  
vicky y

User Edit

General Information

First Name	vicky	Role	owner
Last Name	y	User License	Salesforce
Alias	vy	Profile	owner
Email	ramesh0820@gmail.com	Active	<input checked="" type="checkbox"/>
Username	ramesh0820@754123gmail	Marketing User	<input type="checkbox"/>
Nickname	vicky	Offline User	<input type="checkbox"/>
Title		Knowledge User	<input type="checkbox"/>
Company		Flow User	<input type="checkbox"/>
Department		Service Cloud User	<input type="checkbox"/>
Division		Site.com Contributor User	<input type="checkbox"/>
		Site.com Publisher User	<input type="checkbox"/>
		WDC User	<input type="checkbox"/>
		Data.com User Type	--None--
		Data.com Monthly Addition Limit	300

Save it.

## Activity 2: creating another users

12. Go to setup → type users in quick find box → select users → click New user.
13. Fill in the fields
14. First Name : ram
15. Last Name : ram
16. Alias : Give a Alias Name
17. Email id : Give your Personal Email id
18. Username : Username should be in this form: text@text.text
19. Nick Name : Give a Nickname
20. Role : employer
21. User license : Salesforce platform
22. Profiles : standard platform user.

The screenshot shows the Salesforce 'User Edit' page. At the top, there's a 'User Edit' header with a search bar containing 'vicky y'. Below it is a 'General Information' section with fields for First Name ('vicky'), Last Name ('y'), Alias ('vy'), Email ('ramesh0820@gmail.com'), Username ('ramesh0820@754123gmail'), Nickname ('vicky'), Title, Company, Department, and Division. To the right of these are dropdowns for Role ('owner'), User License ('Salesforce'), Profile ('owner'), and Active status ('Active' checked). Below these are checkboxes for Marketing User, Offline User, Knowledge User, Flow User, Service Cloud User, Site.com Contributor User, Site.com Publisher User, WDC User, and a dropdown for Data.com User Type ('-None-'). At the bottom right, there's a 'Data.com Monthly Addition Limit' field set to '300'.

23. Go to setup → type users in quick find box → select users → click New user.
24. Fill in the fields
25. First Name : ragu
26. Last Name : raj
27. Alias : Give a Alias Name
28. Email id : Give your Personal Email id
29. Username : Username should be in this form: [text@text.text](#)
30. Nick Name : Give a Nickname
31. Role : worker
32. User license : Salesforce platform
33. Profiles : standard platform user.

User Edit  
ragu raj

User Edit

General Information

First Name	ragu
Last Name	raj
Alias	rraj
Email	ramesh0820@gmail.com
Username	ramesh0820@73690gmail.i
Nickname	raj
Title	
Company	
Department	
Division	
Role	worker
User License	Salesforce Platform
Profile	Standard Platform User
Active	<input checked="" type="checkbox"/>
Marketing User	<input type="checkbox"/>
Offline User	<input type="checkbox"/>
Knowledge User	<input type="checkbox"/>
Flow User	<input type="checkbox"/>
Service Cloud User	<input type="checkbox"/>
Site.com Contributor User	<input type="checkbox"/>
Site.com Publisher User	<input type="checkbox"/>
WDC User	<input type="checkbox"/>
Data.com User Type	--None--
Data.com Monthly Addition Limit	300

## Milestone 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.

### Activity 1: Creating OWD setting.

1. Go to setup → type “sharing settings ” in quick search → Click edit.

sharing

SETUP

Sharing Settings

Sharing Settings

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

Manage sharing settings for: All Objects

Sharing Settings

Did you find what you're looking for? Try using Global Search.

Disable External Sharing Model

Default Sharing Settings

Organization-Wide Defaults			
Object	Default Internal Access	Default External Access	Grant Access Using Hierarchies
Lead	Public Read/Write/Transfer	Private	<input checked="" type="checkbox"/>
Account and Contract	Public Read/Write	Private	<input checked="" type="checkbox"/>
Contact	Controlled by Parent	Controlled by Parent	<input checked="" type="checkbox"/>
Order	Controlled by Parent	Controlled by Parent	<input checked="" type="checkbox"/>
Asset	Controlled by Parent	Controlled by Parent	<input checked="" type="checkbox"/>

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.

**Note : create the latest “10” records in consumer objects.**

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

## **Milestone 11 : Reports**

Reports give you access to your Salesforce data. You can examine your Salesforce data in almost infinite combinations, display it in easy-to-understand formats, and share the resulting insights with others. Before building, reading, and sharing reports, review these reporting basics.

In Salesforce.com we can easily generate reports in different styles. And can create reports in a very short time and also schedule the reports. Salesforce provides a powerful suit of analytic tools to help you organize, view and analyze your data.

### Types of Reports in Salesforce

1. Tabular
2. Summary
3. Matrix
4. Joined Reports

**1. Tabular Reports:** Simple listing of data without any subtotals. This type of reports provide you most basically to look at your data. Use tabular reports when you want a simple list or a list of items with a grand total.

Example: This type of reports are used to list all accounts, List of contacts, List of opportunities.....etc.....

**2. Summary Reports:** This type of reports provide a listing of data with groupings and subtotals. Use summary reports when you want subtotals based on the value of a particular field or when you want to create a hierarchically grouped report, such as sales organized by year and then by quarter.

Example: All opportunities for your team sub totaled by Sales Stage and Owner.

**3. Matrix Reports:** This type of reports allow you to group records both by row and by column. A comparison of related totals, with totals by both row and column. Use matrix

reports when you want to see data by two different dimensions that aren't related, such as date and product.

Example: Summarize opportunities by month vertically and by account horizontally.

**4. Joined Reports:** Blocks of related information in a single report. This type of reports enable you to adopt five different blocks to display different types of related data. Each block can own unique columns, summary fields, formulas, filters and sort order. Use joined reports to group and show data from multiple report types in different views.

Example: You can build a report to show opportunity, case and activity data for your accounts.

### Activity 1: Create Report

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

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	range of amount per day		estimated rice per day	udayrushi yelagandula	10/7/2023, 2:41 pm	
Created by Me	range of amount per day		estimated rice per day	udayrushi yelagandula	13/7/2023, 12:56 pm	
Private Reports	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	

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

Report Type Name	Category
rice mills with consumers	Standard

1. 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

2. Remove the unnecessary fields.

3. Select the fields that are mentioned below in the GROUP ROWS section.

1. Rice taken by shops.

rice taken by shops	consumer: consumer name	rice type	rice price/kg	mode of payments	amount paid
8 (1)	A-0003	normal rice	50	Cash	400.00
			50		400.00
10 (1)	A-0006	basmati	50	Cash	500.00
			50		500.00
12 (1)	A-0007	basmati	50	Cash	600.00
			50		600.00
15 (1)	A-0008	basmati	50	Cash	750.00
			50		750.00
16 (1)	A-0010	normal rice	50	Cash	800.00
			50		800.00
18 (1)	A-0009	normal rice	50	Cash	900.00
			50		900.00
80 (1)	A-0011	basmati	50	Net banking	4,000.00
			50		4,000.00
<b>Total (11)</b>					<b>9,050.00</b>

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

rice taken by shops	consumer: consumer name	rice type	rice price/kg	mode of payments	amount paid
5 (2)	A-0001	basmati	50	Net banking	250.00
	A-0005	normal rice	50	Cash	250.00
			50		500.00
6 (2)	A-0002	normal rice	50	Cash	300.00
	A-0004	basmati	50	Cash	300.00
			50		600.00
8 (1)	A-0003	normal rice	50	Cash	400.00
			50		400.00
10 (1)	A-0006	basmati	50	Cash	500.00
			50		500.00
12 (1)	A-0007	basmati	50	Cash	600.00
			50		600.00
15 (1)	A-0008	basmati	50	Cash	750.00

## Activity 2: Sharing report to owner

1. Click edit drop down and select subscribe option

consumer:	consumer name	rice type	rice price/kg	mode of payments	amount paid
8 (1)	A-0003	normal rice	50	Cash	400.00
Subtotal					400.00
10 (1)	A-0006	basmati	50	Cash	500.00
Subtotal					500.00
12 (1)	A-0007	basmati	50	Cash	600.00
Subtotal					600.00
15 (1)	A-0008	basmati	50	Cash	750.00
Subtotal					750.00
16 (1)	A-0010	normal rice	50	Cash	800.00
Subtotal					800.00
18 (1)	A-0009	normal rice	50	Cash	900.00
Subtotal					900.00
80 (1)	A-0011	basmati	50	Net banking	4,000.00
Subtotal					4,000.00
Total (11)			50		9,050.00

2. 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

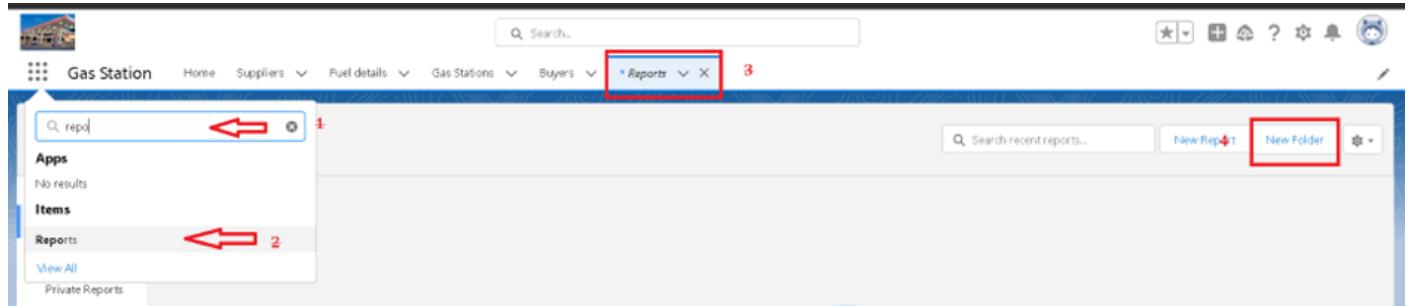
4. After selecting the run report as a “another person” select your personal account or whom you want to send that mail to.

5. Click save.

**NOTE: The owner gets daily email notification of that rice mill report.so that he can see all data remotely.**

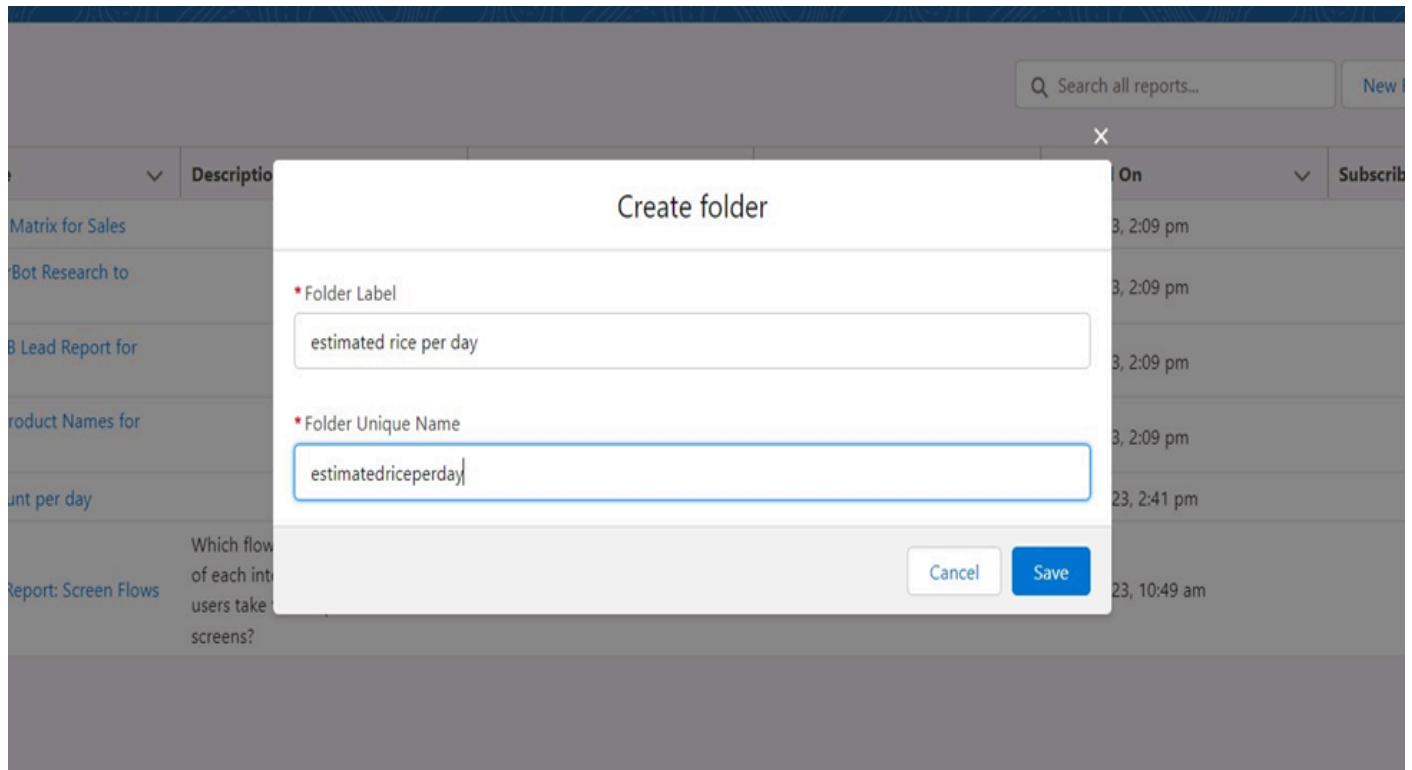
### Activity 3: create a report folder

1. Click on the app launcher and search for reports.
2. Double click on the report, “reports tab” will be auto populated in the navigation bar.
3. Click on the report tab, click on the new folder.



4. Give the Folder label as “estimated rice per day”, Folder unique name will be auto populated.

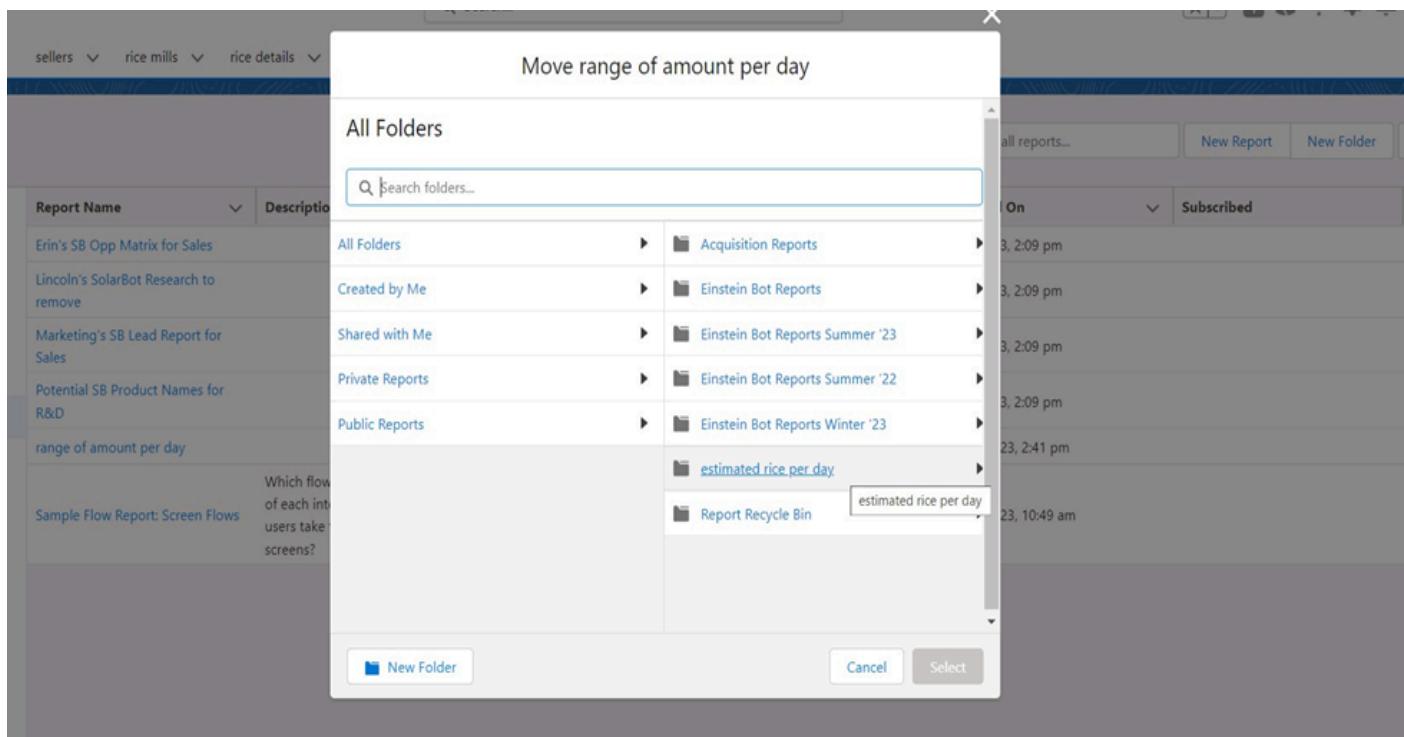
5. Click save.



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.

Reports									Search all reports...	New Report	New Folder	⚙️
REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed						
Recent	Erin's SB Opp Matrix for Sales		Acquisition Reports	udayrushi yelagandula	5/6/2023, 2:09 pm							
Created by Me	Lincoln's SolarBot Research to remove		Acquisition Reports	udayrushi yelagandula	5/6/2023, 2:09 pm							
Private Reports	Marketing's SB Lead Report for Sales		Acquisition Reports	udayrushi yelagandula	5/6/2023, 2:09 pm							
Public Reports	Potential SB Product Names for R&D		Acquisition Reports	udayrushi yelagandula	5/6/2023, 2:09 pm							
All Reports	range of amount per day		Private Reports	udayrushi yelagandula	10/7/2023, 2:41 pm							
FOLDERS												
All Folders	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							
Created by Me												
Shared with Me												
FAVORITES												
All Favorites												

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



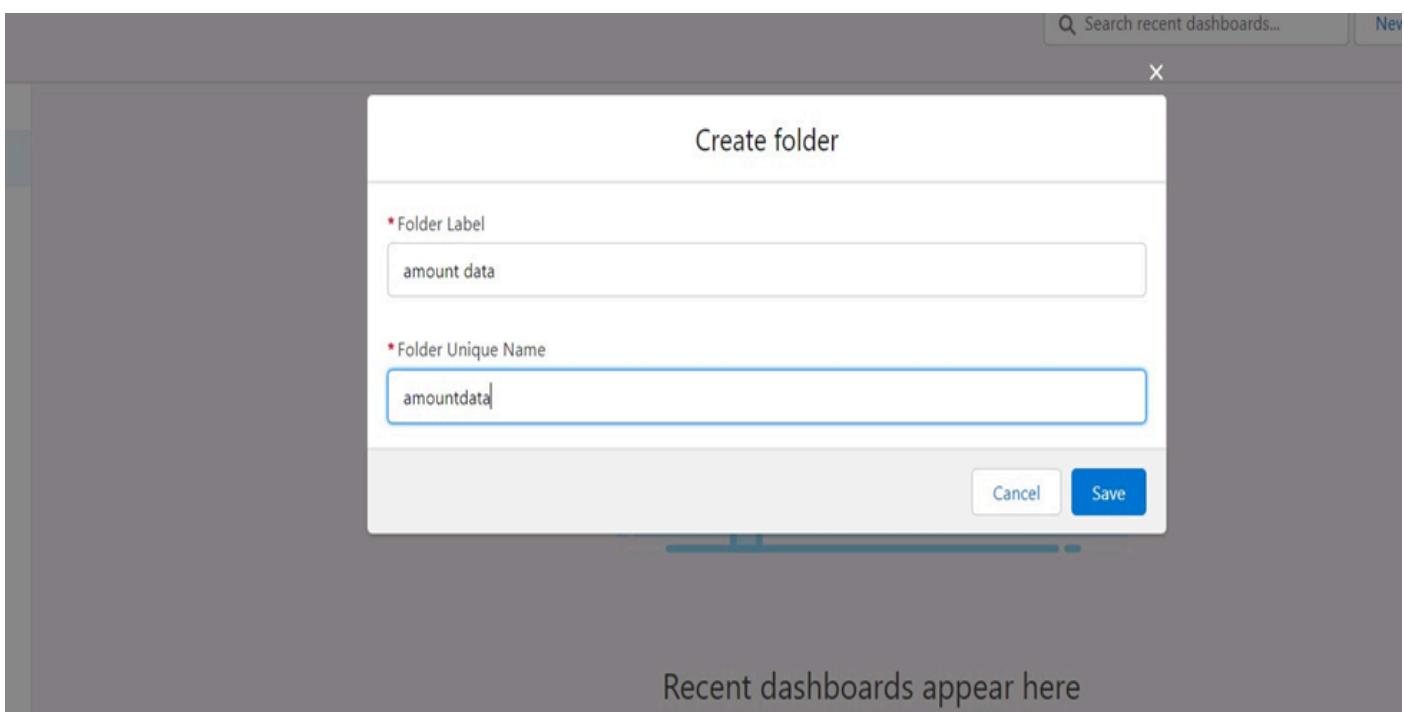
**Note: if you want to see the report which you have created then go to reports - all folders - estimated rice per day - your report will appear in this way.**

## Milestone 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.

## Activity 1: Create Dashboard Folder

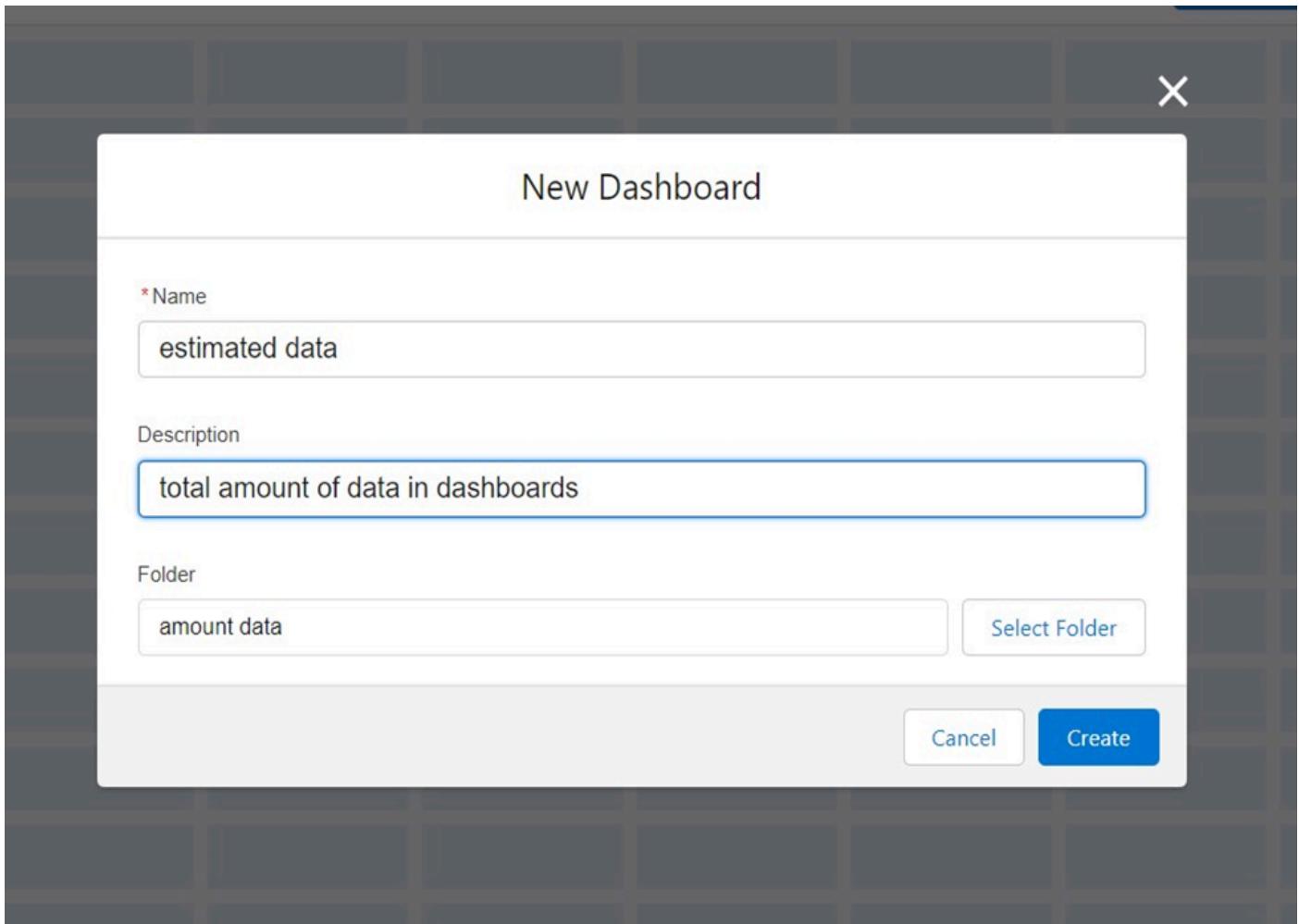
1. Click on the app launcher and search for the dashboard.
2. Click on the dashboard tab.
3. Click the new folder, give the folder label as “amount data dashboard”.
4. Folder unique names will be auto populated.
5. Click save.



## Activity 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.



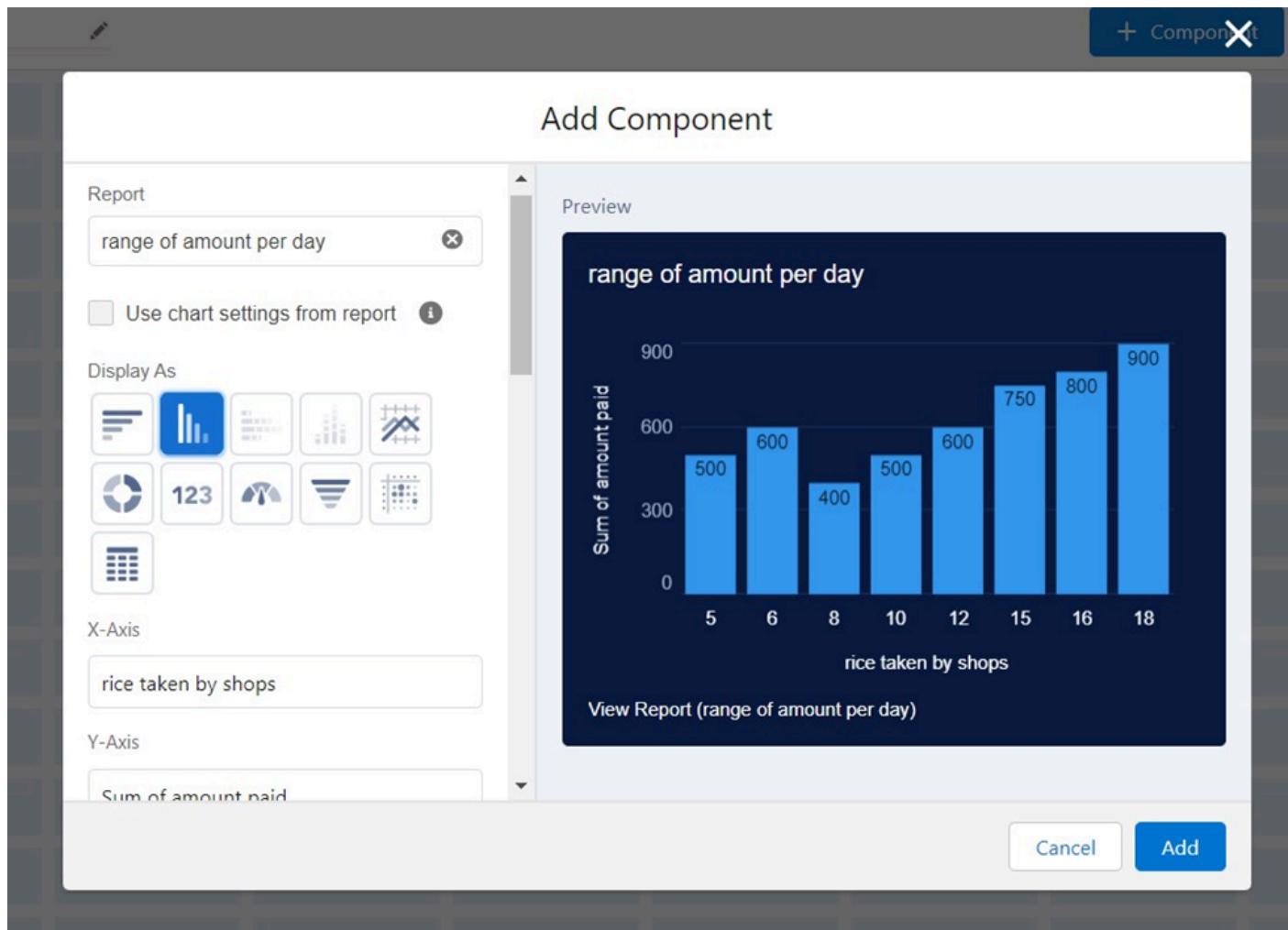
## 2. Select add component.

A screenshot of the Employee Management application's dashboard. The top navigation bar shows 'Employee Manage...', 'Home', 'Employees', 'Assets', 'Asset Services', 'Projects', 'ProjectTasks', 'Reports', and 'Dashboards'. The 'Dashboards' tab is selected. Below the navigation is a toolbar with 'Dashboard 1', '+ Component' (which is highlighted with a red box), '+ Filter', 'Save', and 'Done'. The main area shows a grid of dashboard components.

## 1. Select a Report and click on select.

A screenshot of a 'Select Report' dialog box. On the left is a sidebar with 'Reports' sections for 'Recent' (including 'Created by Me', 'Private Reports', 'Public Reports', and 'All Reports') and 'Folders' (including 'Created by Me' and 'Shared with Me'). The main area is titled 'Select Report' and contains a search bar and a list of reports. One report is selected: 'range of amount per day' by 'udayrushi.yelagandula' on '10-Jul-2023, 2:52 pm - estimated rice per day'. At the bottom are 'Cancel' and 'Select' buttons.

## 1. 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

Component theme - dark.

### Add the component

Again select add component with above same steps

1.display as donut chart

2.sort by - sum of amount

3.title-range of amount per day

4.component theme dark

Value  
Sum of amount paid

Sliced By  
rice taken by shops

Display Units  
Shortened Number

Show Values  
 Show Percentages  
 Combine Small Groups into "Others"  
 Show Total

Decimal Places  
Automatic

Click add.

Click save and done.

+ Component X

### Add Component

Report  
range of amount per day

Use chart settings from report i

Display As

Value  
Sum of amount paid

Sliced By  
rice taken by shops

Preview

range of amount per day

Sum of amount paid

The donut chart displays the distribution of the sum of amount paid across six categories, each represented by a different color and labeled with its value and percentage:

Rice Taken by Shop	Value	Percentage
8	750	(22.39%)
5	400	(11.94%)
10	600	(17.91%)
6	500	(14.93%)
12	600	(17.91%)
15	500	(14.93%)

View Report (range of amount per day)



