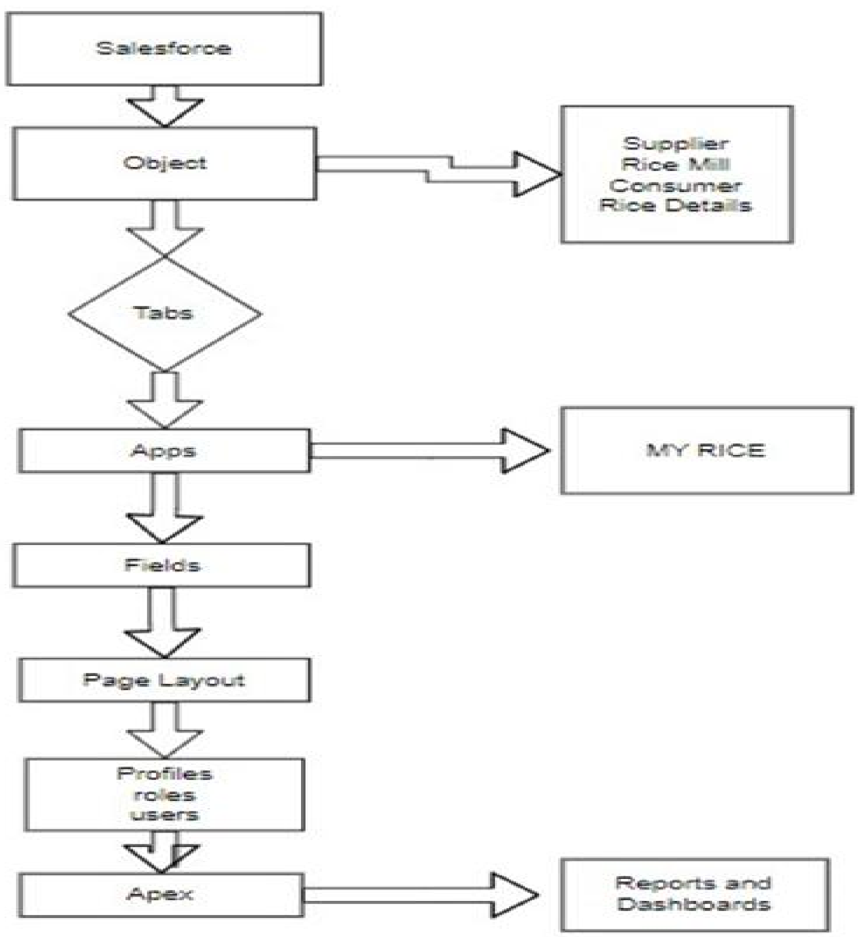
A CRM APPLICATION FOR RICE MILL

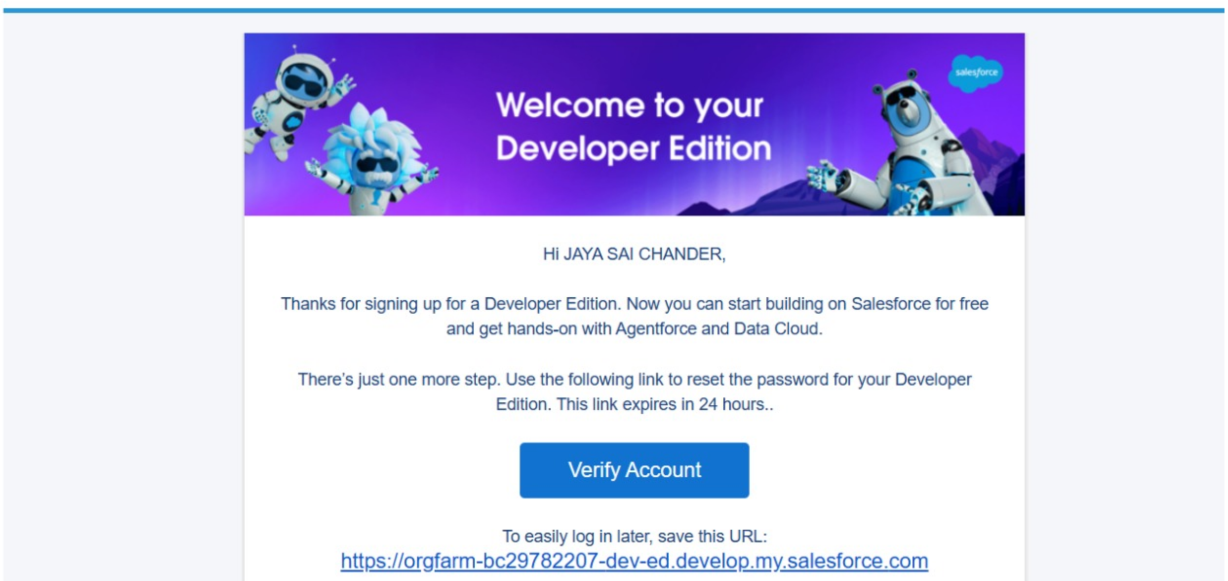
Project Description:

The **Rice Mill CRM Application** is a robust solution designed to streamline daily operations and enhance efficiency in rice mill management. This application automates the tracking of rice production, sales, and inventory by generating daily reports for owners, detailing the quantity of rice processed, the volume sold, and the types of rice distributed. By leveraging customer relationship management (CRM) principles, the system optimizes store operations, improves customer interactions, and ensures seamless business management. The goal of this project is to develop a user-friendly, feature-rich platform tailored to the unique needs of rice mill factories.



1. INTRODUCTION TO SALESFORCE

Create a developer org in salesforce using https://developer.salesforce.com/signup
Verify your created org through your registered mail and login your created developer org.



I have changed my user name twice. so , new usename verification is shown below.

2.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:

1. **Standard Objects**: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.
2. **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.

Activity 1: Create Supplier Object:

To create an object:

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

Enter the label name→ supplier

Plural label name→ supplier

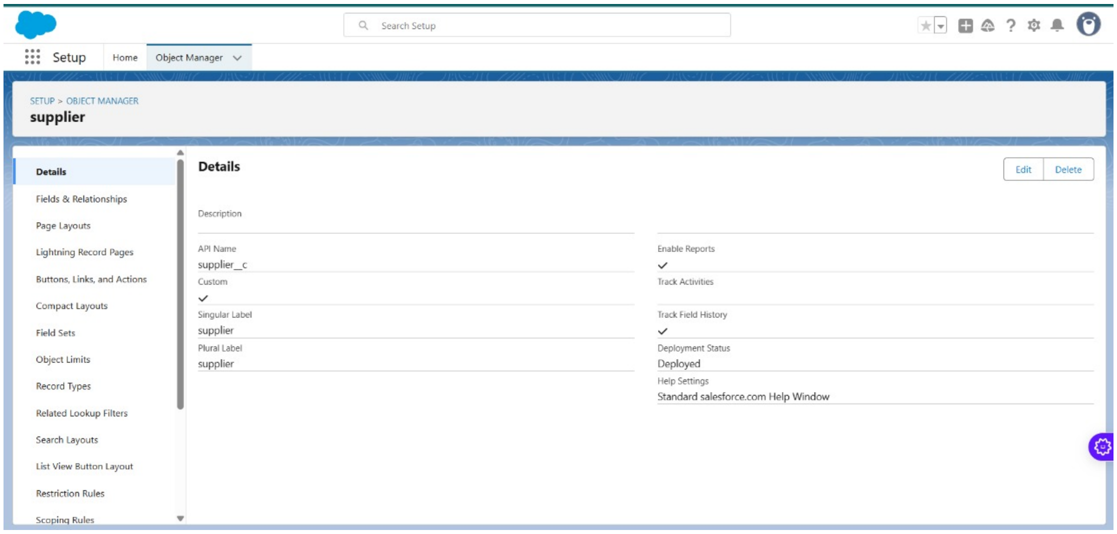
Enter Record Name Label and Format

Record Name → supplier Name

Data Type → Text

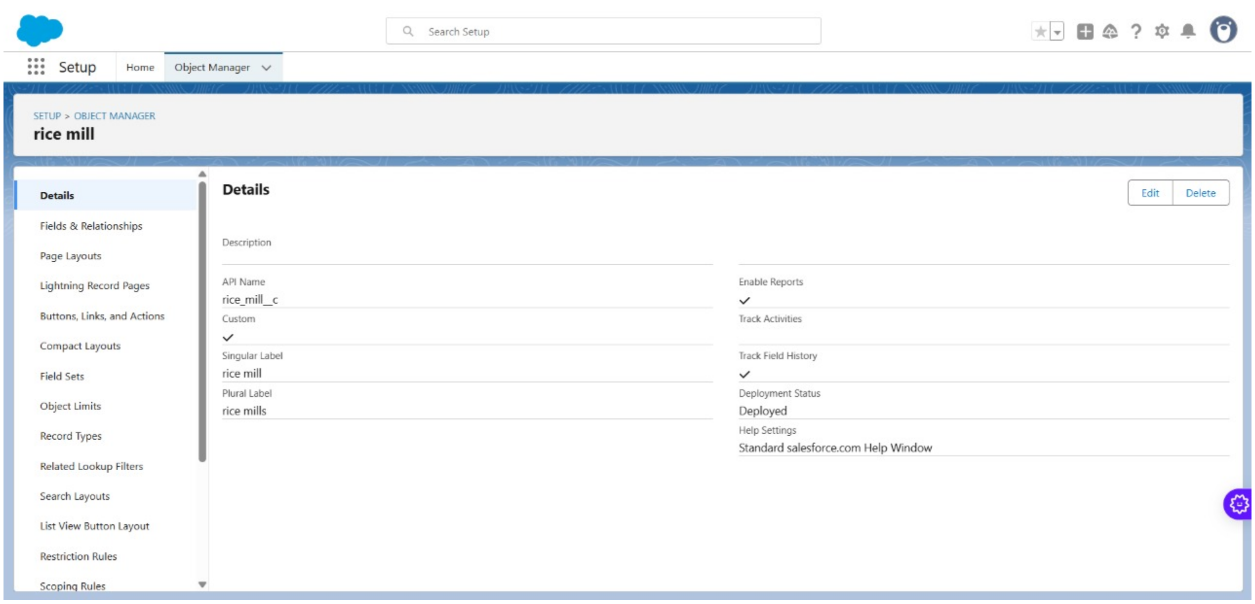
Click on Allow reports and Track Field History and allow search

Allow search → Save.



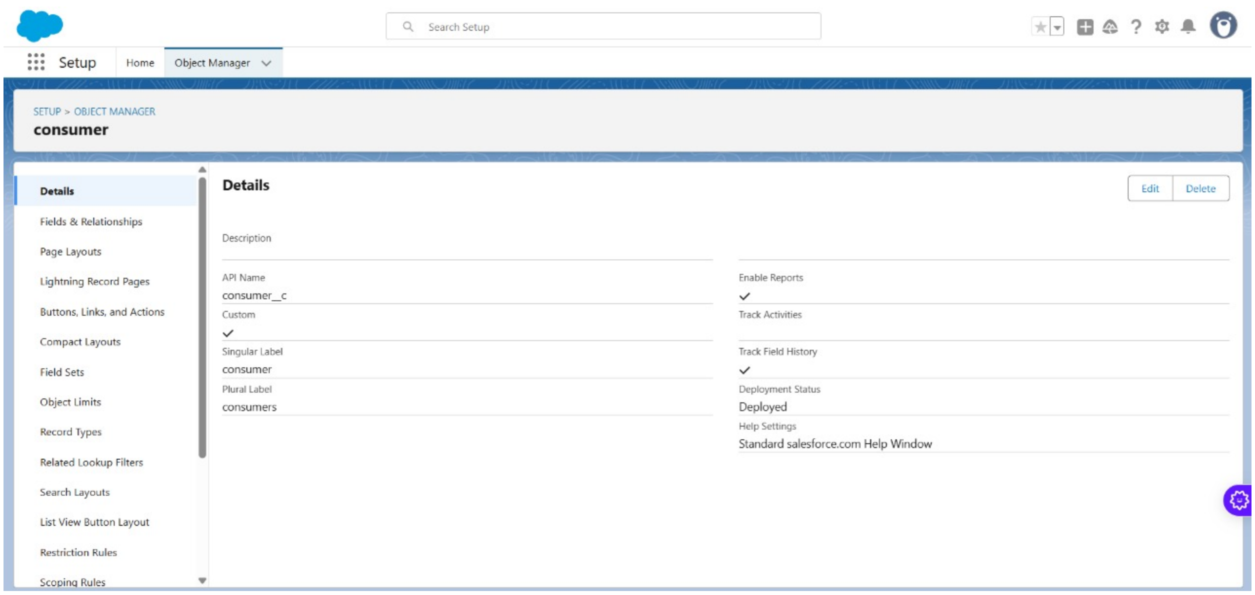
Activity 2: Create Rice mill Object:

To create an object:
From the setup page → Click on Object Manager → Click on Create → Click on Custom Object.
Enter the label name→ rice mill
Plural label name→ rice mills
Enter Record Name Label and Format
Record Name →
Data Type → Auto Number
Display Format → rice-{000}
Starting number → 1
Click on Allow reports and Track Field History, Allow Search.



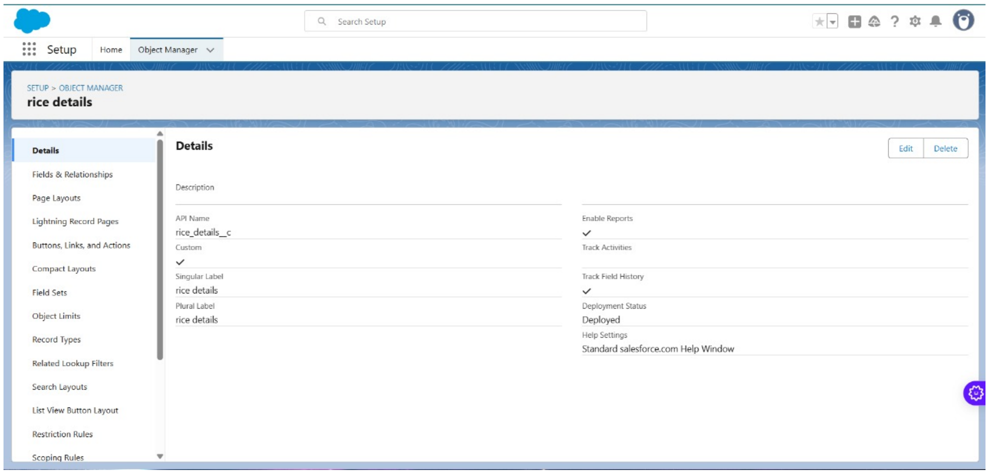
Activity 3: Create consumer Objects:

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

Use these display format for the rice details
label name → rice details
Plural label name → rice details
Display Format → rice-{000}
Starting number → 1



3.TABS

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

Types of Tabs:

1. Custom Tabs
2. Web Tabs
3. Visualforce Tabs
4. Lightning Component Tabs
5. Lightning Page Tabs

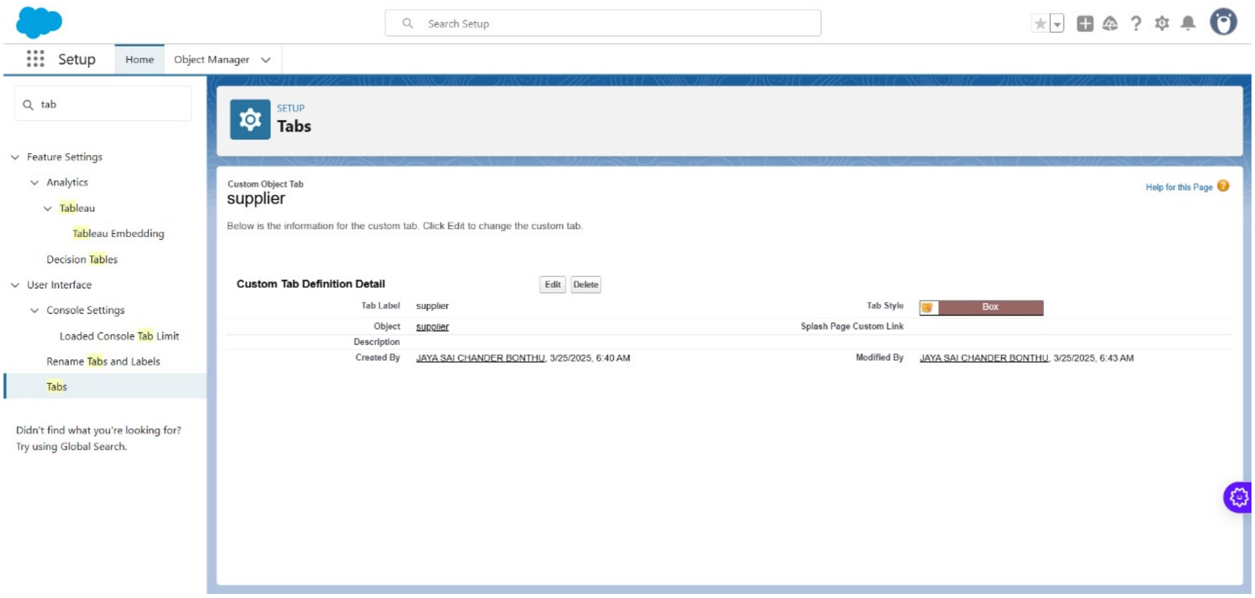
1. **Activity-1 : CREATING A CUSTOM TAB**

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

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 .

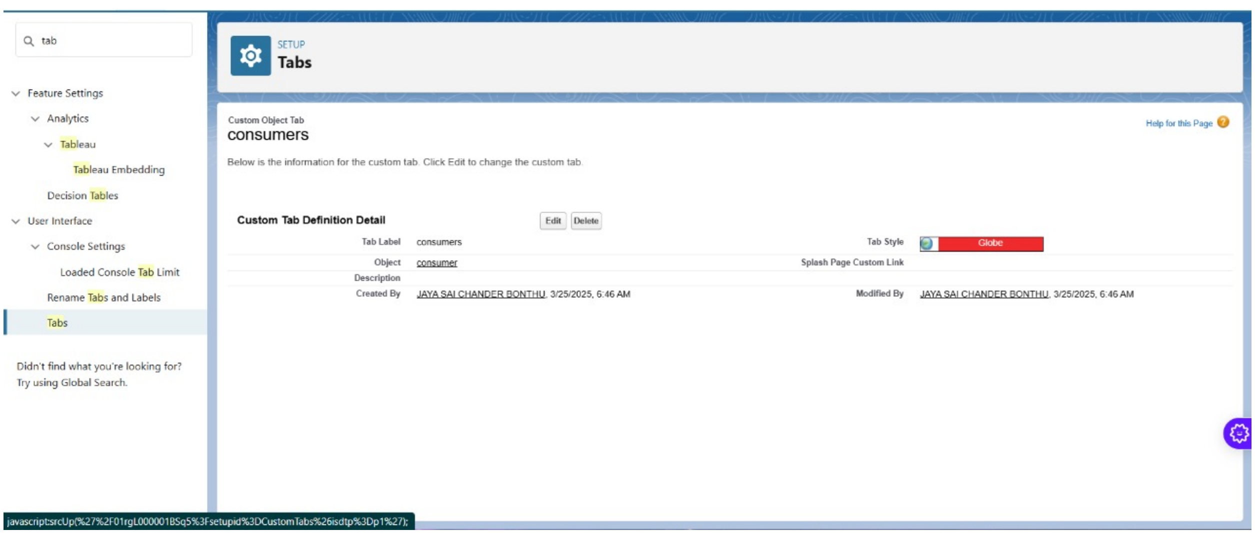
3.Make sure that the Append tab to users' existing personal customizations is checked.

4.Click save.



2. **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 .



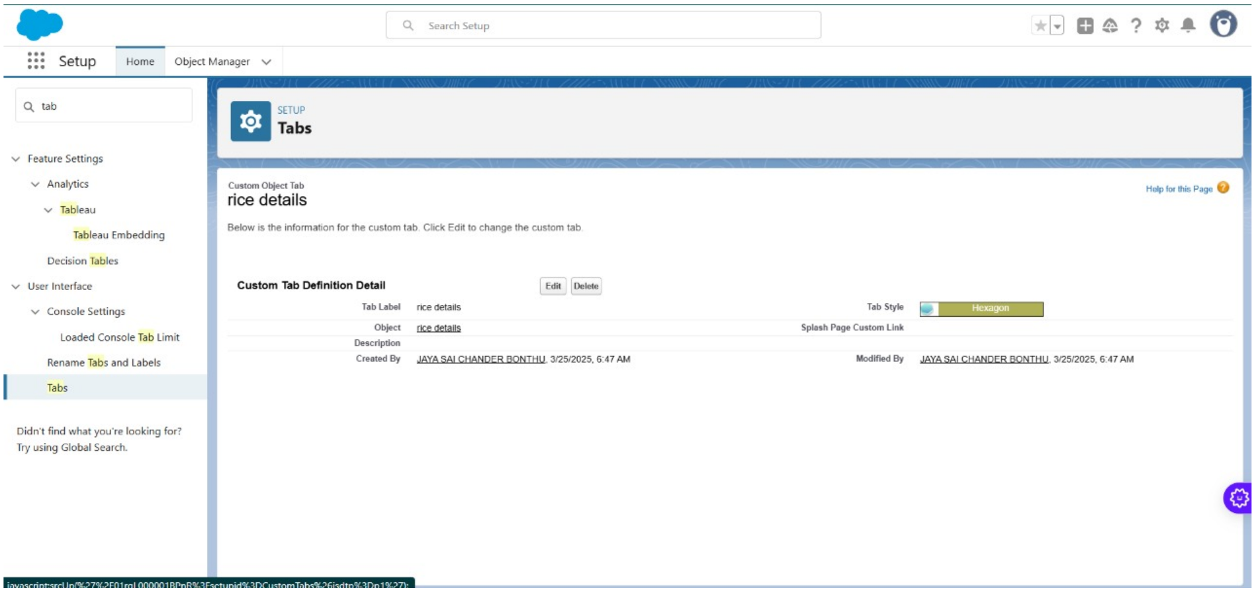


fig: rice details tab

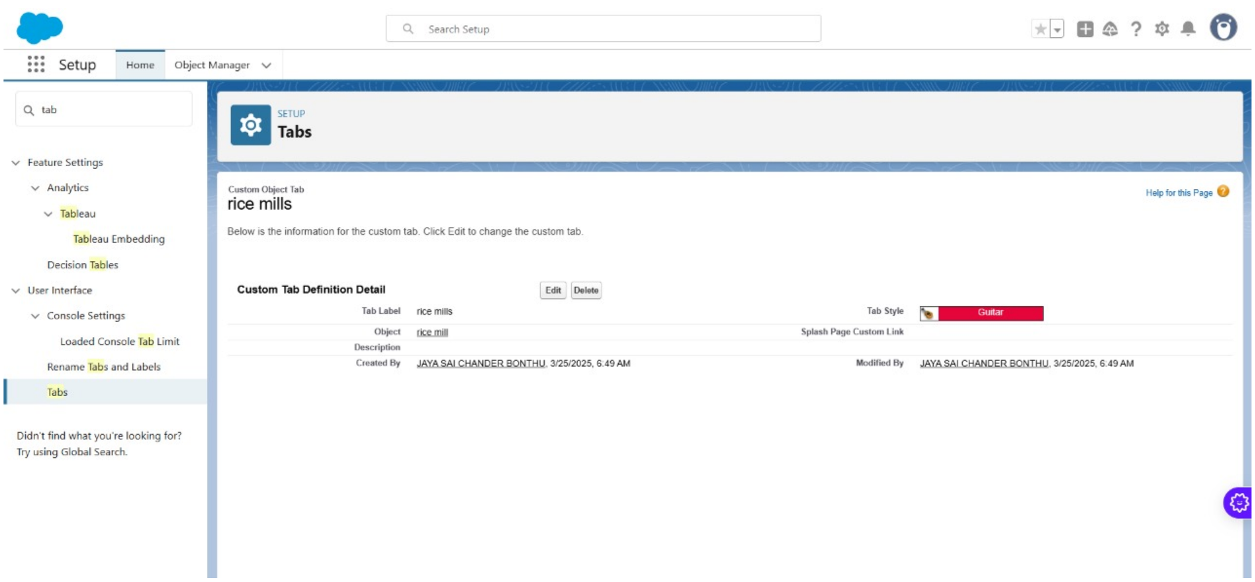


fig: Rice mills tab

4.THE LIGHTENING APP

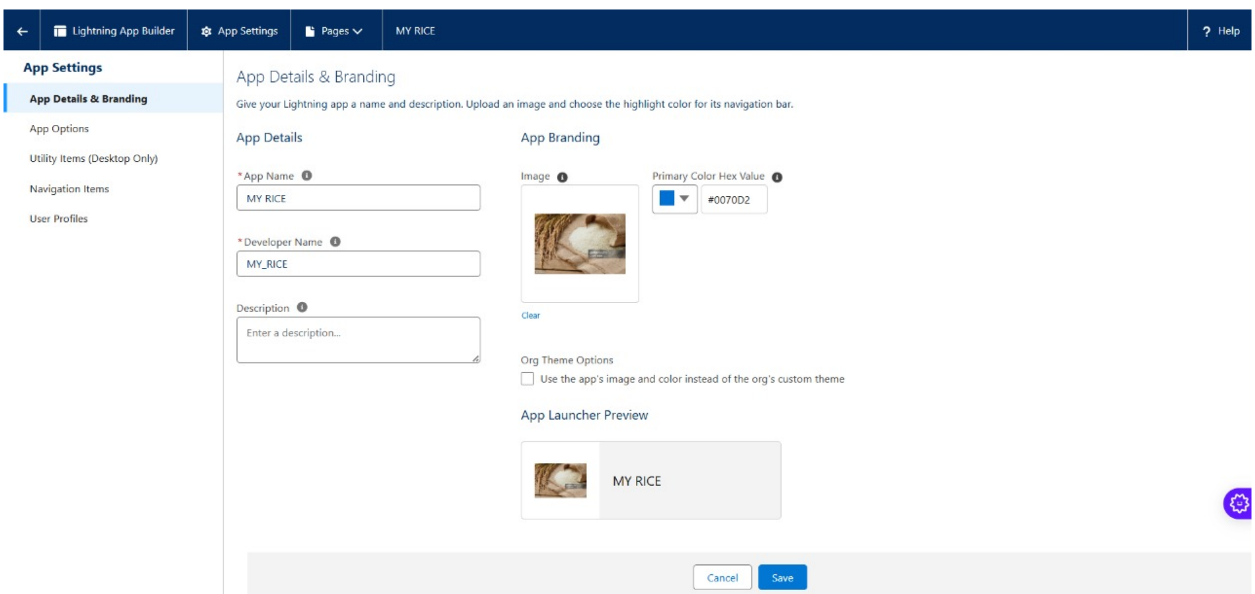
An app is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps give your users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar.

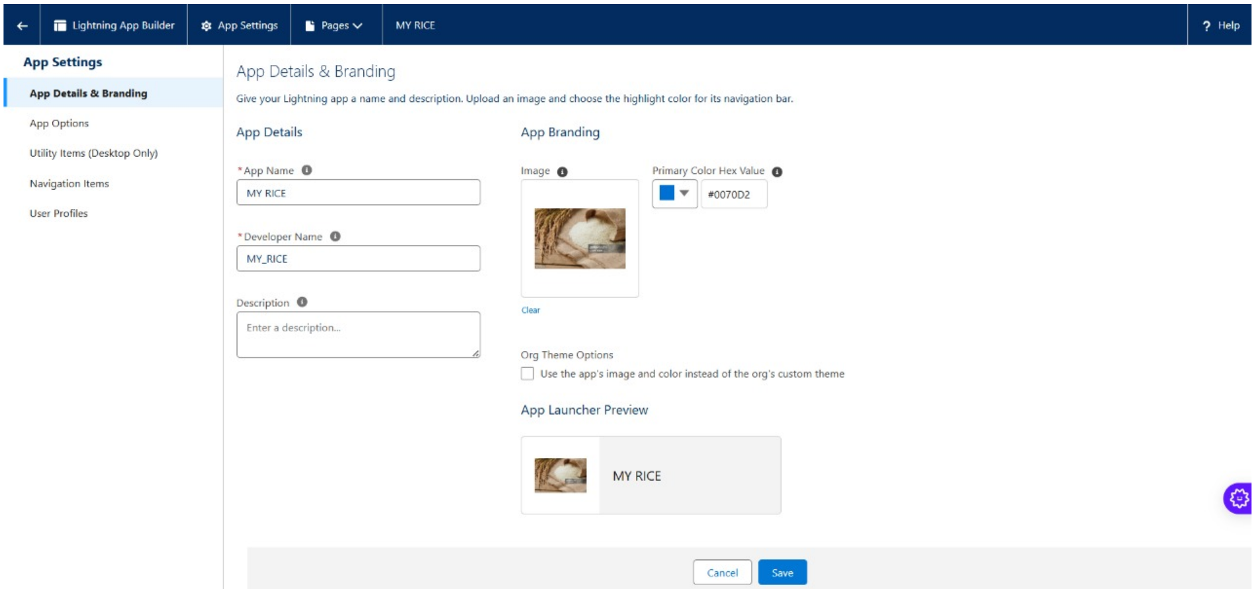
Lightning apps let you brand your apps with a custom color and logo. You can even include a utility bar and Lightning page tabs in your Lightning app. Members of your org can work more efficiently by easily switching between apps.

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.
2. Fill the app name in app details as MY RICE → Next → (App option page) keep it as default → Next → (Utility Items) keep it as default → Next.
3. Upload a photo that is related to your app.
4. To Add Navigation 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:
6. Search profiles (System administrator) in the search bar → click on the arrow button → save & finish.





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 astandard task. The main point is that you can't simply delete a Standard Field until it is anon-required standard field. Otherwise, users have the option to delete them at any point fromthe application freely. Moreover, we have some fields that you will find common in everySalesforce application. They are,

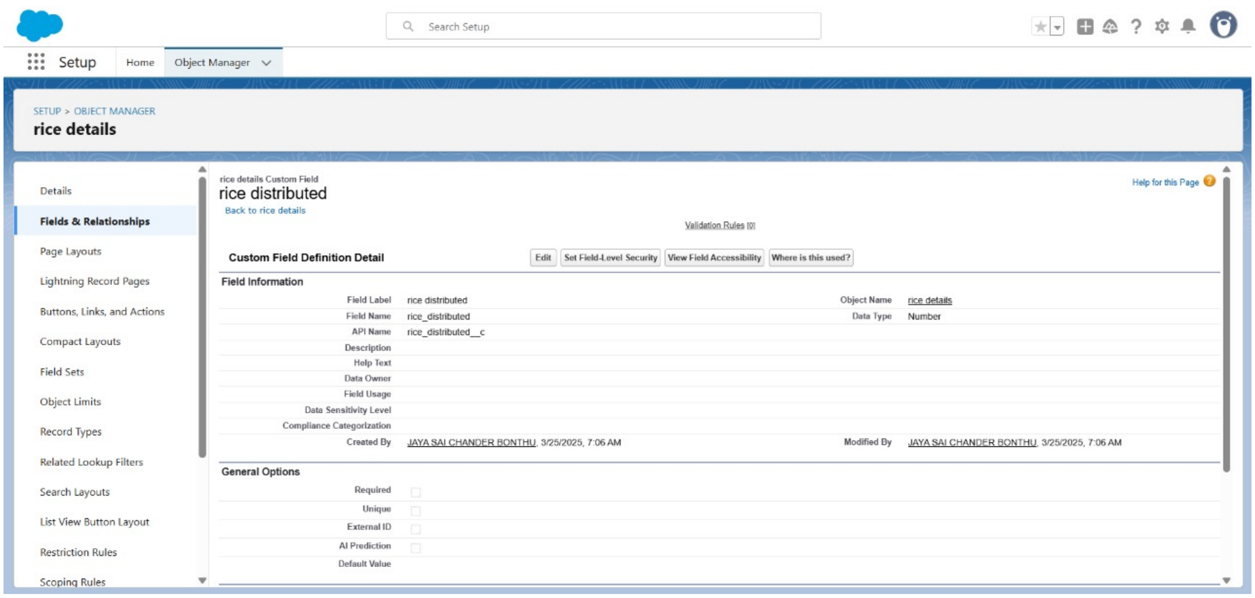
● Created By
● Owner
● Last Modified
● Field Made During object Creation

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. Itmeans you need not always include them in the records, unlike Standard fields. Hence, the finaldecision 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

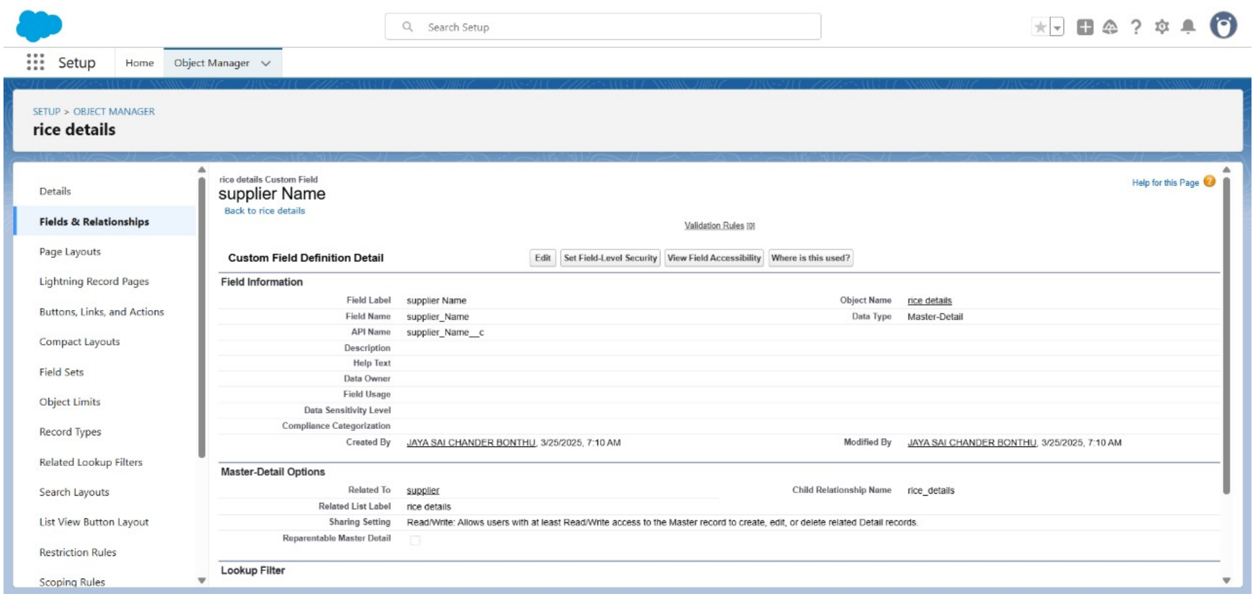
1. Creating the number field in rice details object
2. Go to the setup page → click on object manager → From drop down click edit for rice details object.
3. Click on fields & relationship → click on New.
4. Select Data type as "Number" and click Next.
5. Given the Field Label as " rice distributed " and length as " 5 ".
6. Field Name will be auto populated, and click on Next→ Next → Save.



Activity 2 : Creating Junction Object :

1. Creating junction object as rice details with supplier & rice mill
2. To create junction object
3. Go to the setup page → click on object manager → From drop down click edit for rice details object.
4. Click on fields & relationship → click on New.
5. Select "Master-Detail relationship" as data type and click Next.
6. Select the related object " supplier " and click next.

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



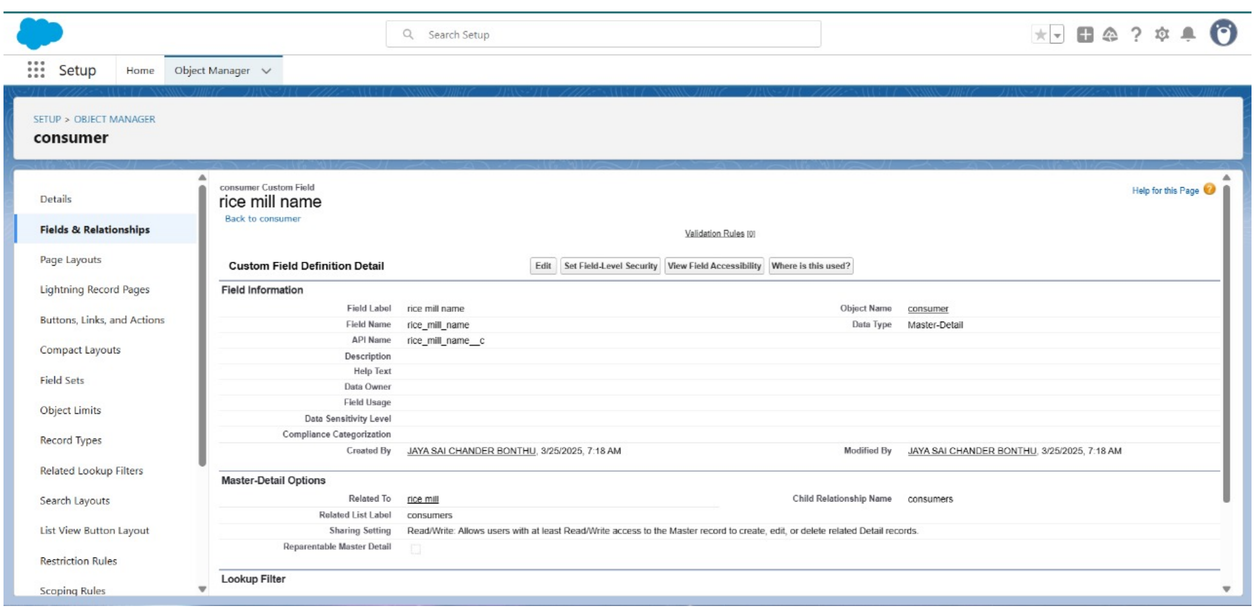


fig: supplier Name field

Activity 3 : Creating a Master-Detail Relationship

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

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.
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.

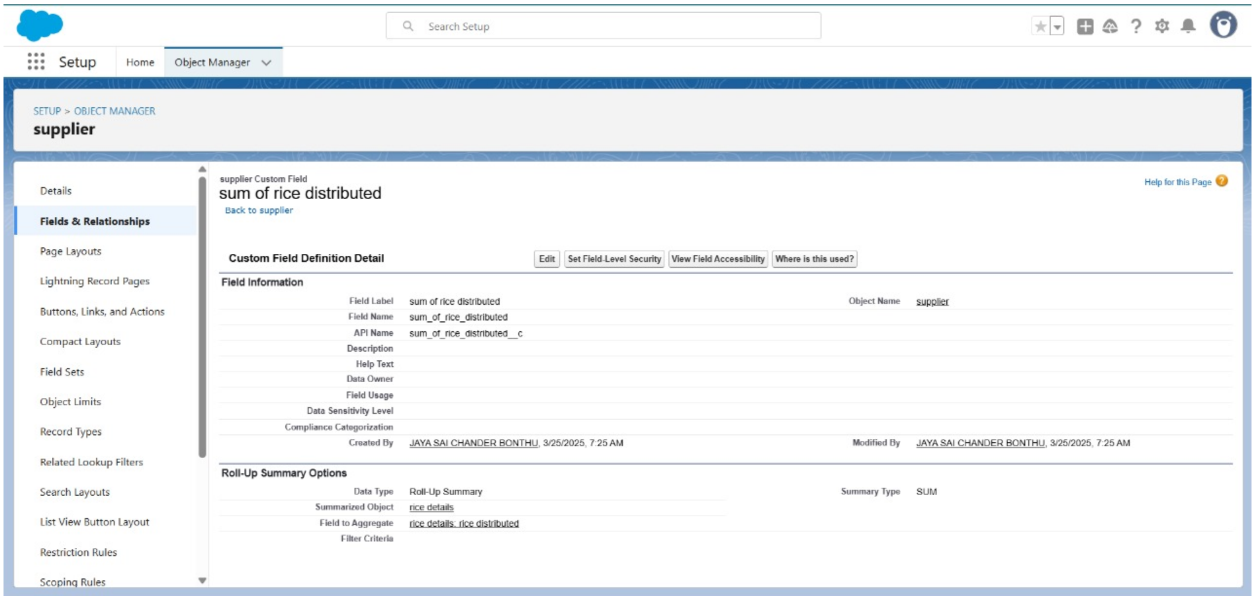


fig: sum of rice distributed

Follow the same steps for the rice mill Object from 1 to 3

1. Give the Field label as " rice distributed to shops ",Field Name will be Auto generated, and click Next.
2. Select the summarized object as " rice details ".
3. Select the Rollup type as "sum".
4. Select the field to aggregate as " rice distributed ", and click Next → Next → Save.

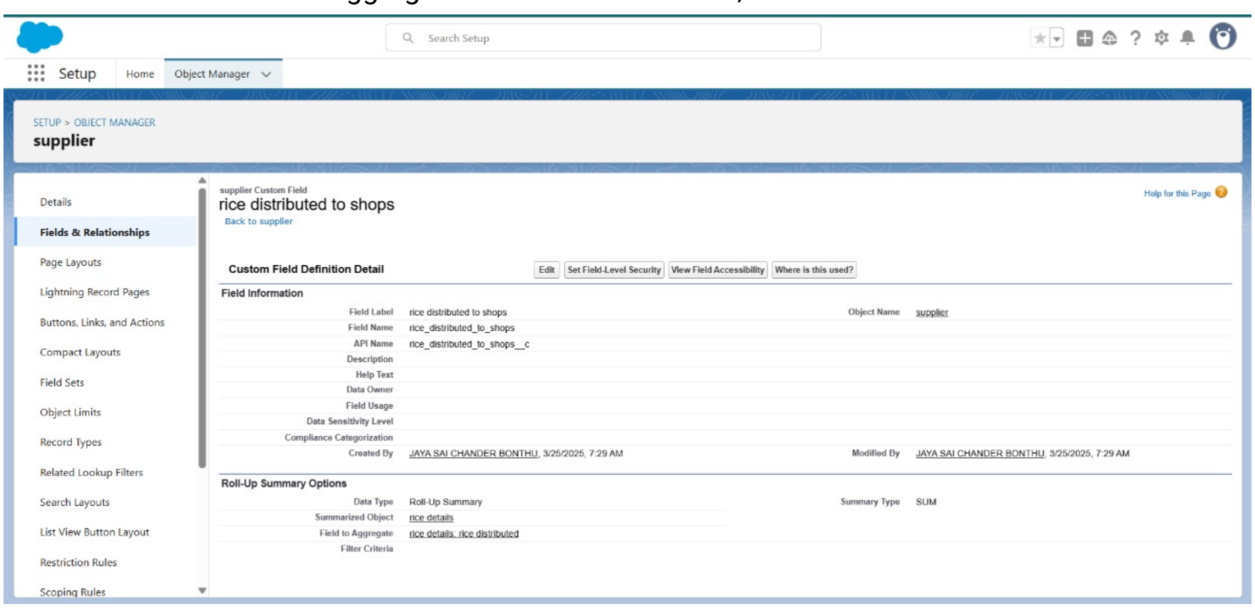


fig: rice distributed to shops

Note : create the field as " rice taken by shops in kgs" using number datatype in consumer object.

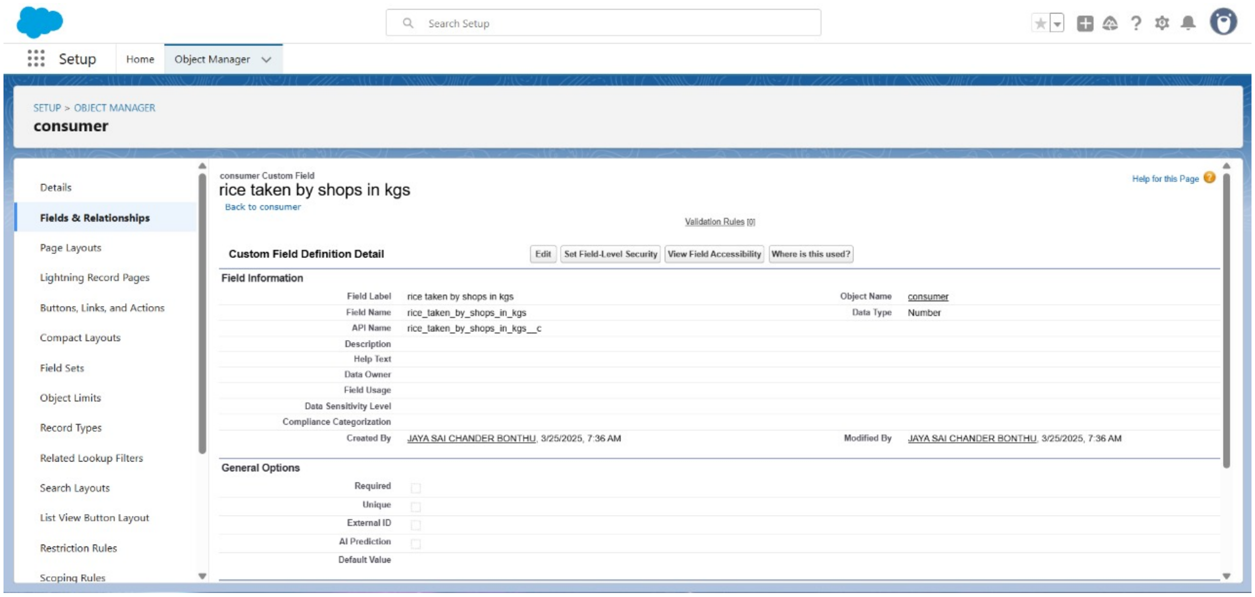
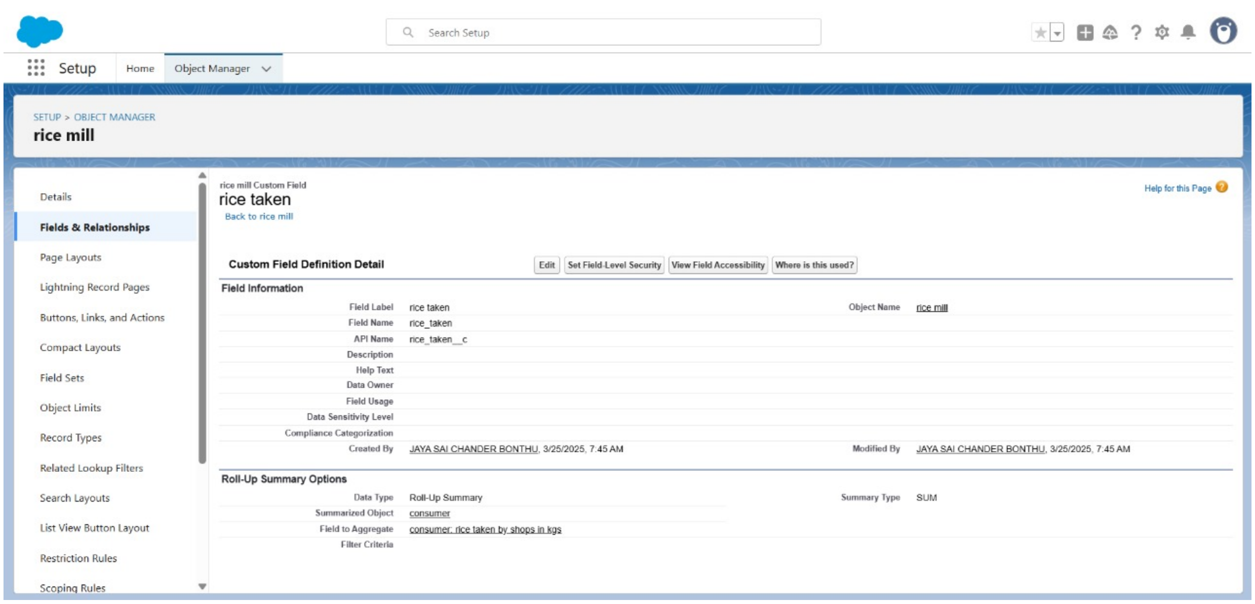


fig: rice taken by shops in kgs

Follow the same steps for the rice mill Object from 1 to 3

1. Give the Field label as " rice taken ",Field Name will be Auto generated, and click Next.
2. Select the summarized object as " consumer".
3. Select the Rollup type as "sum".
4. 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.
3. Select Data type as “Number” 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.

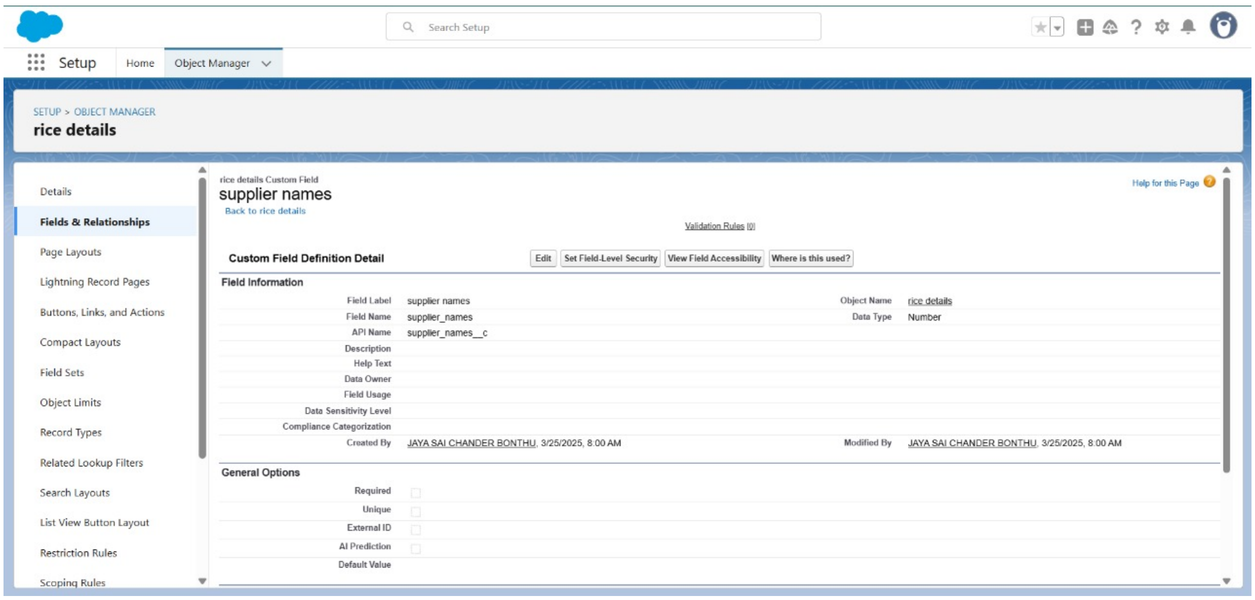


fig: supplier name custom field

Activity 6: Creating Fields in rice mill Objects

Select Data type as “Number” and click Next.

Given the Field Label as “ rice price/kg ” and length as “ 5 ”

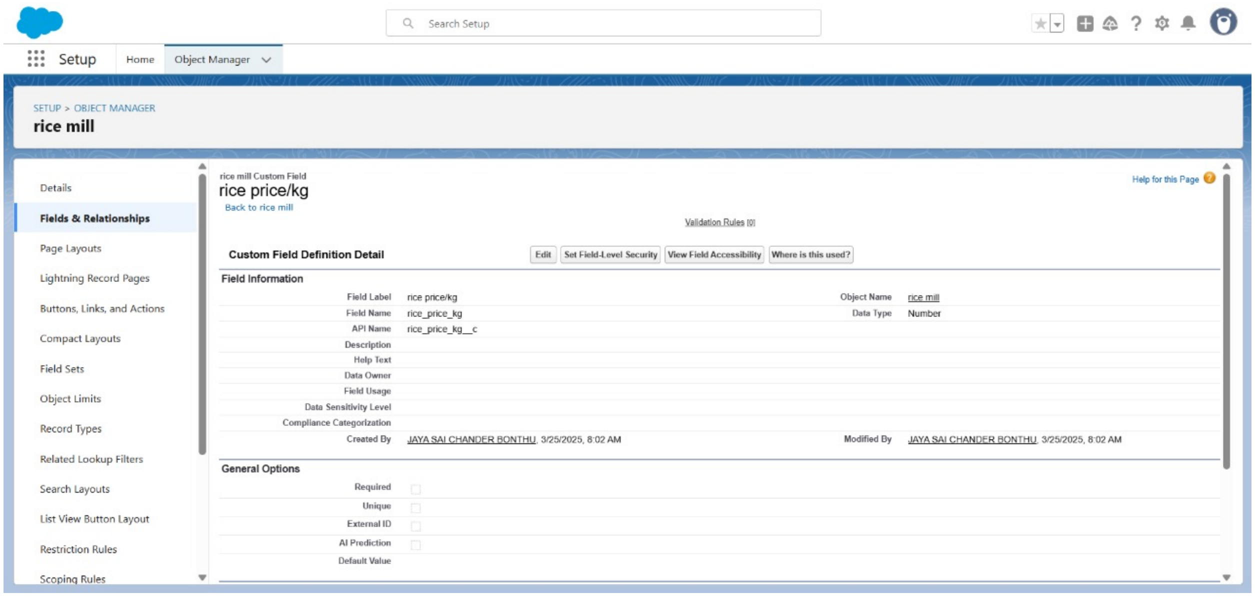


fig: Rice price per kg

Activity 7: Creating Fields in consumer Objects

S.no	Object name	Fields	data type

<table>
<tr>
<td>1.</td>
<td>consumer</td>
<td>
<table>
<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
1. Credit card
2. Debit card
3. Net banking
4. UPI
5. Cash</td></tr>
</table>
</td>
</tr>
</table>

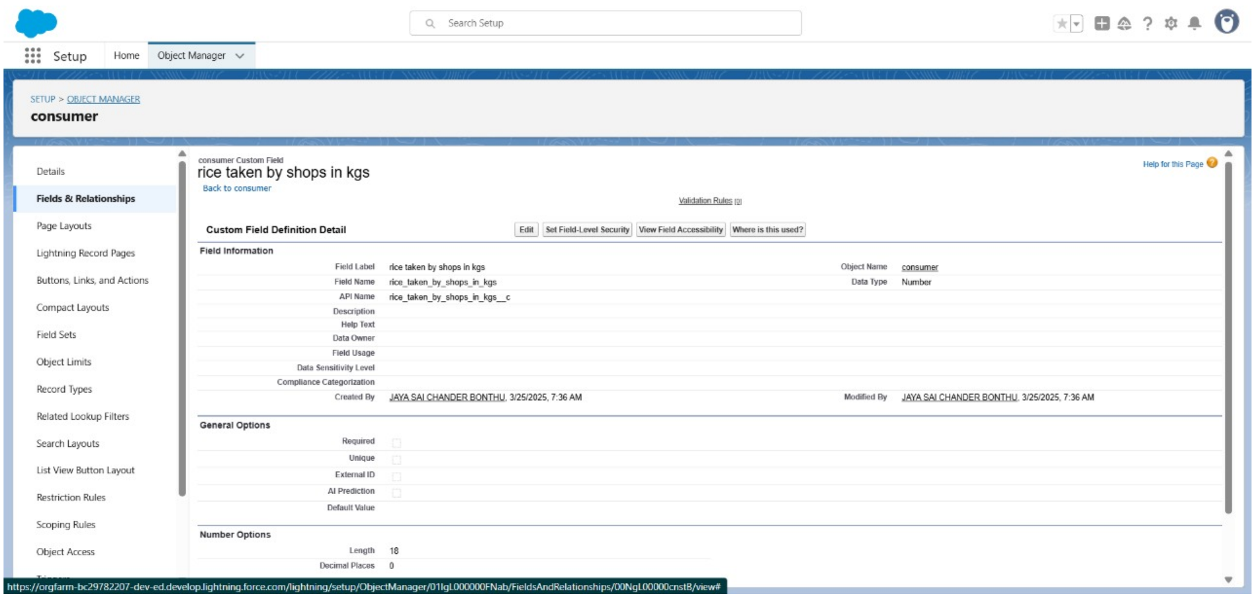


fig: Rice taken by shops in kgs

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Activity 8 : Creating Cross Object Formula 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 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 :
6. rice_taken_by_shops__c * rice_mill_name__r.rice_price_kg__c
7. Under Advanced Formula write down the formula and click “Check Syntax” and Save.

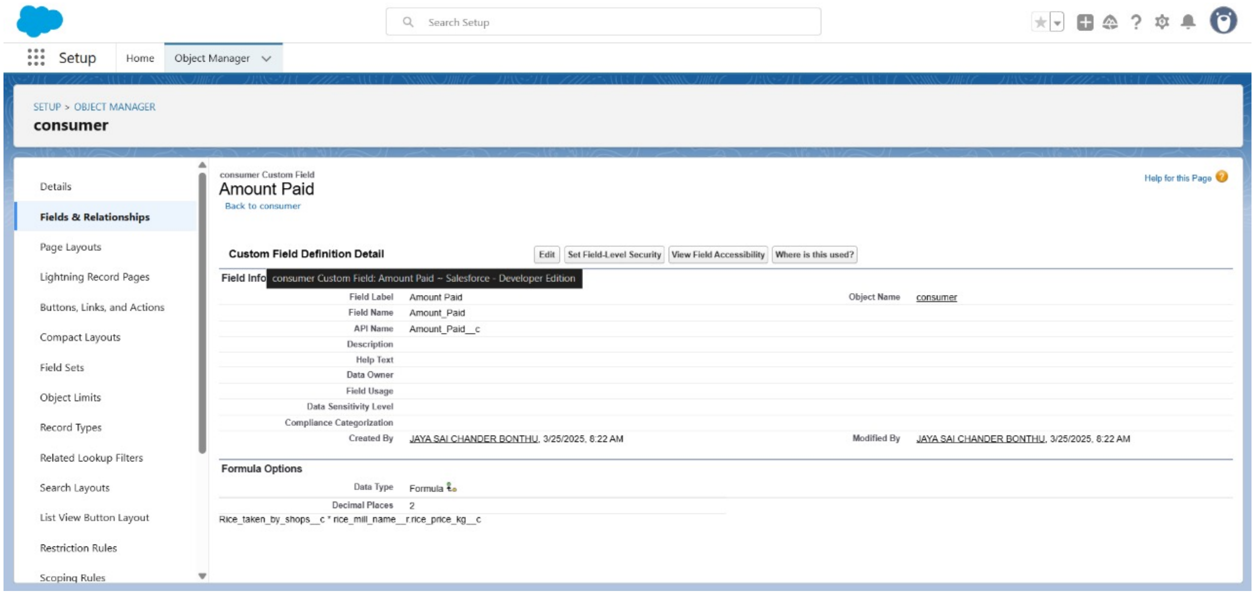


fig: Amount Paid

Creating the Formula field in consumer Object

Note : 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.

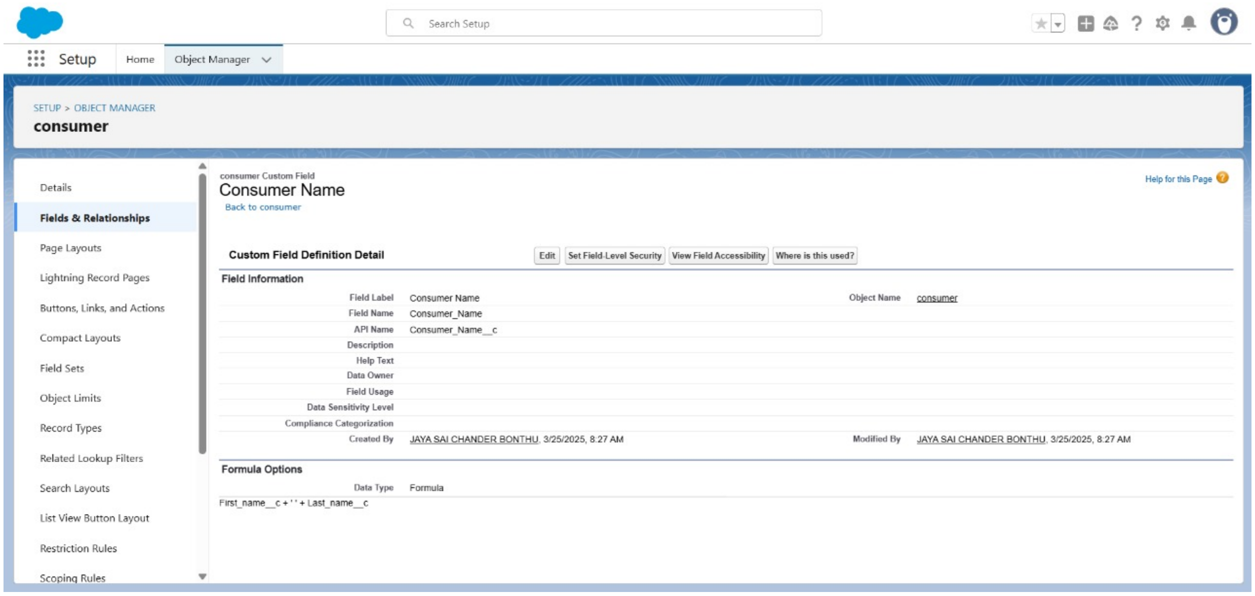


fig: Consumer name

Activity 9 : Creating the validation rule

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

6 Page layouts:

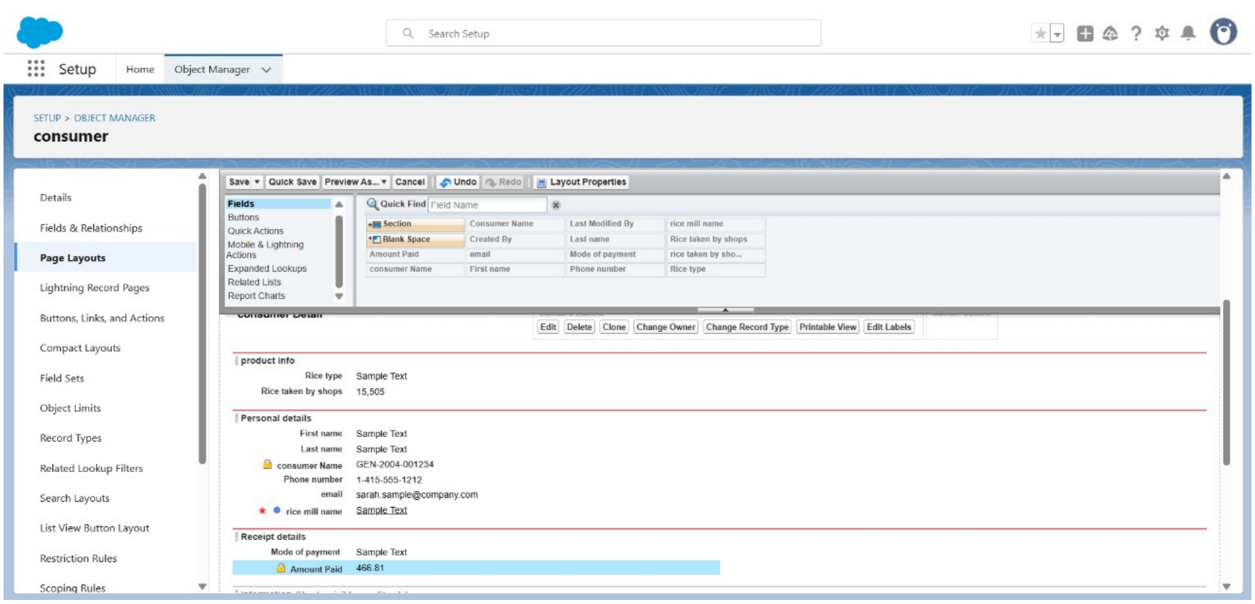
Page Layout in Salesforce allows us to customize the design and organize detail and edit pages of records in Salesforce. Page layouts can be used to control the appearance of fields, related lists, and custom links on standard and custom objects' detail and edit pages.

Activity 1 : creating the page layout

To Create a Page layout:

Go to Setup → Click on Object Manager → Search for the object (consumer) → From

1. drop down select the object and click on it.
2. Click on Page layout → Click on New.
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
7. First name , last name , consumer name , phone number, email, rice mill name.
8. Follow the same process for another two sections as shown above , they are
9. One section is “ rice details ” , drag the fields that are
10. Rice taken by shop, rice type.
11. Another section is “Receipt details ”, and drag the fields that are
12. Mode of payment , Amount paid.
13. Then , Click save.



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

Standard profiles:

By default salesforce provides below standard profiles.

1. Contract Manager
2. Read Only3. Marketing User
4. Solutions Manager
5. Standard User
6. 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.

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

1. To create a new profile:
2. Go to setup → type profiles in quick find box → click on profiles → clone the desired profile (Standard User) → enter profile name (owner) → Save.
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.
4. Give access and save it.

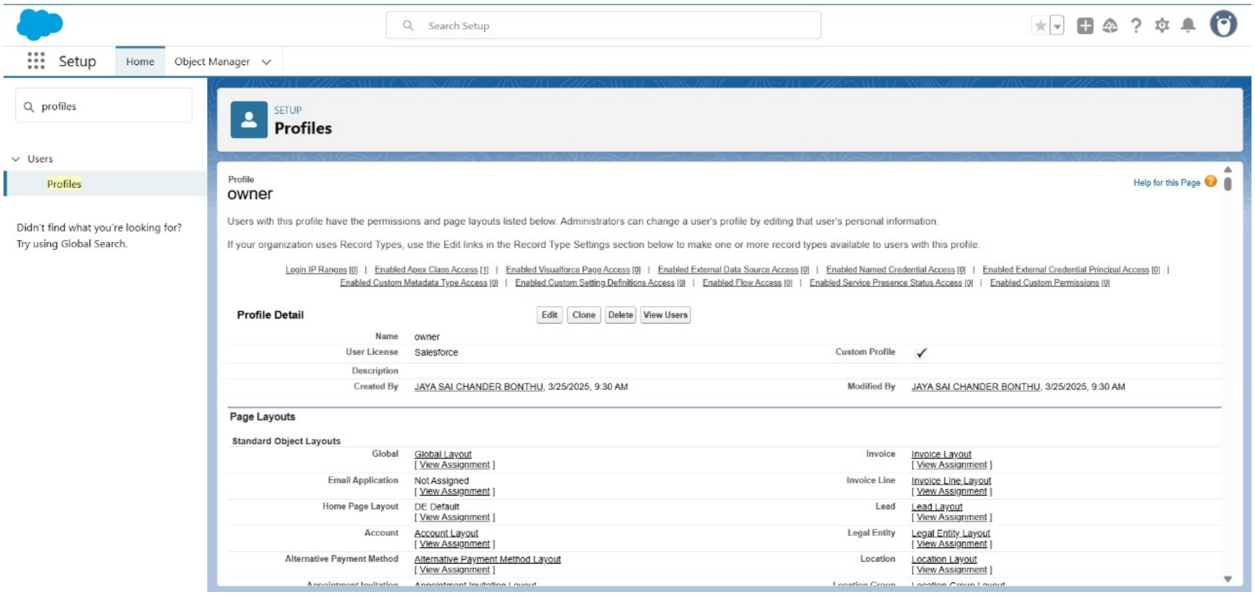


fig: Owner Profile

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 And click save.

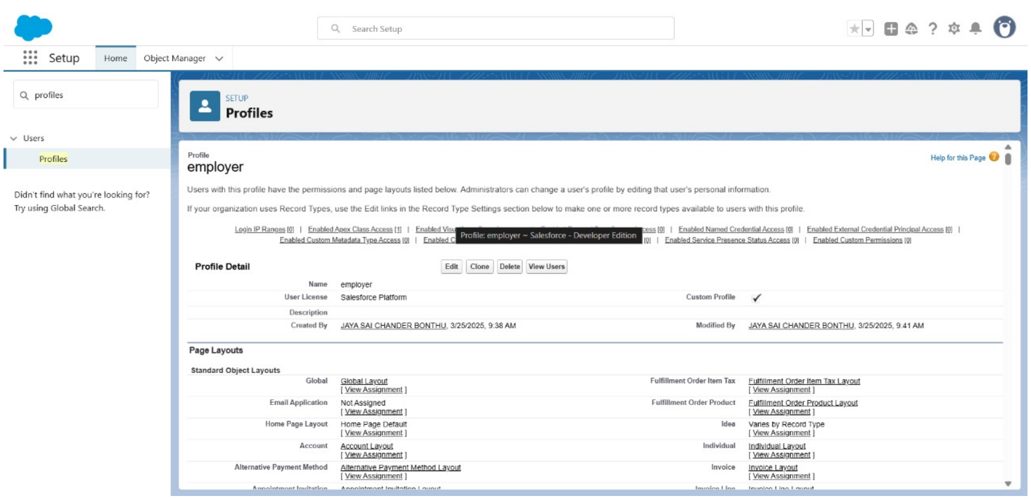


fig: employer profile

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 and click save.

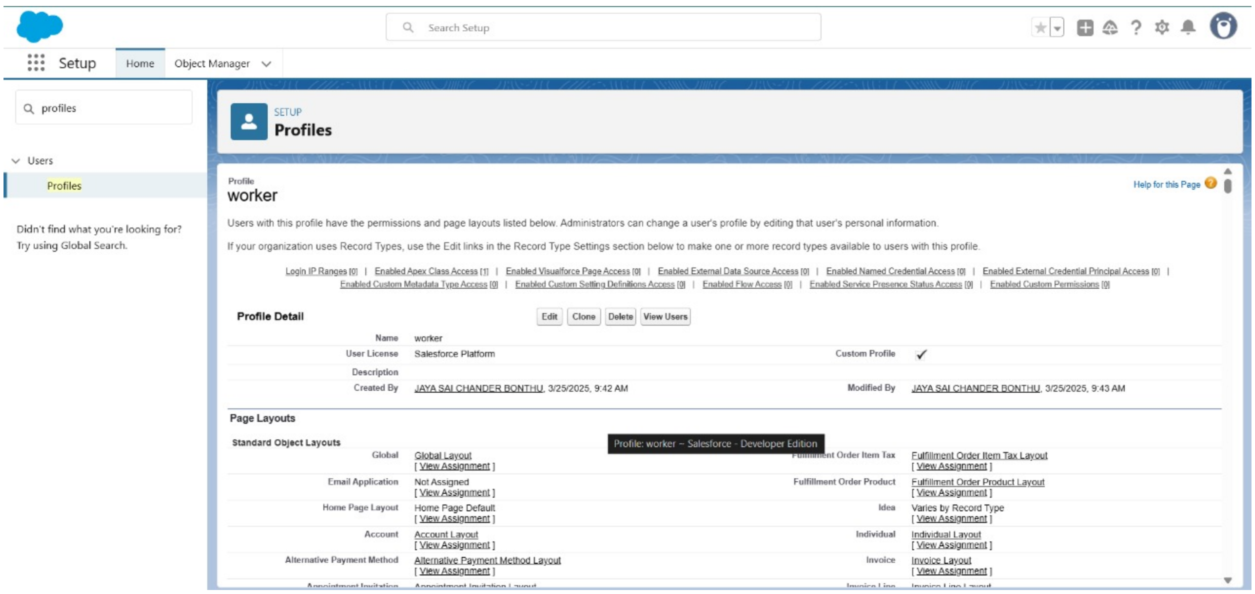


fig: Worker Profile

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

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.
6. Click and save it.

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

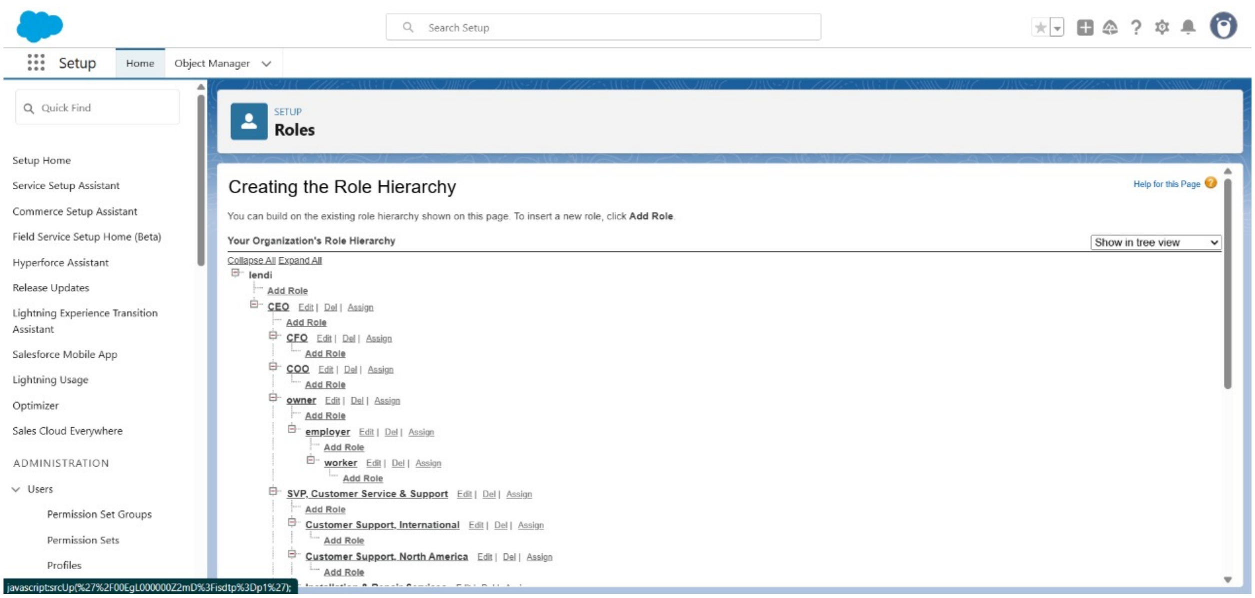


fig: creating owner, employer and worker roles

9 Users

A user is anyone who logs in to Salesforce. Users are employees at your company, suchas 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 theuser 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.
12. Save it.

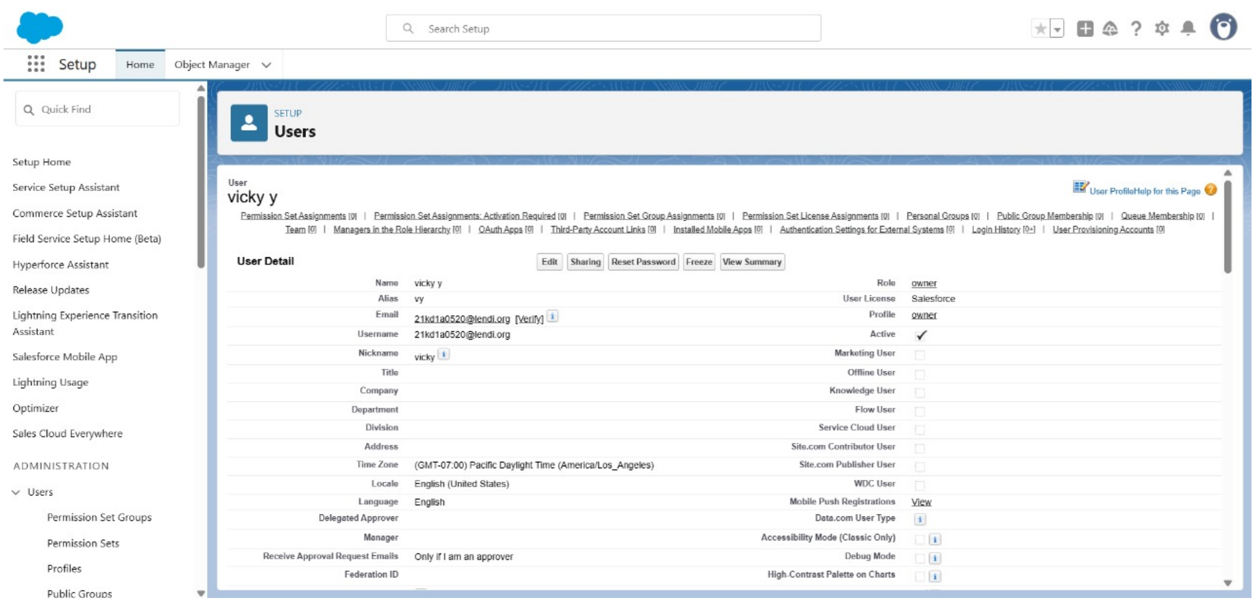


fig: creating vicky user

Activity 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.

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.

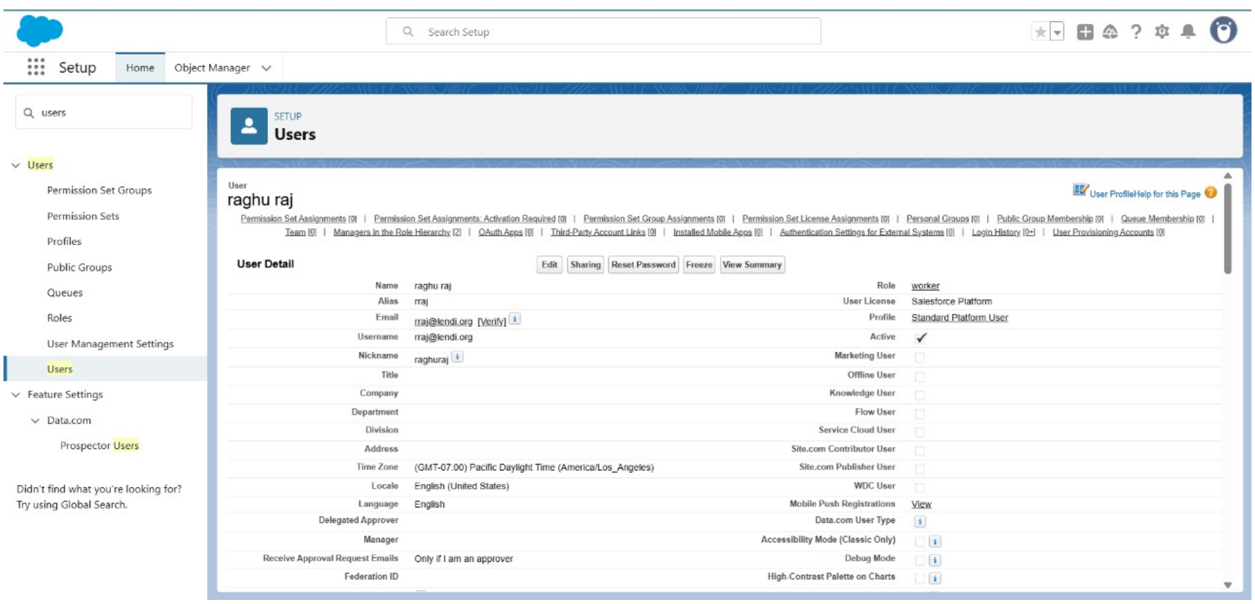


fig: created ragu user

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.
2. Scroll down, change the default internal access to " public read-only" for rice mill and supplier object.
3. Click save.

Extra information, By these every profile has their own access, according to their profile. 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.

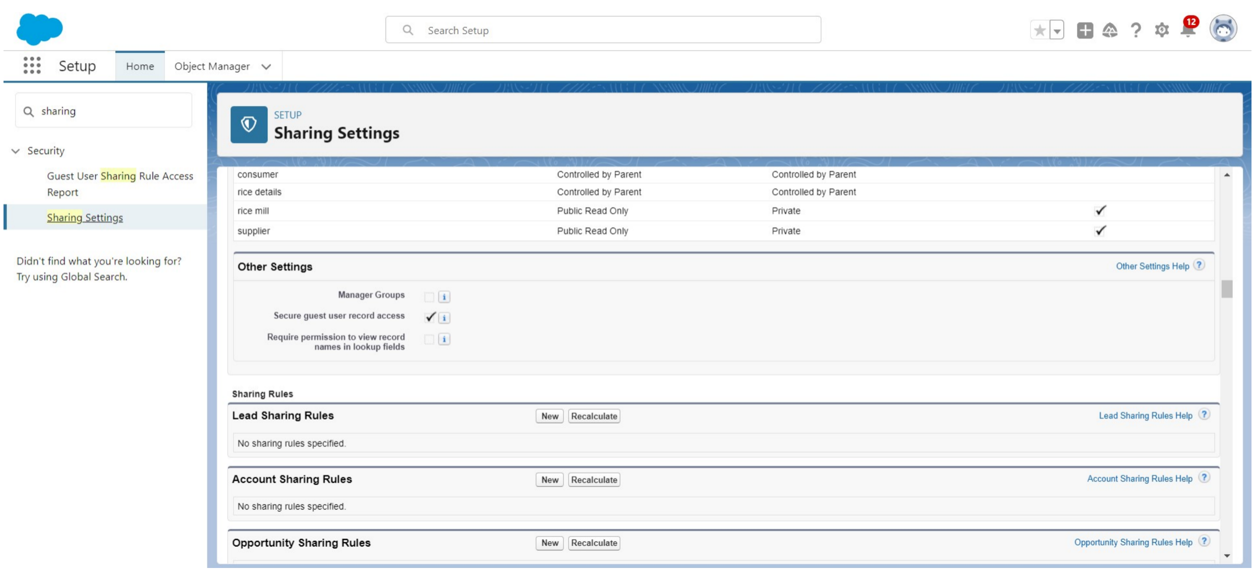


fig: created OWD

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

Activity 1: Create Report

1. Go to the app → click on the reports tab
2. Click New Report.
3. select for report type, search for “rice mill with consumers” click on it. And click on start report.
4. Their outline pane is opened already, select the fields that are mentioned below in the column section.

    1.consumer name
    2.rice type
    3.rice price/kg
    4.mode of payments
    5.amount paid

5. Remove the unnecessary fields.
6. Select the fields that are mentioned below in the GROUP ROWS section.
7. Rice taken by shops.
8. Click save and run and save the report as “range of amount per day”.and save it.

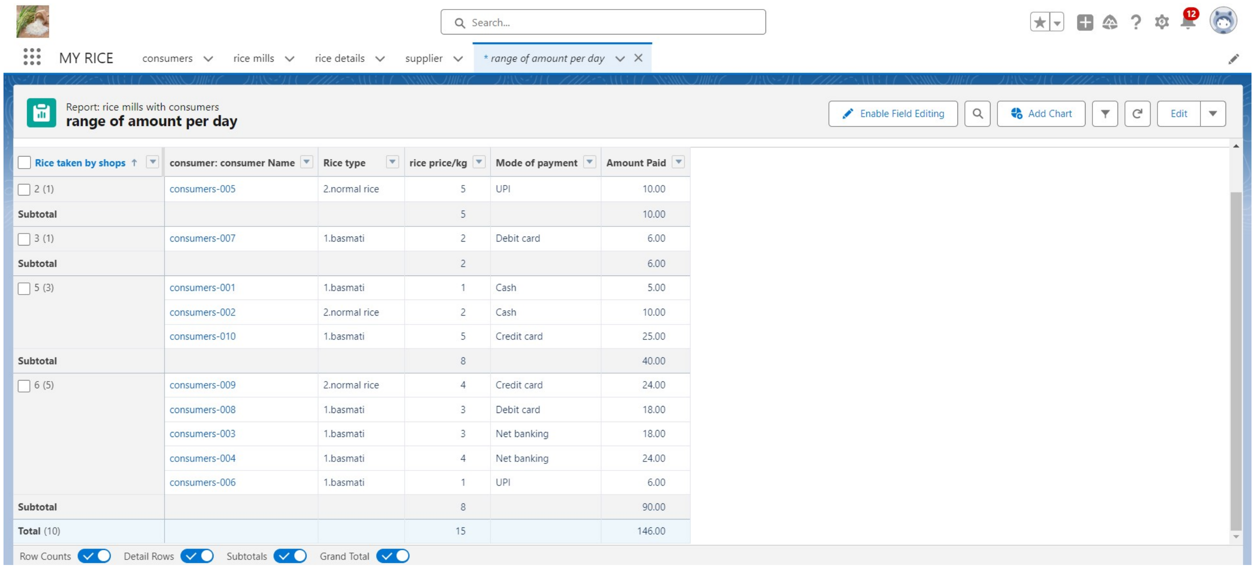
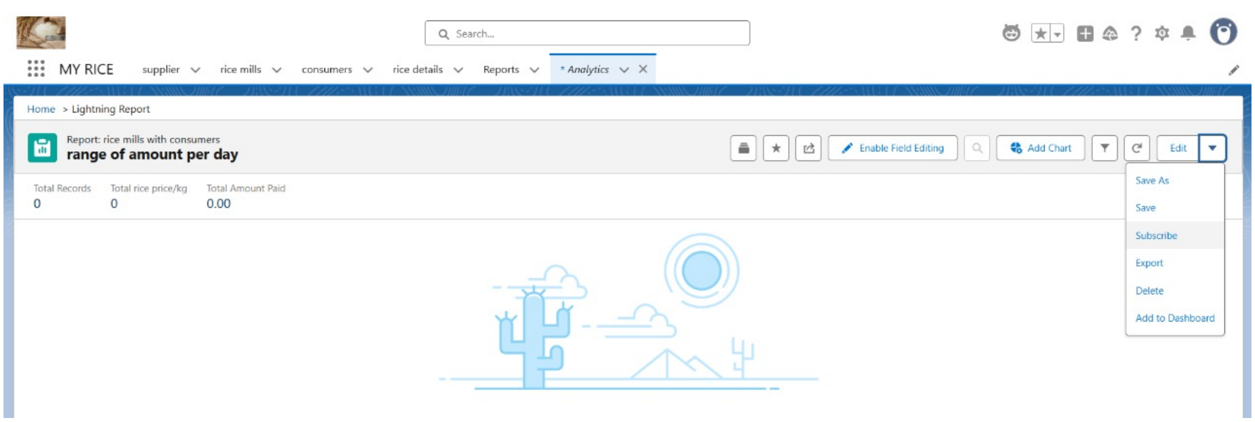


fig: create report

Activity 2: Sharing report to owner

1. Click edit drop down and select subscribe option
2. Follow as per below image.
3. After selecting the run report as a "another person" select your personal account or whom you want to send that mail to.
4. 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.
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.

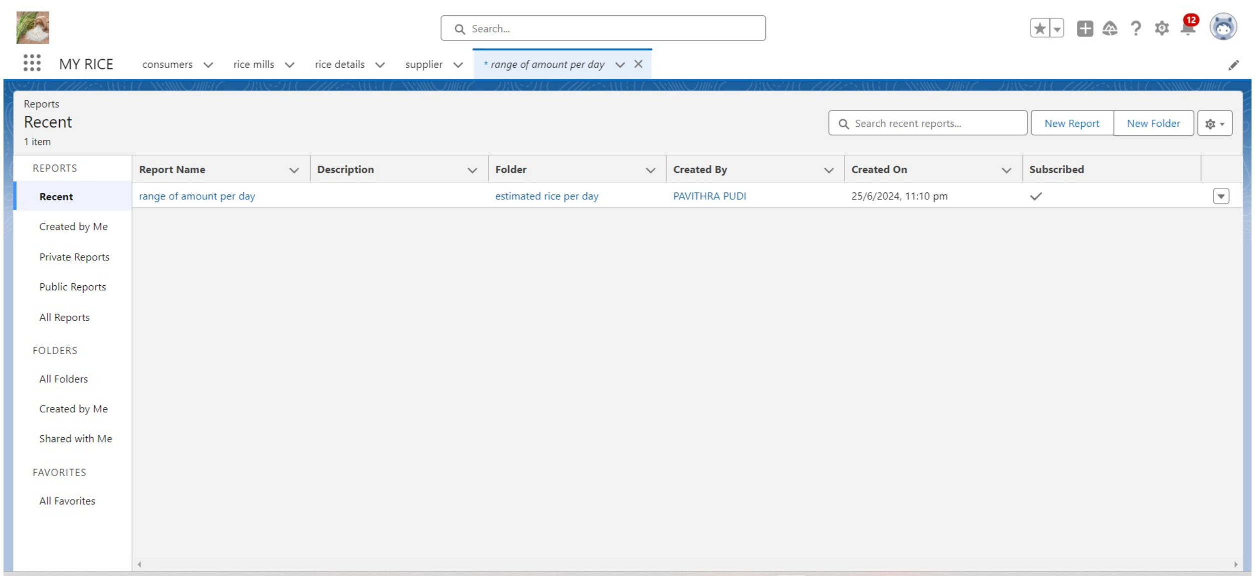


fig: create folder report

12 DASHBOARDS

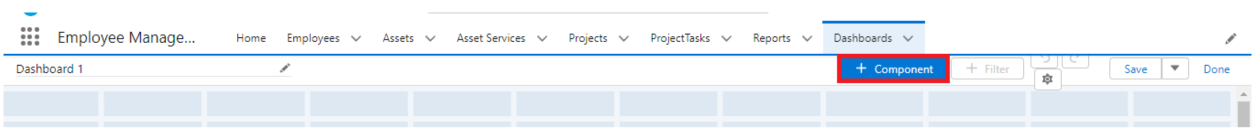
Dashboards help you visually understand changing business conditions so you can make decisions based on the real-time data you've gathered with reports. Use dashboards to help users identify trends, sort out quantities, and measure the impact of their activities. Before building, reading, and sharing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



    2. Select a Report and click on select.
    3. 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.

3.Add the component

Again select add component with above same steps

    1. 1.display as donut chart
    2. 2.sort by - sum of amount
    3. 3.title-range of amount per day
    4. 4.component theme dark
    5. Click add.
    6. Click save and done.

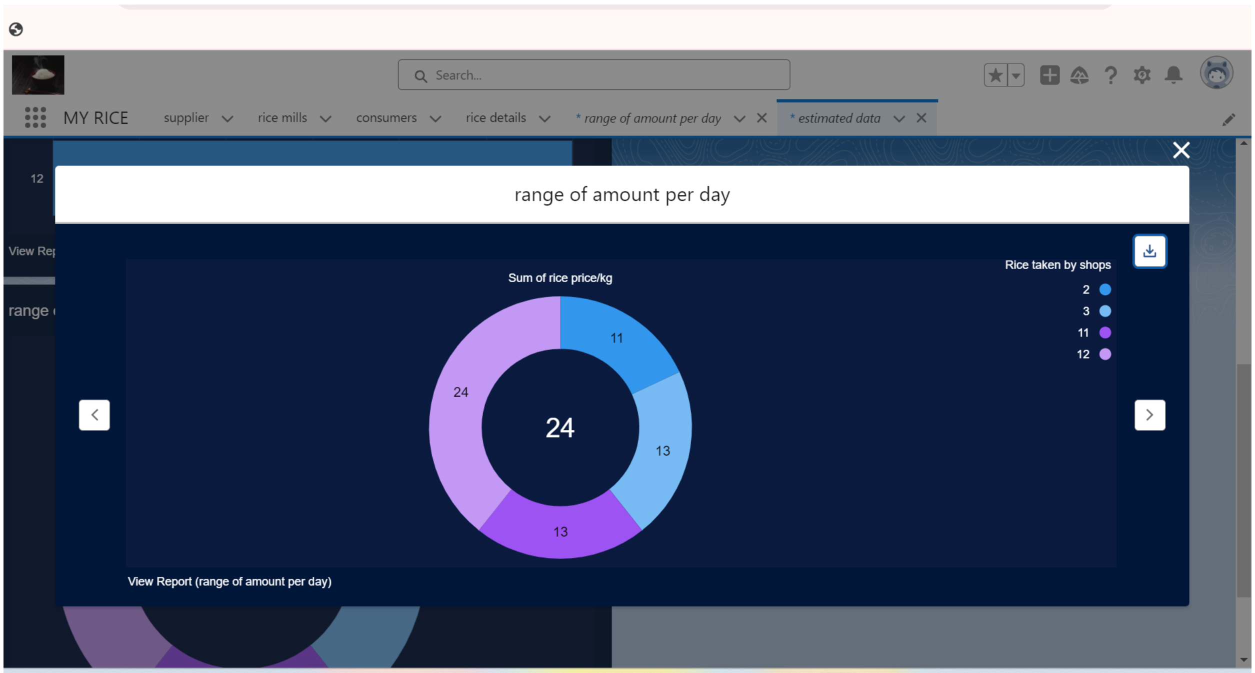


fig: Created Dashboard