A CRM APPLICATION FOR WHOLESALE RICE MILL

Project Overview:

This project aims to build a comprehensive CRM application tailored for a wholesale rice mill using Salesforce. The application includes functionalities to manage rice distribution, track consumer interactions, and analyze sales data. The key components of the project are:

1. Custom Objects and Fields:

- Creation of custom objects like Consumers, Rice Details, Rice Mill, and Suppliers.
- Adding custom fields to capture relevant data such as rice type, amount distributed, and payment mode.

2. Roles and Profiles:

- Defining roles like Owner, Employer, and Worker with appropriate access permissions.
- Creating profiles and assigning them to users to control their access levels.

3. Page Layouts:

- Designing page layouts for different objects to ensure that users have an intuitive and organized interface.

4. Reports and Dashboards:

- Generating reports to analyze daily rice distribution and consumer interactions.
- Creating dashboards to provide a visual summary of key metrics and performance indicators.

5. Automation and Notifications:

- Setting up email notifications to keep the Owner informed about daily reports.
- Automating data entry and updates through workflows and validation rules.

6. Data Organization:

- Organizing reports and dashboards into folders for easy access and management.
- Ensuring that the application is user-friendly and meets the specific needs of the rice mill business.

Pre-requisites

Salesforce Developer account

Knowledge of the salesforce admin concepts.

Installed with 2 web browsers in the Machine

Good internet connectivity.

<u>Milestone 1-Salesforce</u>:

Introduction:

What Is Salesforce?

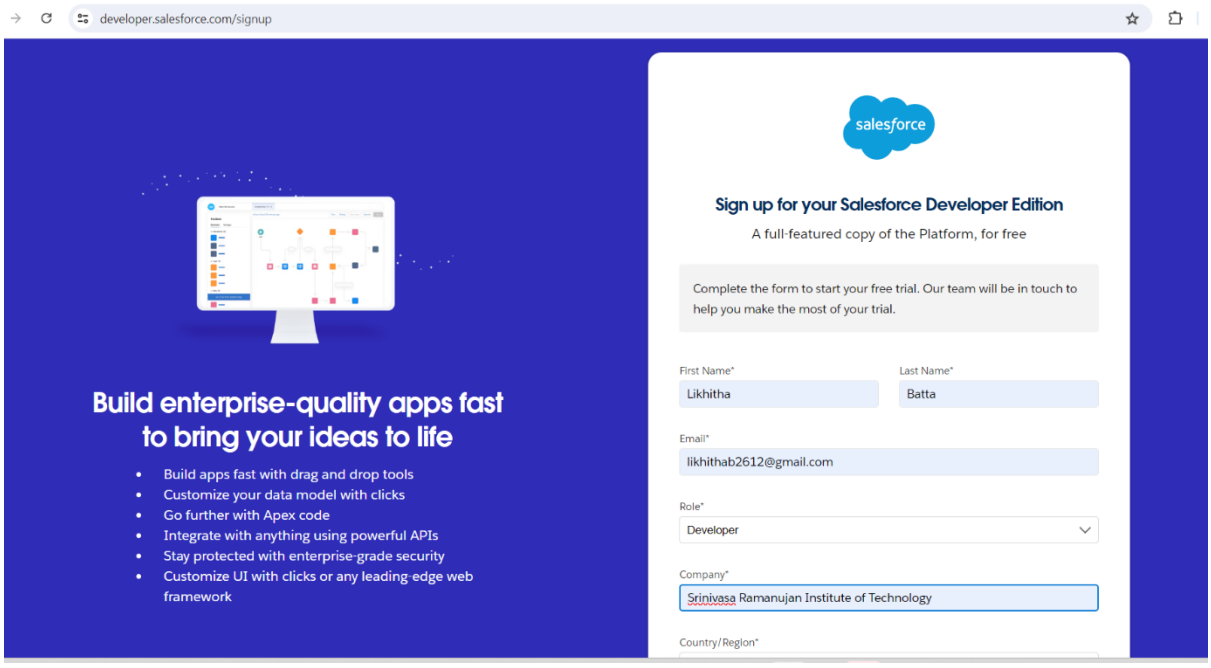
Salesforce is customer success platform, designed to sell, service, market, analyze, and connect with customers.

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

Activity 1: Creating Developer Account:

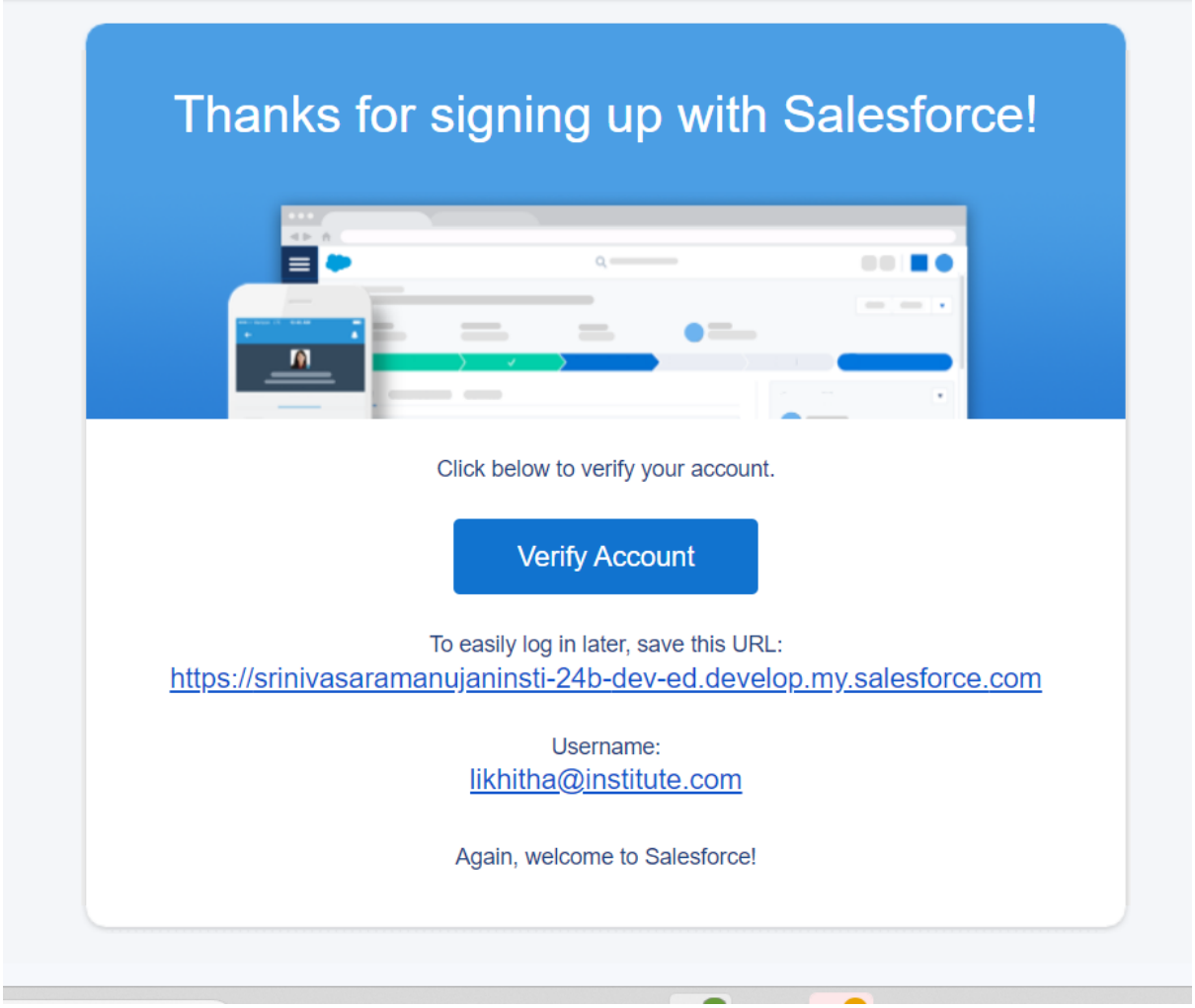
Creating a developer org in salesforce.

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



Activity 2: Account Activation:

1. Click on Verify Account.



Milestone 2- Object

What Is an Object?

Salesforce objects are database tables that permit to store data that is specific to an organization.

Salesforce objects are of two types:

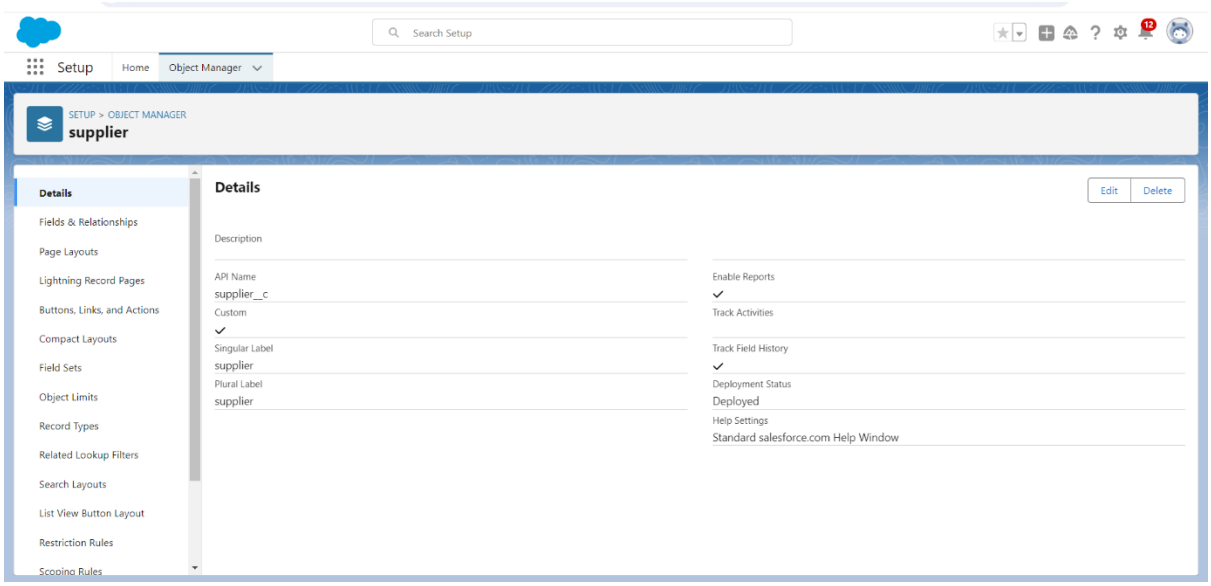
1. **Standard Objects**: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.
2. **Custom Objects:** Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. They are the heart of any application and provide a structure for sharing data.

Activity 1: Create Supplier Object:

To create an object:

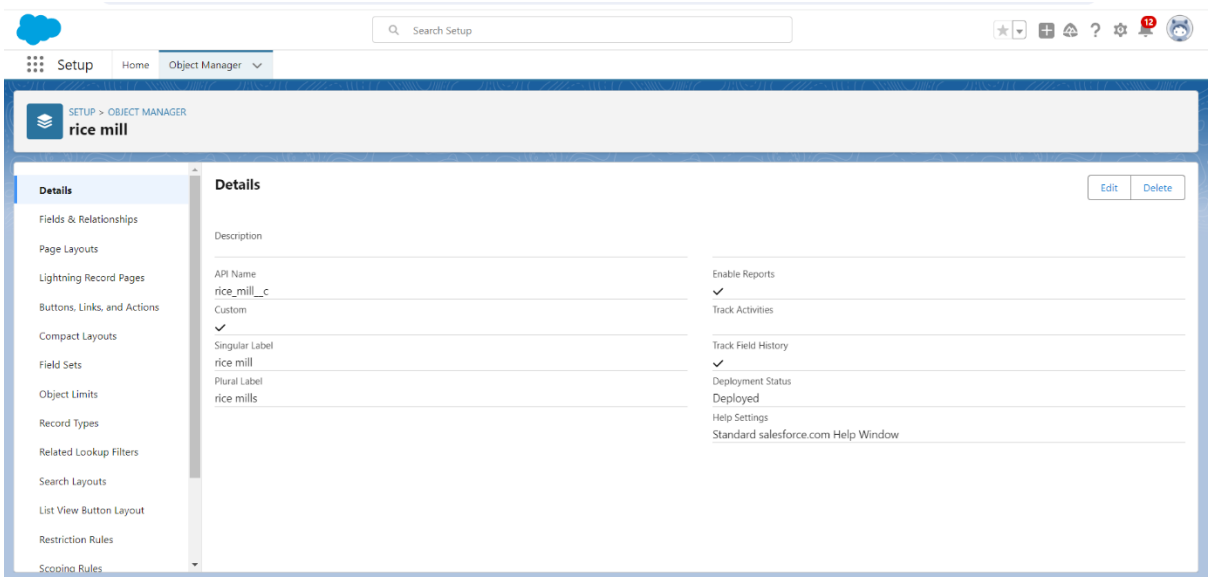
1. From the setup page → Click on Object Manager → Click on Create → Click on Custom Object.
2. Enter the label name→ **supplier**

3. Plural label name→ supplier
4. Enter Record Name Label and Format
5. Record Name → supplier Name
6. Data Type → Text
7. Click on Allow reports and Track Field History and allow search
8. Allow search → **Save.**



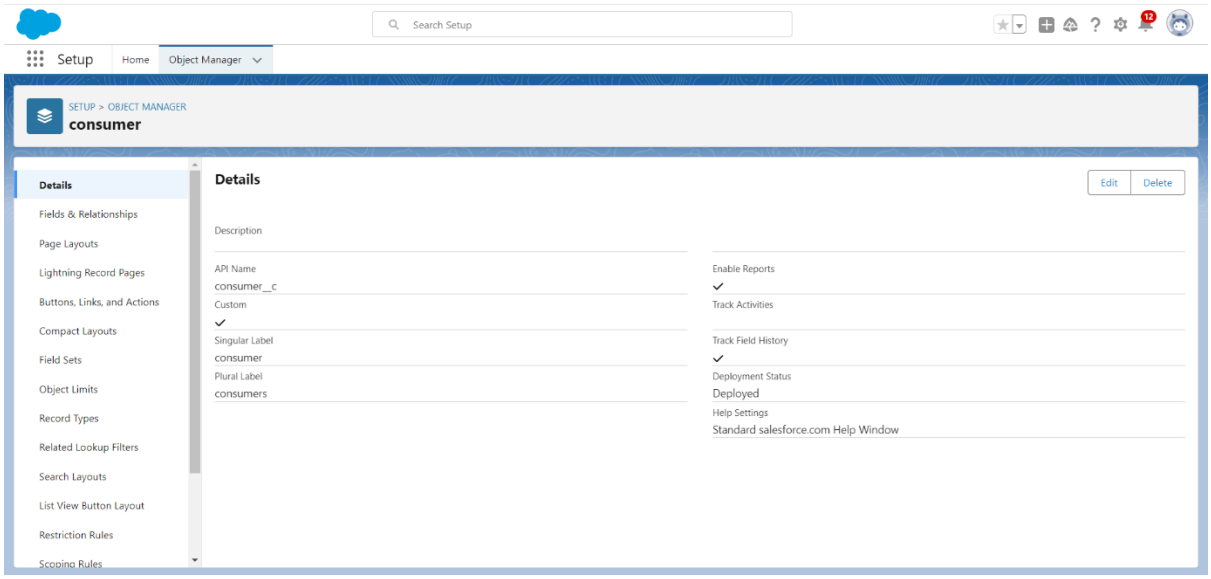
Activity 2: Create Rice mill Object:

1. Enter the label name→ rice mill
2. Plural label name→ rice mills
3. Enter Record Name Label and Format
4. Record Name →
5. Data Type → Auto Number
6. Display Format → rice-{000}
7. Starting number → 1
8. Click on Allow reports and Track Field History, Allow Search.
9. Allow search → **Save.**



Activity 3: Create consumer Objects:

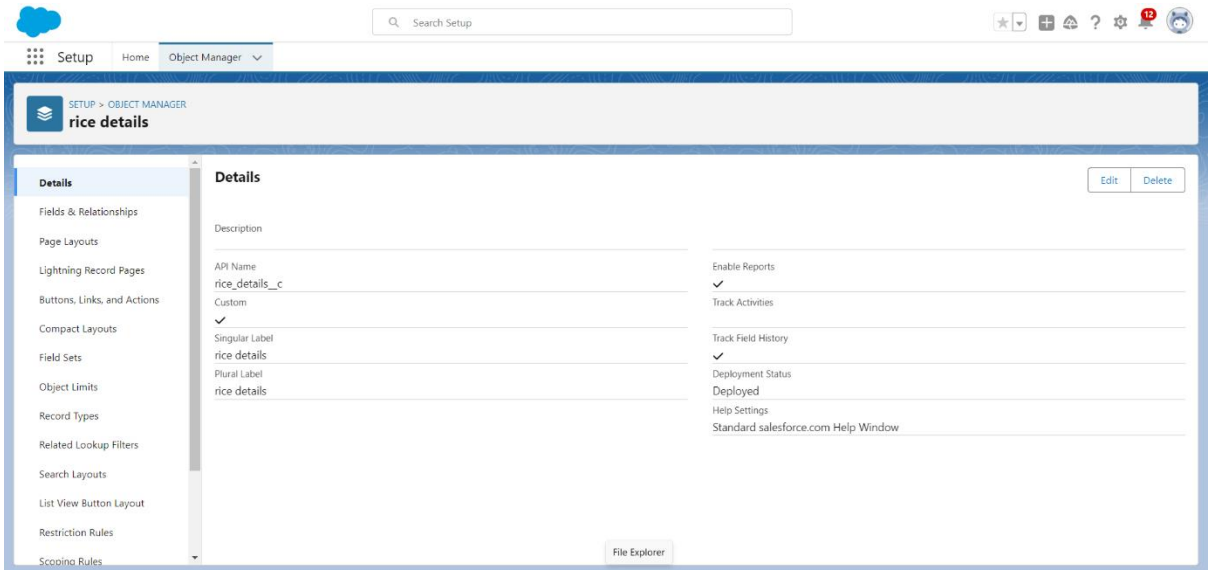
Note: Follow the same steps as mentioned in Activity 2 for the and Receipt objects.

1. Use these display format for the **consumer**
2. label name → **consumer**
3. Plural label name → **consumers**
4. Display Format → **consumers**-{000}
5. Starting number → 1
6. 

Activity 4: Create rice details Objects:

1. Use these display format for the rice details
2. label name → rice details
3. Plural label name → rice details

4. Display Format → rice-{000}
5. 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 inthe objects.

Types of Tabs:

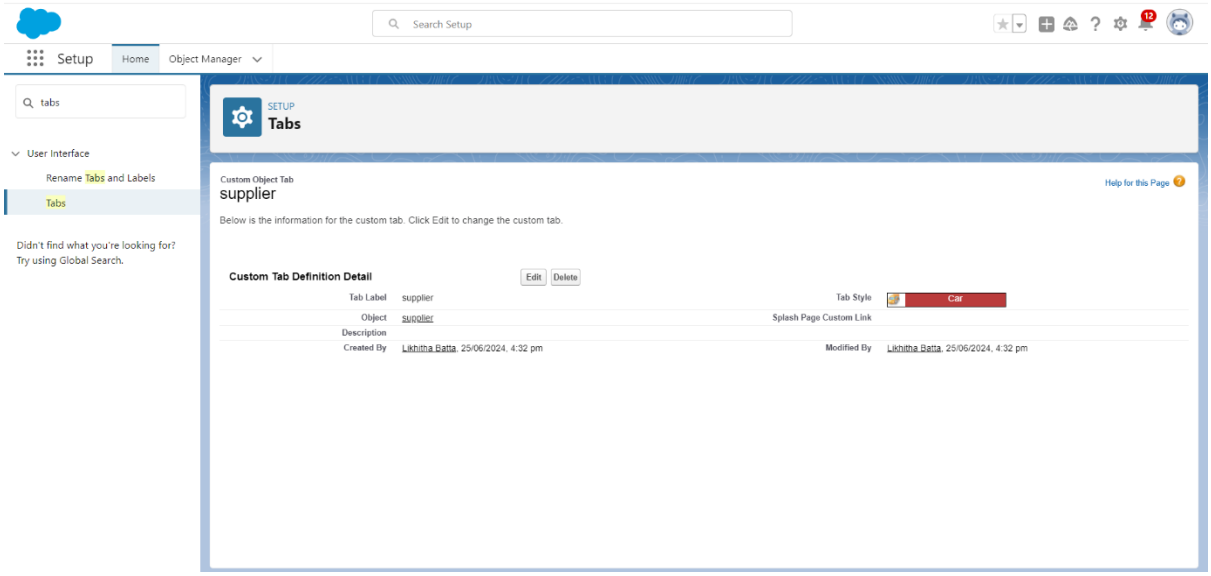
1. **Custom Tabs:**Custom object tabs are the user interface for custom applications that you build in salesforce.com. They look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.
2. **Web Tabs:** Web Tabs are custom tabs that display web content or applications embedded in the salesforce.com window.
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. 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:

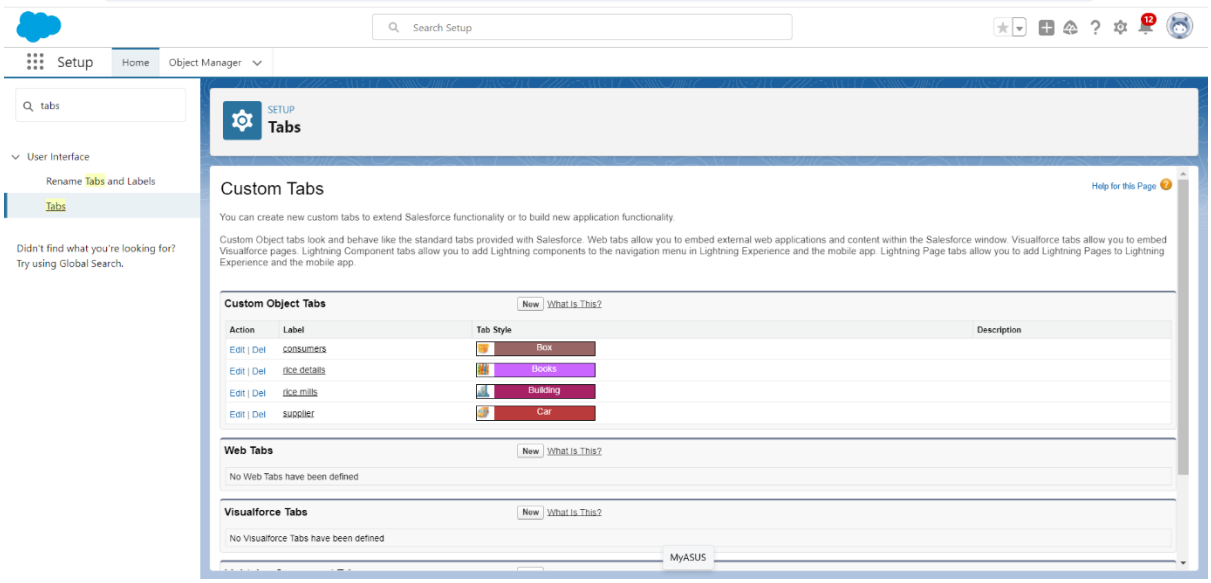
1. Go to setup page → type Tabs in Quick Find bar → click on tabs → New (under custom object tab)

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.



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.



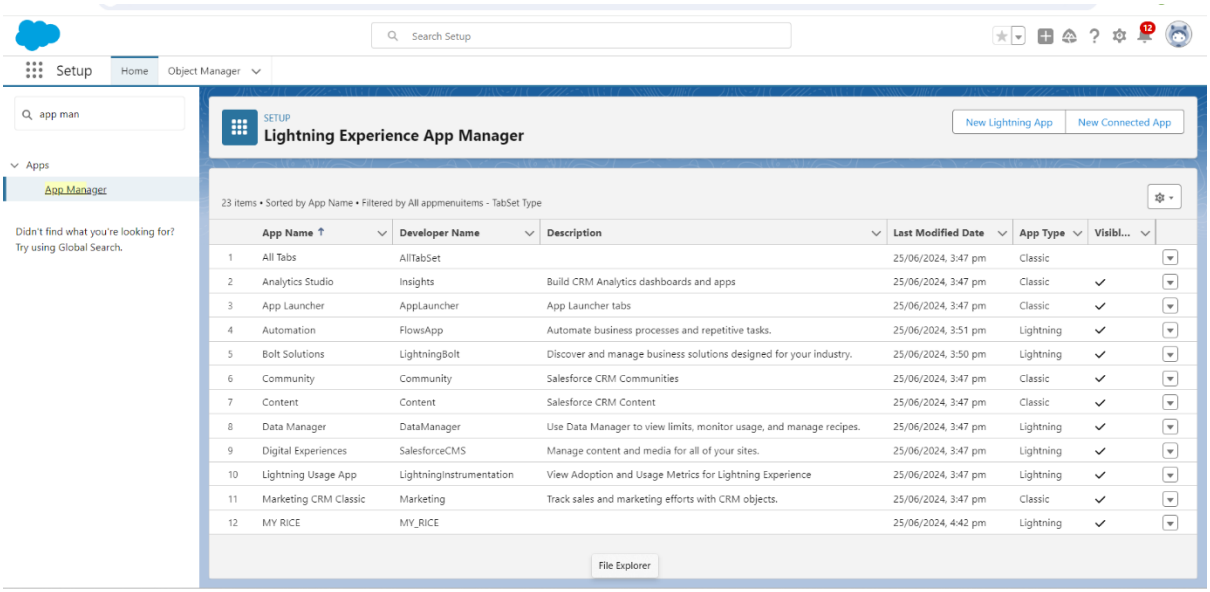
Milestone 4- The Lightning App:

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.

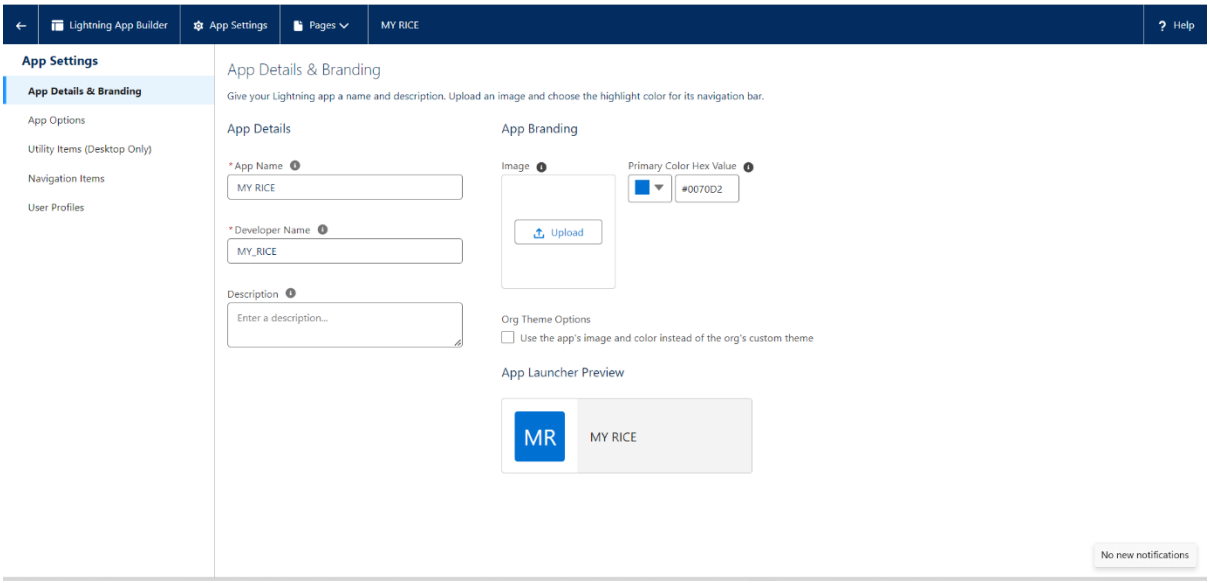
Lightning apps let you brand your apps with a custom color and logo.Also include a utility bar and Lightning page tabs in your Lightning app. Members of the org can work more efficiently by easily switching between apps.

Activity 1: Create a Lightning App

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

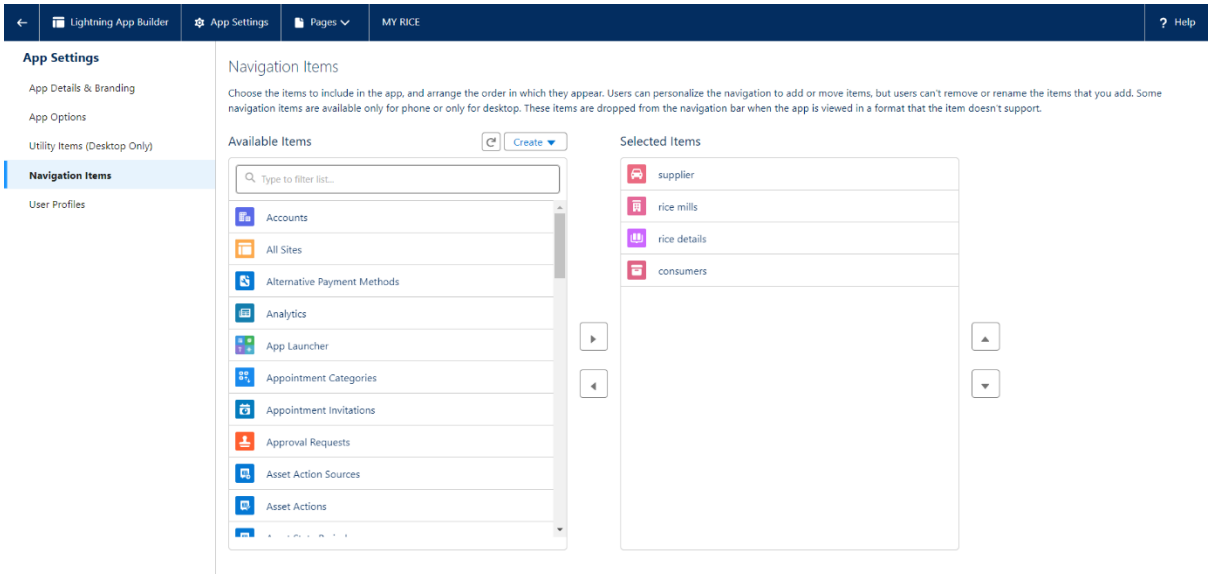


2. Fill the app name in app details as MY RICE →Next → (App option page) keep it as default → Next → (Utility Items) keep it as default → Next.



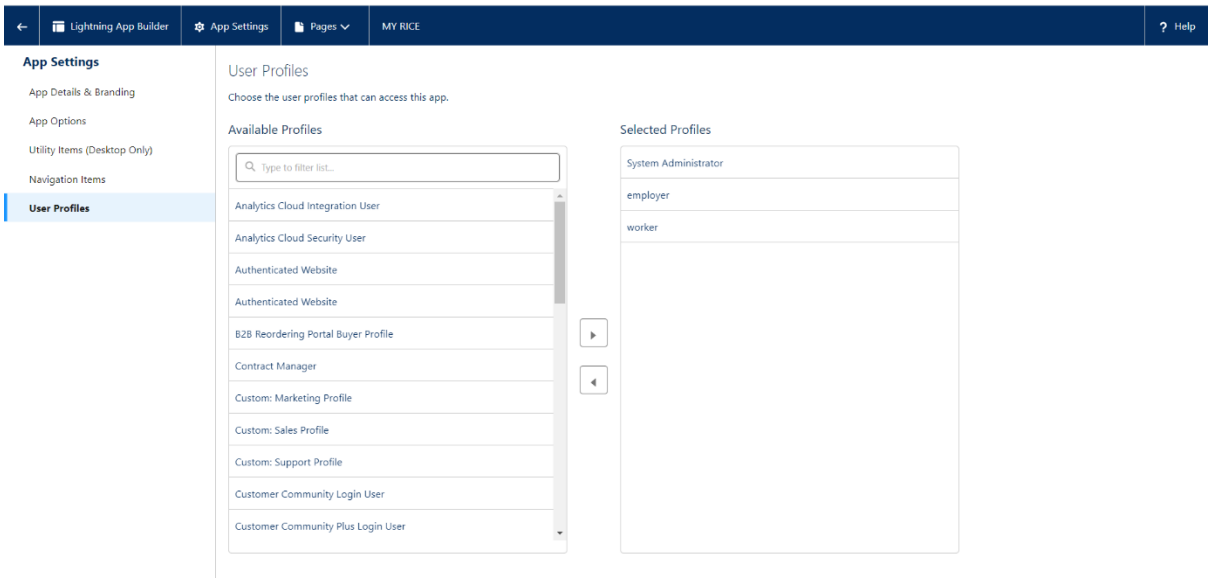
3. Upload a photo that is related to your app.

4. To Add Navigation 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 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

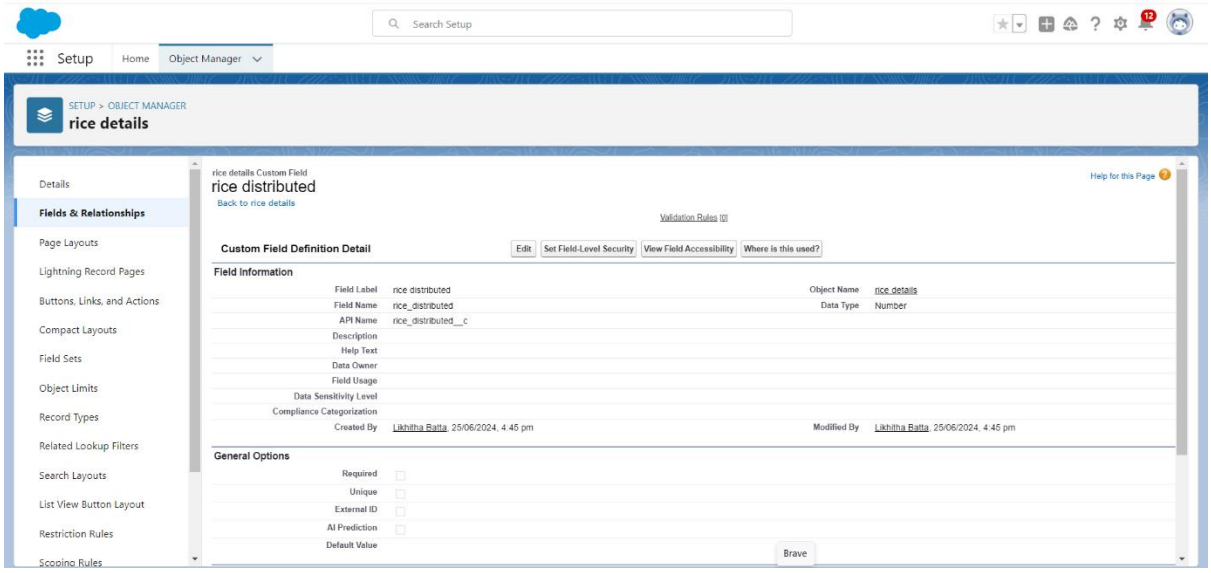
Custom Fields:

On the other side of the coin, Custom Fields are highly flexible, and users can change themaccording 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. Go to the setup page → click on object manager → From drop down click edit for rice details object.
2. Click on fields & relationship → click on New.
3. Select Data type as "Number" and click Next.
4. Given the Field Label as "rice distributed" and length as " 5 ".

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



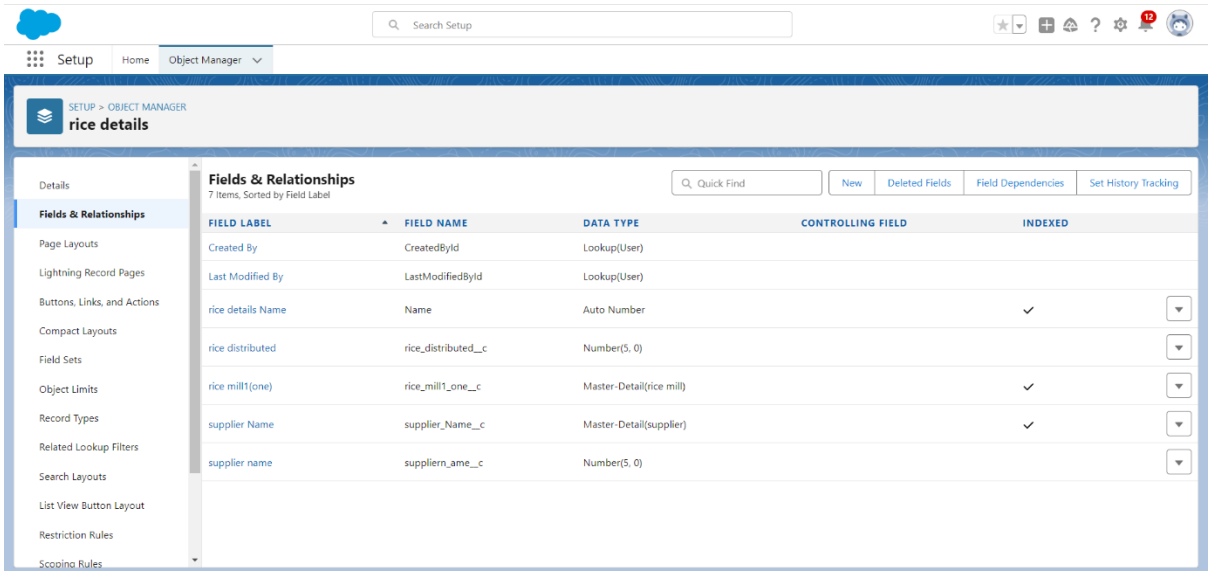
Activity 2: Creating Junction Object:

A Junction object is a custom object that serves as a bridge between two related objects in a many-to-many relationship.

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 rice details 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 “supplier” and click next.
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.

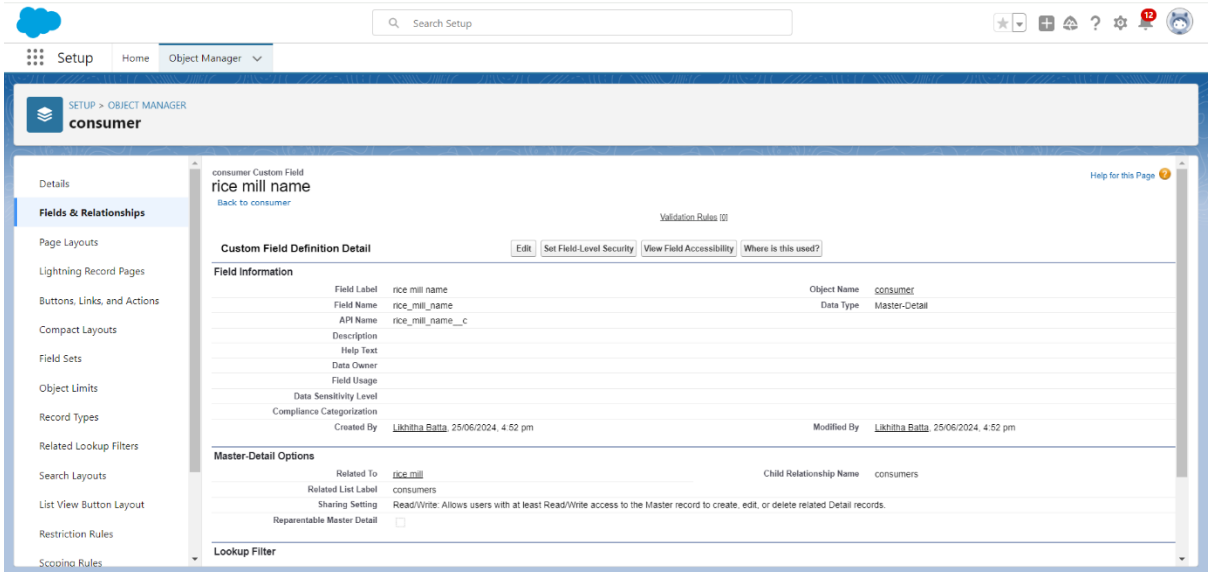


Activity 3: Creating a Master-Detail Relationship

master-detail relationship is a type of relationship between two objects where the master object controls certain behaviors and settings of the detail object.

Creating Master-Detail Relationship between consumer & rice mill Object

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.

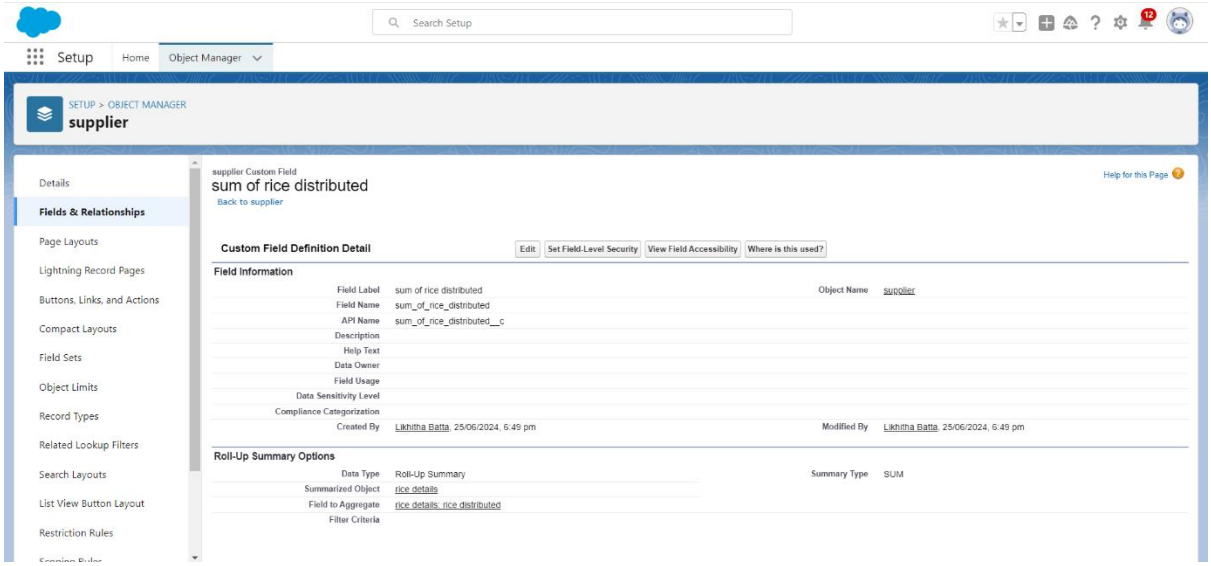


Activity 4: Creating the Roll-up Summary

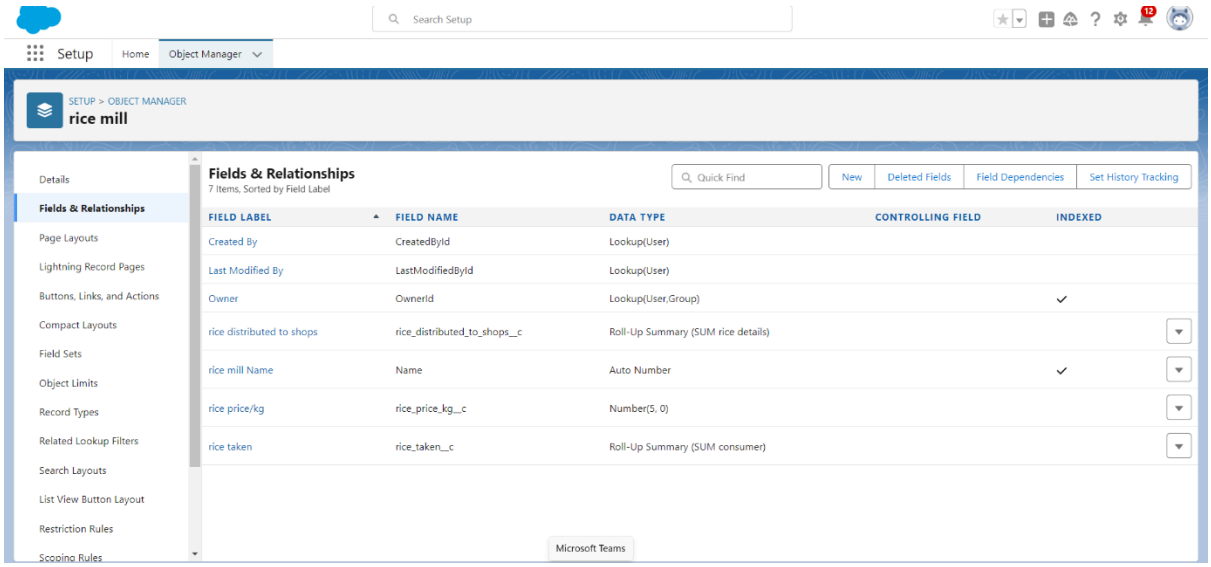
A rollup summary field is a field that summarizes data from a child object to a parent object that shares a master-detail relationship. Rollup summary fields can use the COUNT, SUM, MIN, and MAX functions.

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
1. 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.



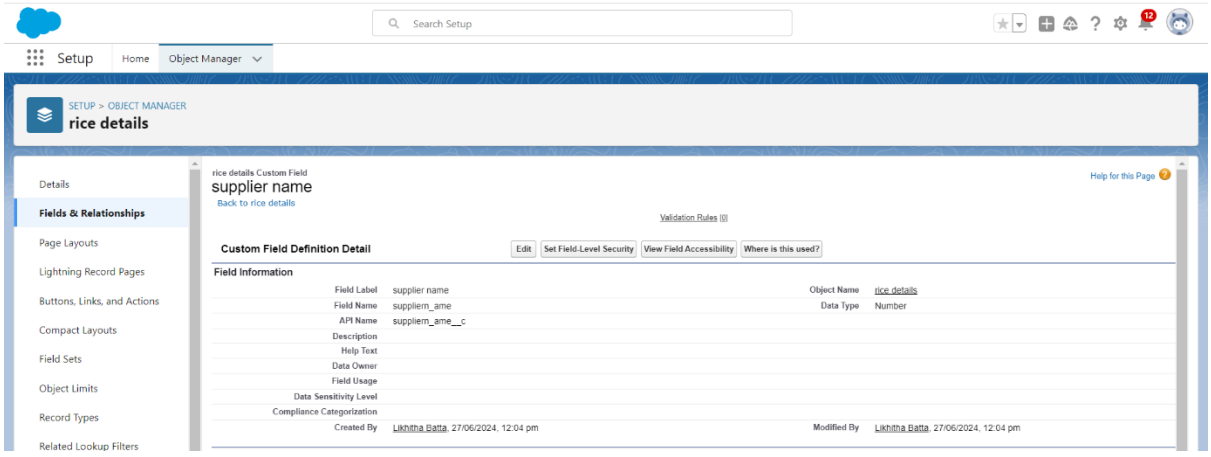
1. Follow the same steps for the rice mill Object from 1 to 3
2. Give the Field label as “rice distributed to shops ”,Field Name will be Auto generated, and click Next.
3. Select the summarized object as “ rice details ”.
4. Select the Rollup type as “sum”.
5. Select the field to aggregate as “ rice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



Activity 5: Creating Fields in Objects

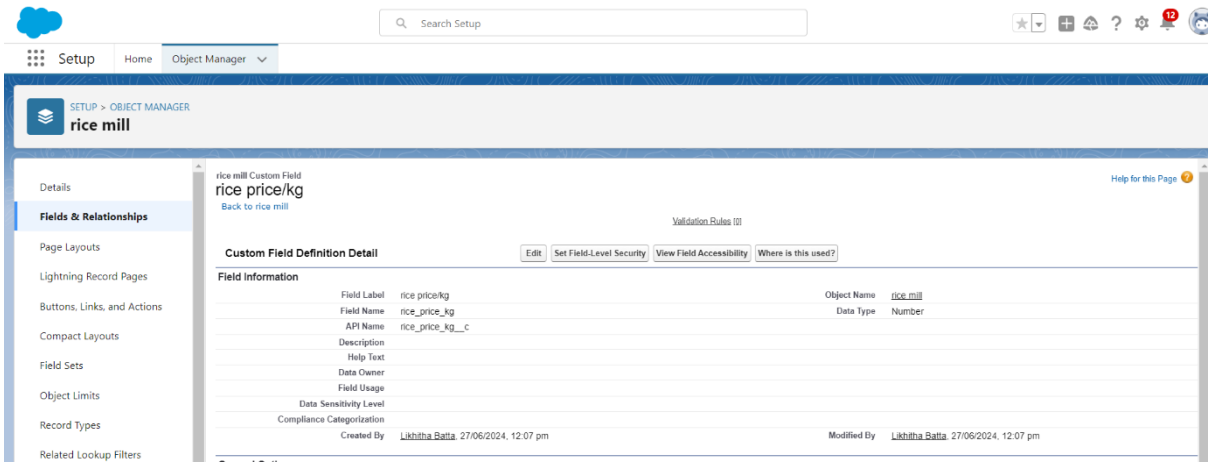
Creating the number field in rice details object

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.

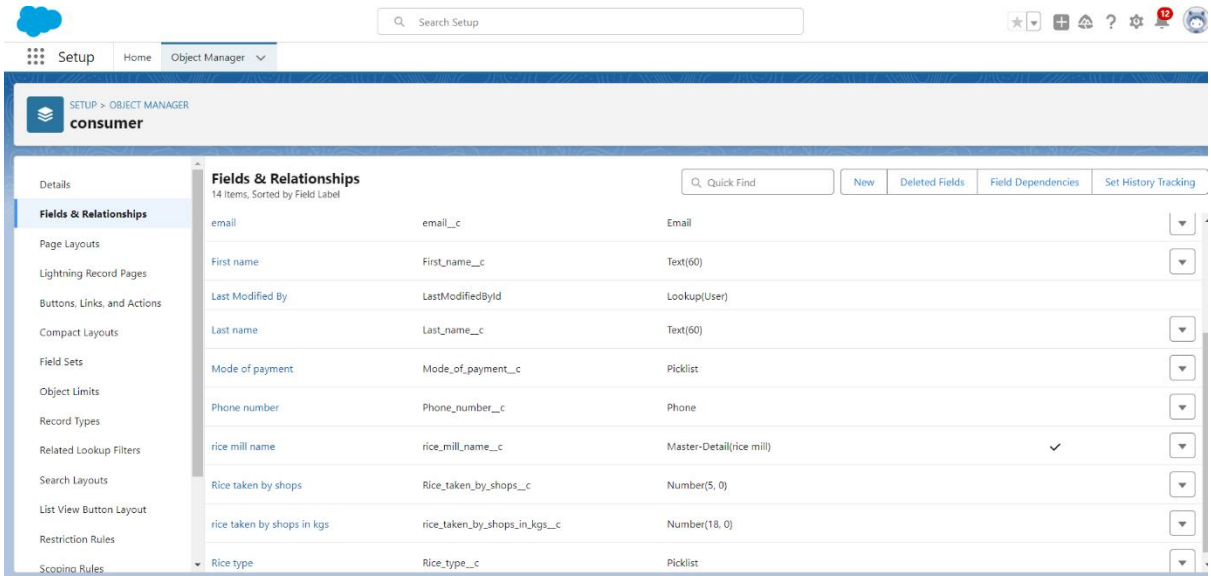


Activity 6: Creating Fields in rice mill Objects

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



Activity 7: Creating Fields in consumer Objects



Activity 8: Creating Cross Object Formula Field in consumer Object

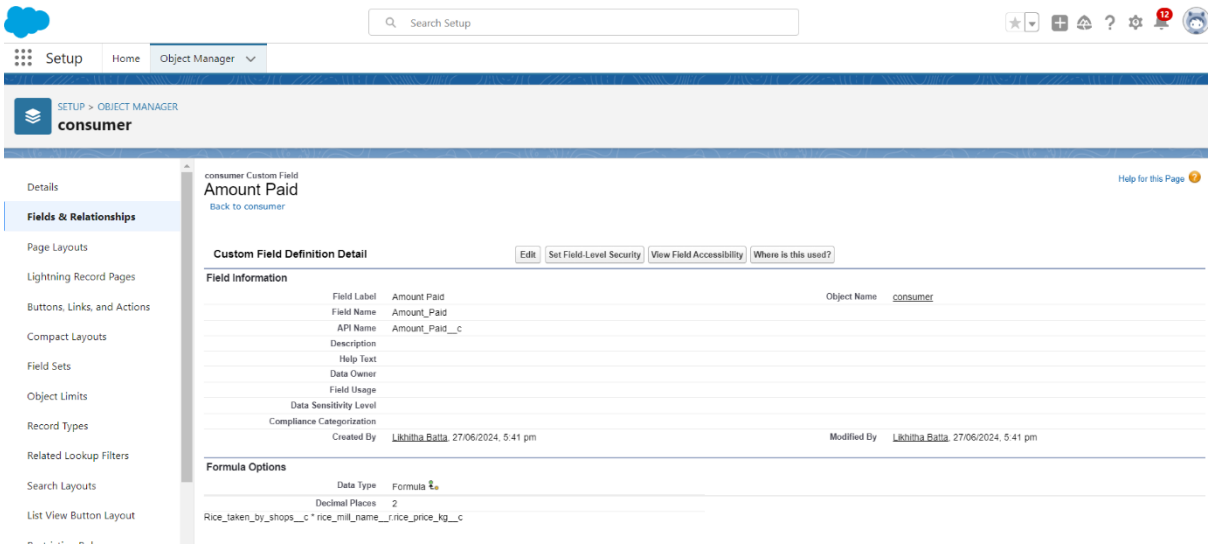
A cross-object formula field is a formula field that references fields from another object in Salesforce. This type of formula allows users to calculate and display data from multiple objects on a single record.

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

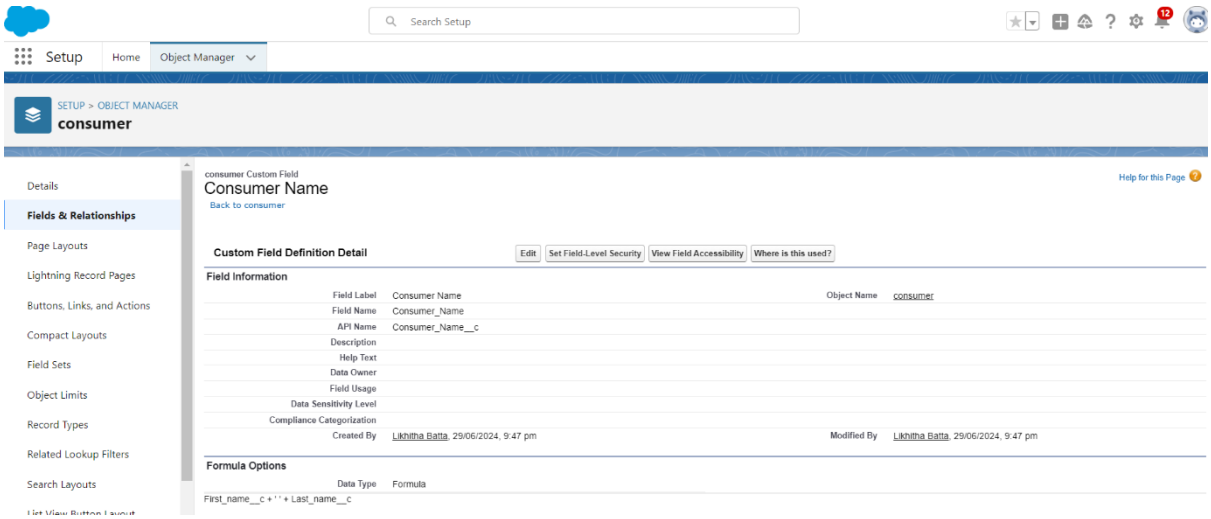
4. Give Field Label and Field Name as “Amount Paid ” and select formula return type as “Number” and click next.
5. Insert fields formula should be :

rice_taken_by_shops__c * rice_mill_name__r.rice_price_kg__c

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



1. **Creating the Formula field in consumer Object**
2. Go to setup → click on Object Manager → type object name(consumer) in search bar → click on the object.
3. Click on fields & relationship → click on New.
4. Select Data type as “Formula” and click Next.
5. Give Field Label and Field Name as “Consumer Name” and select formula return type as “TEXT” and click next.
6. Insert field formula should be : First_Name__c + ' ' + Last_Name__c
7. click “Check Syntax” and Save.

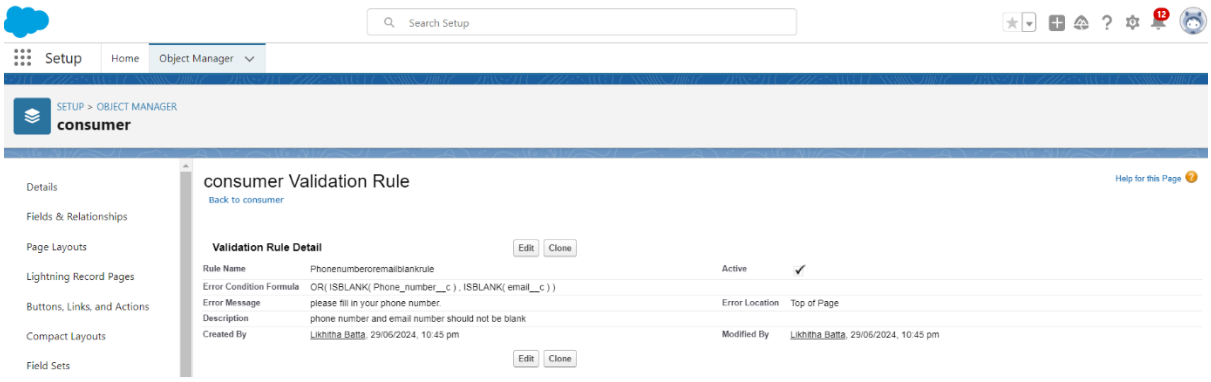


Activity 9 : Creating the validation rule

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

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.



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

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

1. First name , last name , consumer name , phone number, email, rice mill name.

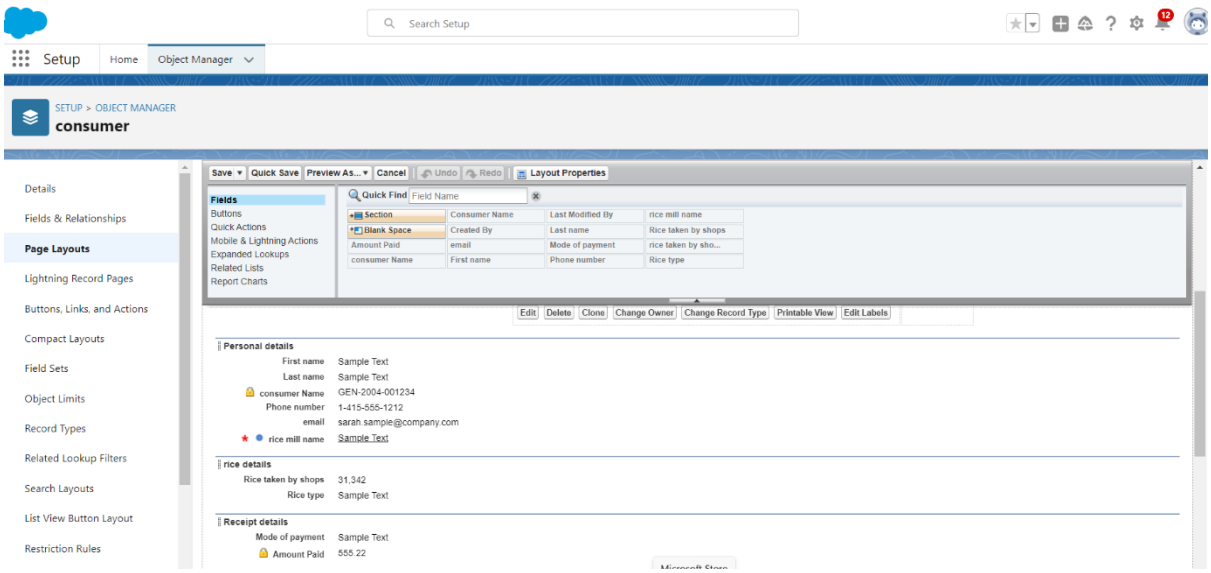
7. Follow the same process for another two sections as shown above , they are
8. One section is “ rice details ” , drag the fields that are

1. Rice taken by shop, rice type.

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

1. Mode of payment , Amount paid.

10. Then , Click save.



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.

1. Contract Manager
2. Read Only
3. Marketing User
4. Solutions Manager
5. Standard User
6. System Administrator.

We cannot delete standard ones

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

2. **Custom Profiles:**

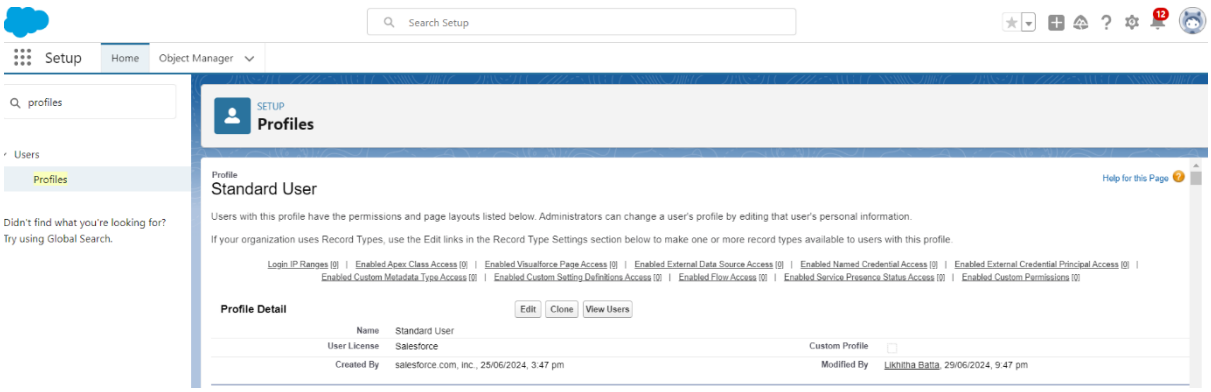
Custom ones defined by us.

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

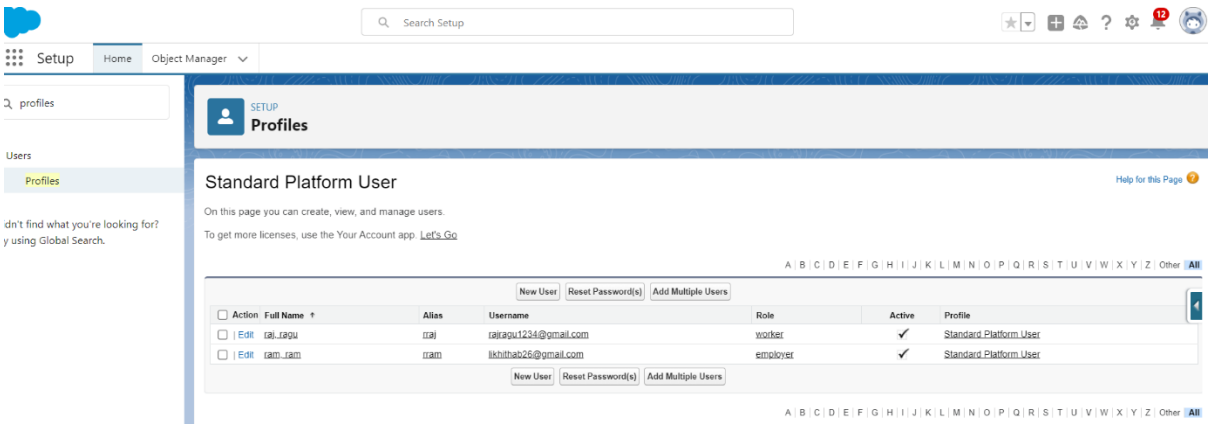


Activity 2: employer Profile

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.
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.
5. And click save.

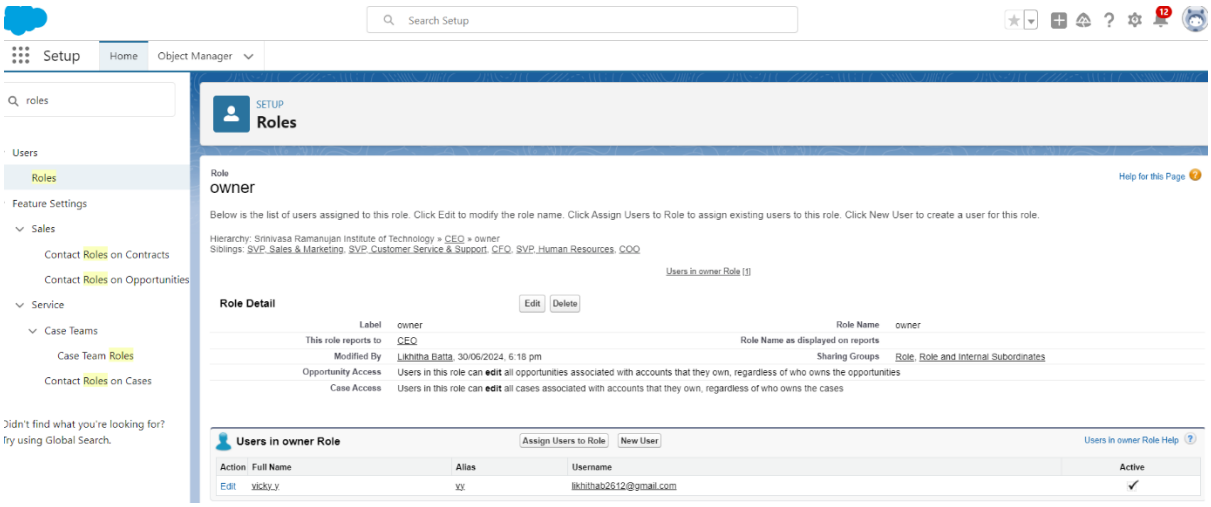


Milestone 8: Role & Role Hierarchy

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 Salesforce organization can have to data. Simply put, it describes what a user could see within the Salesforce organization.

Activity 1: Creating owner Role

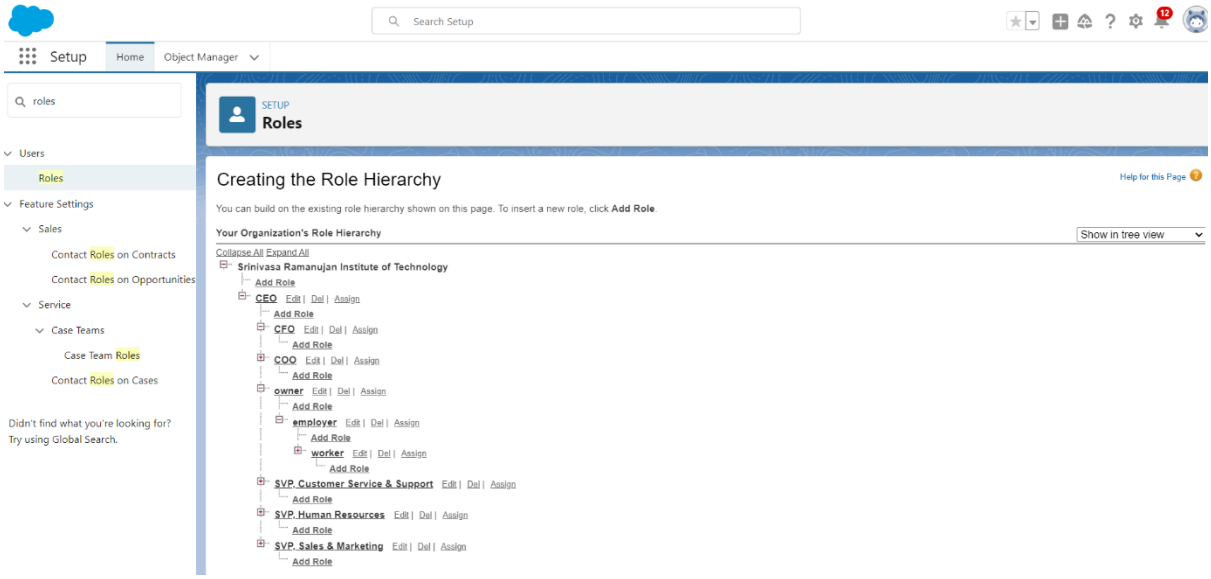
1. Go to quick find → Search for Roles → click on set up roles.
2. Go to quick find → Search for Roles → click on set up roles.
3. Click on Expand All and click on add role under whom this role works.
4. Give Label as “owner” and Role name gets auto populated. Then click on Save.
5. Click and save it.



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.
5. Click plus on CEO role, and click plus on owner, and click add role under employer.
6. give Label as “worker” and Role name gets auto populated. Then click on Save.

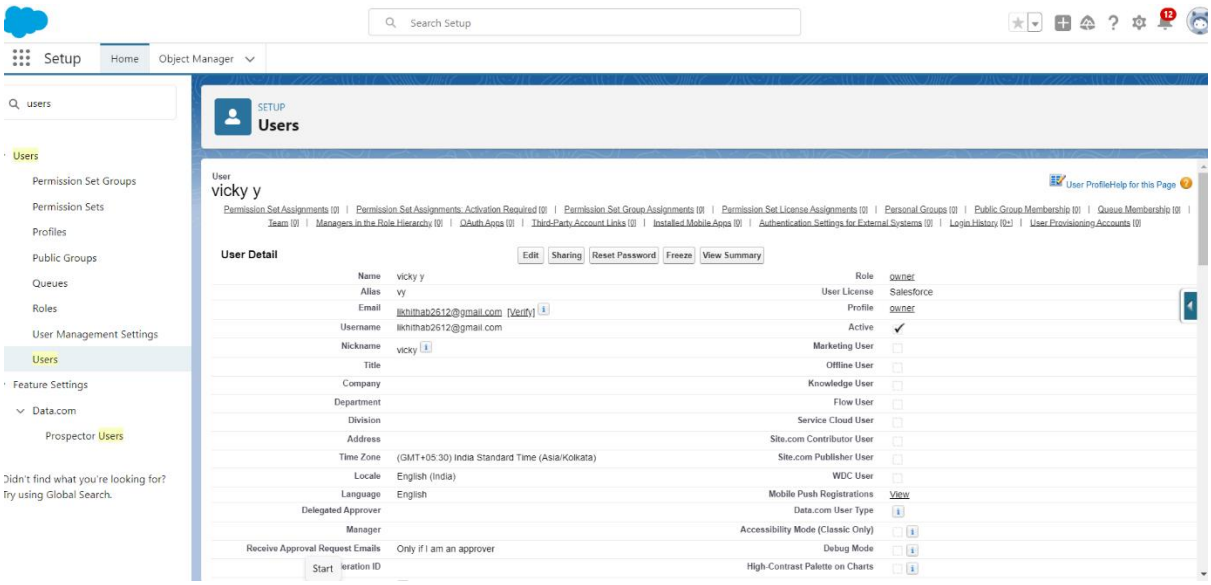


Milestone 9 : Users

A user is anyone who logs in to Salesforce. Users are employees at your company, 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.

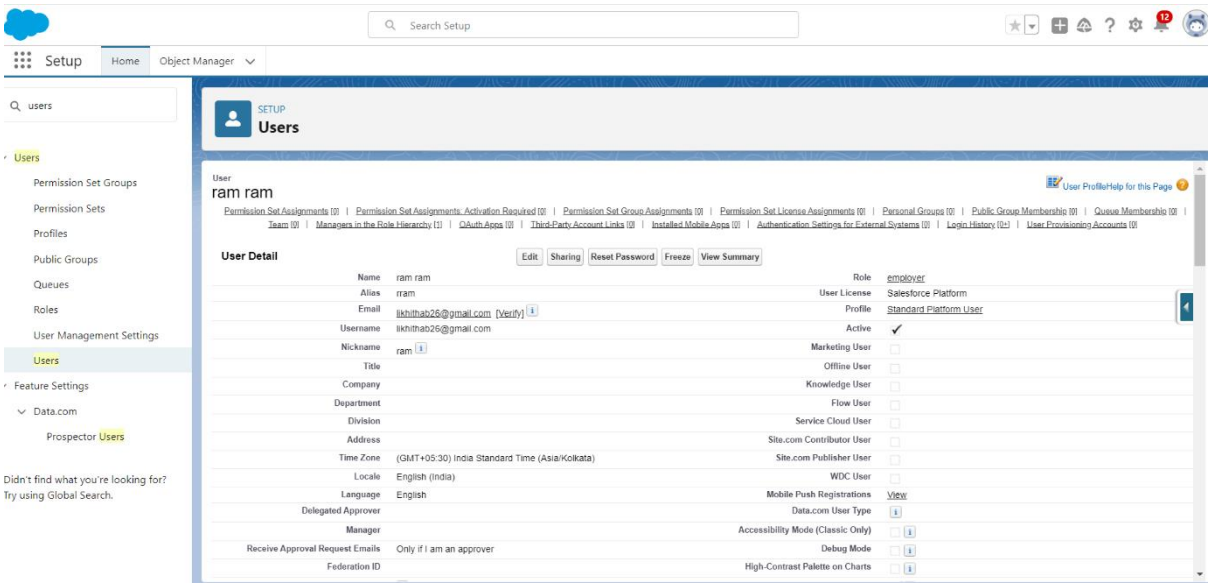
Activity 1: Create User

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.

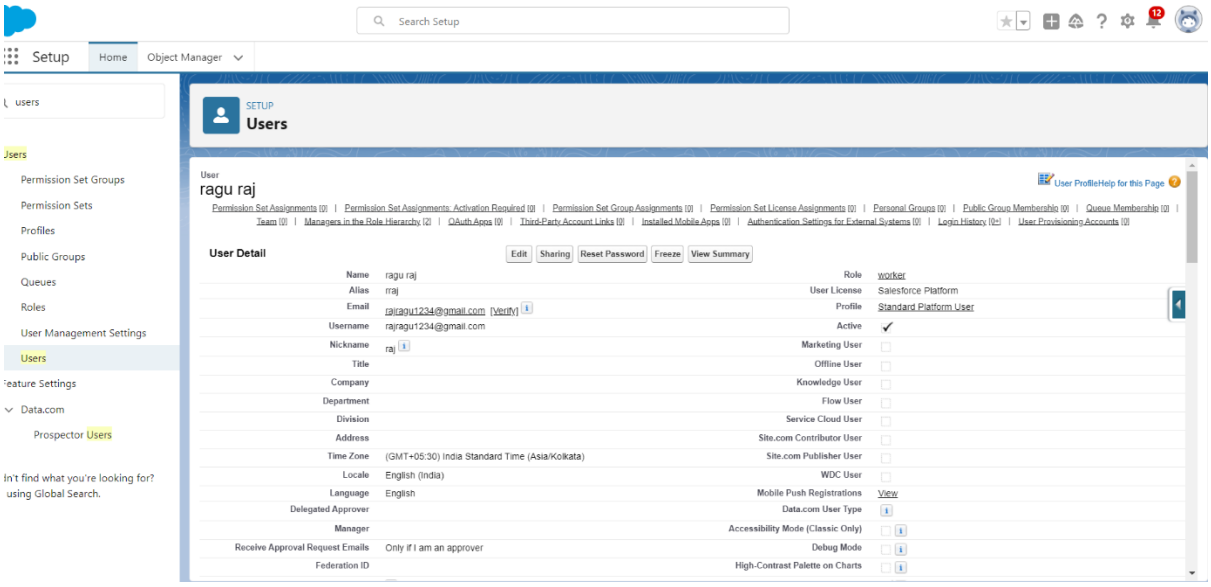


Activity 2: creating another users

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



1. First Name : ragu
2. Last Name : raj
3. Alias : Give a Alias Name
4. Email id : Give your Personal Email id
5. Username : Username should be in this form: text@text.text
6. Nick Name : Give a Nickname
7. Role : worker
8. User license : Salesforce platform
9. Profiles : standard platform user.

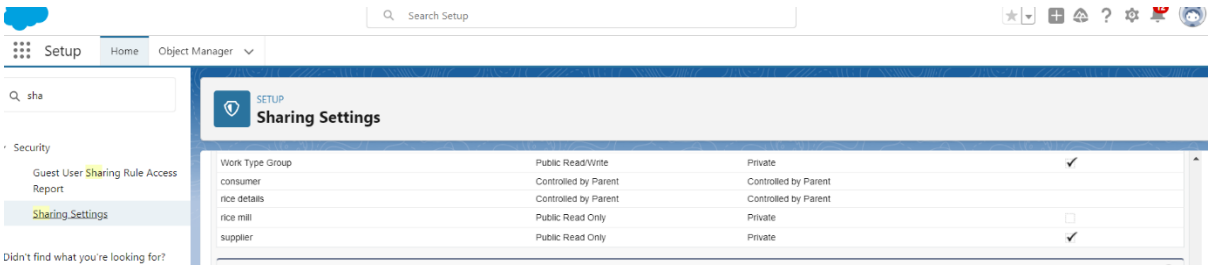


Milestone 10 : Permission sets

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



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 schedule the reports. Salesforce provides a powerful suit of analytic tools to help you organize, view and analyze data.

Types of Reports in Salesforce

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

1. Tabula 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 sub totals. 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.
3. select for report type, search for "rice mill with consumers" click on it. And click on start report.
1. Their outline pane is opened already, select the fields that are mentioned below in the column section.

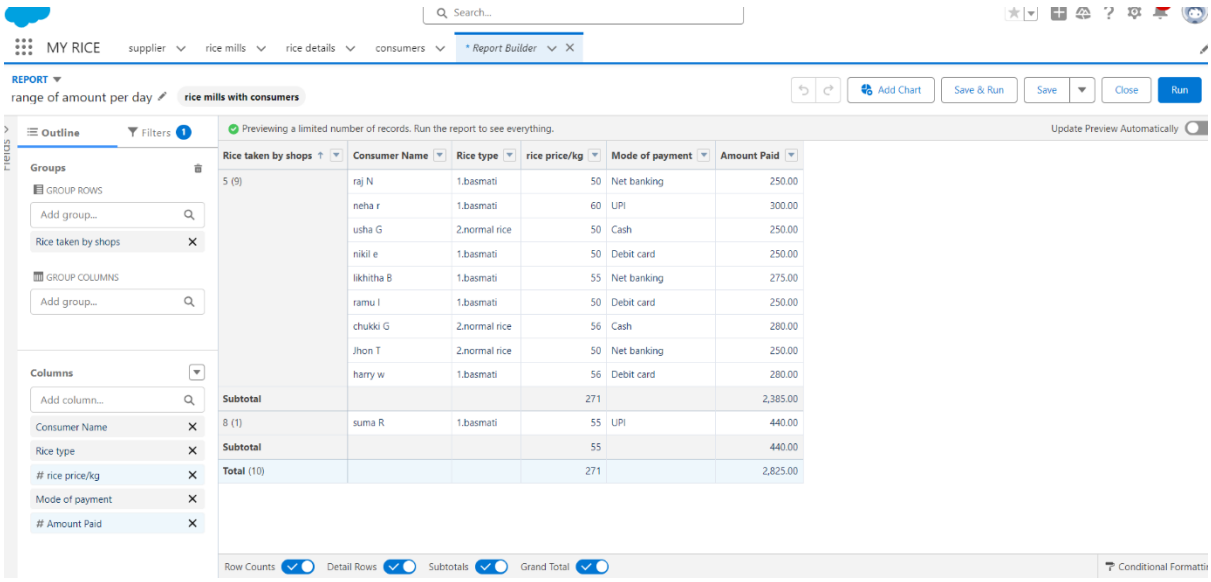
   1.consumer name

   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.
    a. Rice taken by shops.

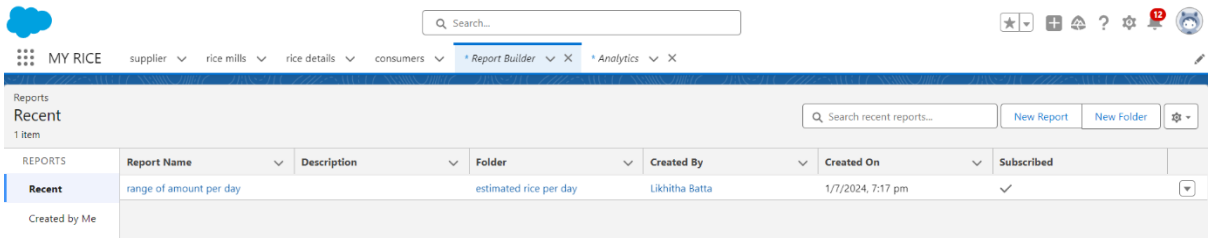


Activity 2: Sharing report to owner

1. Click edit drop down and select subscribe option
2. After selecting the run report as a “another person” select your personal account or whom you want to send that mail to.
3. Click save.

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.

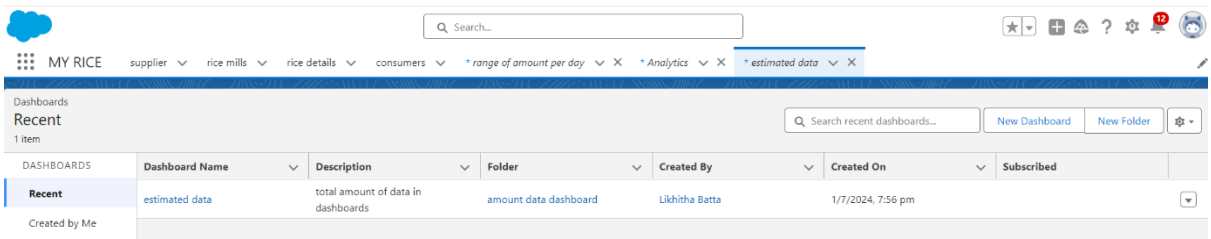


Milestone 12 : Dashboards

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.

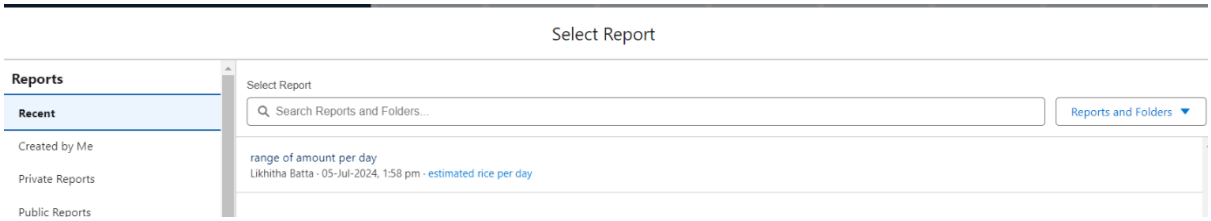
Activity 1: Create Dashboard Folder

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.
3. Select add component.
4. Select a Report and click on select.



1. Preview is shown below.

Display as- vertical bar chart

X-axis - rice taken by shops

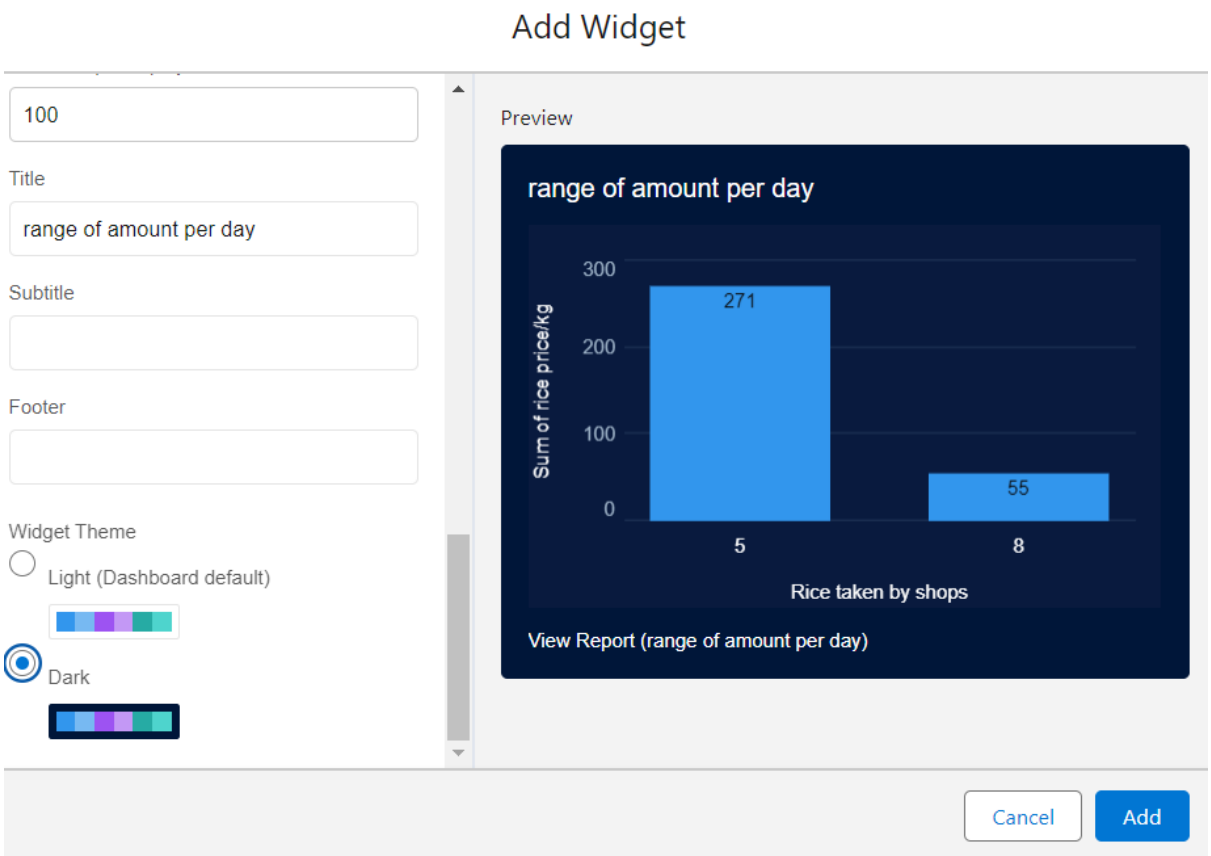
Y-axis- sum of amount

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

Click add.

Click save and done.