

Project Report: Development of a Rice Mill Management Application

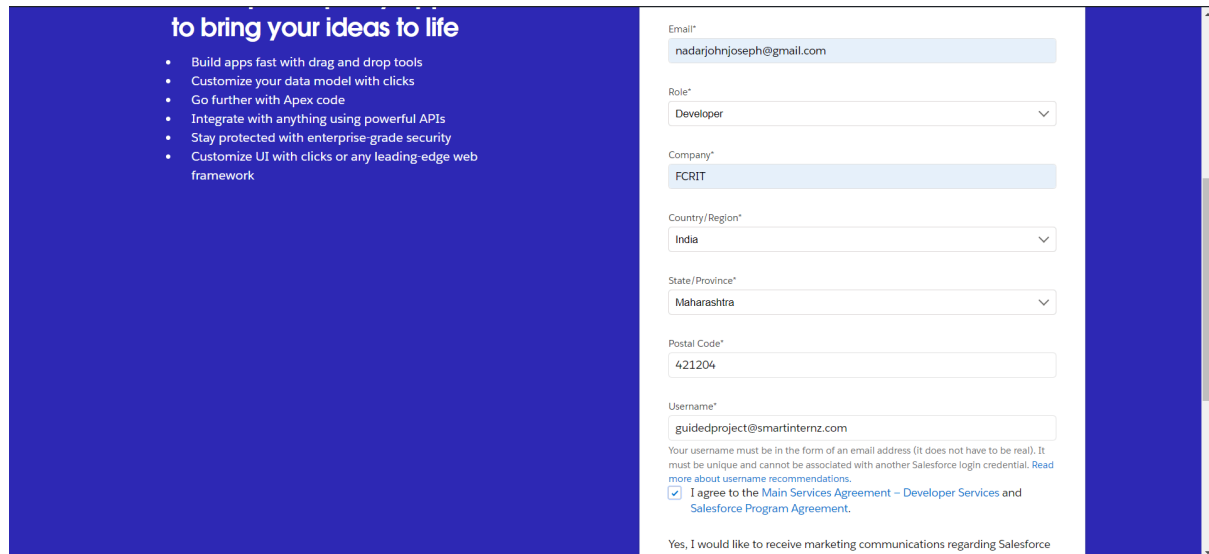
Introduction

The Rice Mill Management Application project aims to streamline and automate the processes involved in managing a rice mill. This application facilitates the creation of various essential objects, such as Developer Accounts, Supplier Objects, and Consumer Objects, and integrates them into a cohesive system. The project encompasses creating Lightning Apps, defining custom fields and objects, creating user profiles, and generating reports and dashboards to enhance operational efficiency and decision-making.

Steps Involved

1. Creation of a New Developer Account

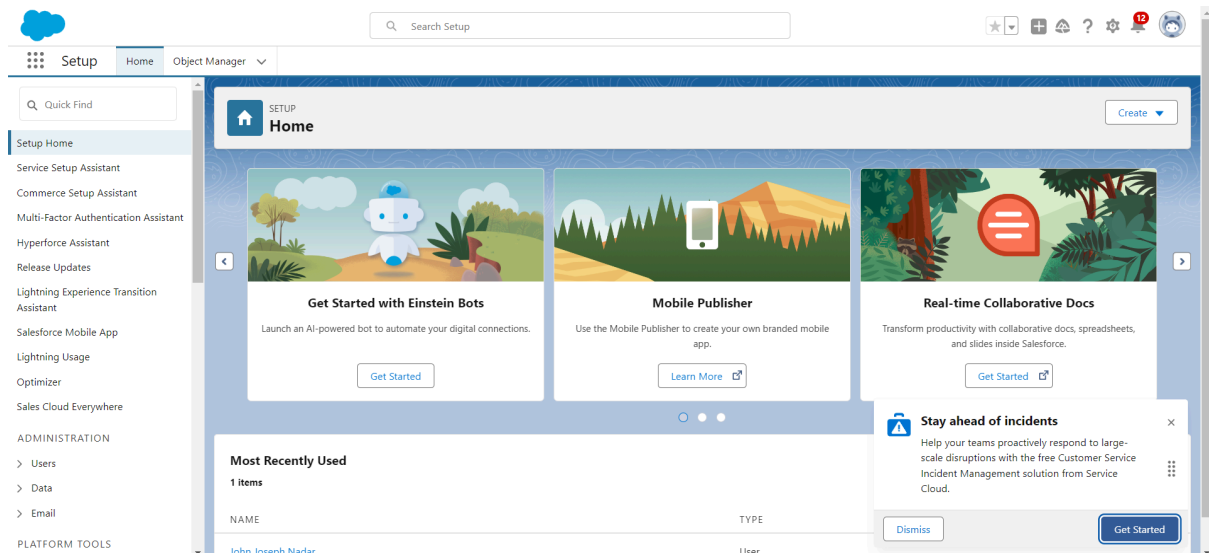
- Initiate the process by setting up a new developer account to build and test the application.



The screenshot shows the Salesforce Developer Account creation interface. On the left, a blue sidebar contains the text "to bring your ideas to life" and a list of bullet points: "Build apps fast with drag and drop tools", "Customize your data model with clicks", "Go further with Apex code", "Integrate with anything using powerful APIs", "Stay protected with enterprise-grade security", and "Customize UI with clicks or any leading-edge web framework". The main form area on the right has a white background and contains the following fields: "Email*" (nadarjohnjoseph@gmail.com), "Role*" (Developer), "Company*" (FCRIT), "Country/Region*" (India), "State/Province*" (Maharashtra), "Postal Code*" (421204), and "Username*" (guidedproject@smartinternz.com). Below the username field, there is a note: "Your username must be in the form of an email address (it does not have to be real). It must be unique and cannot be associated with another Salesforce login credential. [Read more about username recommendations.](#)". There is a checked checkbox for "I agree to the Main Services Agreement – Developer Services and Salesforce Program Agreement." and a link to "Read more about username recommendations." at the bottom.

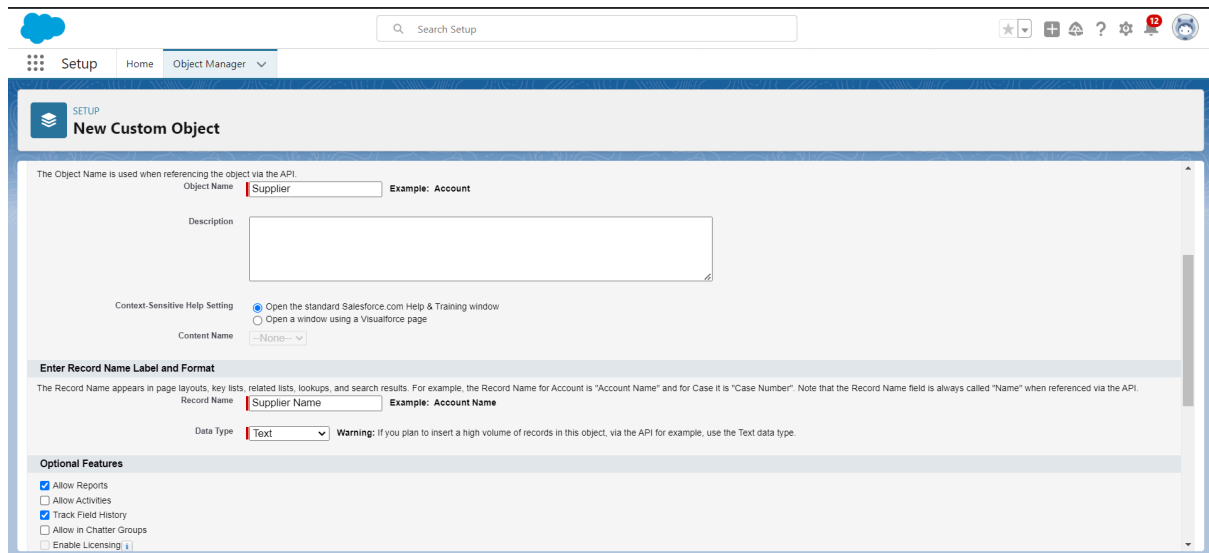
2. Successful Verification of the Account

- Verify the newly created account to ensure all functionalities are accessible and operational.

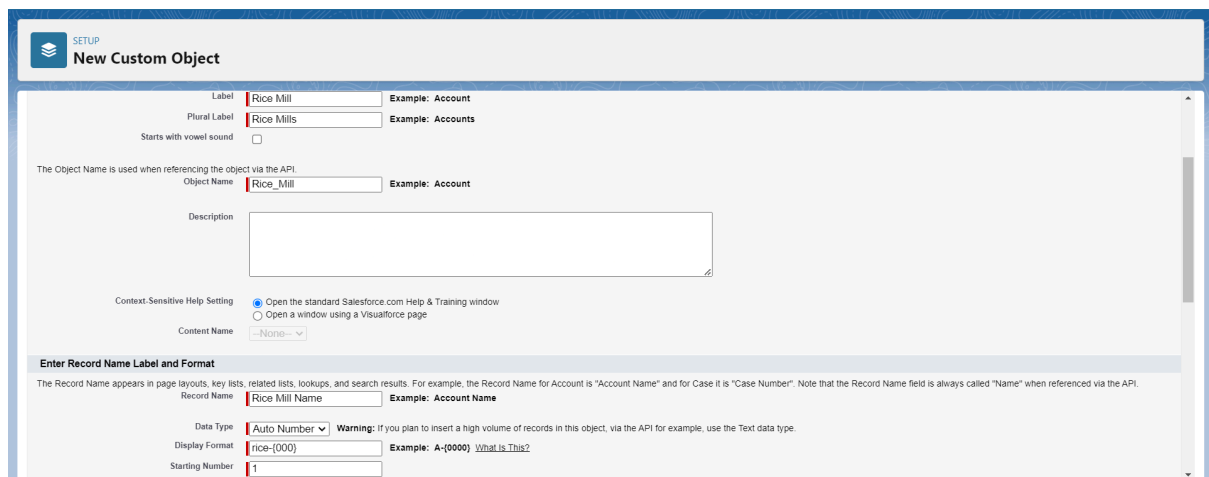


3. Creation of Essential Objects

- Supplier Object: Set up an object to manage supplier information and interactions.



- Rice Mill Object: Develop an object to encapsulate all the details and operations of the rice mill.



SETUP
New Custom Object

Optional Features

- ☒ Allow Reports
- ☐ Allow Activities
- ☒ Track Field History
- ☐ Allow in Chatter Groups
- ☐ Enable Licensing [i](#)

Object Classification

When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object. [Learn more.](#)

- ☒ Allow Sharing
- ☒ Allow Bulk API Access
- ☒ Allow Streaming API Access

Deployment Status [What is this?](#)

- ☐ In Development
- ☒ Deployed

Search Status

When this setting is enabled, your users can find records of this object type when they search. [Learn more.](#)

- ☒ Allow Search

Object Creation Options (Available only when custom object is first created)

- ☐ Add Notes and Attachments related list to default page layout
- ☐ Launch New Custom Tab Wizard after saving this custom object

- Consumer Object: Create an object to handle consumer data and transactions.

SETUP
New Custom Object

The singular and plural labels are used in tabs, page layouts, and reports.

Label: Example: Account

Plural Label: Example: Accounts

Starts with vowel sound: ☐

The Object Name is used when referencing the object via the API.

Object Name: Example: Account

Description:

Context-Sensitive Help Setting: ☒ Open the standard Salesforce.com Help & Training window
☐ Open a window using a Visualforce page

Content Name:

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name: Example: Account Name

Data Type: Warning: If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.

Display Format: Example: A-(0000) [What is This?](#)

Starting Number:

- Rice Detail Object: Establish an object to store detailed information about various rice products.

SETUP
New Custom Object

The singular and plural labels are used in tabs, page layouts, and reports.

Label: Example: Account

Plural Label: Example: Accounts

Starts with vowel sound: ☐

The Object Name is used when referencing the object via the API.

Object Name: Example: Account

Description:

Context-Sensitive Help Setting: ☒ Open the standard Salesforce.com Help & Training window
☐ Open a window using a Visualforce page

Content Name:

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name: Example: Account Name

Data Type: Warning: If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.

Display Format: Example: A-(0000) [What is This?](#)

4. Creating a Custom Tab

- Design a custom tab within the application for easy navigation and access to the created objects.

Step 1. Enter the Details

Step 1 of 3

Choose the custom object for this new custom tab. Fill in other details.

Error: Invalid Data.
Review all error messages below to correct your data.

Select an existing custom object or [create a new custom object now](#).
Object **Supplier**
Tab Style **Box**
Error: Please choose a tab style.

(Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.
Splash Page Custom Link **--None--**

Enter a short description.
Description

Next

Cancel

Q tabs

User Interface

Rename **Tabs** and Labels

Tabs

Didn't find what you're looking for?
Try using Global Search.

SETUP
Tabs

Custom Tabs

Help for this Page

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Custom Object Tabs

New What Is This?

Action	Label	Tab Style	Description
Edit Del	Supplier	Box	

Web Tabs

New What Is This?

No Web Tabs have been defined

Visualforce Tabs

New What Is This?

No Visualforce Tabs have been defined

Lightning Component Tabs

New What Is This?

No Lightning component tabs have been defined

New Custom Object Tab

Help for this Page

Step 1. Enter the Details

Step 1 of 3

Choose the custom object for this new custom tab. Fill in other details.

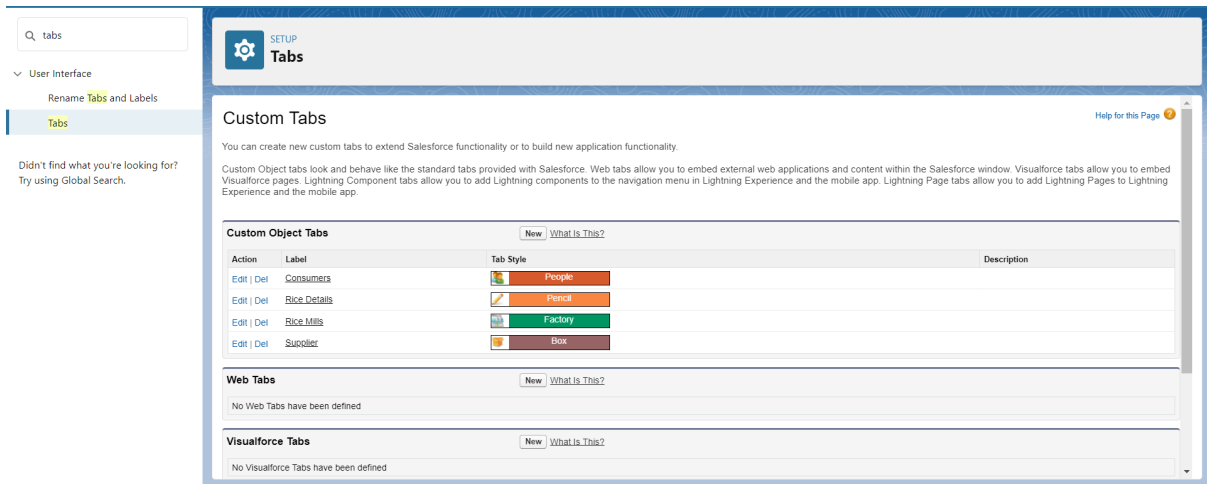
Select an existing custom object or [create a new custom object now](#).
Object **Consumer**
Tab Style **People**

(Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.
Splash Page Custom Link **--None--**

Enter a short description.
Description

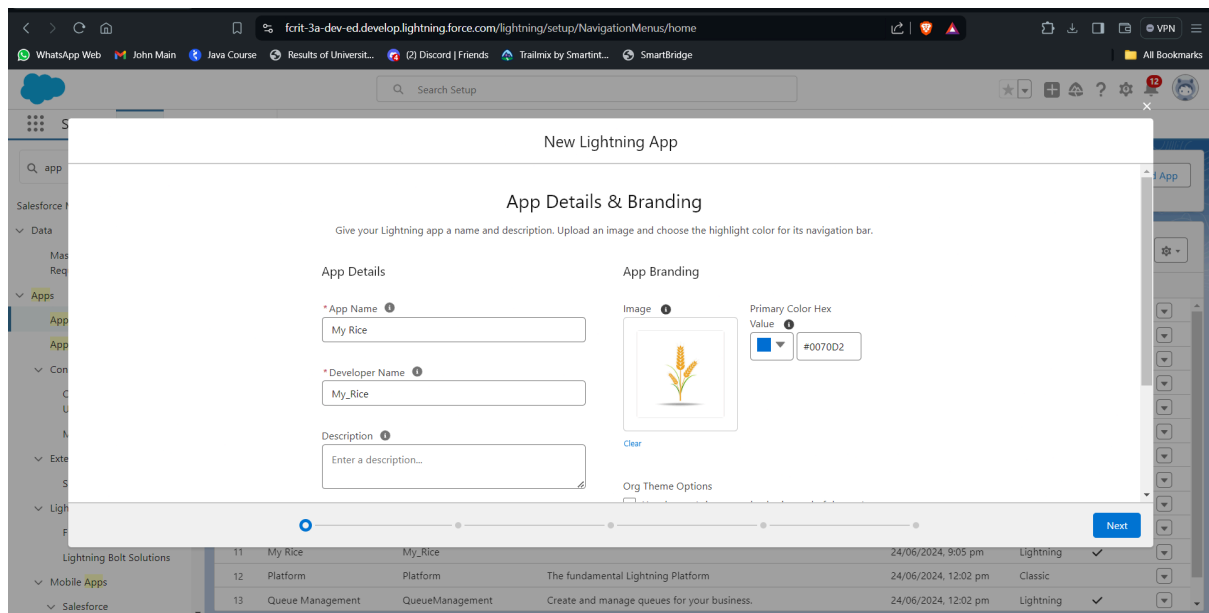
Next

Cancel



5. Creating a Lightning App

- Build a Lightning App to provide a user-friendly interface and enhance the user experience.



6. Creating Number Field in Rice Details Object

- Add a number field in the Rice Details object to capture quantitative data about rice products.

SETUP > OBJECT MANAGER

Rice Details

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

Field Label

Rice Distributed

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

5

Decimal Places

0

Number of digits to the left of the decimal point

Number of digits to the right of the decimal point

Field Name

Rice_Distributed

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

Default Value

Show Formula Editor

Use formula syntax: Enclose text and picklist value API names in double quotes ("the_api"). Include numbers without quotes (24). Show percentages as decimals (.5, .10), and express date calculations in the standard format: Today(), -1, 75

7. Creating a Junction Object

- Implement a junction object to manage many-to-many relationships between different objects.

SETUP > OBJECT MANAGER

Rice Details

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

Step 3. Enter the label and name for the lookup field

Previous

Next

Cancel

Field Label

Rice Mill 1

Field Name

Rice_Mill_1

Error: You must enter a value

Description

Help Text

Child Relationship Name

Rice_Details

Sharing Setting

Select the minimum access level required on the Master record to create, edit, or delete related Detail records.

☐ Read Only: Allows users with at least Read access to the Master record to create, edit, or delete related Detail records.

☒ Read/Write: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records.

Allow reparenting

☐ Child records can be reparented to other parent records after they are created

Auto add to custom report type

☒ Add this field to existing custom report types that contain this entity

SETUP > OBJECT MANAGER

Rice Details

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

Fields & Relationships

6 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Rice Details Name	Name	Auto Number		✓
Rice Distributed	Rice_Distributed__c	Number(5, 0)		✓
Rice Mill 1	Rice_Mill_1__c	Master-Detail(Rice Mill)		✓
Supplier Name	Supplier_Name__c	Master-Detail(Supplier)		✓

SETUP > OBJECT MANAGER
Consumer

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

Consumer
New Relationship

Help for this Page

Step 6. Add custom related lists Step 6 of 6

Previous Save & New Save Cancel

Field Label	Rice Mill Name
Data Type	Master-Detail
Field Name	Rice_Mill_Name
Description	

Specify the title that the related list will have in all of the layouts associated with the parent.
Related List Label Consumers

These are the page layouts that will include this field. Because this is a Master-Detail relationship, the field is required.

Add Related List	Page Layout Name
<input checked="" type="checkbox"/>	Rice Mill Layout

☒ Append related list to users' existing personal customizations

Previous Save & New Save Cancel

8. Creating Roll-Up Summary

- Develop roll-up summary fields to aggregate data from related objects and display useful summaries.

SETUP > OBJECT MANAGER
Rice Mill

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

Rice Mill
New Custom Field

Help for this Page

Step 2. Enter the details Step 2 of 5

Previous Next Cancel

Field Label	Rice Distributed to Shops
Field Name	Rice_Distributed_to_Shops
Description	
Help Text	

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

Previous Next Cancel

SETUP > OBJECT MANAGER
Rice Mill

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

Rice Mill
New Custom Field

Help for this Page

Step 3. Define the summary calculation Step 3 of 5

Previous Next Cancel

Select Object to Summarize

Master Object Rice Mill
Summarized Object Consumers

Select Roll-Up Type

☐ COUNT

☒ SUM

☐ MIN

☐ MAX

Field to Aggregate Rice Taken By Shops in Kgs

Filter Criteria

☒ All records should be included in the calculation

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

Previous Next Cancel

Setup Home Object Manager

Search Setup

Setup > OBJECT MANAGER

Rice Mill

Details

Fields & Relationships 6 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User.Group)		✓
Rice Distributed to Shops	Rice_Distributed_to_Shops__c	Roll-Up Summary (SUM Rice Details)		
Rice Mill Name	Name	Auto Number		✓
Rice Taken	Rice_Taken__c	Roll-Up Summary (SUM Consumer)		

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

9. Creating Fields in Consumer Object

- Define and create various fields in the Consumer object to capture comprehensive consumer data.

Setup > OBJECT MANAGER

Consumer

Details

Fields & Relationships 12 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Consumer Name	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
First Name	First_Name__c	Text(18)		
Last Modified By	LastModifiedById	Lookup(User)		
Last Name	Last_Name__c	Text(18)		
Mode of Payment	Mode_of_Payment__c	Picklist		
Phone Number	Phone_Number__c	Phone		
Rice Mill Name	Rice_Mill_Name__c	Master-Detail(Rice Mill)		✓

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

Setup > OBJECT MANAGER

Consumer

Details

Fields & Relationships 12 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

First Name	First_Name__c	Text(18)		
Last Modified By	LastModifiedById	Lookup(User)		
Last Name	Last_Name__c	Text(18)		
Mode of Payment	Mode_of_Payment__c	Picklist		
Phone Number	Phone_Number__c	Phone		
Rice Mill Name	Rice_Mill_Name__c	Master-Detail(Rice Mill)		✓
Rice Taken By Shops	Rice_Taken_By_Shops__c	Number(5, 0)		
Rice Taken By Shops in Kgs	Rice_Taken_By_Shops_in_Kgs__c	Number(18, 0)		
Rice Type	Rice_Type__c	Picklist		

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

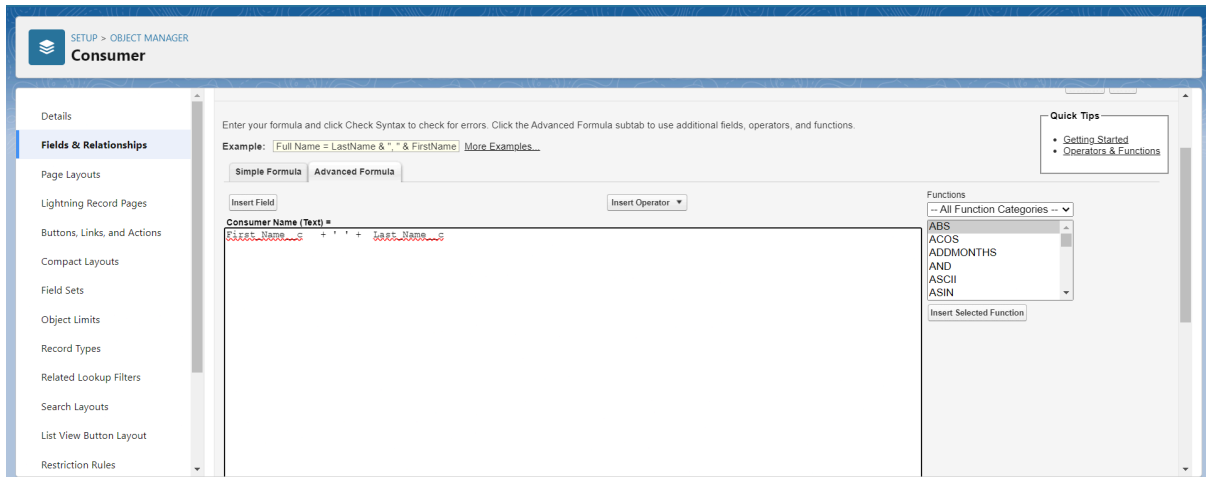
Search Layouts

List View Button Layout

Restriction Rules

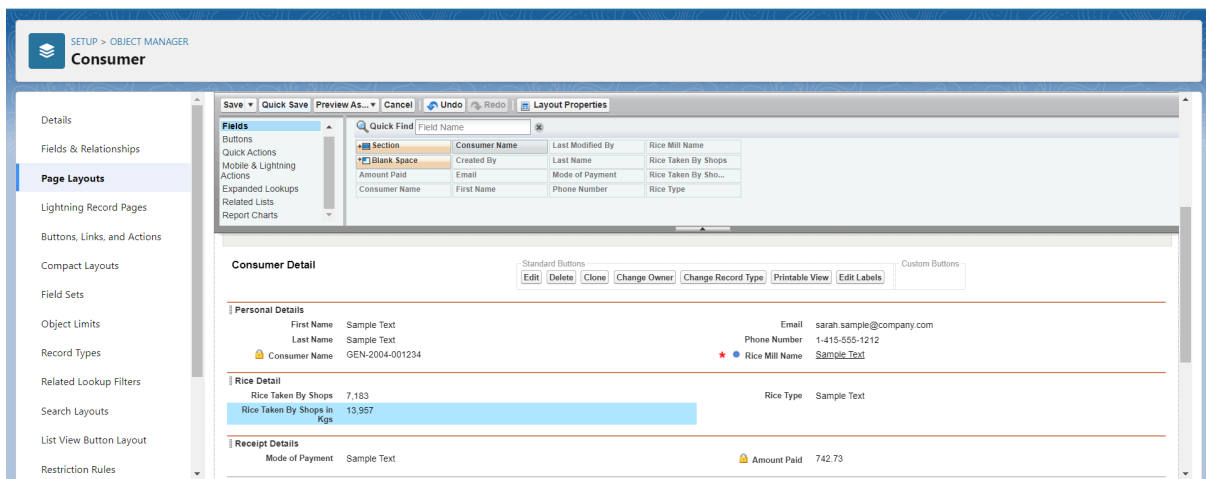
10. Creating Cross-Object Formula Field

- Set up cross-object formula fields to perform calculations and derive values based on related objects.



11. Creating Page Layouts

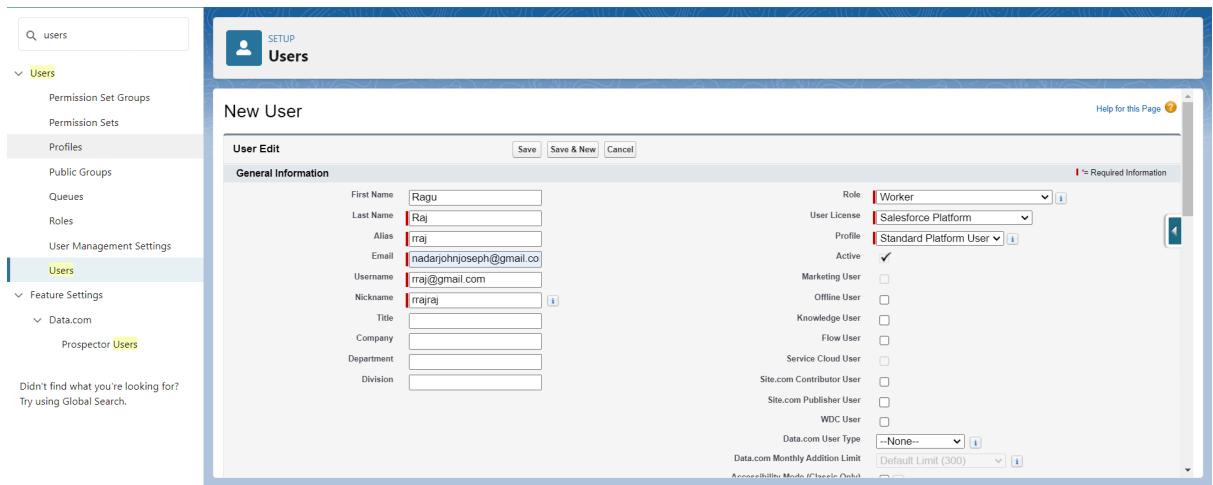
- Design and implement page layouts to organize and present object fields logically and efficiently.



12. Creating User Profiles

Define and create user profiles to control access and permissions within the application:

- Worker Profile



Q users

Users

Permission Set Groups

Permission Sets

Profiles

Public Groups

Queues

Roles

User Management Settings

Users

Feature Settings

Data.com

Prospector Users

Didn't find what you're looking for? Try using Global Search.

SETUP Users

New User

User Edit

General Information

First Name: Ragu

Last Name: Raj

Alias: rraj

Email: nadarjohnjoseph@gmail.co

Username: rraj@gmail.com

Nickname: rrajraj

Title:

Company:

Department:

Division:

Role: Worker

User License: Salesforce Platform

Profile: Standard Platform User

Active: ☒

Marketing User: ☐

Offline User: ☐

Knowledge User: ☐

Flow User: ☐

Service Cloud User: ☐

Site.com Contributor User: ☐

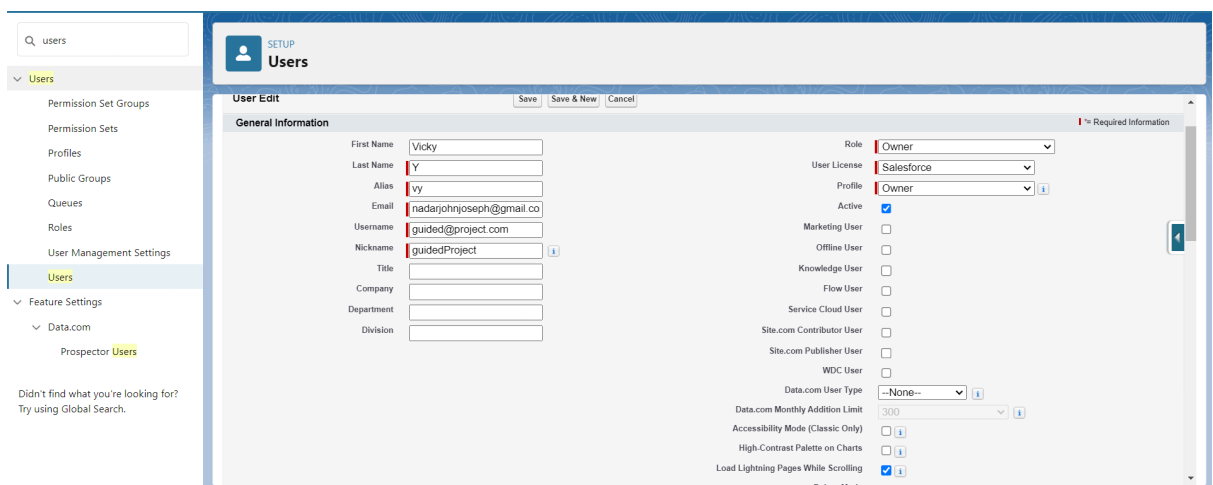
Site.com Publisher User: ☐

WDC User: ☐

Data.com User Type: --None--

Data.com Monthly Addition Limit: Default Limit (300)

- Owner Profile



Q users

Users

Permission Set Groups

Permission Sets

Profiles

Public Groups

Queues

Roles

User Management Settings

Users

Feature Settings

Data.com

Prospector Users

Didn't find what you're looking for? Try using Global Search.

SETUP Users

New User

User Edit

General Information

First Name: Vicky

Last Name: Y

Alias: yy

Email: nadarjohnjoseph@gmail.co

Username: guided@project.com

Nickname: guidedProject

Title:

Company:

Department:

Division:

Role: Owner

User License: Salesforce

Profile: Owner

Active: ☒

Marketing User: ☐

Offline User: ☐

Knowledge User: ☐

Flow User: ☐

Service Cloud User: ☐

Site.com Contributor User: ☐

Site.com Publisher User: ☐

WDC User: ☐

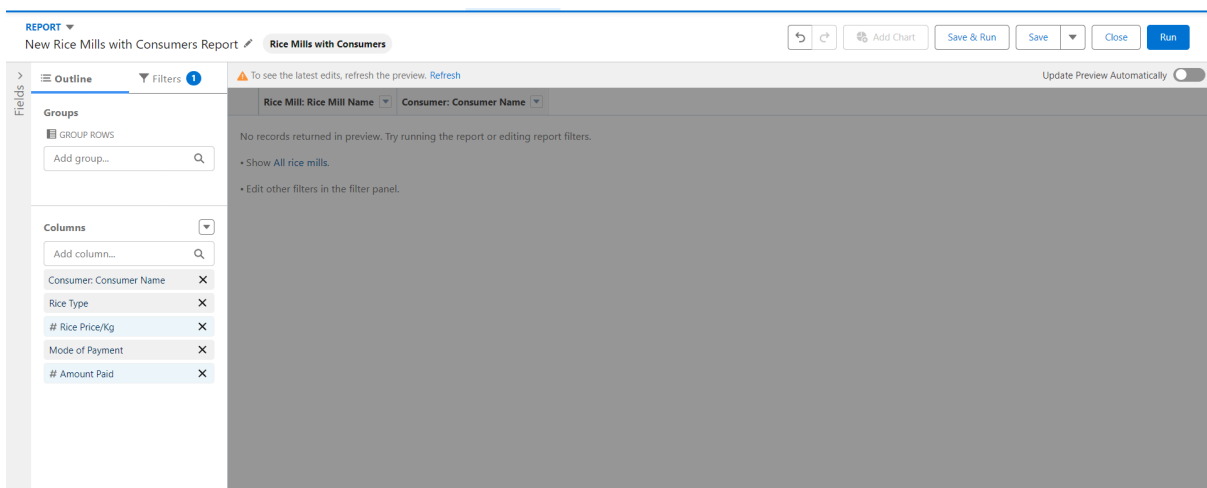
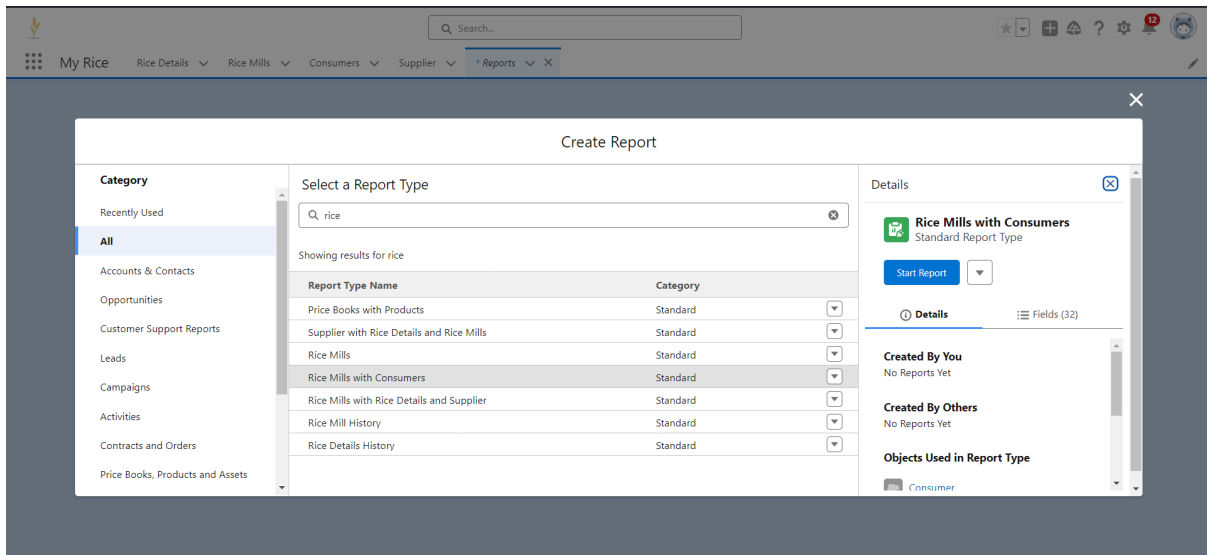
Data.com User Type: --None--

Data.com Monthly Addition Limit: 300

Accessibility Mode (Classic Only): ☐

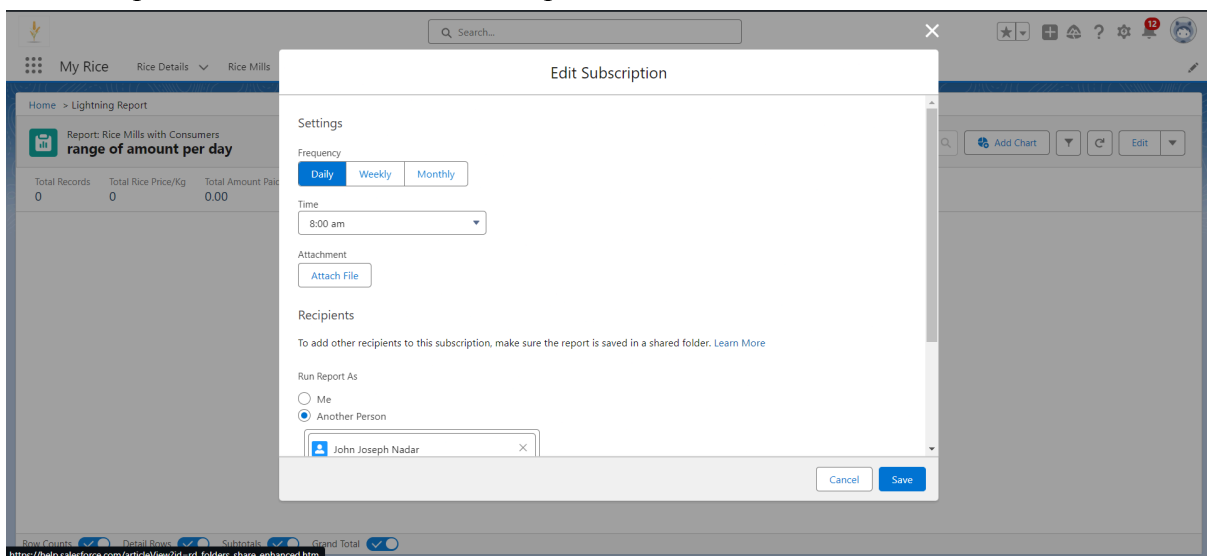
High-Contrast Palette on Charts: ☐

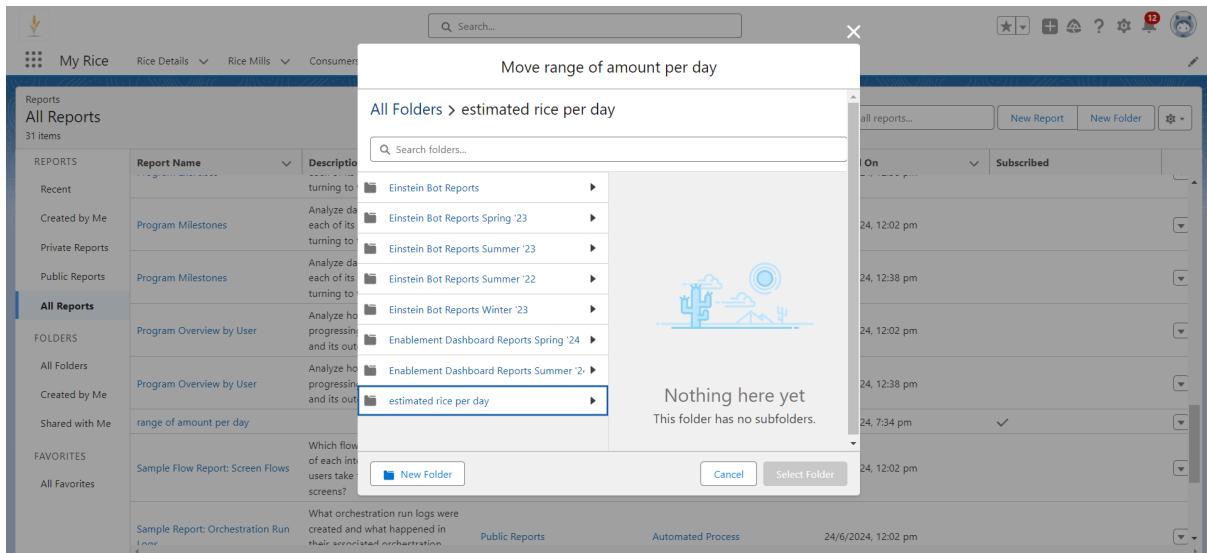
Load Lightning Pages While Scrolling: ☒



14. Sharing Reports

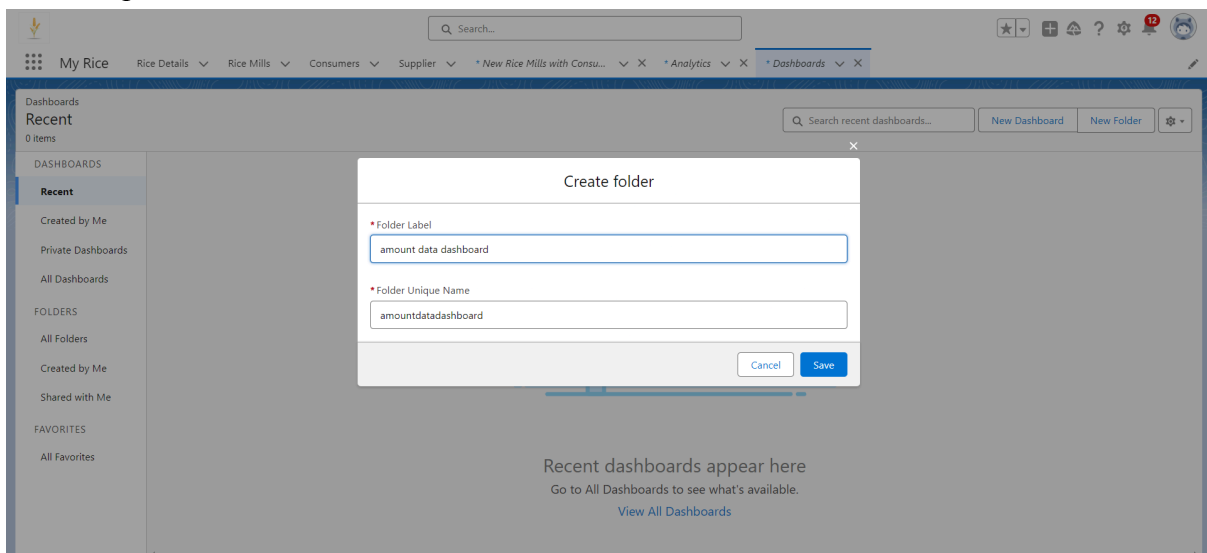
- Implement mechanisms to share reports with relevant stakeholders and users.

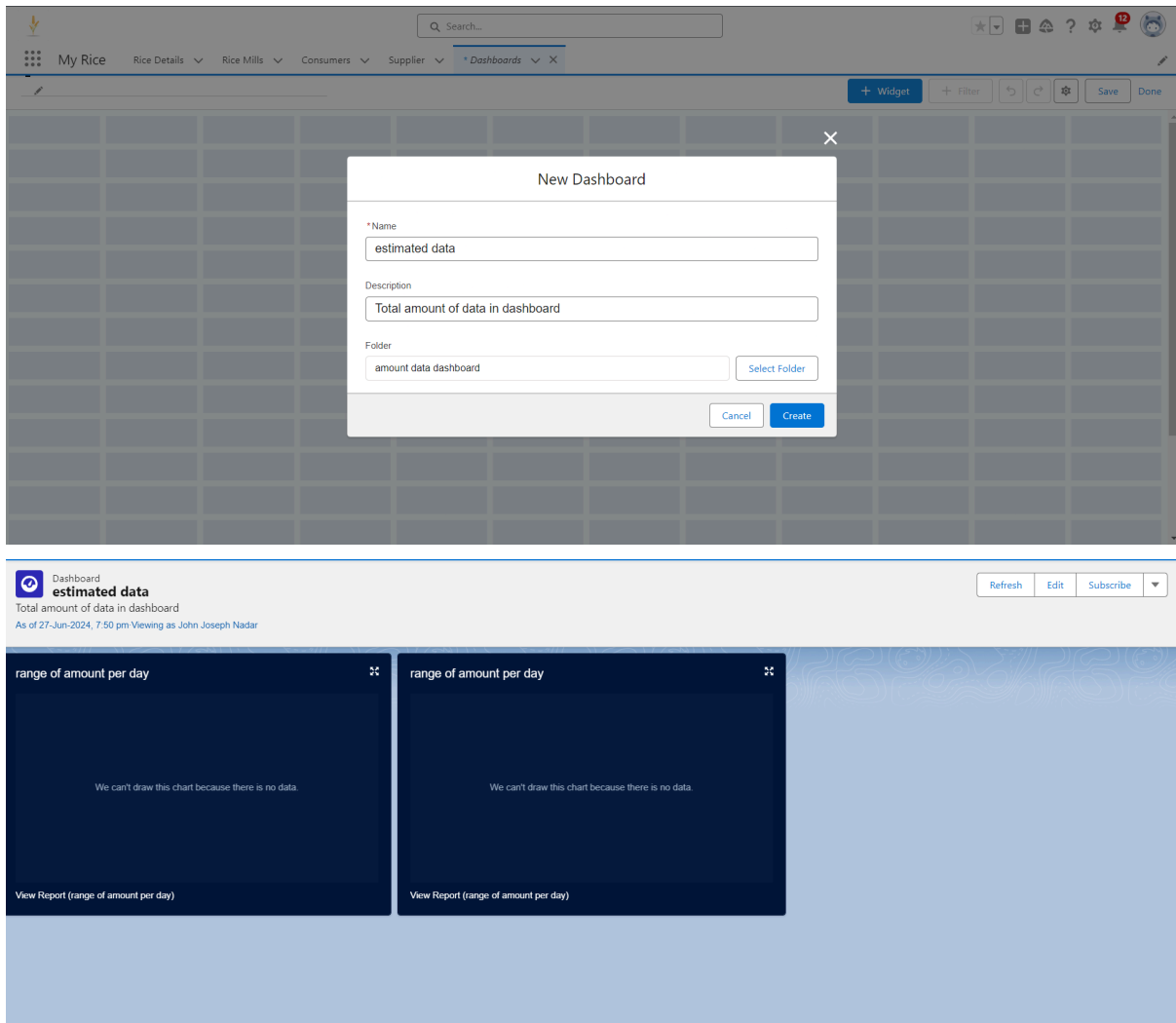




15. Creating Dashboard Folder

- Create a dashboard folder to organize and manage various dashboards for visual data representation.





Conclusion

The Rice Mill Management Application project demonstrates a comprehensive approach to automating and managing rice mill operations. By meticulously creating and integrating various objects, fields, and profiles, the project ensures efficient data management and enhances decision-making capabilities. The development of custom tabs, Lightning Apps, and dashboards further elevates the user experience, providing a robust solution for rice mill management.