

CRM Application for Wholesale Rice Mill

Leveraging Salesforce to Improve Efficiency in Rice Mill Operations

Prepared by: Rishav Kumar

Date: 01-10-2024

Abstract

This report introduces a robust CRM system designed to enhance daily operations within a wholesale rice mill. The application leverages Salesforce to deliver comprehensive reports, summary fields, cross-object formula fields, validation rules, and permission sets, all aimed at boosting efficiency and optimizing resource management.

Introduction

The wholesale rice milling industry encounters multiple challenges related to operational management, customer engagement, and reporting. This project aims to create a powerful CRM application using Salesforce, simplifying the management of daily rice production, sales, and analytics. By harnessing the capabilities of Salesforce, the application enhances customer satisfaction, improves store processes, and increases overall productivity in the rice mill.

Project Objectives

- > Develop an intuitive CRM application.
- >Streamline daily operations and reporting.
- >Improve customer experiences and optimize resource management.

Description

The application is built on the Salesforce platform, employing custom objects, fields, and

relationships for efficient data management.
The system architecture includes:
Custom Objects: Supplier, Rice Mill, Consumer, Rice Information
Fields: Numeric fields, rollup summary fields, cross-object formula fields
Relationships: Master-Detail relationships
User Interface: Custom Tabs, Page Layouts, Lightning Application
Security: Validation Rules, Permission Sets

Features and Functionality

- Reporting and Dashboards

The system generates comprehensive reports and analytics on daily rice sales, overall income, revenue, popular offerings, and consumer purchasing trends. These insights enable the rice mill owner to analyze data, optimize resource usage, and make informed future decisions.

- Rollup Summary Fields

These fields consolidate data from child objects to parent objects in a master-detail relationship. They utilize COUNT, SUM, MIN, and MAX functions. For example, the system displays the total rice value supplied from the rice details object on the related supplier record.

- **Cross-Object Formula Fields**

Cross-object formula fields allow referencing fields from another Salesforce object. For instance, the system can calculate the total payment due by applying a formula: $\text{*Quantity of rice ordered*} \times \text{*price per kilogram*}$.

- **Validation Rules**

Validation rules ensure data accuracy by displaying error messages when invalid inputs are entered. For instance, the IsBlank formula checks if a field is empty and generates an error message if necessary.

- **Permission Sets**

Organization-Wide Defaults (OWD) are employed to limit access. Roles are defined so that the owner has visibility into both employee and worker records, while employers can only view worker data.

Implementation Steps

- Prerequisites
 - > Salesforce Developer account
 - > Proficiency in Salesforce admin concepts
 - > Installation of two web browsers
 - > Reliable internet connectivity

Milestones and Activities

1. Create Developer Account

- Sign up for a Salesforce Developer account.



Build enterprise-quality apps fast to bring your ideas to life

- 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
- Customize UI with clicks or any leading-edge web framework



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*	WHOLESALE RICE	Last Name*	MILL
Email*			
yashyad0614@gmail.com			
Role*			
Developer			
Company*			
LNCT			
Country/Region*			
India			
State/Province*			
Madhya Pradesh			
Postal Code*			
462022			



Username

dev@ricemill.in

Password

Log In

☐ Remember me

[Forgot Your Password?](#)

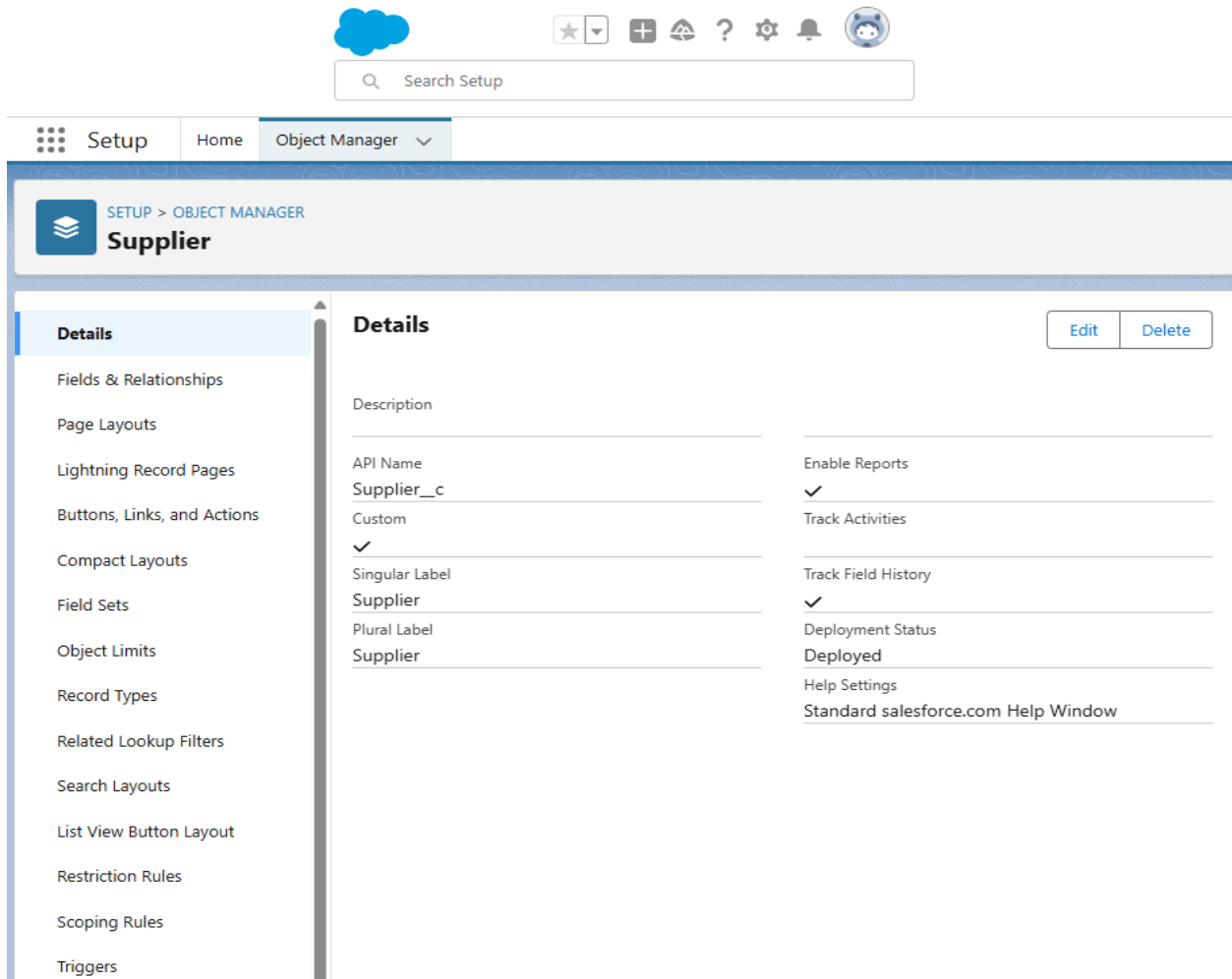
[Use Custom Domain](#)

[Not a customer?](#)

[Try for Free](#)

2. Creating Objects

- Supplier Object: Manage supplier details.



The screenshot shows the Salesforce Setup interface for the 'Supplier' object. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. Below this, the 'Supplier' object is selected, and the 'Details' tab is active. The left sidebar lists various configuration options for the object, including 'Fields & Relationships', 'Page Layouts', 'Lightning Record Pages', 'Buttons, Links, and Actions', 'Compact Layouts', 'Field Sets', 'Object Limits', 'Record Types', 'Related Lookup Filters', 'Search Layouts', 'List View Button Layout', 'Restriction Rules', 'Scoping Rules', and 'Triggers'. The main content area displays the 'Details' for the 'Supplier' object, including the API Name 'Supplier__c', Custom status, Singular Label 'Supplier', and Plural Label 'Supplier'. On the right, there are checkboxes for 'Enable Reports' (checked), 'Track Activities' (checked), and 'Track Field History' (checked). The deployment status is 'Deployed', and there are links for 'Help Settings' and 'Standard salesforce.com Help Window'.

Setup > OBJECT MANAGER
Supplier

Details [Edit] [Delete]

Description

API Name
Supplier__c

Custom
✓

Singular Label
Supplier

Plural Label
Supplier

Enable Reports
✓

Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

- Rice Mill Object: Manage rice mill details.

Setup Home Object Manager

Search Setup

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

Scoping Rules

Details

Description

API Name
Rice_mill__c

Custom
✓

Singular Label
Rice mill

Plural Label
Rice mills

Enable Reports
✓

Track Activities

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

Edit Delete

- Consumer Object: Manage consumer details.

Setup Home Object Manager

Search Setup

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
Scoping Rules

Details

EditDelete

Description

API Name
Consumer_c

Custom
✓

Singular Label
Consumer

Plural Label
Consumers

Enable Reports
✓

Track Activities

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

- Rice Details Object: Track rice production and sales.

The screenshot displays the Salesforce Setup interface. At the top, there is a navigation bar with 'Setup', 'Home', and 'Object Manager' (selected). Below this is a search bar labeled 'Search Setup'. The main content area is titled 'Rice details' under the 'Object Manager' section. A left sidebar lists various configuration options: Details (selected), 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, and Scoping Rules. The 'Details' section on the right contains a table of settings for the 'Rice' object.

Details		Edit	Delete
Description			
API Name	Rice_details__c		
Custom	✓		
Singular Label	Rice details		
Plural Label	Rice details		
Enable Reports	✓		
Track Activities			
Track Field History	✓		
Deployment Status	Deployed		
Help Settings	Standard salesforce.com Help Window		

3. Creating Tabs

- Create custom tabs for each object to easily access data.

Custom Tabs

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.

Action	Label	Tab Style	Description
Edit Del	Consumers	Car	
Edit Del	Rice details	Box	
Edit Del	Rice mills	Airplane	
Edit Del	Supplier	Castle	

Web Tabs

No Web Tabs have been defined

Visualforce Tabs

No Visualforce Tabs have been defined

4. Creating Lightning App

- Steps to create a Lightning app for the CRM application.

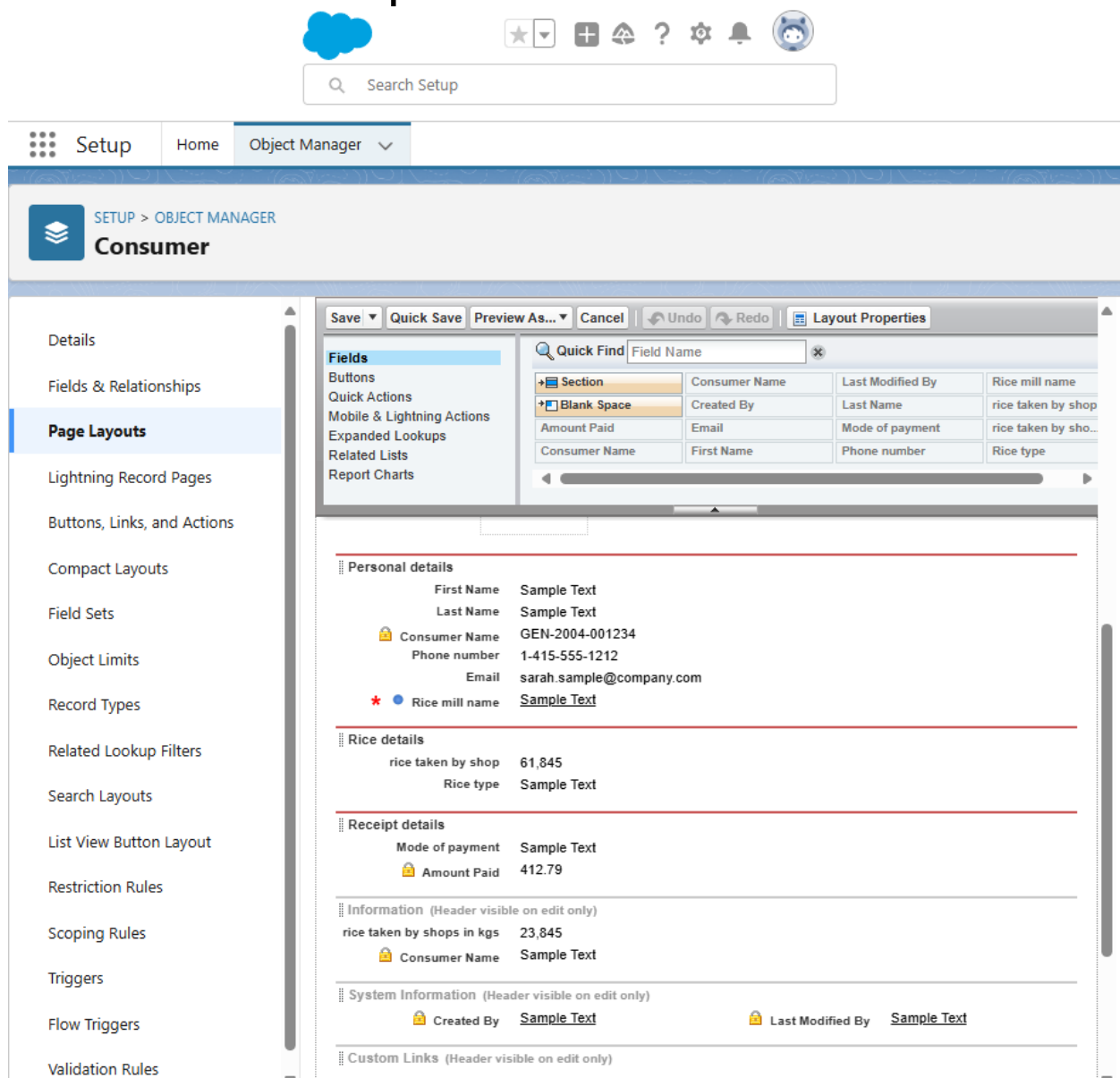
5. Creating Fields

- Number fields: Track quantities and prices.
- Rollup Summary Fields: Summarize data from child to parent objects.

- Cross-Object Formula Fields: Calculate total amounts.
- Validation Rules: Ensure data integrity.

6. Creating Page Layouts

- Customize page layouts for each object to enhance user experience.



The screenshot displays the Salesforce Setup interface for configuring the page layout of the 'Consumer' object. The left sidebar shows the navigation menu with 'Page Layouts' selected. The main content area shows the 'Consumer' object page layout configuration.

Page Layout Configuration:

- Fields:** A table showing the fields included in the page layout.

Field Name	Field Name	Field Name	Field Name
Section	Consumer Name	Last Modified By	Rice mill name
Blank Space	Created By	Last Name	rice taken by shop
	Amount Paid	Email	rice taken by sho...
	Consumer Name	First Name	Rice type
- Personal details:**
 - First Name: Sample Text
 - Last Name: Sample Text
 - Consumer Name: GEN-2004-001234
 - Phone number: 1-415-555-1212
 - Email: sarah.sample@company.com
 - Rice mill name: Sample Text
- Rice details:**
 - rice taken by shop: 61,845
 - Rice type: Sample Text
- Receipt details:**
 - Mode of payment: Sample Text
 - Amount Paid: 412.79
- Information (Header visible on edit only):**
 - rice taken by shops in kgs: 23,845
 - Consumer Name: Sample Text
- System Information (Header visible on edit only):**
 - Created By: Sample Text
 - Last Modified By: Sample Text
- Custom Links (Header visible on edit only):**

7. Creating Profiles, Roles, and Role Hierarchy

- Define profiles to control user permissions.
- Create roles and set up a role hierarchy to establish data access levels.

8. Creating Users

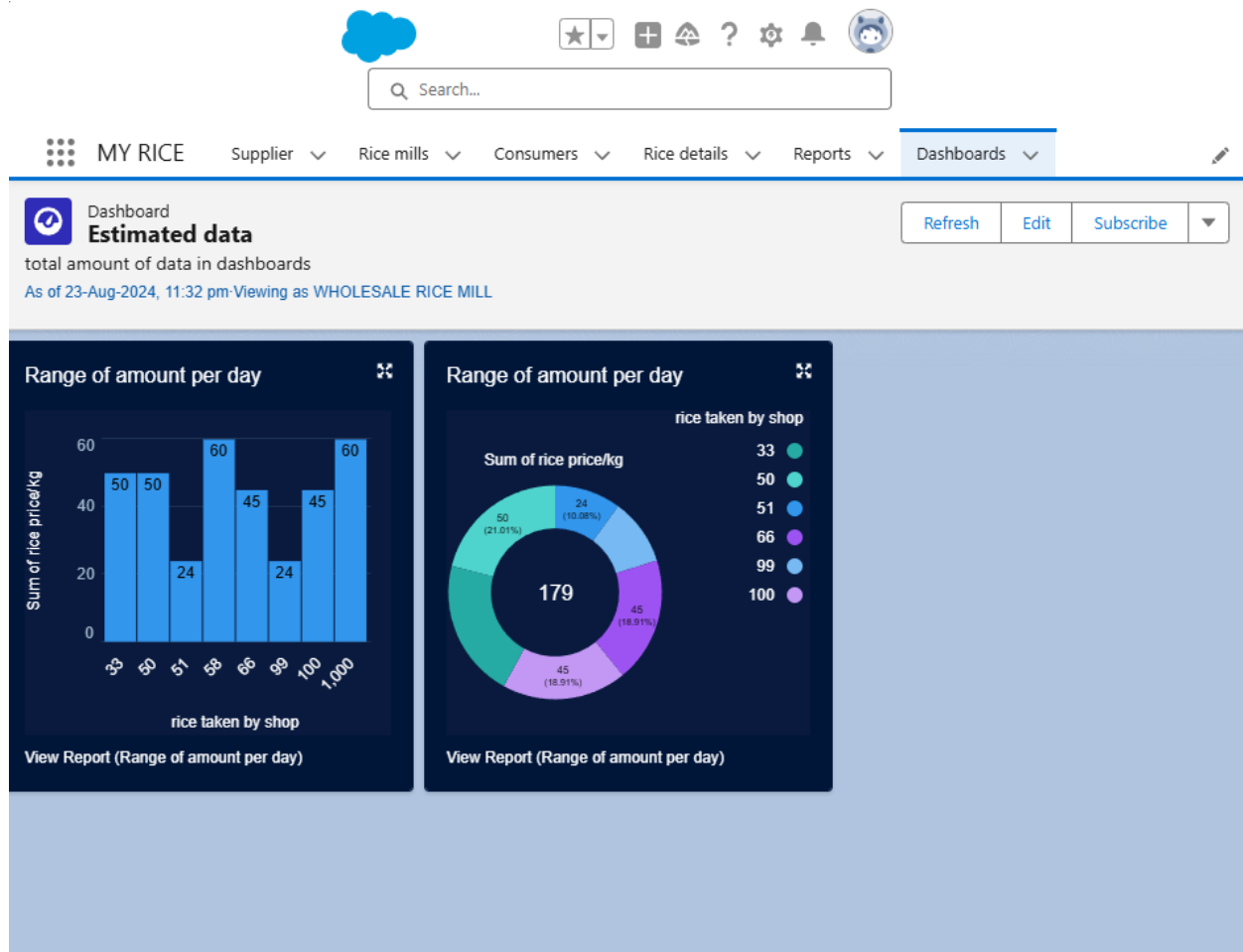
- Add users to the Salesforce organization and assign appropriate profiles and roles.

9. Creating Permission Sets

- Define permission sets to grant additional permissions to users beyond their profile.

10. Creating Reports

- Create detailed reports to track rice production, sales, and other key metrics.



Conclusion

The CRM application successfully streamlines daily operations in the rice mill, enhancing efficiency and customer satisfaction. Future enhancements could include integrating the application with external systems for broader functionality.

References

- Salesforce Documentation
- Community Forums