

CRM Application for Wholesale Rice Mill

Leveraging Salesforce to Improve Efficiency in Rice Mill Operations

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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: *Quantity of rice ordered* × *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.



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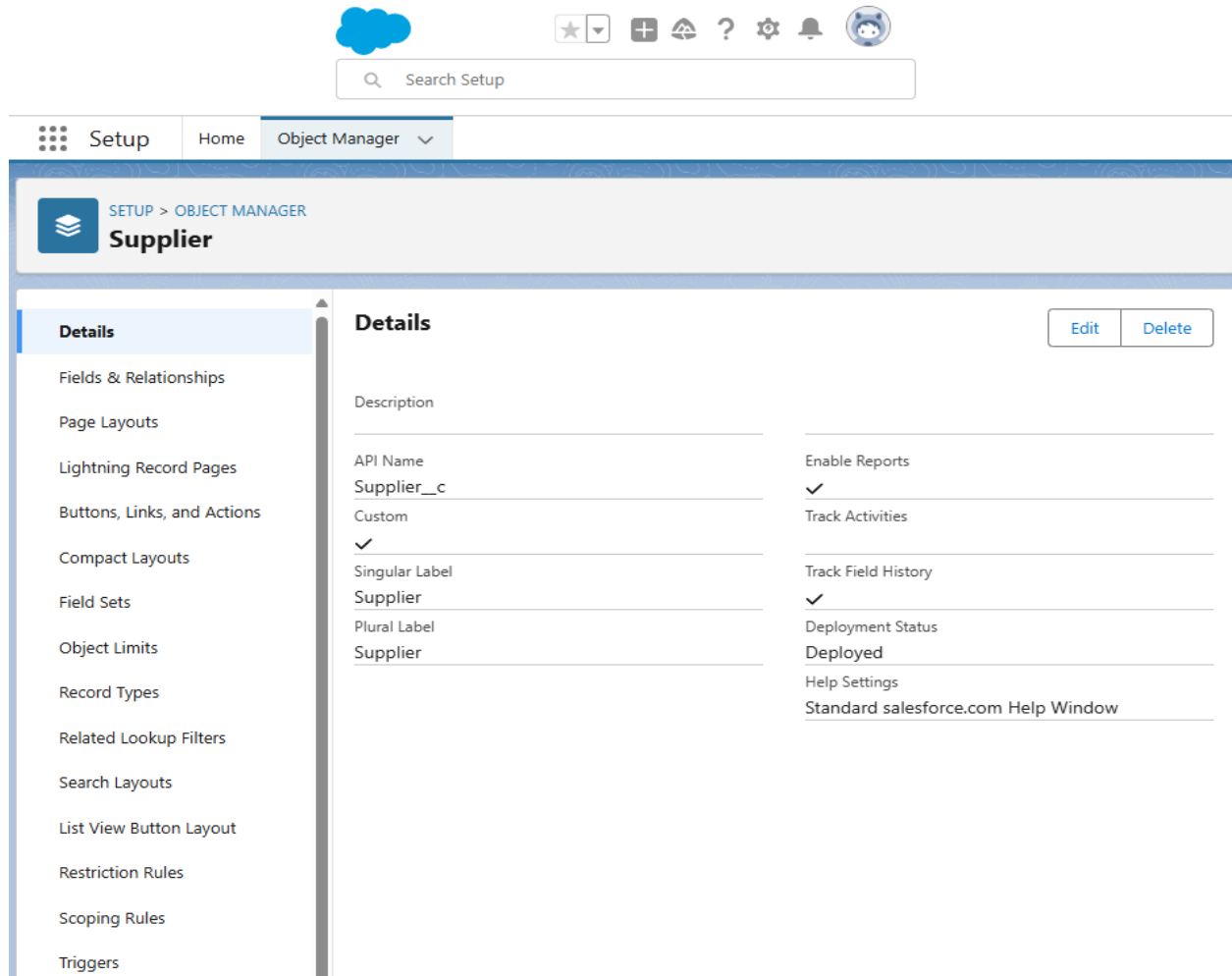
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2. Creating Objects

- Supplier Object: Manage supplier details.



- Rice Mill Object: Manage rice mill details.

The screenshot displays the Salesforce Setup interface. At the top, there is a navigation bar with 'Setup', 'Home', and 'Object Manager' tabs. Below this, a search bar is visible. The main content area is titled 'Rice mill' under the 'OBJECT MANAGER' section. A left-hand sidebar lists various configuration options for the object, with 'Details' currently selected. The 'Details' section on the right contains a table of configuration settings.

Details	
Description	
API Name	Enable Reports
Rice_mill__c	✓
Custom	Track Activities
✓	
Singular Label	Track Field History
Rice mill	✓
Plural Label	Deployment Status
Rice mills	Deployed
	Help Settings
	Standard salesforce.com Help Window

- Consumer Object: Manage consumer details.

The screenshot displays the Salesforce Setup interface. At the top, there is a navigation bar with the 'Setup' tab selected, and a sub-tab 'Object Manager' is visible. Below this, the breadcrumb 'SETUP > OBJECT MANAGER' is shown, followed by the object name 'Consumer'. A left-hand sidebar lists various configuration options for the object, with 'Details' currently selected. The main content area, titled 'Details', shows the following configuration for the 'Consumer' object:

Field	Value
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

Buttons for 'Edit' and 'Delete' are located in the top right corner of the details section.

- 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 is expanded, showing a table of configuration options. The table has two columns: the first column lists the configuration item, and the second column shows its current value or status. The items are: Description (empty), API Name (Rice_details__c), Custom (checked), Singular Label (Rice details), Plural Label (Rice details), Enable Reports (checked), Track Activities (checked), Track Field History (checked), Deployment Status (Deployed), Help Settings (Standard salesforce.com Help Window), and a link to the Standard salesforce.com Help Window. There are 'Edit' and 'Delete' buttons in the top right corner of the details section.

Configuration Item	Value/Status
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.

The screenshot shows the Salesforce Setup interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. Below this is a search bar with 'tab' entered. The left sidebar shows a tree view with 'Feature Settings' expanded, containing 'Analytics' and 'Tableau'. Under 'Tableau', 'Tableau Embedding' is selected. Below that is 'User Interface', which contains 'Loaded Console Tab Limit' and 'Rename Tabs and Labels'. The 'Tabs' link is highlighted. The main content area is titled 'Custom Tabs' and includes a description: '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

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, specifically the 'Consumer' object layout editor. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The left sidebar lists various configuration options, with 'Page Layouts' selected. The main area shows a preview of the 'Consumer' object layout, which is divided into several sections: 'Personal details', 'Rice details', 'Receipt details', 'Information', 'System Information', and 'Custom Links'. Each section contains fields with sample values. A 'Quick Find' table is also visible, listing fields and their corresponding values.

Field Name	Value
Consumer Name	GEN-2004-001234
Last Modified By	Sample Text
Created By	Sample Text
Last Name	Sample Text
Amount Paid	412.79
Email	sarah.sample@company.com
Mode of payment	Sample Text
Consumer Name	Sample Text
First Name	Sample Text
Phone number	1-415-555-1212
Rice type	Sample Text
Rice mill name	Sample Text
rice taken by shop	61,845
rice taken by shops in kgs	23,845

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

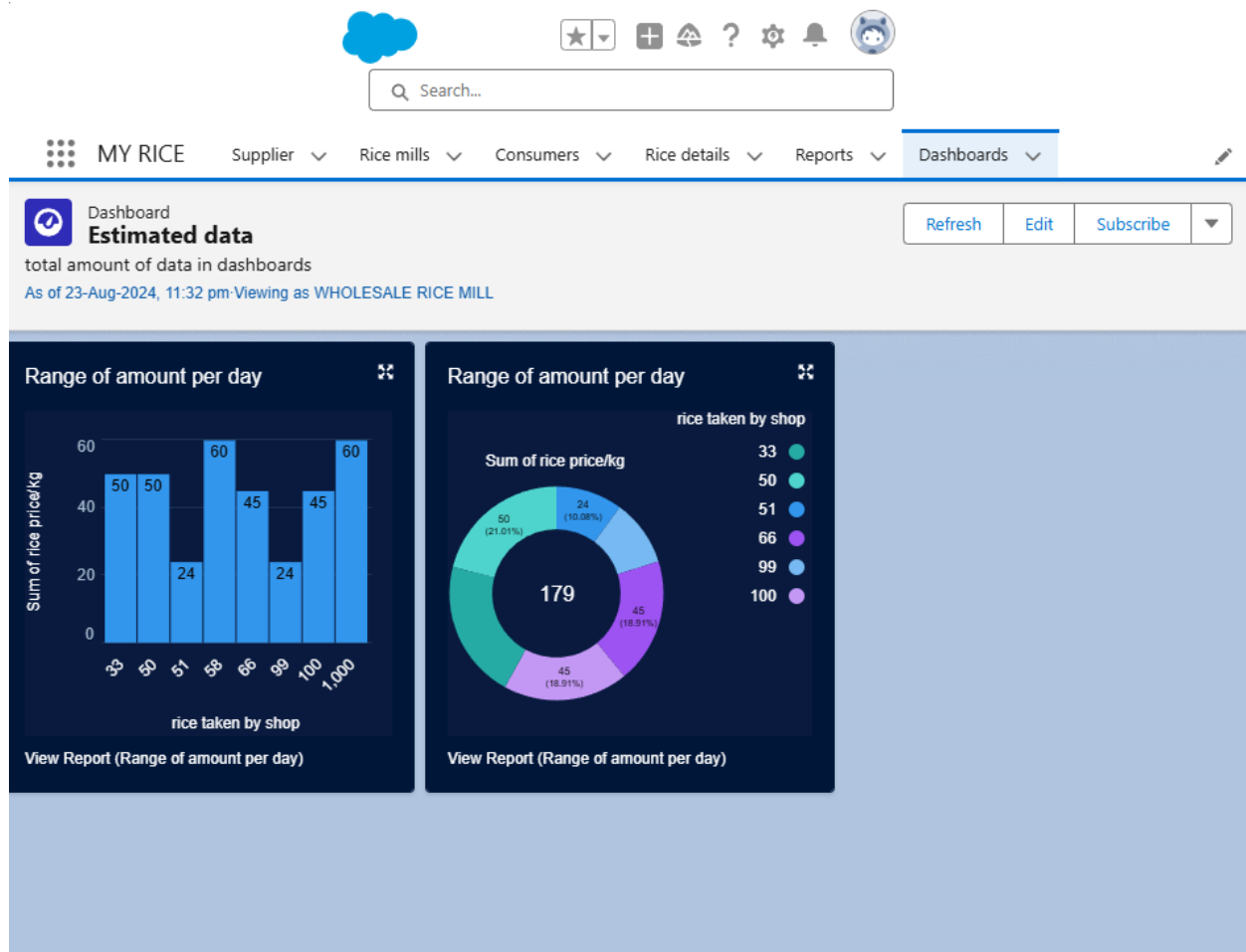
- Add users to the Salesforce organization and assign appropriate profiles and roles.

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