

A CRM Application for Wholesale Rice Mill

A CRM Application for Wholesale Rice Mill Utilizing Salesforce to Enhance Efficiency in Rice Mill Operations.

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Abstract

This project report presents a comprehensive CRM application designed to streamline daily operations in a wholesale rice mill. Leveraging Salesforce, the application provides detailed reports, rollup summary fields, cross-object formula fields, validation rules, and permission sets to improve efficiency and resource allocation.

Introduction

The wholesale rice milling industry faces numerous challenges in managing daily operations, customer relationships, and reporting. This project aims to develop a comprehensive CRM application using Salesforce to streamline and simplify the management of daily rice production, sales, and reporting. By leveraging the power of Salesforce, the application enhances customer experiences, optimizes store operations, and improves overall efficiency in the rice mill factory.

Project Objectives

- Develop a user-friendly CRM application.
- Streamline daily operations and reporting.
- Enhance customer experience and optimize resource allocation.

Description

The application is built on the Salesforce platform, utilizing custom objects, fields, and relationships to manage data efficiently. The architecture includes:

- Custom Objects: Supplier, Rice Mill, Consumer, Rice Details
- Fields: Number fields, rollup summary fields, cross-object formula fields
- Relationships: Master-Detail relationships
- User Interface: Custom Tabs, Page Layouts, Lightning App
- Security: Validation Rules, Permission Sets

Features and Functionality

Reporting and Dashboards

The application generates detailed reports and analytics on daily rice sales, total income, revenue generated, popular amenities, and customer buying patterns. These insights help the owner understand data, improve resource allocation, and plan future developments.

Rollup Summary Fields

These fields summarize data from child objects to parent objects in a master-detail relationship. Functions include COUNT, SUM, MIN, and MAX. For example, displaying the total value of rice supplied from rice details on a related supplier.

Cross-Object Formula Fields

These fields reference fields from another object in Salesforce. For instance, calculating the total amount payable using the formula `Number of rice taken * price/kg`.

Validation Rules

Validation rules ensure data integrity by including error messages when invalid values are entered. For example, using the `IsBlank` formula to verify whether a field is blank and display an error message if so.

Permission Sets

Organization-Wide Defaults (OWD) are used to restrict access. Roles are created such that the owner can see employer and worker records, and the employer can see worker records.

Implementation Steps

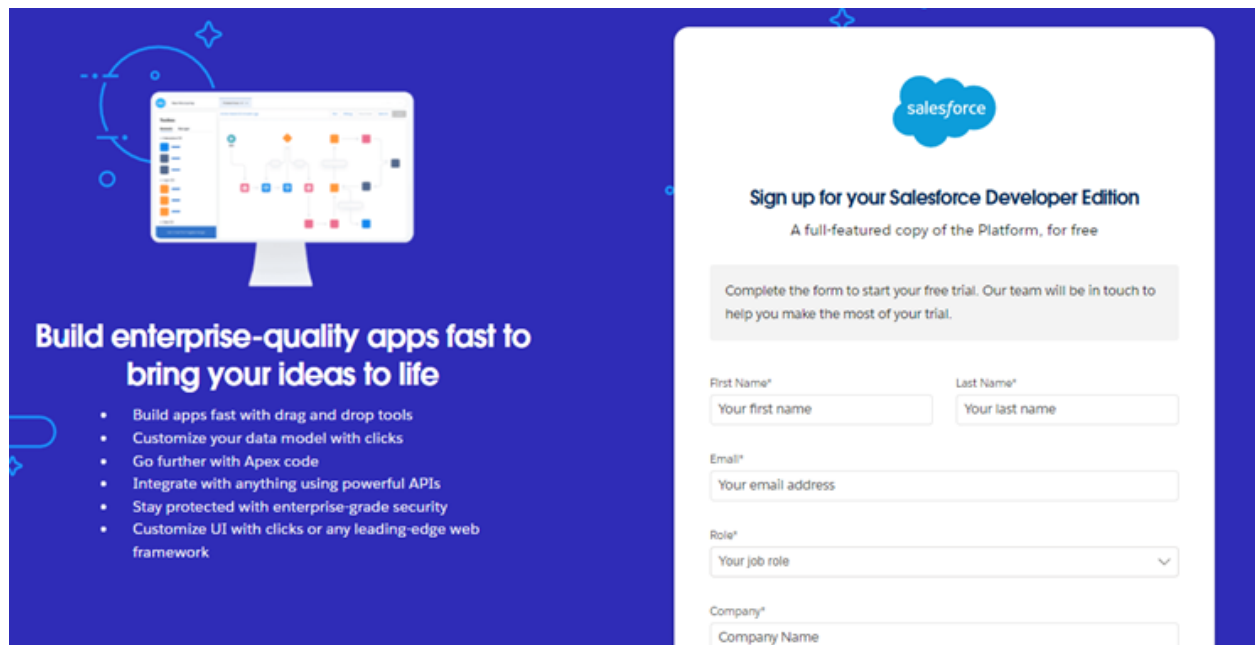
Prerequisites

- Salesforce Developer account
- Knowledge of Salesforce admin concepts
- Installed with two web browsers
- Good internet connectivity

Milestones and Activities

1. Creating Developer Account

- Sign up for a Salesforce Developer account.



The image shows the Salesforce Developer Edition sign-up page. On the left, a blue background features a monitor displaying a Salesforce interface with a sidebar and a main workspace. Below the monitor, the text "Build enterprise-quality apps fast to bring your ideas to life" is displayed. To the right of this text is a bulleted list of features. On the right side of the page, a white sign-up form is set against a blue background. The form includes the Salesforce logo, a heading, a subheading, a completion instruction, and several input fields for user information.

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 full-featured copy of the Platform, for free

Complete the form to start your free trial. Our team will be in touch to help you make the most of your trial.

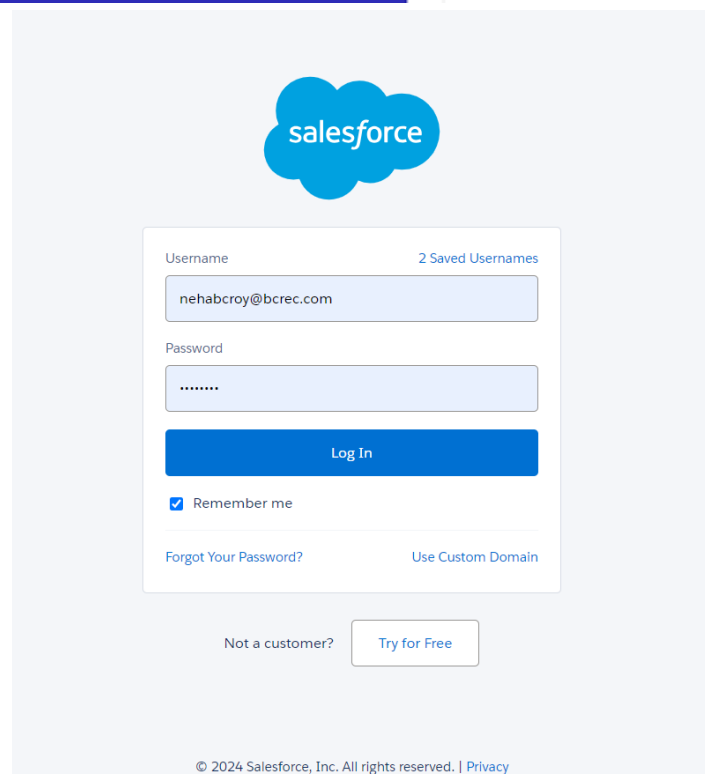
First Name*
Your first name

Last Name*
Your last name

Email*
Your email address

Role*
Your job role

Company*
Company Name



The image shows the Salesforce login page. It features the Salesforce logo at the top. Below the logo is a login form with fields for Username and Password. The Username field contains the text "nehabcroy@bcrec.com". Below the Password field is a "Log In" button. There is a "Remember me" checkbox and links for "Forgot Your Password?" and "Use Custom Domain". At the bottom, there is a "Not a customer?" link and a "Try for Free" button. The footer contains the copyright notice "© 2024 Salesforce, Inc. All rights reserved. | Privacy".

Username 2 Saved Usernames
nehabcroy@bcrec.com

Password
.....

Log In

☒ Remember me

[Forgot Your Password?](#) [Use Custom Domain](#)

[Not a customer?](#) [Try for Free](#)

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2. Creating Objects

- Supplier Object: Manage supplier details.

The screenshot shows the Salesforce Setup interface for the 'supplier' object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The left sidebar lists various configuration options under the 'Details' tab. The main content area displays the 'Details' for the 'supplier' object, including fields like API Name, Singular Label, and Plural Label, as well as checkboxes for 'Enable Reports', 'Track Activities', and 'Track Field History'.

Setup > OBJECT MANAGER
supplier

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

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.

The screenshot shows the Salesforce Setup interface for the 'rice mill' object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The left sidebar lists various configuration options under the 'Details' tab. The main content area displays the 'Details' for the 'rice mill' object, including fields like API Name, Singular Label, and Plural Label, as well as checkboxes for 'Enable Reports', 'Track Activities', and 'Track Field History'.

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

Details [Edit](#) [Delete](#)

Description

API Name
rice_mill__c

Custom
✓

Singular Label
rice mill

Plural Label
rice mills

Enable Reports
✓

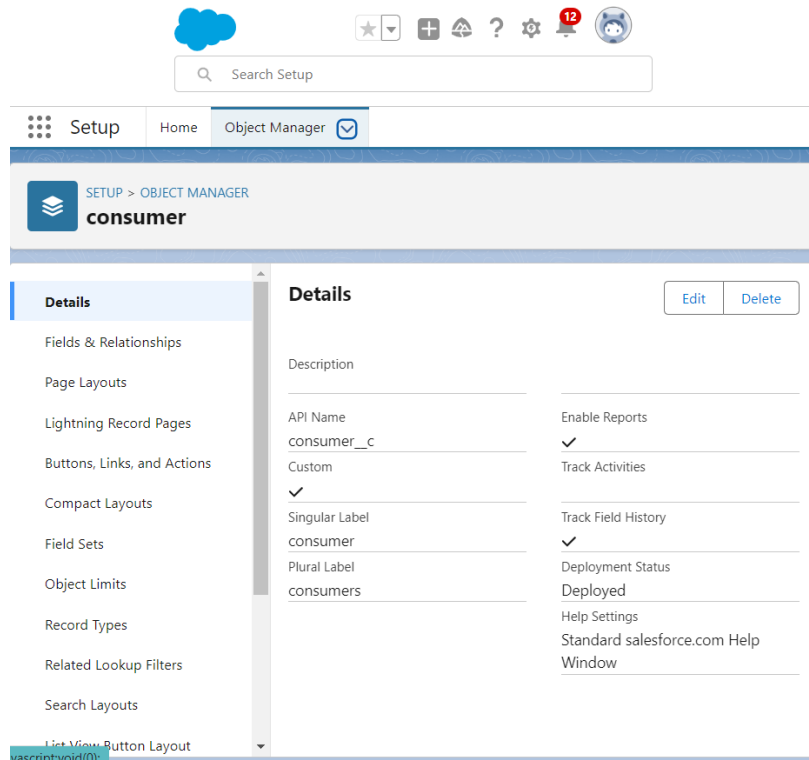
Track Activities

Track Field History
✓

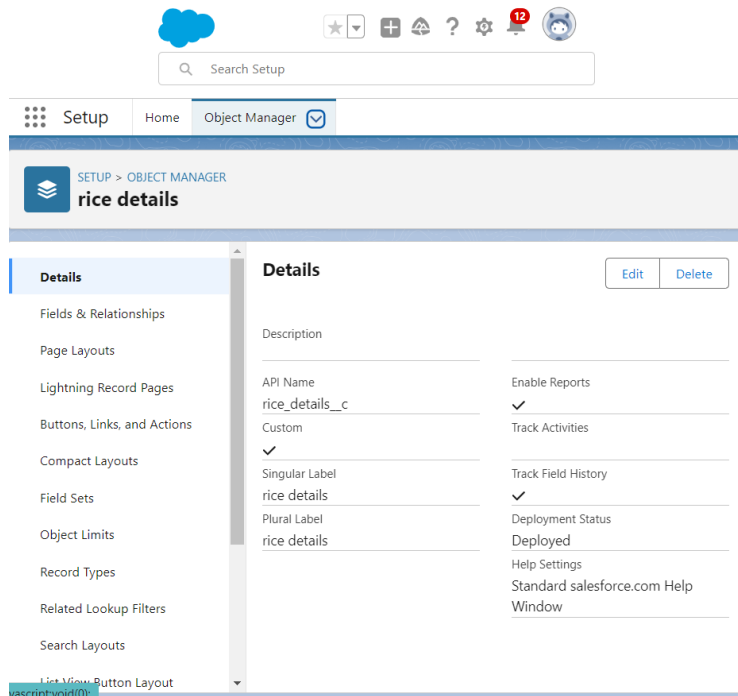
Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

- Consumer Object: Manage consumer details.

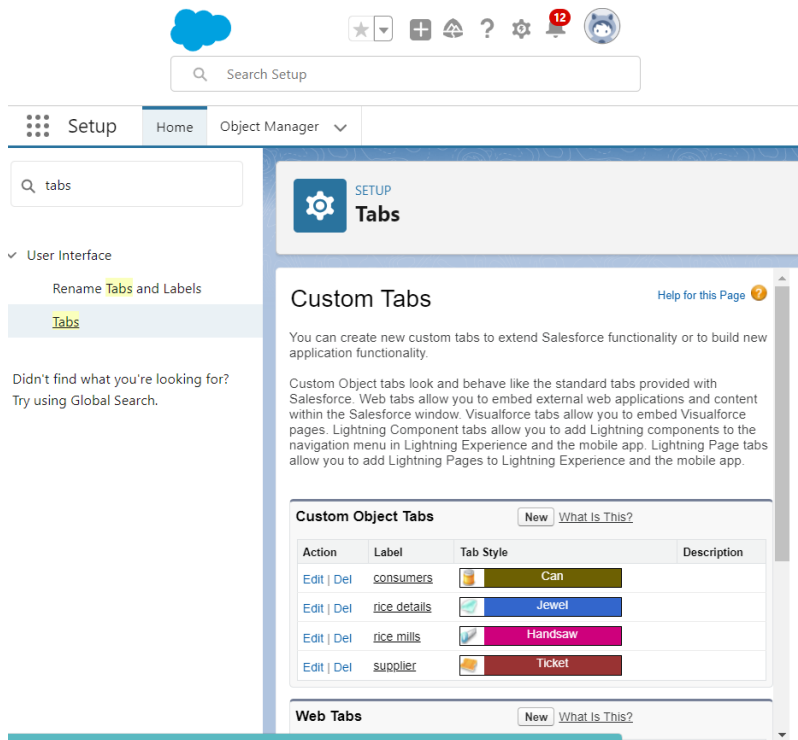


- Rice Details Object: Track rice production and sales.



3. Creating Tabs

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



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.

Setup > OBJECT MANAGER

consumer

Save Quick Save Preview As... Cancel Undo Redo Layout Properties

Fields

Field Name	Field Name	Field Name	Field Name
Consumer Name	Last Modified By	rice mill name	
Created By	Last name	Rice taken by shops	
email	Mode of payment	rice taken by sho...	
consumer id	First name	Phone number	Rice type

Information (Header visible on edit only)

consumer id GEN-2004-001234

rice taken by shops in kgs 90,625

Personal details

First name Sample Text Last name Sample Text

Consumer Name Sample Text Phone number 1-415-555-1212

email sarah.sample@company.com rice mill name Sample Text

rice details

Rice taken by shops 70,381 Rice type Sample Text

Receipt details

Mode of payment Sample Text

Amount Paid 477.01

System Information (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 profiles.

10. Creating Reports

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

<div>  <div>Report: rice mills with consumers</div> <div>range of amount per day</div> </div>					
Total Records		Total rice price/kg		Total Amount Paid	
11		150		2,805.00	
<input type="checkbox"/> Rice taken by shops ↑	Consumer Name	Rice type	rice price/kg	Mode of payment	Amount Paid
<input type="checkbox"/> - (7)		-	14	-	0.00
		-	11	-	0.00
		-	78	-	0.00
		-	32	-	0.00
	Test0909	-	15	-	0.00
	Test1010	-	78	-	0.00
	Test1111	-	32	-	0.00
Subtotal			150		0.00
<input type="checkbox"/> 24 (1)	test0101	basmati	32	Credit card	768.00
Subtotal			32		768.00
<input type="checkbox"/> 37 (1)	test0303	normal rice	11	Net banking	407.00
Subtotal			11		407.00
<input type="checkbox"/> 48 (1)	test0404	basmati	15	Cash	720.00
<div> <div>Row Counts</div> <div>Detail Rows</div> <div>Subtotals</div> <div>Grand Total</div> </div>					

11. Creating Dashboards

- Design dashboards to provide visual summaries of key metrics and reports.



and customer satisfaction. Future enhancements could include integrating the application with external systems for broader functionality.

References

- Salesforce Documentation
- Community Forums