

# CRM Application for Wholesale Rice Mill

## Overview

The **Rice Mill CRM Application** is a tailor-made solution designed to automate and enhance the management of daily rice mill operations. This application leverages **Salesforce CRM** capabilities to deliver daily reports on rice production, sales, and customer insights to the rice mill owner. By streamlining data collection and reporting, it enables efficient decision-making, improved resource allocation, and a seamless customer experience.

## Key Features and Functionality

### 1. Reporting and Dashboards

- **Purpose:** Provides real-time insights into rice mill operations.
- **Capabilities:**
  - Generate daily reports on:
    - Amount of rice produced.
    - Quantity of rice sold.
    - Revenue generated per type of rice.
    - Identification of frequent buyers.
  - **Visualization:** Easy-to-read charts and graphs for better decision-making.

### 2. Rollup Summary Fields

- • **Purpose:** Summarize data from related child objects to parent objects.
- • **Functions Supported:**
  - **COUNT:** Number of rice entries.
  - **SUM:** Total amount of rice supplied.
  - **MIN/MAX:** Earliest/latest date of transactions.
- • **Example:** Display the total value of rice supplied on a related supplier record.

### 3. Cross-Object Formula Fields

- **Purpose:** Compute and display values by referencing fields from related objects.
- **Example:** **Formula:** Number of Rice Taken \* Price Per Kg = Total Amount
- **Usage:** Display the total payable amount directly on the rice transaction record.

## 4. Validation Rules

- **Purpose:** Ensure data integrity and accuracy by applying conditional rules.
- **Implementation:**
  - **IsBlank Formula:** Validates required fields to ensure they are not empty.
  - **Error Messaging:** Displays user-friendly error messages for invalid input

## 5. Permission Sets

- **Purpose:** Manage access levels using **Organization Wide Defaults (OWD)**.
- **Implementation:**
  - Created custom roles with specific visibility:
    - ○ **Owner:** Access to employer and worker records.
    - ○ **Employer:** Access to worker records.
    - ○ **Worker:** Limited to self-related data.
  - Ensures secure and restricted access to sensitive information.

## Pre-Requisites

1. **Salesforce Developer Account:** Required for building and testing the application.
2. **Salesforce Admin Concepts Knowledge:** Familiarity with Salesforce objects, fields, and relationships.
3. **System Requirements:**
  - Two web browsers installed.
  - Reliable internet connection

## What You'll Learn

- • **Real-Time Salesforce Project Execution:** Practical experience with Salesforce project development.
- • **Object and Relationship Management:** Understanding object types and relationships in Salesforce.
- • **Formula Fields and Validation Rules:**
  - Create cross-object formula fields.
  - Implement validation rules with error messaging.
- • **Page Layouts:** Customize page layouts for better user experience.

- **Rollup Summary Fields:** Summarize data effectively for reporting.
- **Reports and Dashboards:** Build detailed and interactive visual reports.

## Conclusion

This mini-project offers a hands-on approach to mastering Salesforce concepts while addressing real-world business needs. It equips learners with the skills to create robust CRM applications tailored to specific industry requirements, enhancing their employability and technical expertise.



The screenshot shows the Salesforce Setup interface with the URL `icom-c-dev-ed.develop.lightning.force.com`. The top navigation bar includes links for Home, Object Manager, and a search bar. The main content area is titled "SETUP > OBJECT MANAGER consumer". On the left, a sidebar lists various setup categories: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The right panel displays the "Details" for the "consumer" object. It includes fields for API Name (set to "consumer\_\_c"), Custom status (checked), Singular Label ("consumer"), and Plural Label ("consumers"). Under the "Details" tab, there are sections for Description, Enable Reports (unchecked), Track Activities, Track Field History (unchecked), Deployment Status (set to "Deployed"), Help Settings, and a link to the "Standard salesforce.com Help Window". Action buttons for "Edit" and "Delete" are located at the top right of the details panel.

The screenshot shows a Salesforce dashboard titled "estimated data" with the URL `icom-c-dev-ed.develop.lightning.force.com`. The top navigation bar includes links for Home, MY RICE, supplier, rice mills, consumers, rice details, and a search bar. The main content area is titled "Dashboard estimated data" and displays the message "total amount of data in dashboards". Below this, it says "As of 27-Dec-2024, 9:37 PM Viewing as pavan m". The dashboard features two chart cards, both titled "range of amount per day". Both cards show the message "We can't draw this chart because there is no data." and a "View Report (range of amount per day)" button at the bottom. The right side of the dashboard has a light blue background with a wavy pattern. Action buttons for "Refresh", "Edit", and "Subscribe" are located at the top right of the dashboard area.

The screenshot shows the Salesforce Setup interface with the following details:

**Object Manager** - supplier

**Details**

Field	Description	Value
API Name	supplier__c	
Custom	✓	
Singular Label	supplier	
Plural Label	supplier	

**Details**

Setting	Value
Enable Reports	✓
Track Activities	
Track Field History	✓
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

**Buttons**

- Edit
- Delete

The screenshot shows the Salesforce Setup interface with the following details:

**Object Manager** - rice details

**Fields & Relationships**

6 Items, Sorted by Field Label

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(one)	rice_mill_1_one__c	Master-Detail(rice mill)	✓	▼
supplier Name	supplier_Name__c	Master-Detail(supplier)	✓	▼

The screenshot shows the Salesforce Object Manager interface. On the left, a sidebar lists various configuration options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The main area is titled 'Details' for the 'supplier' object. It shows the API Name as 'supplier\_\_c' and the Singular Label as 'supplier'. On the right, there are sections for 'Description', 'Enable Reports' (unchecked), 'Track Activities' (unchecked), 'Track Field History' (unchecked), 'Deployment Status' set to 'Deployed', and a 'Help Settings' link. At the bottom right are 'Edit' and 'Delete' buttons.

The screenshot shows a Gmail inbox with 2,117 messages. The message list on the left includes categories like Starred, Snoozed, Sent, Drafts (12 messages), and More. The main pane displays an account verification email from Salesforce. The subject is 'Welcome to Salesforce: Verify your account...'. The body of the email contains a large image of a smartphone displaying the Salesforce mobile app. Below the image, a button says 'Click below to verify your account.' A prominent blue button labeled 'Verify Account' is centered. Below it, text reads 'To easily log in later, save this URL:' followed by a link: <https://icom-c-dev-ed-develop.my.salesforce.com>. Further down, it says 'Username:' followed by the email address [mpavan@i.com](mailto:mpavan@i.com). At the bottom, a message says 'Again, welcome to Salesforce!'.

The screenshot shows the Salesforce Setup interface with the URL `icom-c-dev-ed.develop.lightning.force.com`. The top navigation bar includes links for 'Student - Skill Wallet', 'estimated data | Salesforce', 'rice details | Salesforce', and a message 'Welcome to Salesforce: Verify your account...'. The main header says 'SETUP > OBJECT MANAGER' and the object name is 'rice details'. The left sidebar lists various setup categories: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The right panel displays the 'Details' section for the 'rice details' object. It includes fields for Description, API Name (set to `rice_details__c`), Custom status (checked), Singular Label (set to `rice details`), Plural Label (set to `rice details`), and several checkboxes for Reports, Activities, and History. Deployment status is set to 'Deployed'.

The screenshot shows the Salesforce Setup interface with the URL `icom-c-dev-ed.develop.lightning.force.com`. The top navigation bar includes links for 'Student - Skill Wallet', 'estimated data | Salesforce', 'supplier | Salesforce', and a message 'Welcome to Salesforce: Verify your account...'. The main header says 'SETUP > OBJECT MANAGER' and the object name is 'supplier'. The left sidebar lists various setup categories: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The right panel displays the 'Details' section for the 'supplier' object. It includes fields for Description, API Name (set to `supplier__c`), Custom status (checked), Singular Label (set to `supplier`), Plural Label (set to `supplier`), and several checkboxes for Reports, Activities, and History. Deployment status is set to 'Deployed'.

The screenshot shows the Salesforce Object Manager interface for the 'consumer' object. The left sidebar lists various configuration tabs: 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, and List View Button Layout. The main content area is titled 'Details' and shows the following information:

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

At the top right of the details section are 'Edit' and 'Delete' buttons.

The screenshot shows the Salesforce Object Manager interface for the 'consumer' object, specifically viewing the 'Page Layouts' section. The left sidebar lists the same configuration tabs as the first screenshot. The main content area is titled 'Page Layouts' and displays one item:

PAGE LAYOUT NAME	CREATED BY	MODIFIED BY
consumer Layout	pavan m, 27/12/2024, 7:42 PM	pavan m, 27/12/2024, 9:01 PM

At the top right of the page layouts section are 'Quick Find', 'New', and 'Page Layout Assignment' buttons.

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes tabs for Home, Object Manager, and a dropdown menu. The main content area displays the details for the 'consumer' object. On the left, a sidebar lists various configuration options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The main 'Details' section contains fields for API Name (consumer\_\_c), Singular Label (consumer), and Plural Label (consumers). To the right, there are sections for Description, Enable Reports (unchecked), Track Activities, Track Field History (unchecked), Deployment Status (Deployed), Help Settings, and a link to the Standard salesforce.com Help Window.

The screenshot shows the Sharing Settings page in the Salesforce Setup. The top navigation bar includes tabs for Home, Object Manager, and a dropdown menu. A search bar at the top left shows the query 'shari'. The main content area is titled 'Sharing Settings' and includes sections for Security (Guest User Sharing Rule Access Report) and Sharing Settings. The 'Sharing Settings' section displays a table of sharing rules:

Work Type	Private	Private	✓
Work Type Group	Public Read/Write	Private	✓
AppLog	Public Read/Write	Private	✓
consumer	Controlled by Parent	Controlled by Parent	✓
Provider	Public Read/Write	Private	✓
Resource	Public Read/Write	Private	✓
rice details	Controlled by Parent	Controlled by Parent	
rice mill	Public Read Only	Private	✓
supplier	Public Read Only	Private	✓

Below this is a 'User Visibility Settings' section with checkboxes for Portal User Visibility and Site User Visibility. At the bottom is an 'Other Settings' section with checkboxes for Manager Groups and a note about minimizing role creation.

Salesforce Setup - Profiles

icom-c-dev-ed.develop.lightning.force.com

Student - Skill Wallet | estimated data | Salesforce | Profiles | Salesforce | Welcome to Salesforce: Verify your account...

Setup Home Object Manager

Search Bar: Search Setup

Profiles

Help for this Page

Profiles

All Profiles | Edit | Delete | Create New View

New Profile

Action | Profile Name | User License | Custom

Action	Profile Name	User License	Custom
<input type="checkbox"/> Edit   Del   ...	employer	Salesforce Platform	✓
<input type="checkbox"/> Edit   Clone	External Apps Login User	External Apps Login	□
<input type="checkbox"/> Edit   Clone	External Identity User	External Identity	□

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other

1-3 of 3 | 0 Selected | Previous | Next | Page 1 of 1

Salesforce Reports

icom-c-dev-ed.develop.lightning.force.com

Student - Skill Wallet | estimated data | Salesforce | Recent | Reports | Salesforce | Welcome to Salesforce: Verify your account...

MY RICE supplier | rice mills | consumers | rice details | \* Reports

Reports

Recent

1 item

Search Bar: Search recent reports...

New Report | New Folder | Settings

REPORTS

Report Name	Description	Folder	Created By	Created On	Subscribed
range of amount per day	estimated rice per day	pavan m	27/12/2024, 9:20 PM	✓	

Created by Me

Private Reports

Public Reports

All Reports

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites

The screenshot shows the Salesforce Setup Profiles page. The URL is `icom-c-dev-ed.develop.lightning.force.com`. The page title is "Profiles". There are two profiles listed:

Action	Profile Name	User License	Custom
<a href="#">Edit   Clone</a>	Work.com Only User	Work.com Only	<input type="checkbox"/>
<a href="#">Edit   Del  ...</a>	worker	Salesforce Platform	<input checked="" type="checkbox"/>

Page 1 of 1

The screenshot shows the Salesforce Setup Profiles page. The URL is `icom-c-dev-ed.develop.lightning.force.com`. The page title is "Profiles". There is one profile listed:

Action	Profile Name	User License	Custom
<a href="#">Edit   Del  ...</a>	owner	Salesforce	<input checked="" type="checkbox"/>

Page 1 of 1

The screenshot shows the Salesforce Setup interface with the URL `icom-c-dev-ed.develop.lightning.force.com`. The top navigation bar includes tabs for `Student - Skill Wallet`, `estimated data | Salesforce`, and `Tabs | Salesforce`. The main search bar contains the query `tabs`. The left sidebar has sections for `User Interface`, `Rename Tabs and Labels`, and `Tabs`, with `Tabs` currently selected. A message at the bottom left says, "Didn't find what you're looking for? Try using Global Search." The main content area is titled `Custom Tabs` and includes a link to `Help for this Page`. It describes how to create new custom tabs to extend Salesforce functionality. Below this is a table titled `Custom Object Tabs` with the following data:

Action	Label	Tab Style	Description
Edit   Del	consumers	Box	
Edit   Del	Providers	Bank	
Edit   Del	Resources	Castle	
Edit   Del	rice details	Box	
Edit   Del	rice mills	Box	
Edit   Del	supplier	Box	

Below this is a section titled `Web Tabs` with the message `No Web Tabs have been defined.`

Salesforce Lightning Experience screenshot showing a report titled "range of amount per day".

The report summary table shows:

Total Records	Total rice price/kg	Total Amount Paid
0	0	0.00

The main content area displays a blue line drawing of a cactus in a desert landscape with a sun and clouds.

**No Results**

No records returned. Try editing report filters.

- Show All rice mills.
- Edit other filters in the filter panel.

Row Counts Detail Rows Subtotals Grand Total

Salesforce Lightning Experience screenshot showing the "Recent" reports page.

The sidebar navigation includes:

- Reports
- Recent** (selected)
- 1 item
- Created by Me
- Private Reports
- Public Reports
- All Reports
- FOLDERS
- All Folders
- Created by Me
- Shared with Me
- FAVORITES
- All Favorites

The main content area shows a recent report card:

Report Name	Description	Folder	Created By	Created On	Subscribed
range of amount per day	estimated rice per day	pavan m	27/12/2024, 9:20 PM	✓	