Project Brief: A CRM Application for Wholesale Rice Mill

Project Title

A CRM Application for Wholesale Rice Mill

Duration

12 Days

Team

- Sainath Reddy Y

Mentor

- Salesforce MP Mentor1

Project Overview

This project aims to build a comprehensive CRM application tailored for a wholesale rice mill using Salesforce. The application includes functionalities to manage rice distribution, track consumer interactions, and analyze sales data. The key components of the project are:

1. **Custom Objects and Fields**:
   - Creation of custom objects like **Consumers**, **Rice Details**, **Rice Mill**, and **Suppliers**.
   - Adding custom fields to capture relevant data such as rice type, amount distributed, and payment mode.
2. **Roles and Profiles**:
   - Defining roles like **Owner**, **Employer**, and **Worker** with appropriate access permissions.
   - Creating profiles and assigning them to users to control their access levels.
3. **Page Layouts**:
   - Designing page layouts for different objects to ensure that users have an intuitive and organized interface.

4. **Reports and Dashboards**:
    - Generating reports to analyze daily rice distribution and consumer interactions.
    - Creating dashboards to provide a visual summary of key metrics and performance indicators.
5. **Automation and Notifications**:
    - Setting up email notifications to keep the Owner informed about daily reports.
    - Automating data entry and updates through workflows and validation rules.
6. **Data Organization**:
    - Organizing reports and dashboards into folders for easy access and management.
    - Ensuring that the application is user-friendly and meets the specific needs of the rice mill business.

Key Deliverables

- Custom objects and fields setup
- Role and profile configuration
- Page layouts for various objects
- Reports on rice distribution and consumer data
- Dashboards for visual data analysis
- Email notifications for daily reports
- Organized folders for reports and dashboards

Project Progress

- Overall progress is at 90%, with final reviews and adjustments being made.
- Deliverables are being uploaded to a public GitHub repository for verification and review by the mentor.

Introduction to Salesforce

What is Salesforce?

Salesforce is a comprehensive customer success platform designed to help businesses sell, service, market, analyze, and connect with customers. It allows organizations to manage relationships with prospects and customers, collaborate with employees and partners, and store data securely in the cloud.

Creating a Developer Org in Salesforce

1. **Sign Up**:
    - Go to [Salesforce Developer Sign Up].
    - Fill in the required details and submit the form.
    - Verify your account via the email sent to you.

Navigating to the Setup Page

- Click on the gear icon in the top right corner.
- Click on "Setup".

Salesforce Objects

What is an Object?

Salesforce objects are database tables that store data specific to your organization. There are two types of Salesforce objects:

- **Standard Objects**: Provided by Salesforce (e.g., Users, Contracts, Reports, Dashboards).
- **Custom Objects**: Created by users to store unique data specific to their organization.

Creating Custom Objects

1. **Navigate to Setup Page**:
    - Click on the gear icon.
    - Click on "Setup".
2. **Create a Custom Object**:
    - Go to "Object Manager".
    - Click on "Create".
    - Select "Custom Object".
3. **Define Custom Object**:

- **Label Name**: Rice Mill
- **Plural Label Name**: Rice Mills
- **Record Name**: Auto Number
- **Display Format**: rice-{000}
- **Starting Number**: 1
- Enable "Allow Reports", "Track Field History", and "Allow Search".
- Click on "Save".

Example Custom Objects

1. **Rice Mill Object**:
    - **Label Name**: Rice Mill
    - **Plural Label Name**: Rice Mills
    - **Display Format**: rice-{000}
    - **Starting Number**: 1
2. **Consumer Object**:
    - **Label Name**: Consumer
    - **Plural Label Name**: Consumers
    - **Display Format**: consumers-{000}
    - **Starting Number**: 1
3. **Rice Details Object**:
    - **Label Name**: Rice Details
    - **Plural Label Name**: Rice Details
    - **Display Format**: rice-{000}
    - **Starting Number**: 1

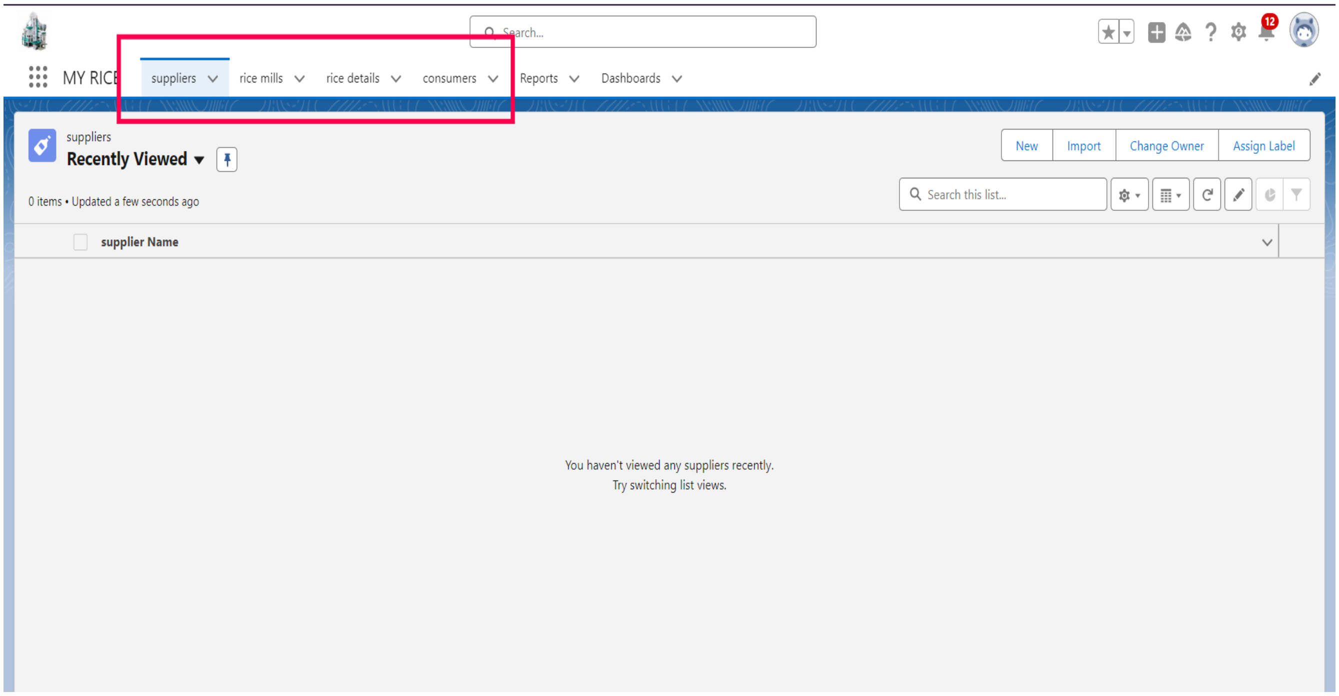

Fig : Objects creation

Salesforce Tabs

What is a Tab?

A tab in Salesforce is a user interface element used to build records for objects and to view the records in the objects. Tabs provide a way for users to access different data objects and pages within Salesforce.

Types of Tabs

1. **Custom Tabs**:
   - **Description**: Custom object tabs are user interfaces for custom applications built in Salesforce. They resemble standard Salesforce tabs like Accounts, Contacts, and Opportunities.
2. **Web Tabs**:
   - **Description**: Web tabs display web content or applications embedded within the Salesforce window, allowing users to access external content and applications without leaving Salesforce.
3. **Visualforce Tabs**:
   - **Description**: Visualforce tabs display Visualforce pages and function like standard Salesforce tabs.
4. **Lightning Component Tabs**:
   - **Description**: These tabs allow the addition of Lightning components to the navigation menu in Lightning Experience and the mobile app.
5. **Lightning Page Tabs**:
   - **Description**: Lightning Page Tabs add Lightning Pages to the mobile app navigation menu. They do not appear on the All Tabs page or in the Available Tabs list for app customization.

Creating Tabs in Salesforce

Steps to Create a Tab for Custom Objects

1. **Go to the Setup Page**:
   - Click on the gear icon in the top right corner.

        - Click on "Setup".
2. **Navigate to Tabs**:
    - Type "Tabs" in the Quick Find bar.
    - Click on "Tabs".
3. **Create a New Custom Object Tab**:
    - Under "Custom Object Tabs", click "New".
4. **Configure the Tab**:
    - **Select Object**: Choose the object (e.g., Supplier).
    - **Select Tab Style**: Choose a style for the tab.
    - Click "Next".
5. **Add to Profiles Page**:
    - Keep the default settings.
    - Click "Next".
6. **Add to Custom App**:
    - Uncheck the "Include Tab" option.
    - Ensure that "Append tab to users' existing personal customizations" is checked.
    - Click "Save".

Creating Tabs for Remaining Objects

Follow the same steps to create tabs for the remaining objects: "Rice Mill", "Consumer", and "Rice Details".

Steps

1. **Go to the Setup Page**:
    - Click on the gear icon in the top right corner.
    - Click on "Setup".
2. **Navigate to Tabs**:
    - Type "Tabs" in the Quick Find bar.
    - Click on "Tabs".
3. **Create a New Custom Object Tab**:
    - Under "Custom Object Tabs", click "New".
4. **Configure the Tab**:
    - **Select Object**: Choose the object (e.g., Rice Mill, Consumer, Rice Details).

- **Select Tab Style**: Choose a style for the tab.
- Click "Next".

5. **Add to Profiles Page**:
   - Keep the default settings.
   - Click "Next".
6. **Add to Custom App**:
   - Uncheck the "Include Tab" option.
   - Ensure that "Append tab to users' existing personal customizations" is checked.
   - Click "Save".

Repeat these steps for each object ("Rice Mill", "Consumer", and "Rice Details").

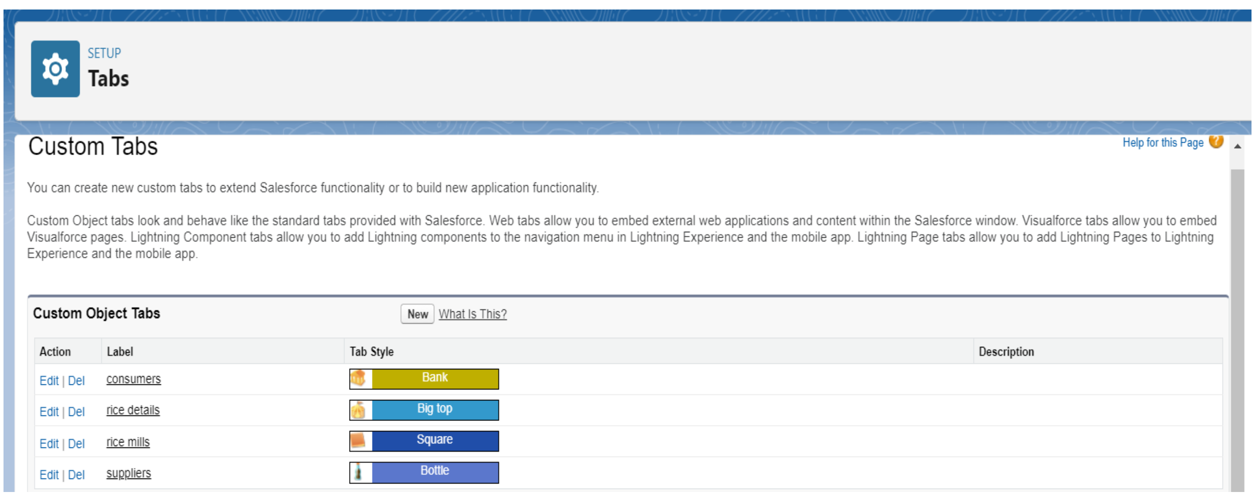

Fig : Cutsom Tabs

Creating a Lightning App in Salesforce

What is a Lightning App?

A Lightning app in Salesforce is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps provide users access to sets of objects, tabs, and other items all bundled conveniently in the navigation bar. Lightning apps also allow you to brand your apps with a custom color and logo, and include a utility bar and Lightning page tabs.

Steps to Create a Lightning App

1. **Navigate to the App Manager**:
   - Go to the Setup page.
   - Search for "App Manager" in the Quick Find bar.
   - Select "App Manager".
2. **Create a New Lightning App**:
   - Click on "New Lightning App".
   - Fill in the app details:
     - **App Name**: MY RICE
   - Click "Next".
3. **App Options**:
   - Keep the settings as default.
   - Click "Next".
4. **Utility Items**:
   - Keep the settings as default.
   - Click "Next".
5. **Upload a Photo**:
   - Upload a photo that is related to your app.
6. **Add Navigation Items**:
   - Select the items (Supplier, Rice Mill, Consumer, Rice Details) from the search bar.
   - Move them to the selected items using the arrow button.
   - Click "Next".
7. **Add User Profiles**:
   - Search for profiles (System Administrator) in the search bar.

- Click on the arrow button to add the profile.
- Click "Save & Finish".

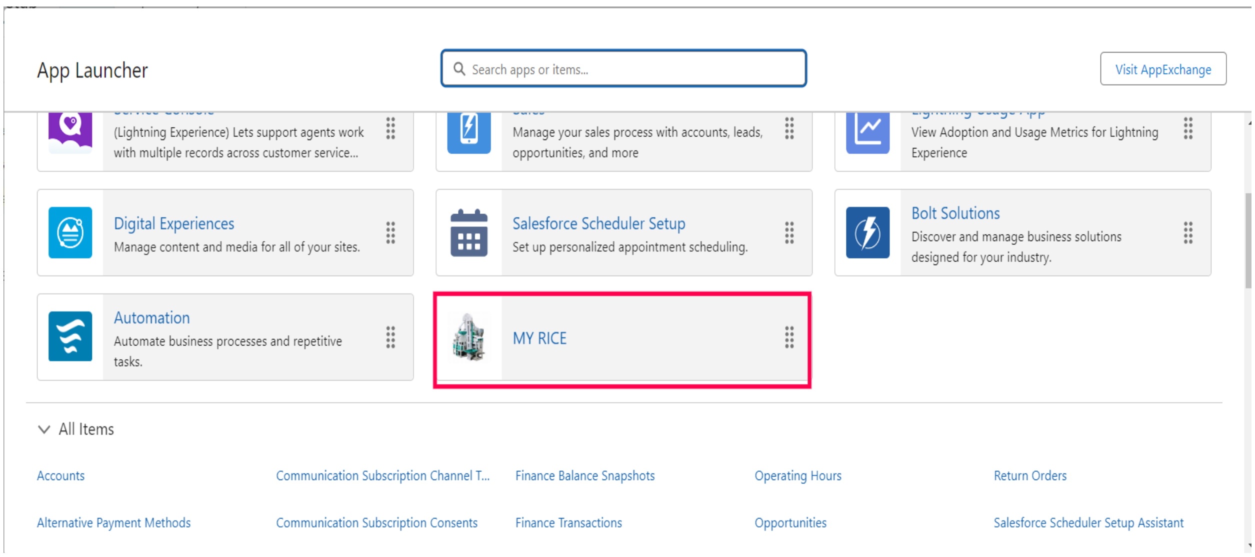

Fig : Lightening App creation

Creating Number Field in Rice Details Object

1. **Navigate to Setup Page**
   - Click on **Object Manager**.
   - Select **Rice Details Object** and click **Edit**.
2. **Create Number Field**
   - Click on **Fields & Relationships** > **New**.
   - Select **Number** as the Data Type and click **Next**.
   - Set the Field Label to **Rice Distributed** and length to **5**.
   - Click **Next** > **Next** > **Save**.

Creating Junction Object for Rice Details with Supplier & Rice Mill

1. **Navigate to Setup Page**
   - Click on **Object Manager**.
   - Select **Rice Details Object** and click **Edit**.
2. **Create Master-Detail Relationship with Supplier**
   - Click on **Fields & Relationships** > **New**.

- Select **Master-Detail Relationship** as the Data Type and click **Next**.
- Select the related object **Supplier** and click **Next**.
- Set the Field Label to **Supplier Name**.
- Click **Next** > **Next** > **Save & New**.

3. **Create Master-Detail Relationship with Rice Mill**
    - Repeat the steps to create a Master-Detail relationship.
    - Select the related object **Rice Mill** and click **Next**.
    - Set the Field Label to **Rice Mill 1 (one)**.
    - Click **Next** > **Next** > **Save**.

Creating Master-Detail Relationship Between Consumer & Rice Mill Object

1. **Navigate to Setup Page**
    - Click on **Object Manager**.
    - Select **Consumer Object** and click **Edit**.
2. **Create Master-Detail Relationship**
    - Click on **Fields & Relationships** > **New**.
    - Select **Master-Detail Relationship** as the Data Type and click **Next**.
    - Select the related object **Rice Mill**.
    - Set the Field Label to **Rice Mill Name**.
    - Click **Next** > **Next** > **Save**.

Creating Roll-Up Summary Field on Supplier & Rice Mill Objects

1. **Navigate to Setup Page**
    - Click on **Object Manager**.
    - Select **Supplier Object**.
2. **Create Roll-Up Summary Field**
    - Click on **Fields & Relationships** > **New**.
    - Select **Roll-Up Summary** as the Data Type and click **Next**.
    - Set the Field Label to **Sum of Rice Distributed**.
    - Select the summarized object **Rice Details**.
    - Select the Roll-Up type **Sum**.
    - Select the field to aggregate as **Rice Distributed**.
    - Click **Next** > **Next** > **Save**.
3. **Repeat for Rice Mill Object**
    - Follow the same steps for **Rice Mill Object**.
    - Set the Field Label to **Rice Distributed to Shops**.

Creating Number Field in Consumer Object

1. **Navigate to Setup Page**
   - Click on **Object Manager**.
   - Select **Consumer Object**.
2. **Create Number Field**
   - Click on **Fields & Relationships** > **New**.
   - Select **Number** as the Data Type and click **Next**.
   - Set the Field Label to **Rice Taken by Shops in Kgs**.
   - Click **Next** > **Next** > **Save**.

Creating Formula Fields in Consumer Object

1. **Navigate to Setup Page**
   - Click on **Object Manager**.
   - Select **Consumer Object**.
2. **Create Formula Field for Amount Paid**
   - Click on **Fields & Relationships** > **New**.
   - Select **Formula** as the Data Type and click **Next**.
   - Set the Field Label and Field Name to **Amount Paid**.
   - Select formula return type **Number**.
   - Insert the formula: rice_taken_by_shops__c * rice_mill_name__r.rice_price_kg__c.
   - Click **Check Syntax** > **Save**.
3. **Create Formula Field for Consumer Name**
   - Click on **Fields & Relationships** > **New**.
   - Select **Formula** as the Data Type and click **Next**.
   - Set the Field Label and Field Name to **Consumer Name**.
   - Select formula return type **TEXT**.
   - Insert the formula: First_Name__c + ' ' + Last_Name__c.
   - Click **Check Syntax** > **Save**.

Creating Validation Rule for Phone Number Field in Consumer Object

1. **Navigate to Setup Page**
   - Click on **Object Manager**.
   - Select **Consumer Object**.
2. **Create Validation Rule**

- Click on **Validation Rules** > **New**.
- Enter Rule Name as **Phonenumberoremailblankrule**.
- Enter Description as **phone number and email number should not be blank**.
- Enter the formula: OR(ISBLANK(phone_number__c), ISBLANK(email__c)).
- Enter Error Message as **please fill in your phone number**.
- Select Error Location **top of page**.
- Click **Save**.\

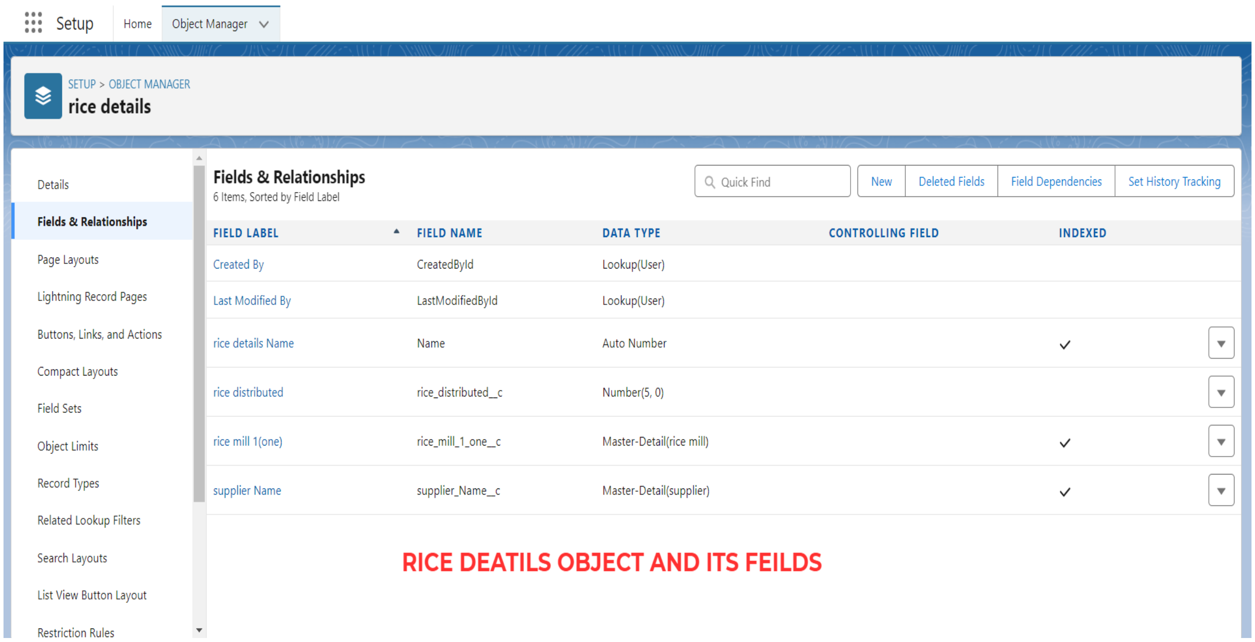

Fig: Rice Details Objects & Feilds

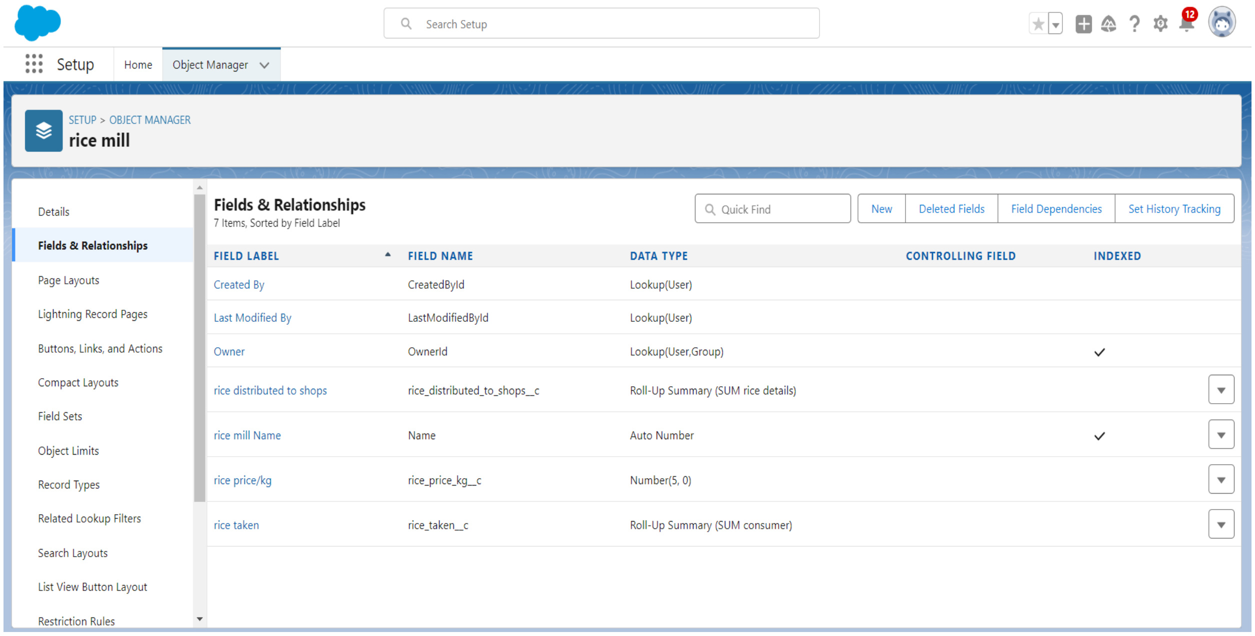

Fig: Rice mill Object & Feilds

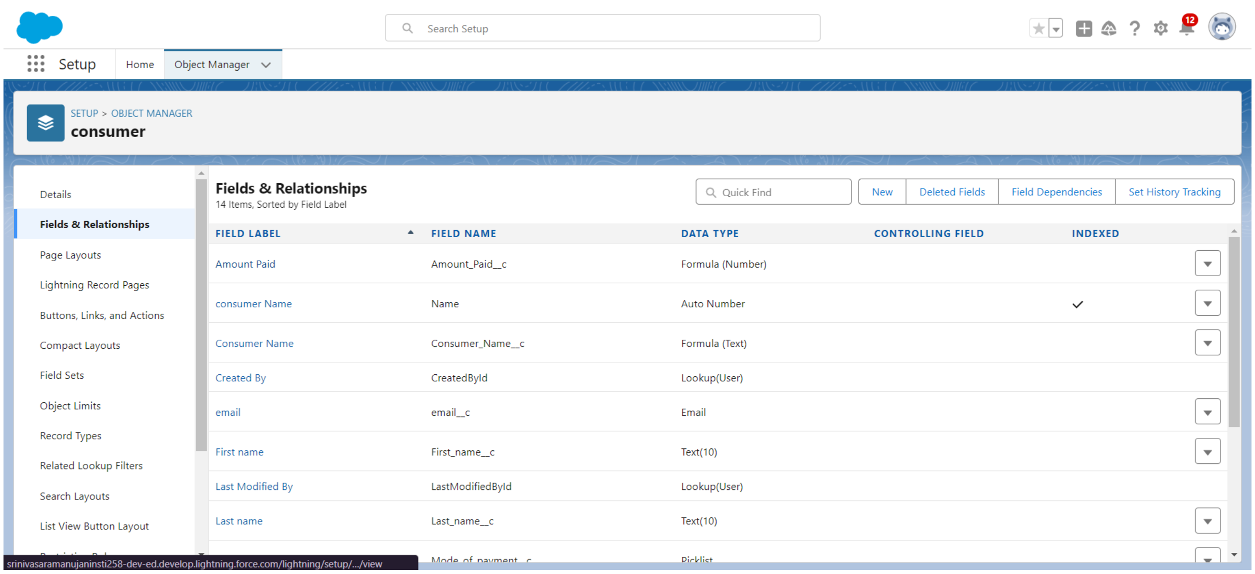

Fig : Consumer Object & Feilds

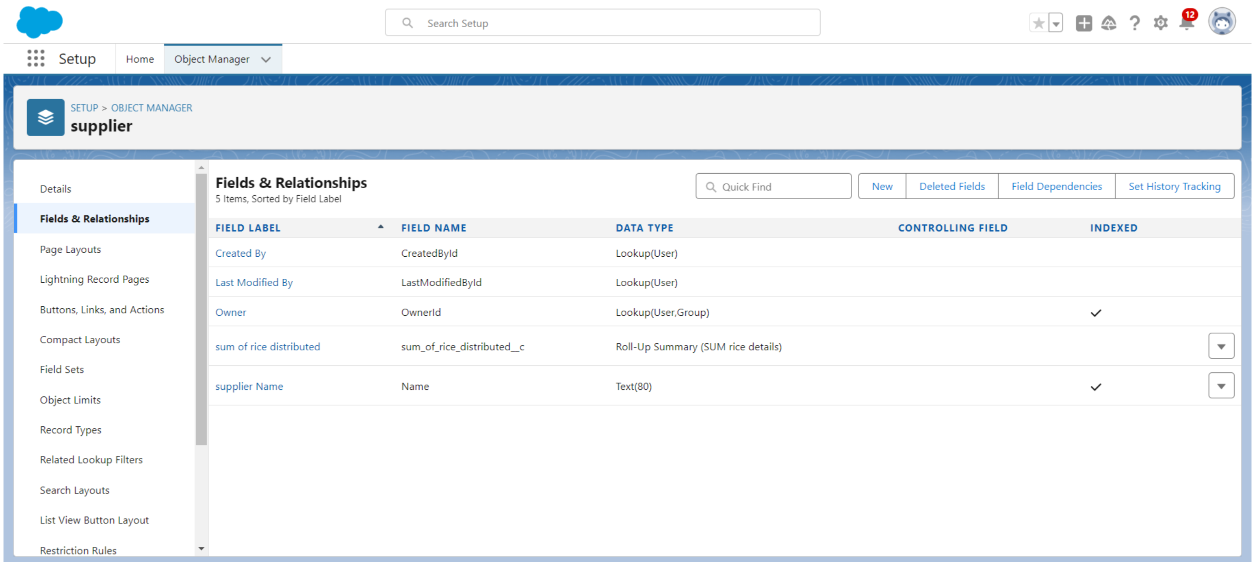

Fig: Supplier Object & Feilds

Creating a Page Layout

1. **Navigate to Setup Page**
   - Click on **Object Manager**.
   - Search for the **Consumer** object and select it.
2. **Create New Page Layout**
   - Click on **Page Layouts** > **New**.
   - Select the existing page layout as a template.
   - Name the new page layout **Consumer Layout**.
   - Click **Save**.
3. **Create Personal Details Section**
   - Drag and drop the **Section** field to the layout.
   - Name the section **Personal Details** and click **OK**.
   - Drag and drop the following fields into this section:
     - First Name
     - Last Name
     - Consumer Name
     - Phone Number
     - Email

        - Rice Mill Name
4. **Create Rice Details Section**
    - Drag and drop another **Section** field to the layout.
    - Name the section **Rice Details** and click **OK**.
    - Drag and drop the following fields into this section:
        - Rice Taken by Shop
        - Rice Type
5. **Create Receipt Details Section**
    - Drag and drop another **Section** field to the layout.
    - Name the section **Receipt Details** and click **OK**.
    - Drag and drop the following fields into this section:
        - Mode of Payment
        - Amount Paid
6. **Save the Page Layout**
    - Click **Save**.

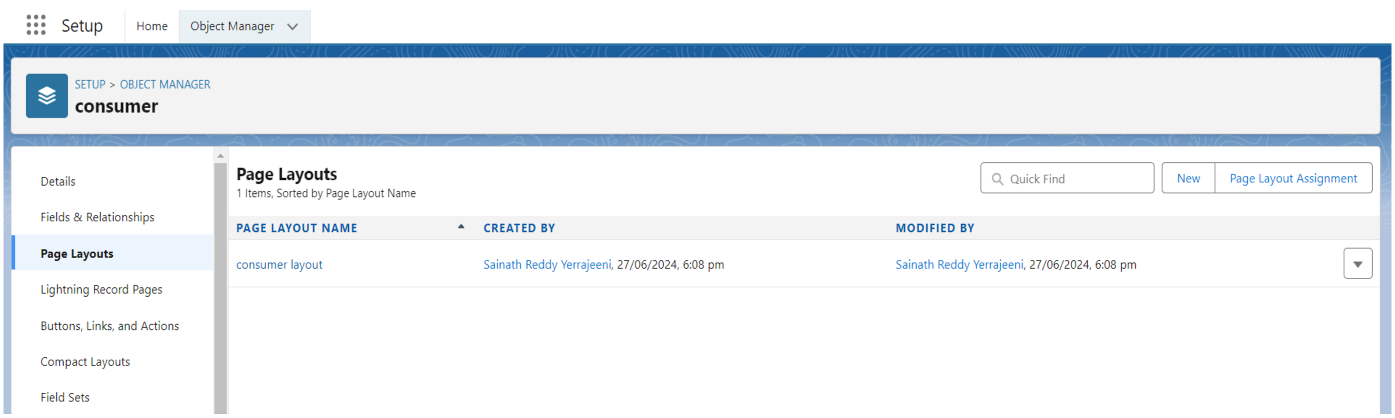

Fig : Creating a Page Layout

Creating a New Profile

1. **Navigate to Setup**
    - Go to **Setup**.
    - Type **Profiles** in the Quick Find box.
    - Click on **Profiles**.
2. **Clone Standard User Profile**
    - Find and clone the **Standard User** profile.
    - Enter the profile name **Owner**.
    - Click **Save**.
3. **Set Custom Object Permissions for Owner Profile**

- Scroll down to **Custom Object Permissions**.
- Set access permissions for the following objects:
  - Consumers: Read, Create, Edit, Delete
  - Rice Details: Read, Create, Edit, Delete
  - Rice Mill: Read, Create, Edit, Delete
  - Suppliers: Read, Create, Edit, Delete
- Click **Save**.

4. **Clone Standard Platform User Profile for Employer**
   - Go to **Profiles**.
   - Find and clone the **Standard Platform User** profile.
   - Enter the profile name **Employer**.
   - Click **Save**.
5. **Edit Employer Profile**
   - While still on the profile page, click **Edit**.
   - Select the Custom App settings as default for the **Rice Mill** app.
   - Scroll down to **Custom Object Permissions**.
   - Set access permissions for the following objects:
     - Consumers: Read, Create, Edit
     - Rice Details: Read, Create, Edit
     - Rice Mill: Read, Create, Edit
     - Suppliers: Read, Create, Edit
   - Click **Save**.
6. **Clone Standard Platform User Profile for Worker**
   - Go to **Profiles**.
   - Find and clone the **Standard Platform User** profile.
   - Enter the profile name **Worker**.
   - Click **Save**.
7. **Edit Worker Profile**
   - While still on the profile page, click **Edit**.
   - Select the Custom App settings as default for the **Rice Mill** app.
   - Scroll down to **Custom Object Permissions**.
   - Set access permissions for the following objects:
     - Consumers: Read, Create
     - Rice Details: Read, Create
     - Rice Mill: Read, Create
     - Suppliers: Read, Create
   - Click **Save**.

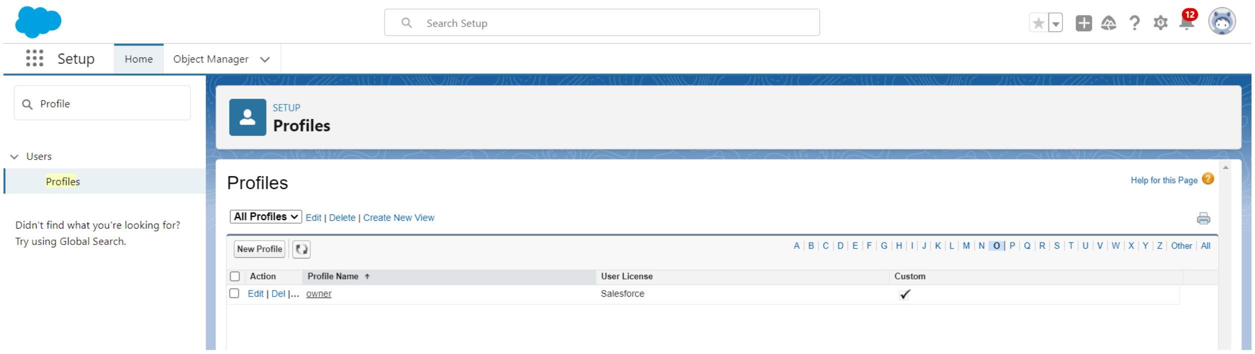

Fig : Owner Profile

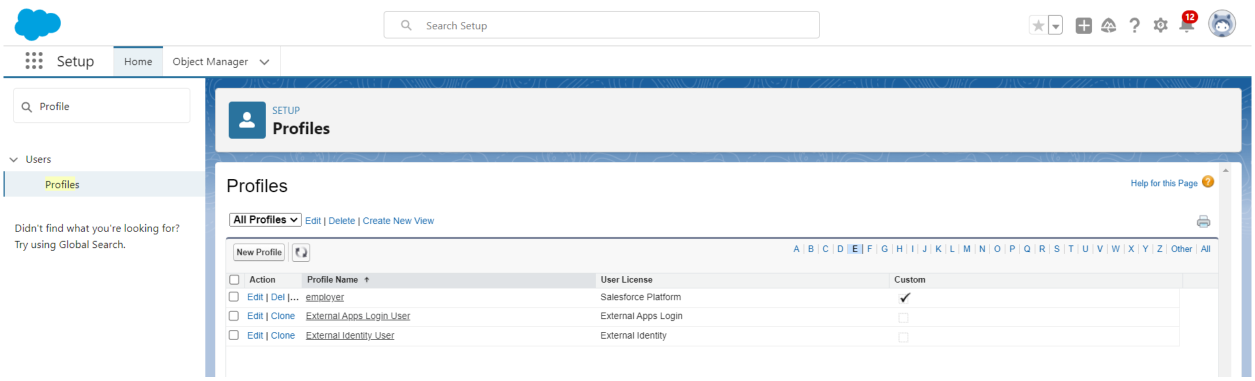

Fig : Employee Profile

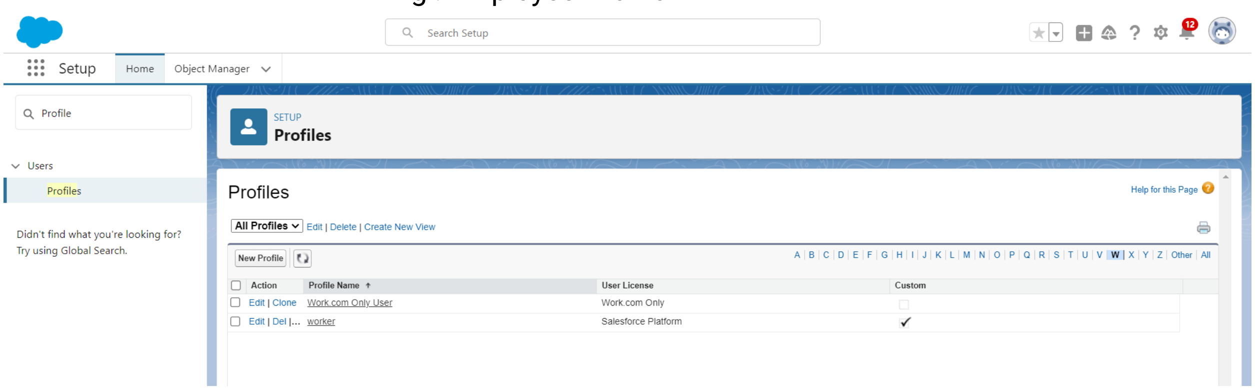

Fig : Worker Profile

Creating the Owner Role

1. **Navigate to Roles Setup**
   - Go to **Quick Find**.
   - Search for **Roles**.

- Click on **Set Up Roles**.

2. **Expand Roles and Add Owner Role**
    - Click on **Expand All**.
    - Click on **Add Role** under the appropriate role (whom this role works under).
3. **Define the Owner Role**
    - Enter **Label** as “Owner”.
    - The **Role Name** will auto-populate.
    - Click **Save**.

Creating Employer and Worker Roles Under Manager

1. **Navigate to Roles Setup**
    - Go to **Quick Find**.
    - Search for **Roles**.
    - Click on **Set Up Roles**.
2. **Add Employer Role Under Owner**
    - Click the plus sign (+) next to the **CEO** role.
    - Click on **Add Role** under **Owner**.
3. **Define the Employer Role**
    - Enter **Label** as “Employer”.
    - The **Role Name** will auto-populate.
    - Click **Save**.
4. **Add Worker Role Under Employer**
    - Click the plus sign (+) next to the **CEO** role.
    - Click the plus sign (+) next to **Owner**.
    - Click on **Add Role** under **Employer**.
5. **Define the Worker Role**
    - Enter **Label** as “Worker”.
    - The **Role Name** will auto-populate.
    - Click **Save**.

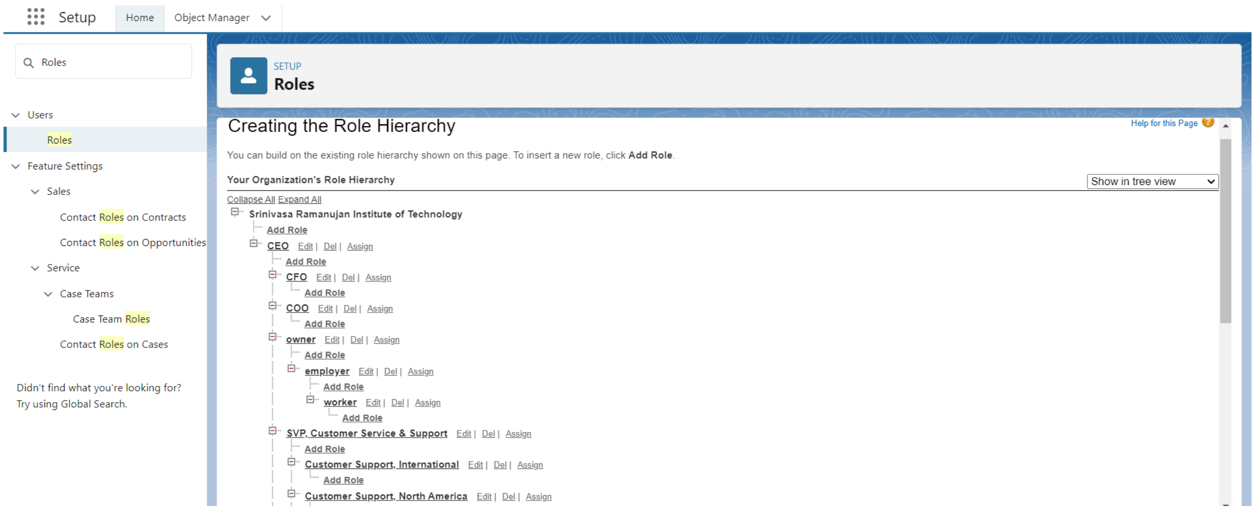

Fig : Role Heirarchy

Creating New Users

Creating User "Vicky Y"

1. **Navigate to Users Setup**
   - Go to **Setup**.
   - Type **Users** in the Quick Find box.
   - Select **Users**.
   - Click **New User**.
2. **Fill in User Details**
   - **First Name**: Vicky
   - **Last Name**: Y
   - **Alias**: [Provide an alias name]
   - **Email**: [Provide your personal email ID]
   - **Username**: [Enter in the form text@text.text]
   - **Nickname**: [Provide a nickname]
   - **Role**: Owner
   - **User License**: Salesforce
   - **Profile**: Owner
3. **Save User**
   - Click **Save**.

Creating User "Ram Ram"

1. **Navigate to Users Setup**

- Go to **Setup**.
- Type **Users** in the Quick Find box.
- Select **Users**.
- Click **New User**.

2. **Fill in User Details**
   - **First Name**: Ram
   - **Last Name**: Ram
   - **Alias**: [Provide an alias name]
   - **Email**: [Provide your personal email ID]
   - **Username**: [Enter in the form text@text.text]
   - **Nickname**: [Provide a nickname]
   - **Role**: Employer
   - **User License**: Salesforce Platform
   - **Profile**: Standard Platform User
3. **Save User**
   - Click **Save**.

Creating User "Ragu Raj"

1. **Navigate to Users Setup**
   - Go to **Setup**.
   - Type **Users** in the Quick Find box.
   - Select **Users**.
   - Click **New User**.
2. **Fill in User Details**
   - **First Name**: Ragu
   - **Last Name**: Raj
   - **Alias**: [Provide an alias name]
   - **Email**: [Provide your personal email ID]
   - **Username**: [Enter in the form text@text.text]
   - **Nickname**: [Provide a nickname]
   - **Role**: Worker
   - **User License**: Salesforce Platform
   - **Profile**: Standard Platform User
3. **Save User**
   - Click **Save**.

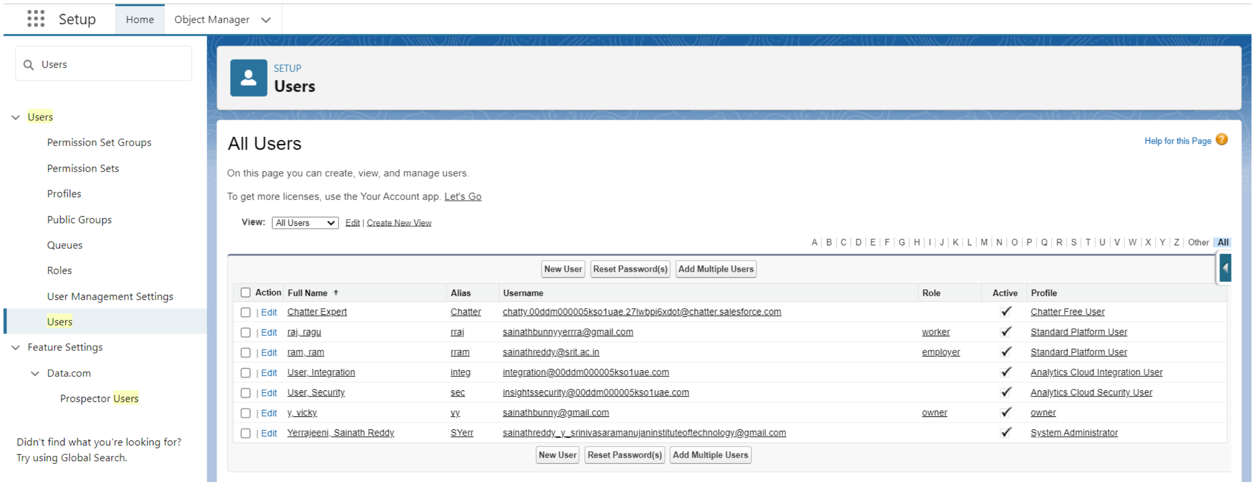

Fig : User Creation

Configuring Sharing Settings

1. **Navigate to Sharing Settings**
   - Go to **Setup**.
   - Type **Sharing Settings** in the Quick Find box.
   - Click on **Sharing Settings**.
2. **Edit Default Internal Access**
   - Click on **Edit**.
   - Scroll down to the **Rice Mill** and **Supplier** objects.
   - Change the **Default Internal Access** to **Public Read-Only**.
3. **Save Changes**
   - Click **Save**.

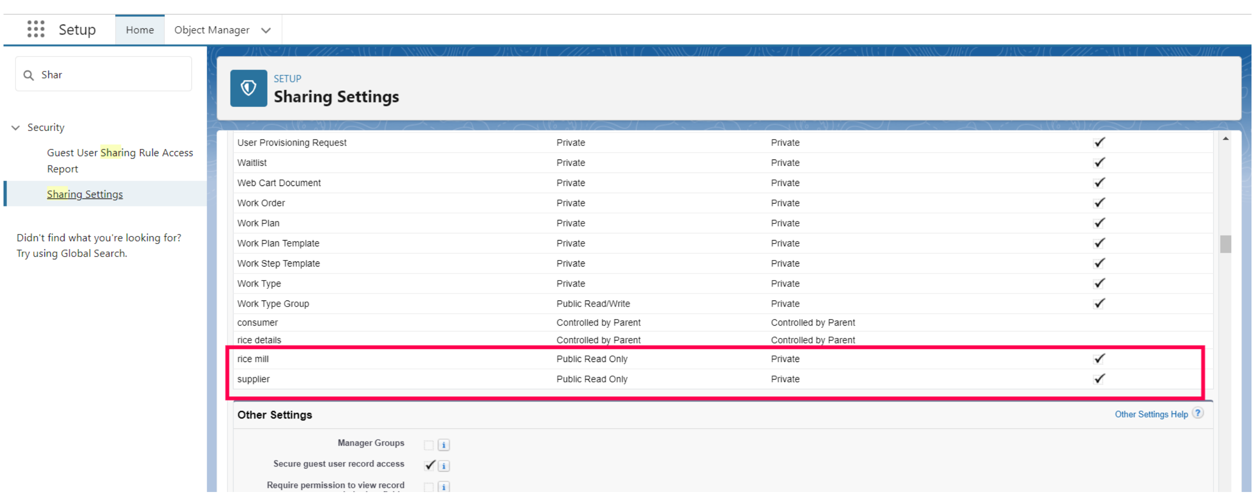

Fig : OWD Settings

Creating Latest 10 Records in Consumer Object

1. **Navigate to the Consumer Object**
   - Go to the **App**.
   - Select the **Consumers** tab.
2. **Create 10 Records**
   - Click **New**.
   - Fill in all fields for each record:
     - **First Name**
     - **Last Name**
     - **Phone Number**
     - **Email**
     - **Rice Taken by Shops**
     - **Rice Type**
     - **Mode of Payment**
     - **Rice Mill Name**
   - Repeat this process to create a total of 10 records.

Creating a Report

1. **Navigate to Reports**
   - Go to the **App**.
   - Click on the **Reports** tab.
   - Click **New Report**.
2. **Select Report Type**
   - Search for **Rice Mill with Consumers**.
   - Select it and click **Start Report**.
3. **Configure Report Fields**
   1. In the Outline pane, select the following fields for the **Columns** section:
      i. **Consumer Name**
      ii. **Rice Type**
      iii. **Rice Price/kg**
      iv. **Mode of Payments**
      v. **Amount Paid**
   2. Remove any unnecessary fields.
4. **Group Rows**

- Select **Rice Taken by Shops** in the **Group Rows** section.

5. **Save and Run the Report**
    - Click **Save and Run**.
    - Name the report **Range of Amount Per Day**.
    - Click **Save**.

Subscribing to the Report

1. **Edit Subscription**
    - Click the **Edit** drop-down.
    - Select **Subscribe**.
2. **Configure Subscription**
    - Choose **Run Report As**: another person (select your personal account or the account of the person to receive the email).
    - Configure other settings as per the image.
    - Click **Save**.

Organizing Reports into a Folder

1. **Create a New Folder**
    - Click on the **App Launcher**.
    - Search for **Reports**.
    - Double-click on the **Range of Amount Per Day** report.
    - Click on the **Reports** tab.
    - Click **New Folder**.
    - Name the folder **Estimated Rice Per Day**.
    - Click **Save**.
2. **Move Report to New Folder**
    - Navigate to the **App Launcher** and click **Reports**.
    - Click **All Reports**.
    - Select the **Range of Amount Per Day** report from the drop-down menu.
    - Click **Move**.
    - Select the **Estimated Rice Per Day** folder.
    - Click **Select Folder**.

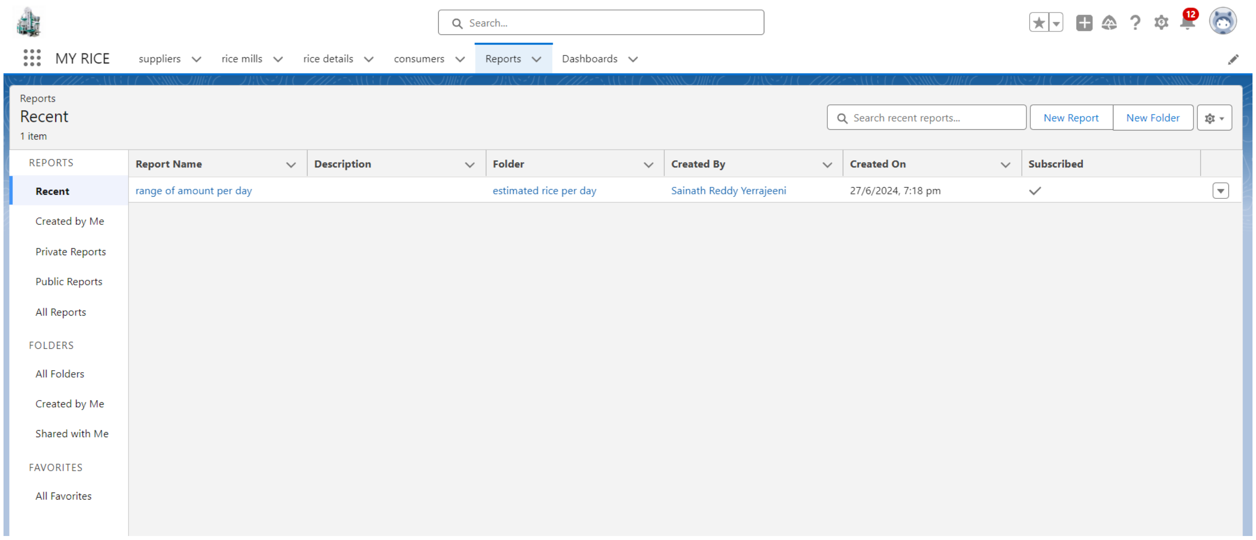

Fig : Report Creation

Creating a Dashboard Folder

1. **Navigate to Dashboards**
   - Click on the **App Launcher**.
   - Search for **Dashboard**.
   - Click on the **Dashboards** tab.
2. **Create New Folder**
   - Click on **New Folder**.
   - Enter the **Folder Label** as “Amount Data Dashboard”.
   - The **Folder Unique Name** will be auto-populated.
   - Click **Save**.

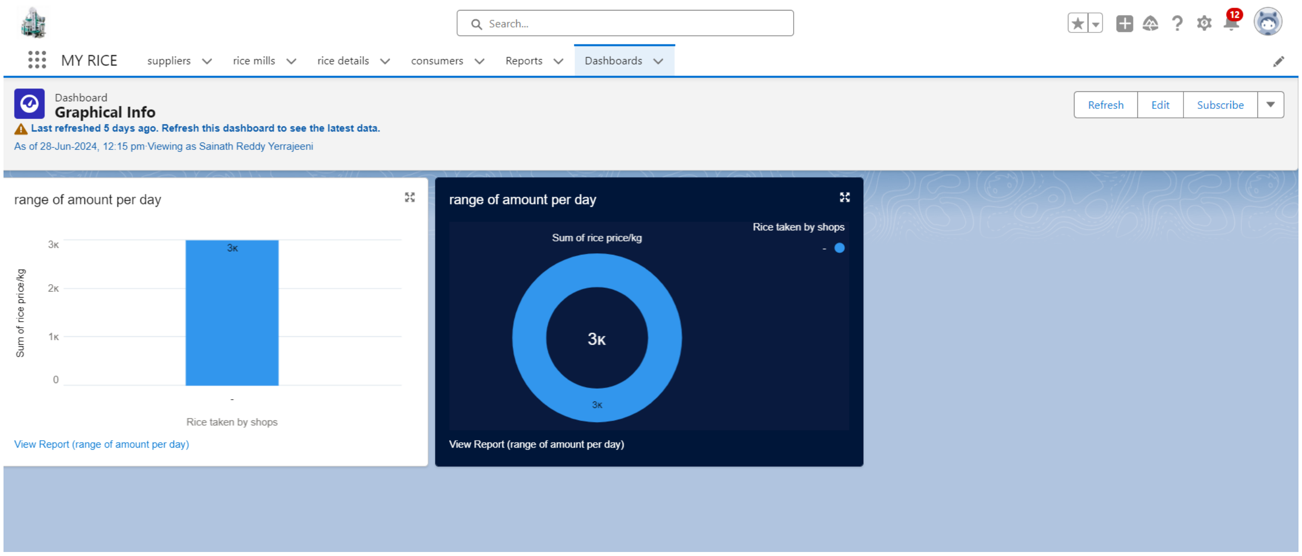

Fig : Dashboard