HandsMen Threads: Elevating the Art of Sophistication in Men's Fashion

Project Overview

This project introduces the development of a customized Salesforce CRM solution for HandsMen Threads, a dynamic organization in the men's fashion industry. The primary goal of the project is to enhance data management, strengthen customer relationships, and streamline business operations through a unified and reliable platform. A robust data model was designed to store all essential business data while ensuring high levels of accuracy and consistency through UI-driven data validation.

The solution incorporates several automated business processes to optimize both customer engagement and internal operations. These includes key custom objects such as customer, order, product, inventory and marketing campaign. The business processes were automated using record-triggered flow, scheduled flows, email alerts, and apex to handle order confirmations, loyalty status update and proactive stock alerts.

To ensure clean and reliable data, validation rules were implemented, and a role-based security model was configured for the Sales, Inventory, and Marketing teams. The solution also features a scheduled Apex batch job that automatically updates low stock quantities.

This CRM implementation enhances customer experience through personalized communication, strengthens operational efficiency through automation, and establishes a scalable foundation for long-term business growth on the Salesforce Platform.

Objectives:

The main goal of this project is to design and implement a customized Salesforce CRM solution for HandsMen Threads that streamlines core business operations, strengthens data management, and enhances overall customer satisfaction. By establishing a centralized platform to manage customers, orders, products, inventory, and marketing campaigns, the project aims to:

- Streamline essential business processes including order confirmations, loyalty status updates, and low-stock alerts to improve operational efficiency.
- Maintain data accuracy and reliability through the use of validation rules.
- Enable real-time monitoring of inventory levels and customer interactions.

- Enhance internal collaboration through role-based access controls.
- Enhance customer experiences by delivering personalized communication and loyalty initiatives.

Phase 1: Requirement Analysis & Planning

1. Understanding Business Requirements: Summarizing Needs and Problems

HandsMen Threads requires a centralized CRM to streamline order calculations, automate inventory updates, and reduce manual errors. The business also needs improved customer tracking and loyalty management, supported by automated email communications. Inventory must be monitored in real time to avoid shortages, requiring low-stock alert flows and a dedicated inventory object. Data accuracy must be ensured through validation rules, particularly for email formatting. Also the automation is essential for consistent customer communication through confirmation and loyalty emails.

2. Defining Project Scope and Objectives

Project Scope:

The system will include:

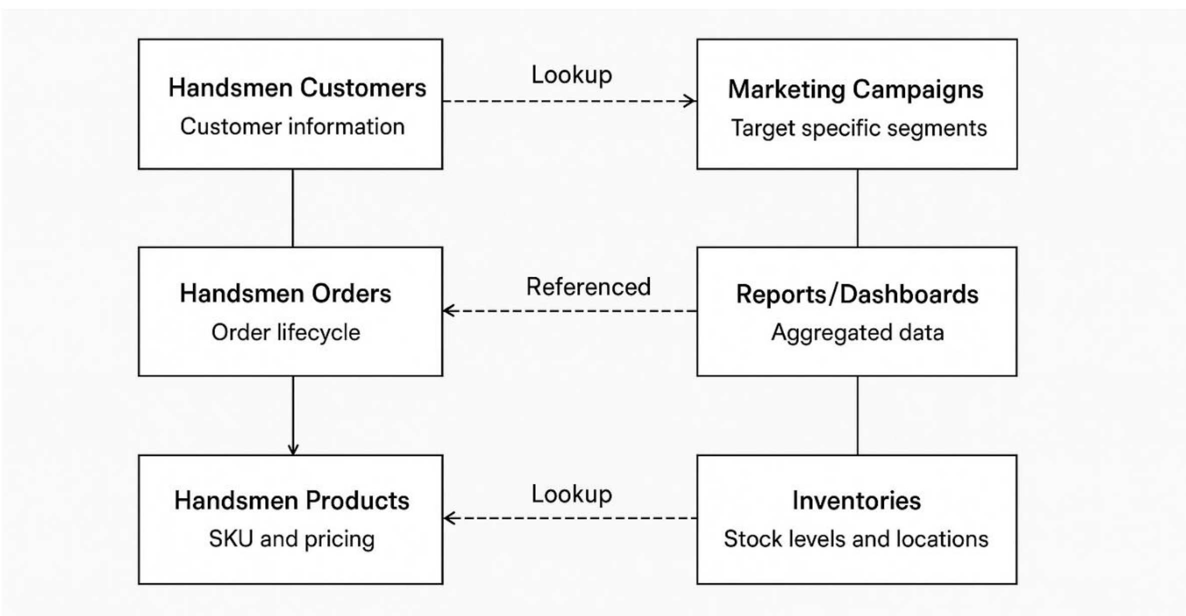
- A custom Salesforce application for managing customers, orders, products, and inventory.
- Automation using Flows, Email Alerts, Scheduled Flows, and Apex Triggers.
- A role-based security model for proper data visibility.
- Validation rules to ensure accurate data entry.
- Screens for Sales, Inventory, and Marketing teams to manage the processes.
- A basic marketing campaign object to support promotional activities.
- Reports and dashboards to provide management with real-time insights into sales trend, inventory status, customer loyalty performance, and the overall business operations.

Objectives:

- Automate essential business operations (such as order totals, loyalty updates, stock deduction).
- Ensure accurate and consistent data across custom objects.
- Improve customer engagement using automated emails.
- Provide real-time inventory visibility to avoid overselling.
- Centralize all business functions in one unified Salesforce platform.

3. Design Data Model and Security Model

The data model represents the relationships and data flow between key entities in the Handsmen business system. It integrates customer management, order processing, product tracking, inventory control, marketing campaigns, and reporting to support seamless business operations.



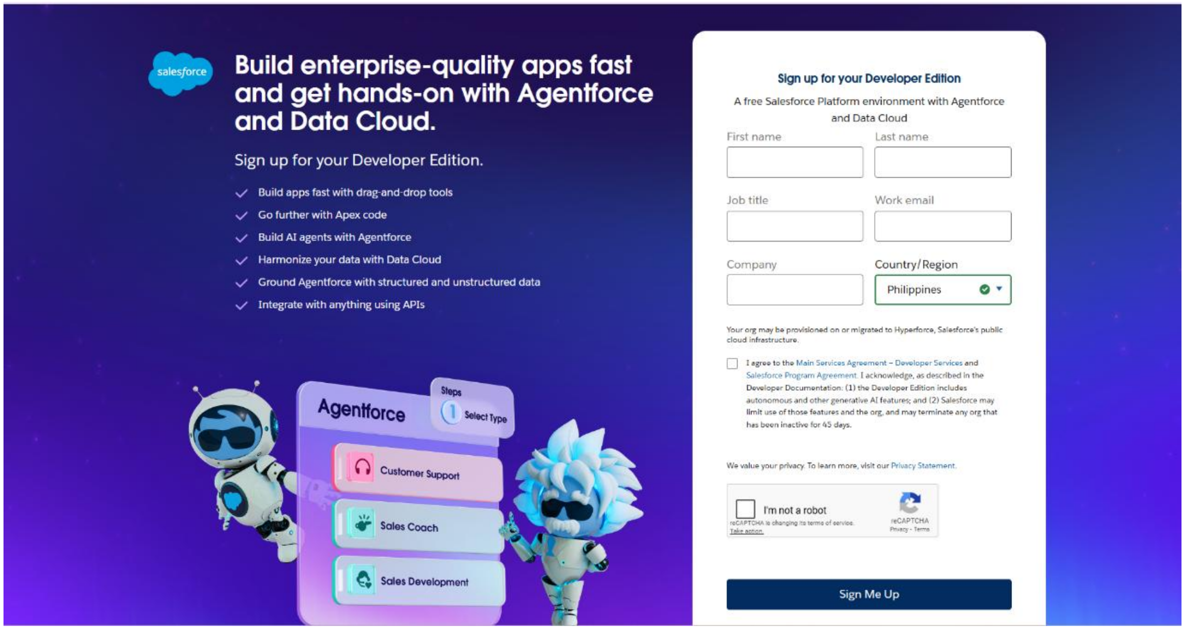
- **Handsmen Customers** – Stores customer information.
  - Master-Detail relationship with Handsmen Orders
  - Lookup relationship from Marketing Campaigns

- **Handsmen Orders** – Tracks the full lifecycle of an order, including product references and customer linkage.
    - Master-Detail relationship to Handsmen Customers
    - References Handsmen Products
- **Handsmen Products** – Catalog of tailoring items with SKU and pricing.
    - Referenced by Orders
    - Lookup relationship from Inventories
- **Inventories** – Manages stock levels and warehouse locations.
    - Feeds data into Reports/Dashboards
- **Marketing Campaigns** – Targets specific customer segments.
    - Lookup relationship to Handsmen Customers
- **Standard Objects (Reports/Dashboards)** – Summarizes data from Inventory and other key entities to generate actionable insights for informed decision-making.

Phase 2: Salesforce Development - Backend & Configurations

1. Setup Environment & DevOps Workflow

- A Salesforce Developer Org was created using https://developer.salesforce.com/signup
- The account was verified, password set and access was granted to the Salesforce Setup page.



2. Customization of Objects, and Fields

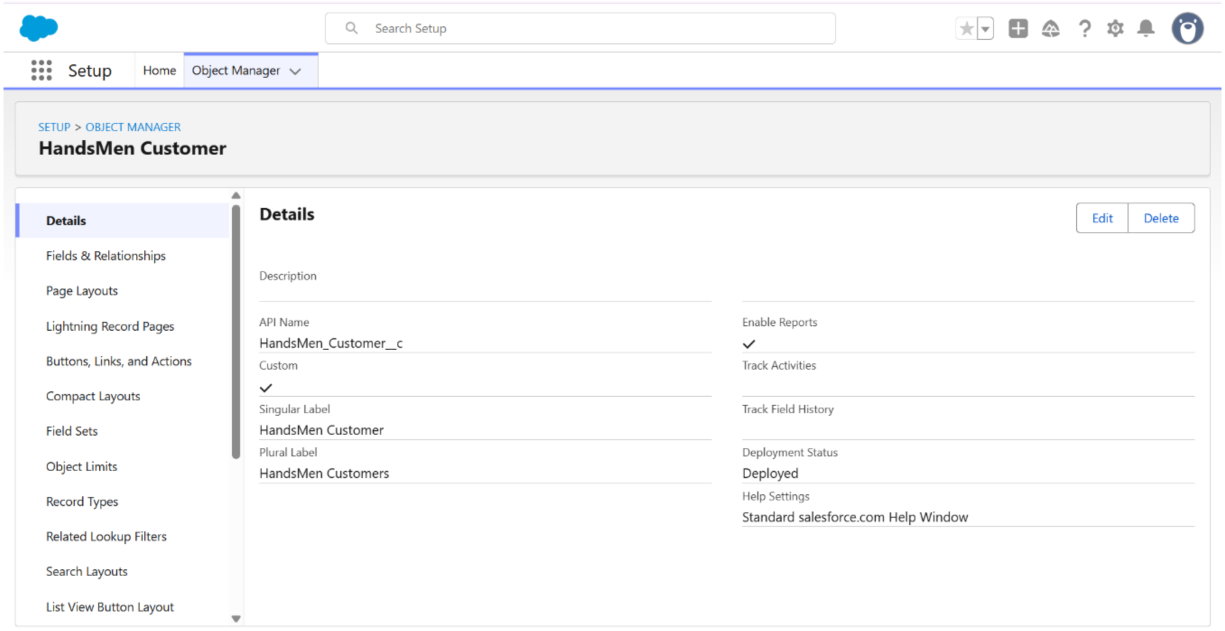
Five custom objects were created to store business-critical data:

- **HandsMen Customer** – Stores customer information such as email, phone number, and loyalty status.
- **HandsMen Product** – Stores product catalog details including SKU, price, and stock availability.
- **HandsMen Order** – Stores customer orders, including quantities and order status.
- **Inventory** – Tracks stock levels and warehouse locations.
- **Marketing Campaign** – Stores promotional campaign details and scheduling information.

Steps Followed:

- Navigated to Setup → Object Manager → Create → Custom Object
- Provided the object label, name, and enabled reporting/search options

- Saved the custom object and created tabs for each object

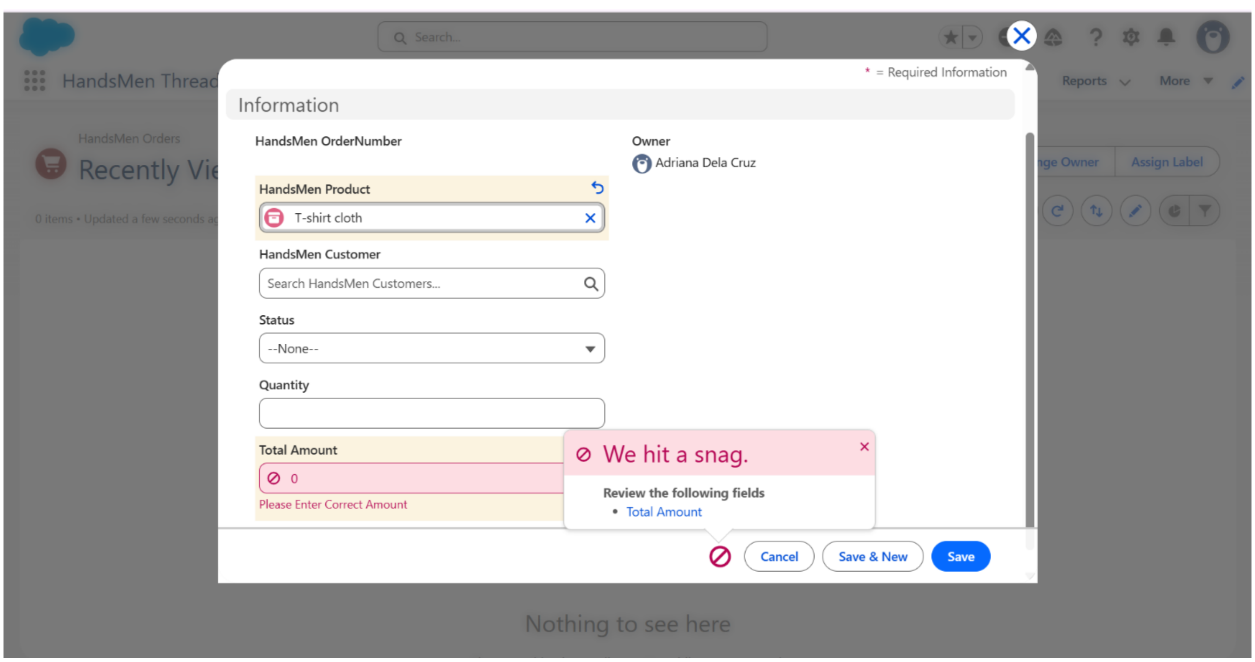


3. Validation Rules

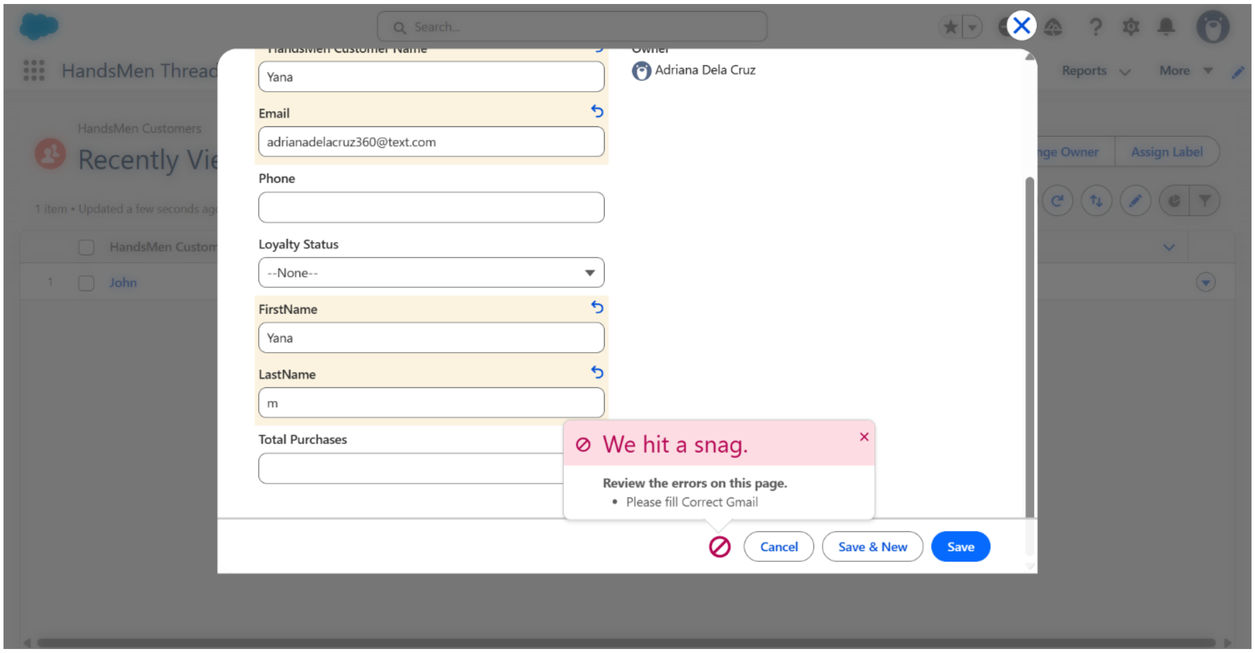
To ensure accurate data entry and enforce business logic, the following validation rules were implemented:

- Order Object: Prevents saving the record if Total_Amount__c <= 0.

  Error Message: "Please enter a correct amount."

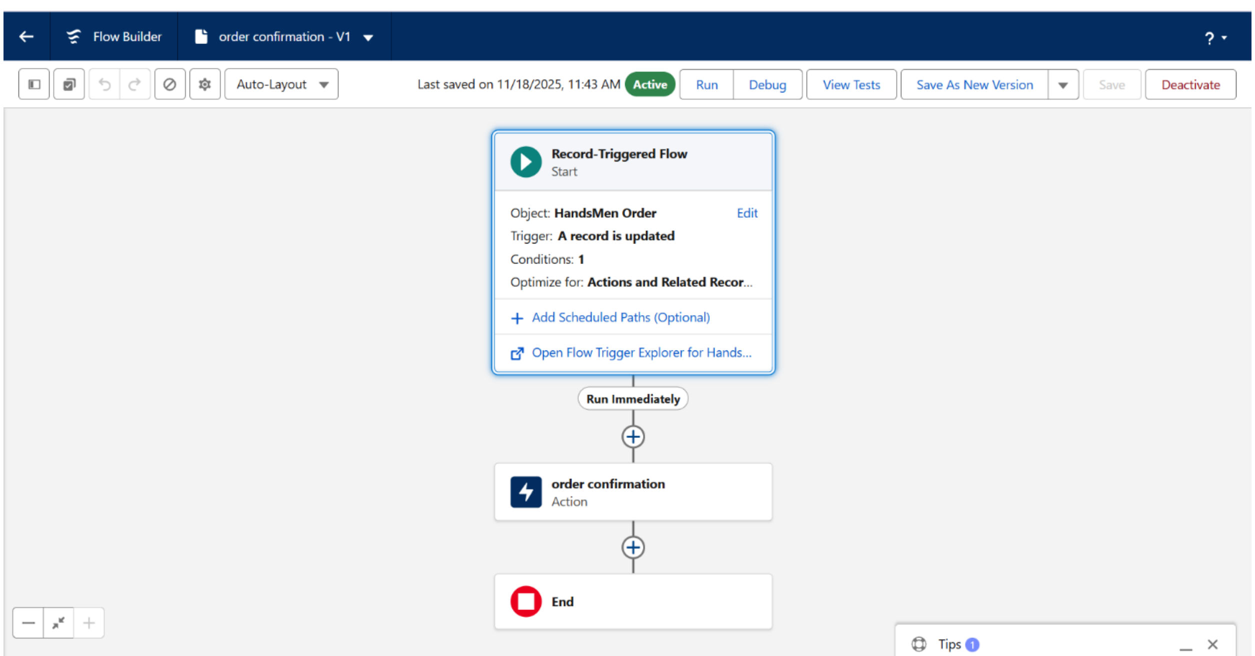


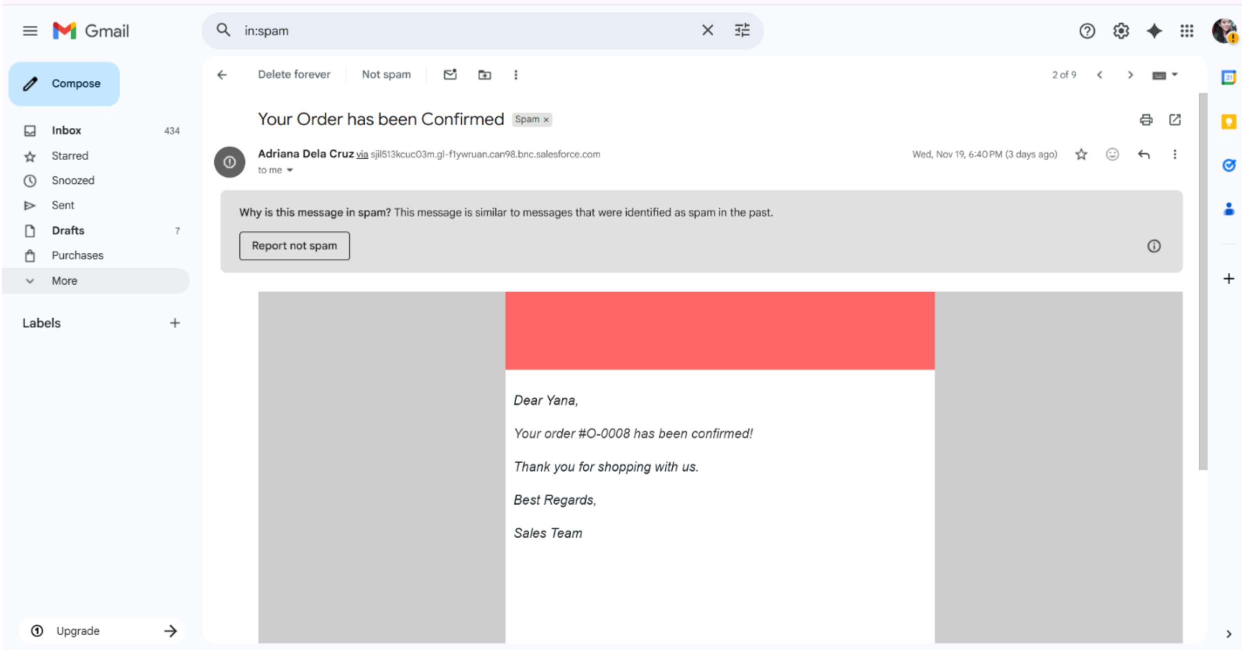
- Customer Object: Validates that the email address contains "@gmail.com"
  Error Message: "Please enter a Correct Gmail."



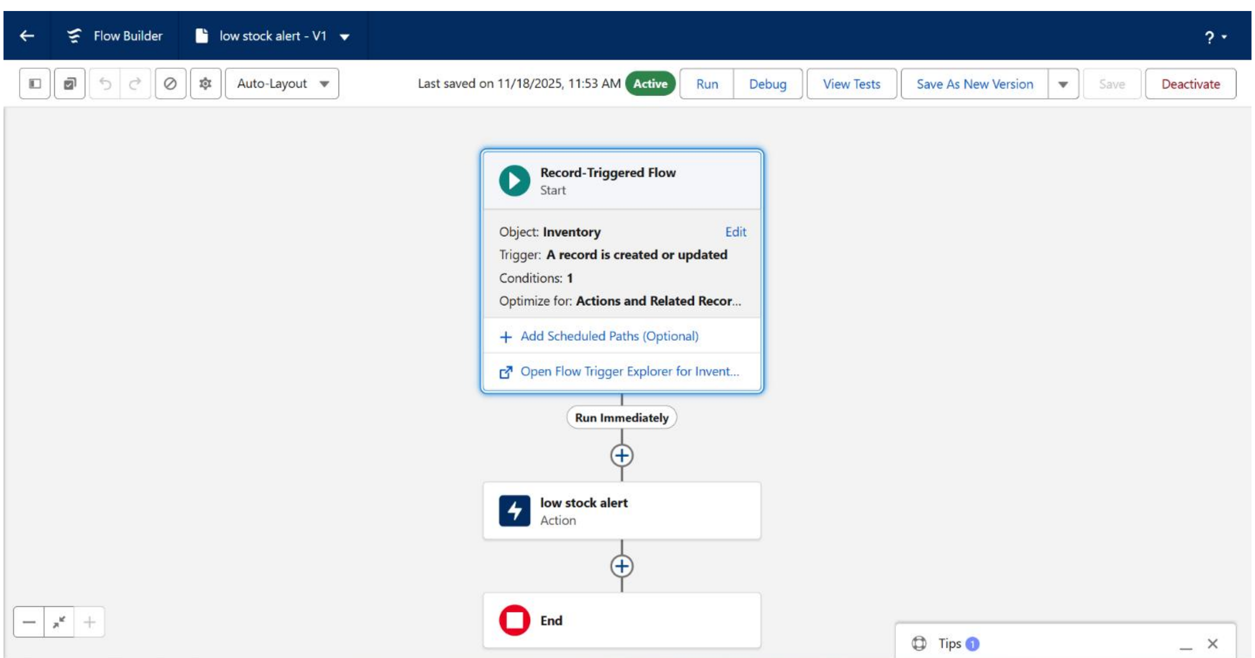
4. Automation (Flows)

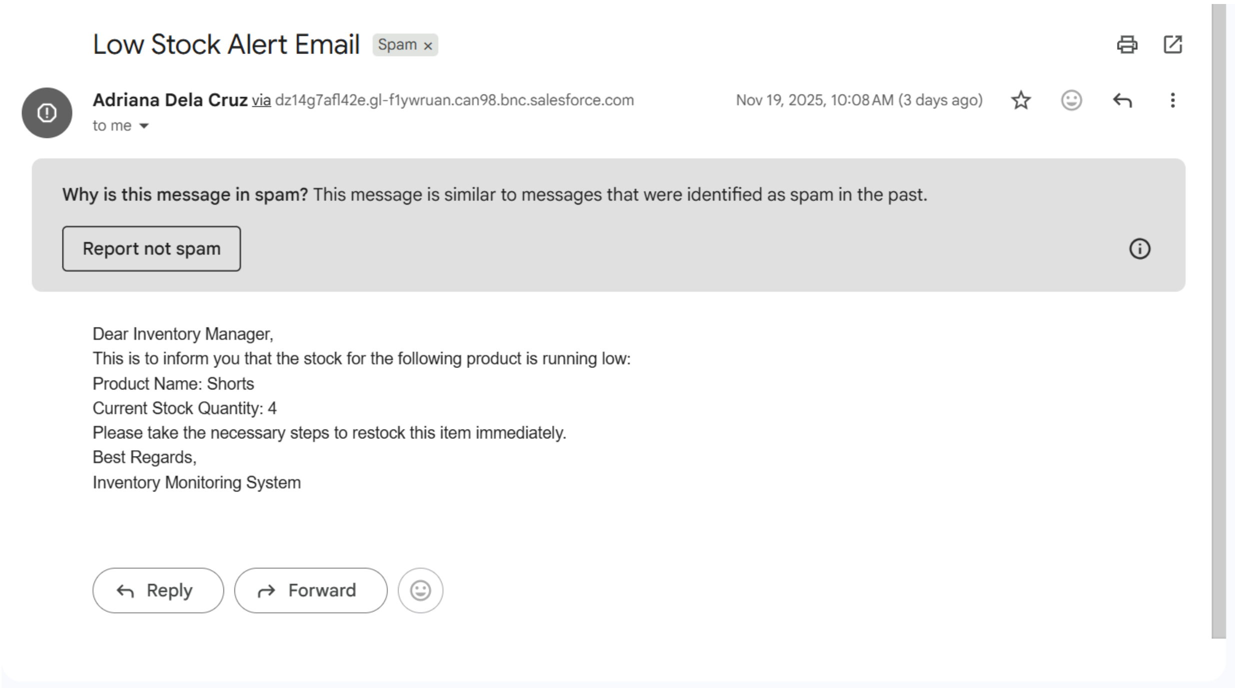
- **Record-Triggered Flows**
  - Order Confirmation Flow - The flow is triggered when an order status is updated to Confirmed. It automatically sends an Order Confirmation Email to the associated customer using the predefined email alert.



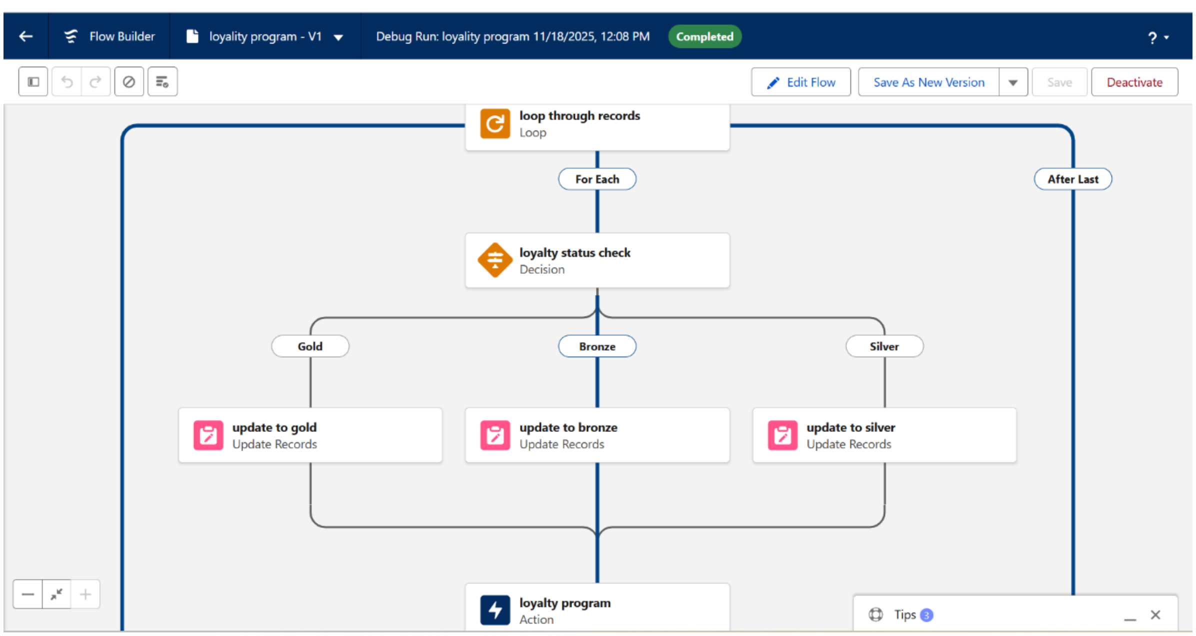


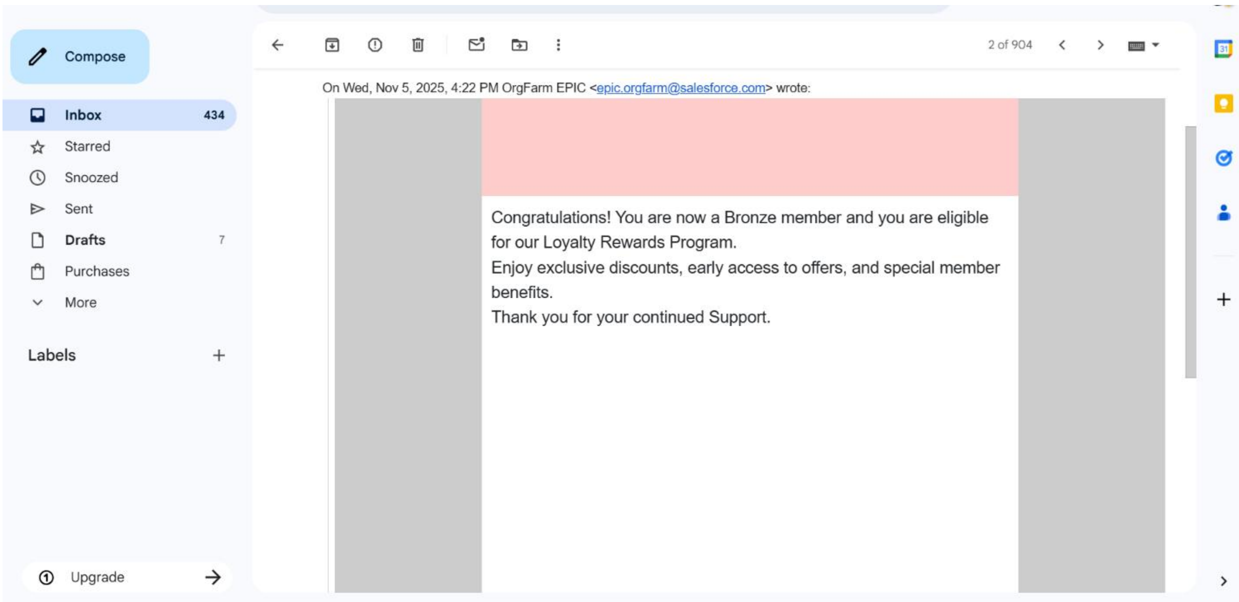
- **Low Stock Alert Flow -** The flow is triggered when an inventory record's stock quantity falls below 5 units. It automatically sends a Low Stock Alert Email to the Inventory Manager using the configured email alert.





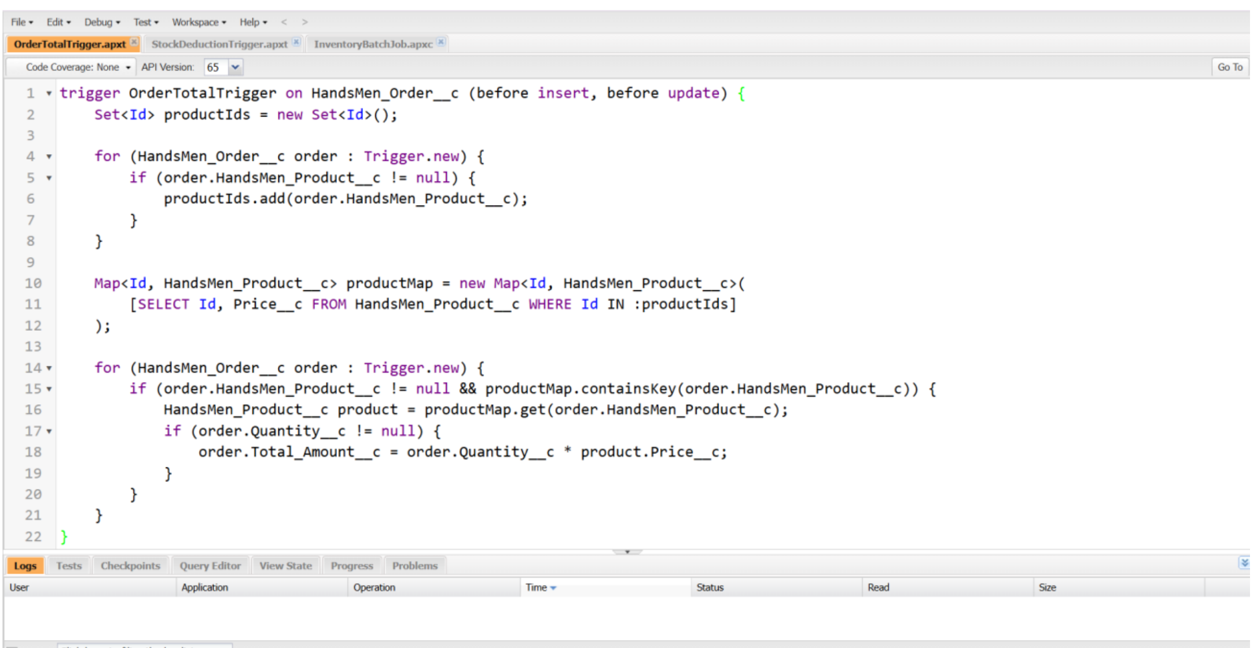
- **Scheduled-Triggered Flow**
  - **Loyalty Program -** Runs daily at midnight. Iterates through all customer records and automatically updates their Loyalty Status based on each customer's total purchase amount.





5. Apex Triggers

- **Order Total Trigger** – Automatically calculates the Total Amount based on the order quantity and unit price.
- **Stock Deduction Trigger** – Automatically deducts inventory stock levels whenever an order is placed and confirmed.




```
trigger OrderTotalTrigger on HandsMen_Order__c (before insert, before update) {
    Set<Id> productIds = new Set<Id>();

    for (HandsMen_Order__c order : Trigger.new) {
        if (order.HandsMen_Product__c != null) {
            productIds.add(order.HandsMen_Product__c);
        }
    }

    Map<Id, HandsMen_Product__c> productMap = new Map<Id, HandsMen_Product__c>(
        [SELECT Id, Price__c FROM HandsMen_Product__c WHERE Id IN :productIds]
    );

    for (HandsMen_Order__c order : Trigger.new) {
        if (order.HandsMen_Product__c != null && productMap.containsKey(order.HandsMen_Product__c)) {
            HandsMen_Product__c product = productMap.get(order.HandsMen_Product__c);
            if (order.Quantity__c != null) {
                order.Total_Amount__c = order.Quantity__c * product.Price__c;
            }
        }
    }
}
```

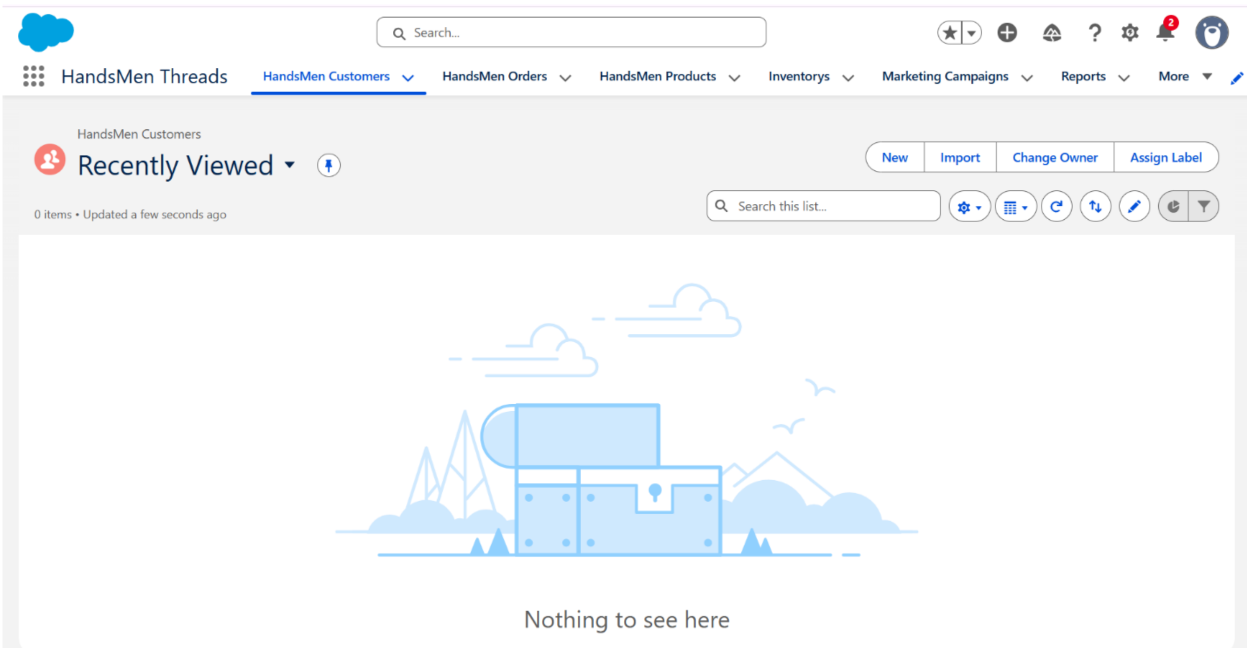
Phase 3: UI/UX Development & Customization

1. Lightning App Setup

A custom Lightning App named HandsMen Threads was created via App Manager.

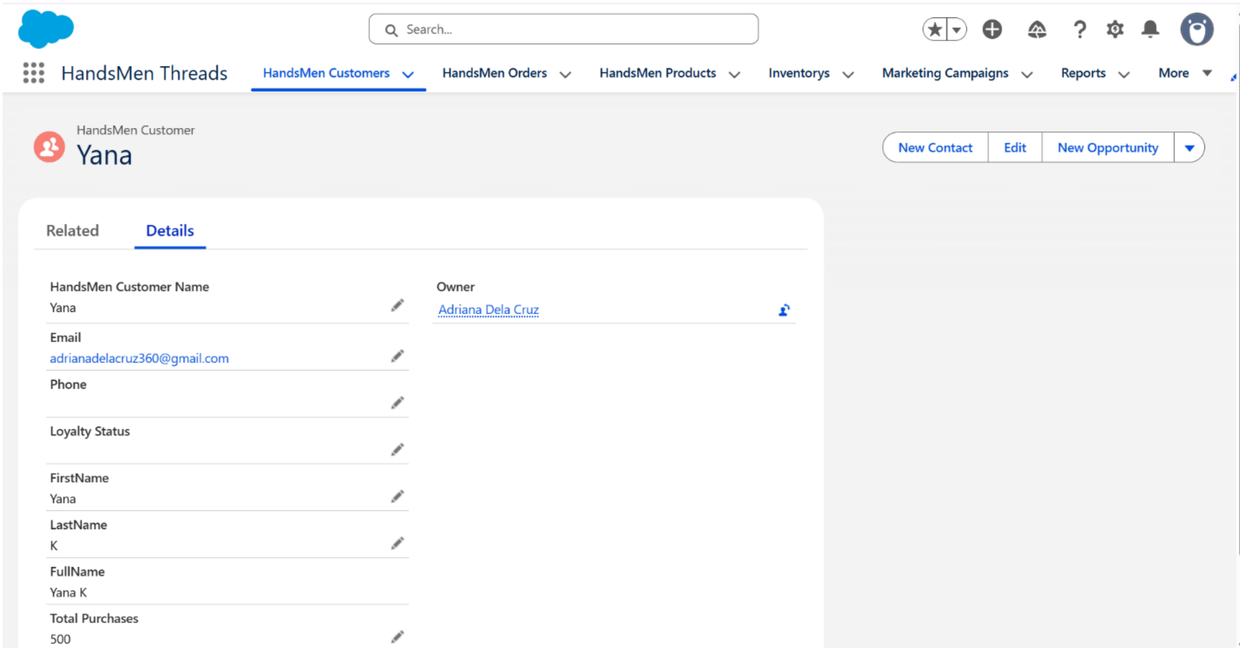
The app includes the following tabs: HandsMen Customers, Orders, Products, Inventory, Marketing Campaign, Reports, Dashboards and other essential objects.

The app was assigned to the System Administrator profile.



2. Page Layouts & Dynamic Forms.

- **HandsMen Customers Record:** This record serves as an example where there is a record Yana to demonstrate the application of Page Layouts and Dynamic Forms.



- **Logical Sections using Dynamic Forms:** Dynamic Forms are employed to organize record information into logical sections, enhancing user experience.

  Examples of these sections include:

  - Customer Details
  - Order History
  - Loyalty Program

- **Read-Only Fields:** Specific fields within the Loyalty Program section are configured as read-only to maintain data integrity.

  These fields include:

  - Loyalty Status
  - Total Purchases

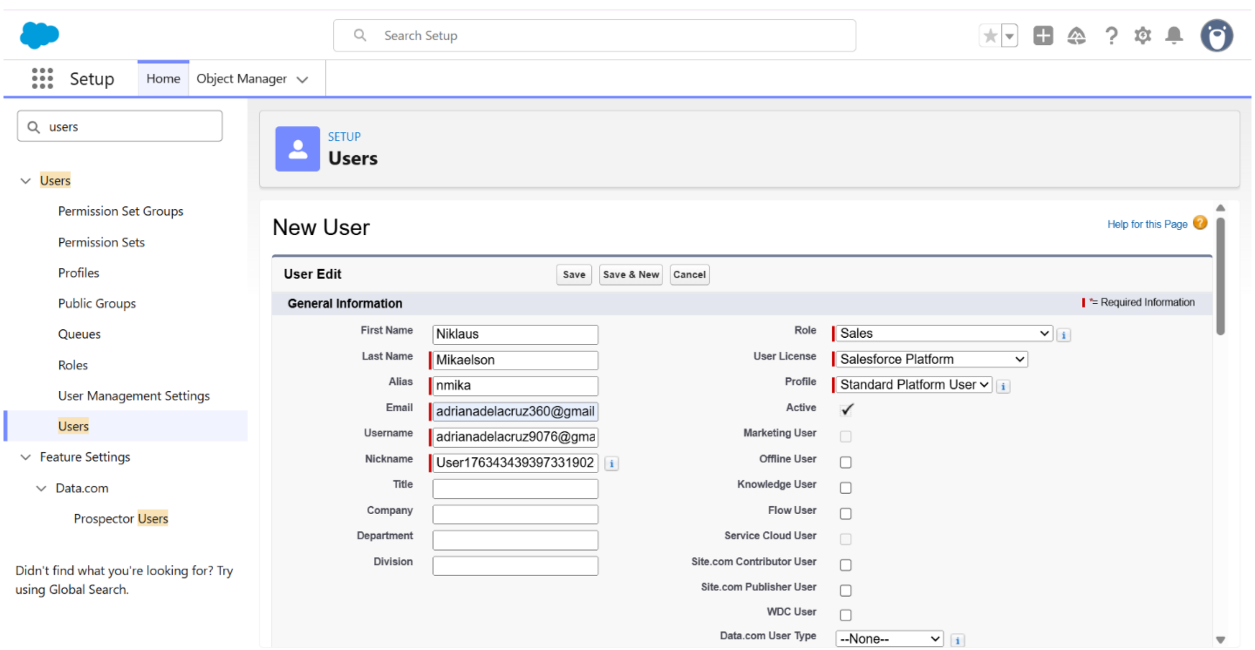
  These are automatically calculated by Flows.

  The read-only setting is applied via the Page Layout.

  These fields are visible to users within the "Details" tab of the record.

3. User Management

- Managing user roles and profiles to ensure proper data visibility and security. Cloned the Standard User profile to create a new custom profile named Platform 1. Granted access to all required custom objects via this profile.
- Created roles for different departments, including Sales Manager, Inventory Manager, and Marketing Team.
- Ensures users only access features aligned with their responsibilities:
- This role-based access strategy ensures proper data visibility, security, and process control within the Salesforce system. Salesforce users representing store staff were created and assigned the appropriate roles and profiles:
  - **Niklaus Mikaelson** – Sales Role (assigned with the Platform 1 Profile)
  - **Kol Mikaelson** – Inventory Role (assigned with the Platform 1 Profile)



4. Reports and Dashboards

Provide for management of real-time monitoring of trends and analytics.

A. Key Reports

- **Pending Orders Report:**
    - Displays all orders with a status of Pending.
    - Helps management and staff prioritize daily order processing tasks.
- **Low Stock Inventory Report:**
    - Highlights products with stock levels below a critical threshold (e.g., below 5 units).
    - Supports automated alerts and triggers for timely reordering

B. HandsMen Threads Dashboard

- **Dashboard Components:**
    - Total Purchases this quarter.
    - Orders by Product.
- Visualization: It provide circular chart or Pie chart.
- Value: Provides visual overview for data-driven decisions.

Phase 4: Data Migration, Testing & Security

1. Data Loading Process

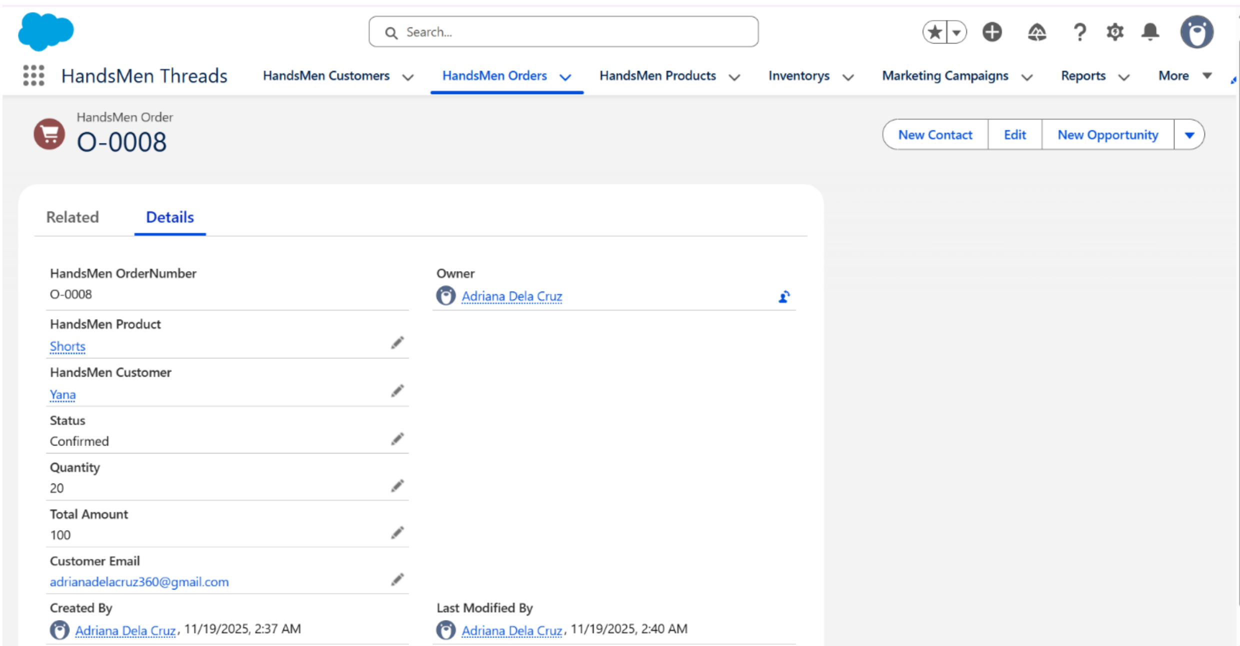
For the initial migration of existing customer, product, and inventory data into Salesforce, we utilized the Data Loader.

- Data Loader - Handles high volumes of records (e.g., thousands of historical customer accounts and product catalogs). Provides precise control over field mapping. Supports both data insertion and mass updates, ideal for initial setup and ongoing maintenance.

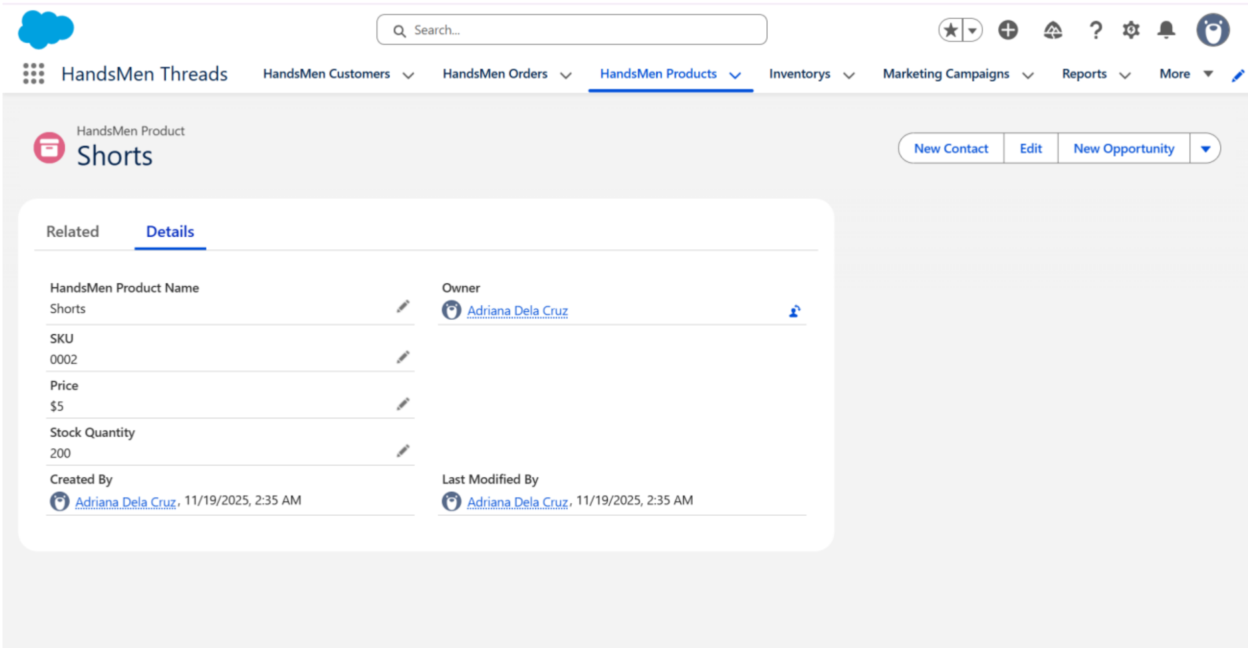
2. Data Quality

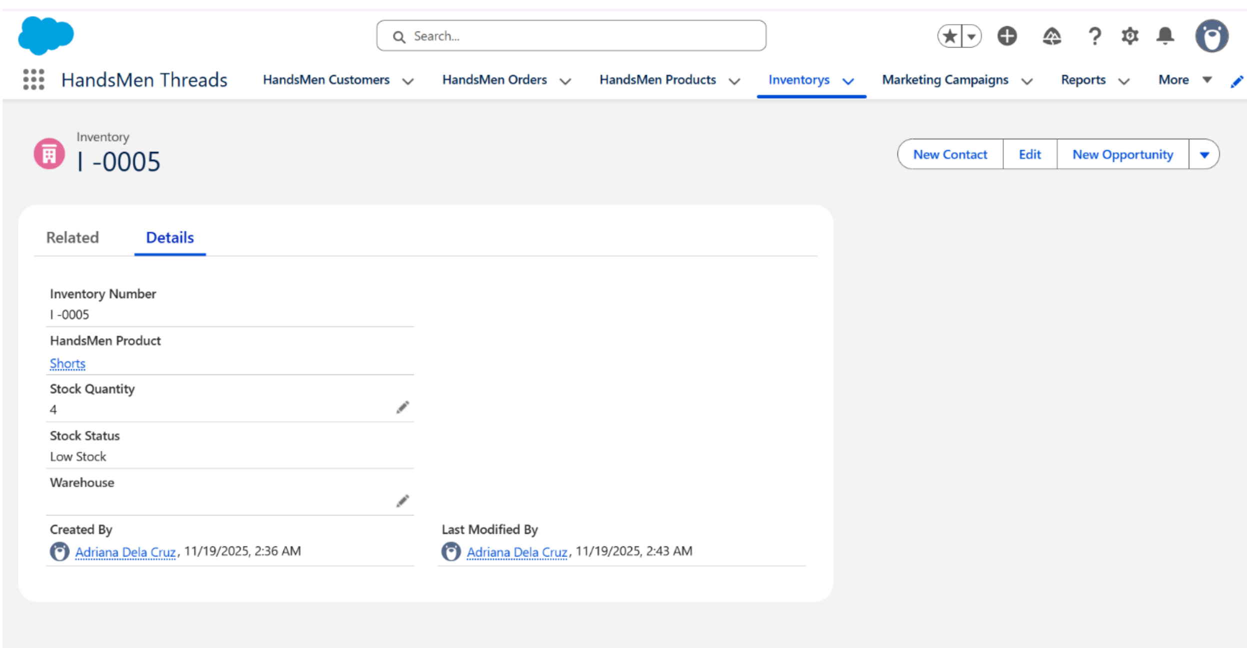
- **Tracked Objects & Fields:**
    - HandsMen Orders – Fields tracked: Status, Total Amount

- Monitors order lifecycle and financial value.
- Yana decides to purchase 20 shorts, each price at $5.
- A new Order record is created in Salesforce that captures the details of her purchase.
- An Apex Trigger automatically calculates the total amount, ensuring consistent and error-free computation.



- **HandsMen Products –** Fields tracked: Price, Quantity
  - The admin adds products like Shorts, T-shirts, etc., into the Product__c object.
  - Each product entry has a price, SKU and other details.
  - Tracks pricing updates and stock changes.
  - Inventory is also updated to store stock levels for each products, allowing real-time monitoring of item availability.





- **Duplicate Rules and Matching Rules:** Prevent data duplication and maintain accurate customer records.
  - Standard Customer Matching Rule:
  - Matches based on First Name, Last Name, and Email.
  - Blocks creation of new customer records if a match is detected.

3. Access Controls

- **Profiles:**
  - Handsmen Profile – Serves as the base profile for all sales and service users. Grants Read, Write, and Create access to all custom objects, including Customers, Orders, Products, and Inventory.
- **Roles & Role Hierarchy:**
  - Defines user positions within the organization to control data visibility and reporting structure.
- **Permission Sets:**
  - Provide additional access rights to specific users without changing their base profile.
- **Sharing Rules:**
  - Allow for controlled sharing of records across users, teams, or departments based on business requirements.

This access control framework ensures that sensitive data remains secure while enabling users to perform their roles efficiently.

4. Creation of Test Classes

To ensure the reliability and proper functioning of all implemented Salesforce features, Apex test classes were created. Each test class simulates real-world scenarios and verifies expected outcomes.

- **Email Validation**: Simulates new customer creation with invalid email addresses and verifies that the validation triggers correctly.
- **Inventory Update:** Tests order placement to ensure stock quantities are automatically reduced.

- **Low Stock Alert:** Simulates inventory falling below the threshold to verify that low stock alerts are triggered.
- **Loyalty Program Update:** Validates the scheduled flow that updates customer loyalty status based on total purchase amount.

Phase 5: Deployment, Documentation & Maintenance

1. Deployment Strategy

The deployment process involved creating an Outbound Change Set in the development environment and selecting all essential components such as the Handsmen Customer object, Automated Order Confirmation Flow, Order Total Apex Trigger, and other customizations built throughout the project. Once assembled, the Change Set was uploaded to the Production environment. Before deploying, a full validation was performed to ensure all dependencies were included and there were no conflicts or errors. After the validation succeeded, the Change Set was deployed, seamlessly transferring all tested and approved configurations into the live system for end-users. This method ensured a smooth and secure migration from development to production.

2. System Maintenance and Monitoring

The Handsmen Threads platform follows a structured maintenance and monitoring approach to ensure ongoing reliability and system performance. Scheduled flow management plays a key role, with the Loyalty Program Flow monitored daily at 12:00 am to verify that it executes without errors. Regular data quality checks are conducted using dashboards and reports to identify missing, duplicate, or inconsistent records, ensuring data cleanliness and accuracy. Additionally, the team prepares for Salesforce’s three major releases each year by testing all Flows, Apex triggers, and automation in a Sandbox environment before updates are applied, minimizing compatibility issues. Real-time monitoring is also implemented: any errors in deployed Flows such as the Automated Order Confirmation Flow or Low Stock Alert Flow trigger immediate email notifications to the system administrator for quick resolution. Apex automations are closely tracked using Apex Jobs and Debug Logs to confirm they run efficiently and stay within governor limits. This comprehensive approach ensures both proactive system upkeep and rapid response to any operational issues, maintaining the platform’s integrity and optimal performance.

CONCLUSION

The HandsMen Threads CRM system built on Salesforce successfully streamlines essential business processes such as customer management, product cataloging, order processing, inventory tracking, and loyalty program automation. By leveraging key Salesforce features including Custom Objects, Flows, Validation Rules, Email Alerts, and Apex the system ensures accurate data entry, real-time updates, and an enhanced customer experience. With automation and well-structured user roles, the platform minimizes the manual errors, accelerates business operations, and provides deeper insights into sales performance and stock levels.

Future Scope:

1. **Customer Portal Integration**
    - Develop a Customer Community Portal where customers can log in, view orders, and monitor their loyalty status.
2. **Mobile App using Salesforce Mobile SDK**
    - Enable store staff to manage inventory and process orders through a mobile-friendly application.
3. **Reports & Dashboards**

- Create detailed sales and inventory dashboards to help management analyze trends and track performance in real time.

4. **AI-Powered Recommendations**
   - Leverage Salesforce Einstein to generate intelligent product recommendations and enhance personalization.

5. **Email Notification Integration**
   - Enable the system to automatically notify customers via email regarding important updates such as order confirmations and loyalty status changes.