HANDSMEN THREADS: ELEVATING THE ART OF SOPHISTICATION IN MEN'S FASHION

A Capstone Project Documentation for a
Custom Salesforce CRM Solution

Polytechnic University of the Philippines – Santa Maria, Bulacan Campus
Bachelor of Science in Information Technology 4-1

Submitted by:
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November 2025

Project Overview

It is challenging for many retail businesses to track consumers, manage inventory, keep an eye on orders, and launch targeted campaigns because they use disconnected systems. For a business to grow, it must be forward-thinking; HandsMen Threads, a modern brand in the men's fashion industry, is taking that step by building a Salesforce solution that improves how they manage data and interact with customers. The CRM is designed to solve common challenges in retail, such as unorganized information, manual workflows, and limited visibility into customer behavior/loyalty. It includes custom objects for customers, products, orders, inventory, and marketing campaigns, combined with automated workflows, Apex logic, and a defined security model using profiles and different access levels. By consolidating these processes into a single Salesforce environment, the system becomes more automated, accurate, and easy to maintain. Thus, giving the business the tools it needs to operate more efficiently and make smarter decisions.

Objectives

This project aims to improve HandsMen Thread's workflow, and to make it efficient at handling multiple inputs like orders, customers for example. The following are additional objectives that the CRM project aims to solve to help HandsMen Threads:

- Centralize all business data into a unified and, most importantly, accessible platform
- Automate customer communication for order confirmations and loyalty updates
- Maintain accurate inventory data and automate stock alerts
- Streamline order processing with integrated financial record updates
- Support targeted marketing campaigns using customer insights through records
- Provide a secure, role-based system with appropriate access controls
- Reduce manual workload through flows, email notifications, and Apex logic
- Create a scalable foundation for future expansion

Phase 1:

Requirement Analysis & Planning

A.Understanding Business Requirements

Handsmen Threads needed a single system to handle customer information, product details, order transactions, marketing operations, and stock control.
The project solves the following challenges:

- Fragmented customer data
- Inefficient manual inventory tracking
- Lack of automation in order notifications
- Difficulty in running segmented marketing campaigns
- No centralized view of business performance
- Limited access restrictions for users

Project Scope

Throughout the development of this project, it will include:

- Creating custom Salesforce objects
- Building automations using Flow
- Implementing Apex triggers and batch jobs
- Creating email templates for communication
- Configuring profiles, roles, and permission sets
- Designing page layouts and Lightning pages
- Setting up reports and dashboards

B. Data Model & Security Model

- **Custom Objects:** Customers, Orders, Products, Inventory, Marketing Campaigns
- **Fields:** Customer details, product SKU, price, stock quantity, loyalty status, etc.
- **Security Model:**
    - Custom Profile: Platform 1
    - Role Hierarchy: CEO → Sales, Inventory, Marketing
    - Permission Sets: Sales, Marketing, Inventory
    - Access levels defined per object

C. Stakeholder Mapping

- **CEO:** Full visibility
- **Sales Team**: Manage customers and orders
- **Inventory Team:** Manage stock levels, update product details
- **Marketing Team:** Handle campaigns and customer segmentation

D. Execution Roadmap

Phase 1: Architecture & Planning

- Define objects, fields, relationships, formula fields.
- Establish validation rules, flows, Apex triggers, batch jobs.
- Design email templates for notifications and customer communication.

Phase 2: Development

- Object and field creation.
- Implement automation (flows, process builders, Apex triggers).

- Set up data security and sharing rules.
- Develop batch jobs for scheduled processing.
- Configure email templates and notifications.

Phase 3: Testing & QA

- Unit testing of objects and automation.
- End-to-end testing with sample data.
- Performance testing and security checks.

Phase 4: Deployment & Training

- Deploy to production.
- Train users on new functionality.
- Post-go-live support and monitoring

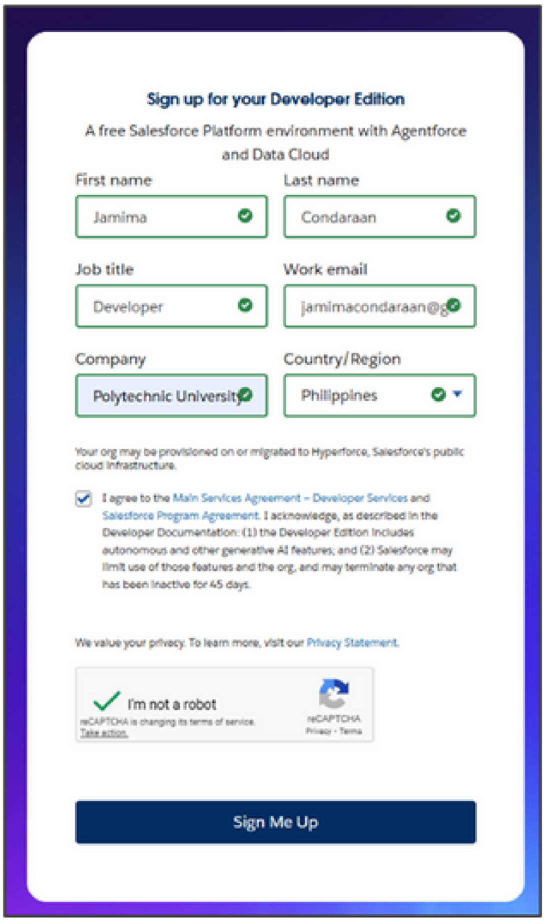
Deliverable:
Solution Design Document including Object Model, ERD, and Automation Strategy.

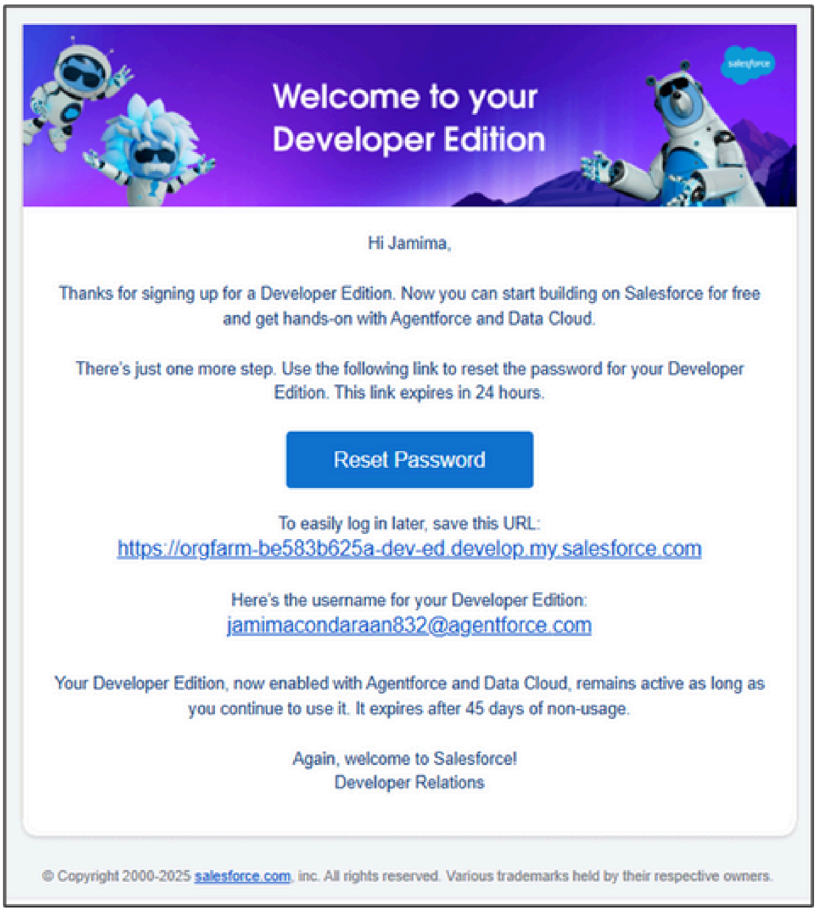
Phase 2:

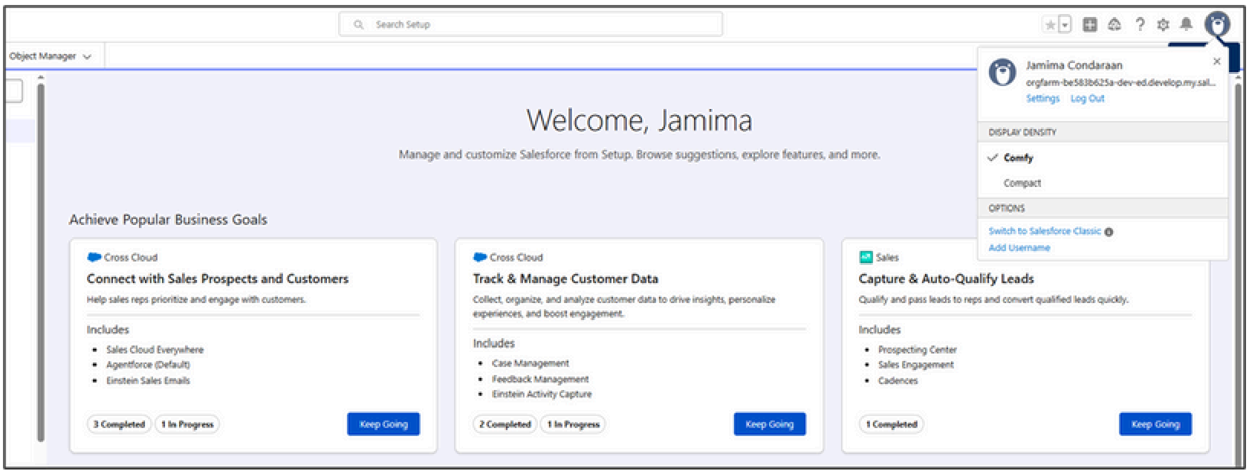
Salesforce Development - Backend & Configurations

Setup environment & DevOps workflow

I signed up for a Developer edition account, reset my password, and logged in.



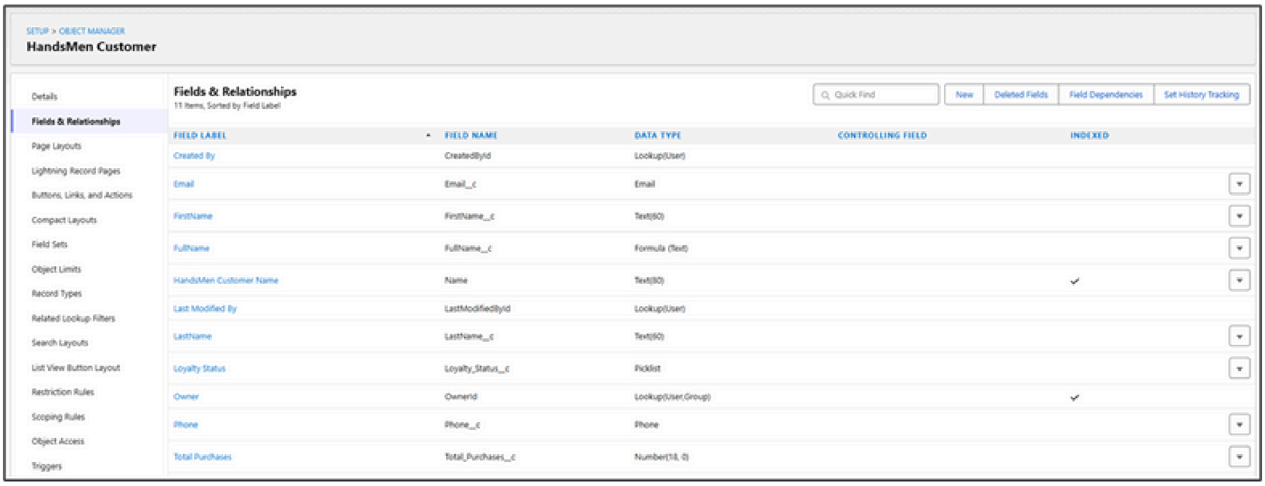




Customization of Objects & Fields

HandsMen Customers (HandsMen_Customer__c | Custom Object)

These are the fields and relationships necessary for proper storage of customer information.


SETUP > OBJECT MANAGER
HandsMen Customer

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
Restriction Rules
Scoping Rules
Object Access
Triggers

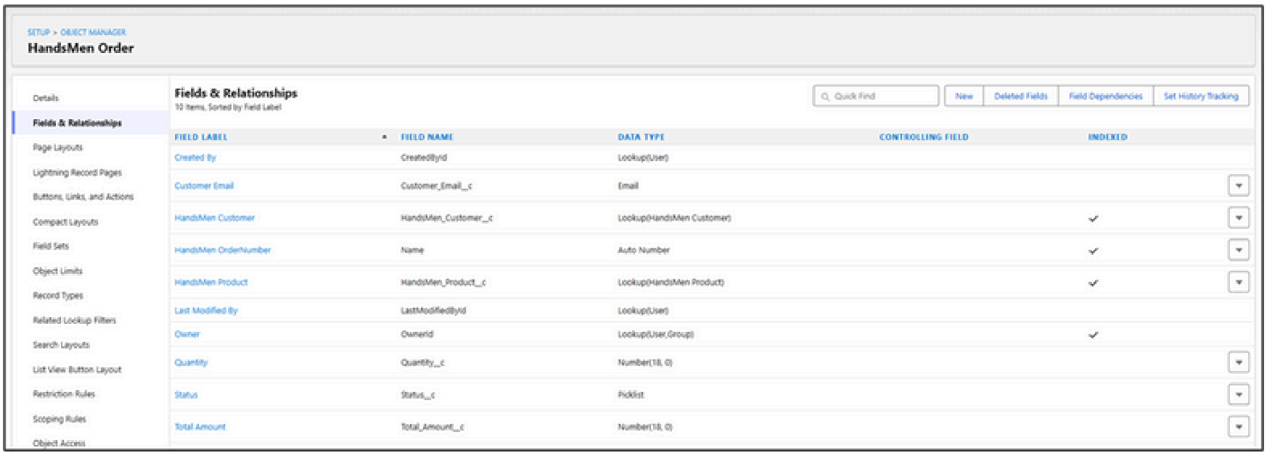
Fields & Relationships
11 Items, Sorted by Field Label

Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
FirstName	FirstName__c	Text(60)		
FullName	FullName__c	Formula (Text)		
HandsMen Customer Name	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
LastName	LastName__c	Text(60)		
Loyalty Status	Loyalty_Status__c	Picklist		
Owner	OwnerId	Lookup(User,Group)		✓
Phone	Phone__c	Phone		
Total Purchases	Total_Purchases__c	Number(18, 0)		

HandsMen Order (HandsMen_Order__c | Custom Object)

Here are the fields & relationships for HandsMen Threads Orders.


SETUP > OBJECT MANAGER
HandsMen Order

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
Restriction Rules
Scoping Rules
Object Access

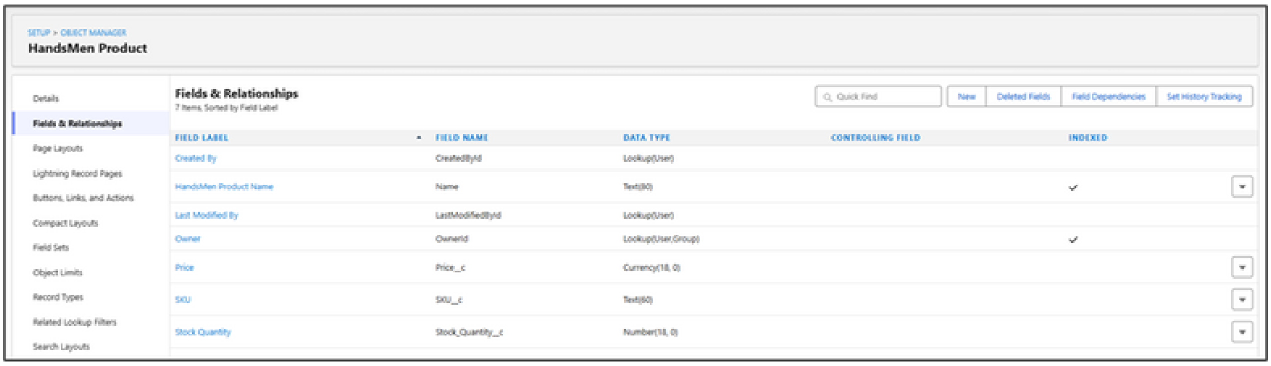
Fields & Relationships
10 Items, Sorted by Field Label

Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Customer Email	Customer_Email__c	Email		
HandsMen Customer	HandsMen_Customer__c	Lookup(HandsMen Customer)		✓
HandsMen OrderNumber	Name	Auto Number		✓
HandsMen Product	HandsMen_Product__c	Lookup(HandsMen Product)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Quantity	Quantity__c	Number(18, 0)		
Status	Status__c	Picklist		
Total Amount	Total_Amount__c	Number(18, 0)		

HandsMen Product (HandsMen_Product__c | Custom Object)

These are the custom fields and relationships for the products



SETUP > OBJECT MANAGER

HandsMen Product

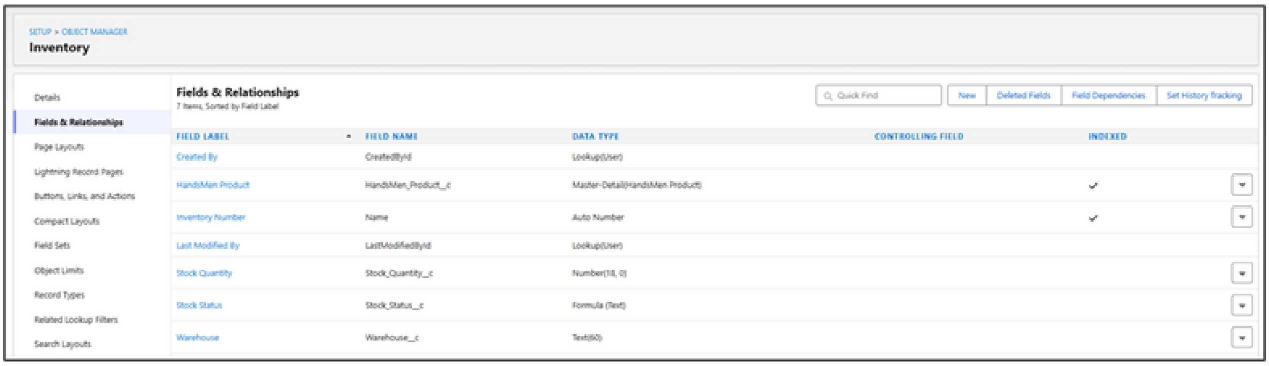
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts

Fields & Relationships
7 Items, Sorted by Field Label

Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
HandsMen Product Name	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Price	Price__c	Currency(18, 0)		
SKU	SKU__c	Text(60)		
Stock Quantity	Stock_Quantity__c	Number(18, 0)		

Inventory (Inventory__c | Custom Object)



SETUP > OBJECT MANAGER

Inventory

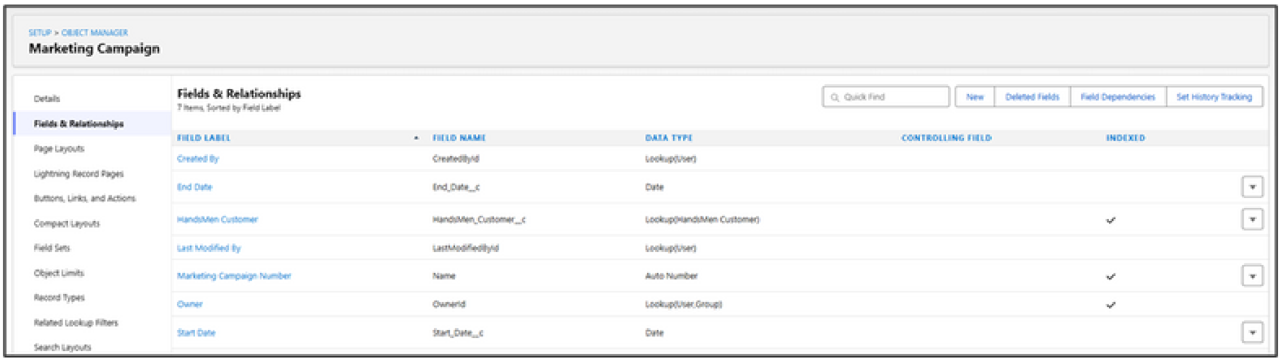
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts

Fields & Relationships
7 Items, Sorted by Field Label

Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
HandsMen Product	HandsMen_Product__c	Master-Detail(HandsMen Product)		✓
Inventory Number	Name	Auto Number		✓
Last Modified By	LastModifiedById	Lookup(User)		
Stock Quantity	Stock_Quantity__c	Number(18, 0)		
Stock Status	Stock_Status__c	Formula (Text)		
Warehouse	Warehouse__c	Text(60)		

Marketing Campaign (Marketing_Campaign__c | Custom Object)



Validation Rules

HandsMen Customer Validation Rule – Email

This ensures that their email address ends with an “@gmail.com”

Inventory Validation Rule – Stock_Quantity

Inventory Validation Rule

Back to Inventory

Help for this Page

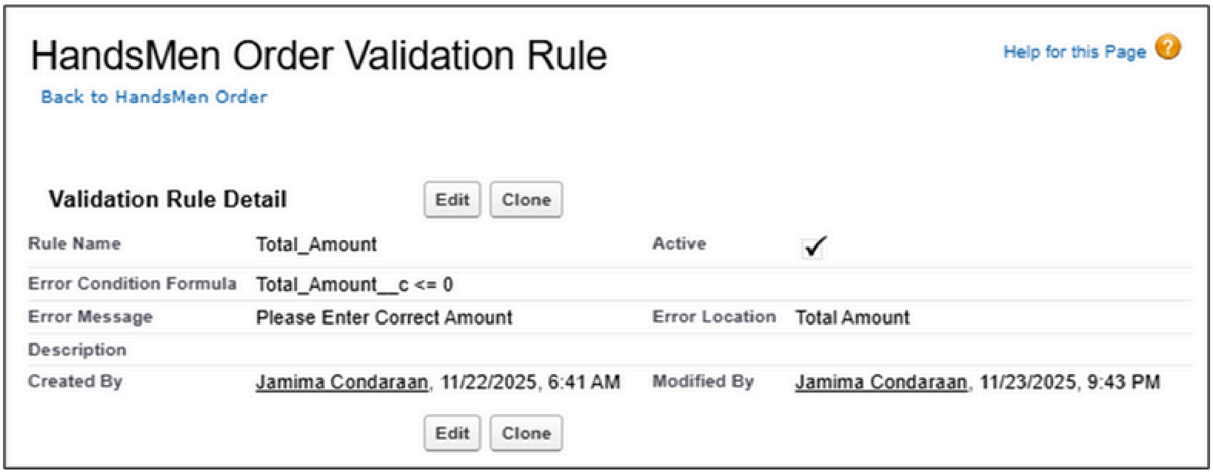
Validation Rule Detail Edit Clone

Rule Name	Stock_Quantity	Active	✓
Error Condition Formula	Stock_Quantity__c <= 0		
Error Message	the inventory count is never less than zero.	Error Location	Top of Page
Description			
Created By	Jamima Condaraan, 11/22/2025, 6:43 AM	Modified By	Jamima Condaraan, 11/23/2025, 9:47 PM

Edit Clone

This rule ensures that the inventory count will not be less than zero.

HandsMen Order Validation Rule – Total_Amount



HandsMen Order Validation Rule

Back to HandsMen Order

Help for this Page

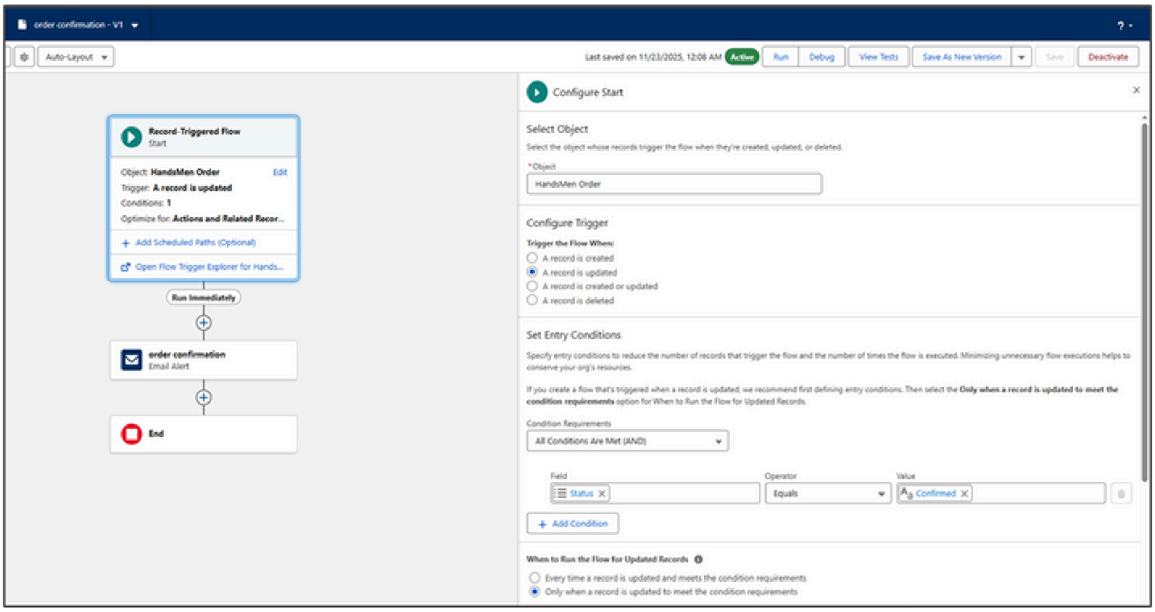
Validation Rule Detail Edit Clone

Rule Name	Total_Amount	Active	✓
Error Condition Formula	Total_Amount__c <= 0		
Error Message	Please Enter Correct Amount	Error Location	Total Amount
Description			
Created By	Jamima Condaraan, 11/22/2025, 6:41 AM	Modified By	Jamima Condaraan, 11/23/2025, 9:43 PM

Edit Clone

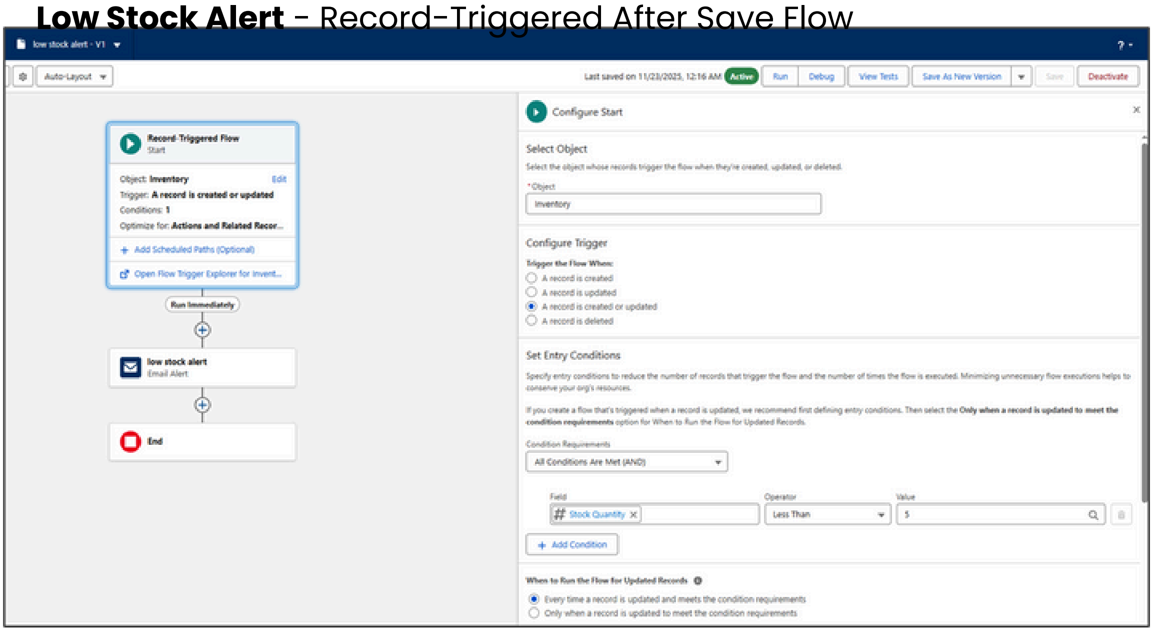
Automation

Order Confirmation Flow - Record-Triggered After Save Flow



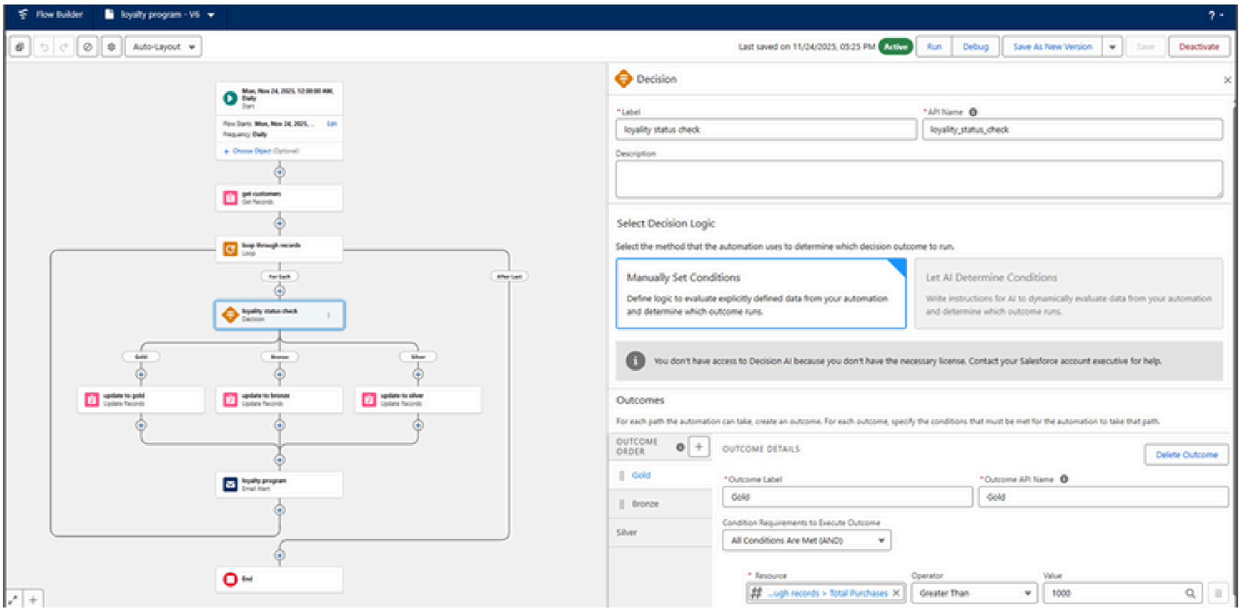
An automated flow for alerting the customer that their order is confirmed.

Low Stock Alert - Record-Triggered After Save Flow



This is a record-triggered flow to notify the team that an item is less than 5 in stock.

Loyalty Program Email - Schedule-Triggered Flow



This flow notifies customers if their loyalty tier has been upgraded, if their total purchases reach a certain amount.

Apex Triggers

Order Total Trigger

OrderTotalTrigger.apxt | StockDeductionTrigger.apxt

Code Coverage: None | API Version: 65

```
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;
            }
        }
    }
}
```

This calculates the total before the order is saved.

Stock Deduction Trigger

OrderTotalTrigger.apxt | StockDeductionTrigger.apxt

Code Coverage: None | API Version: 65

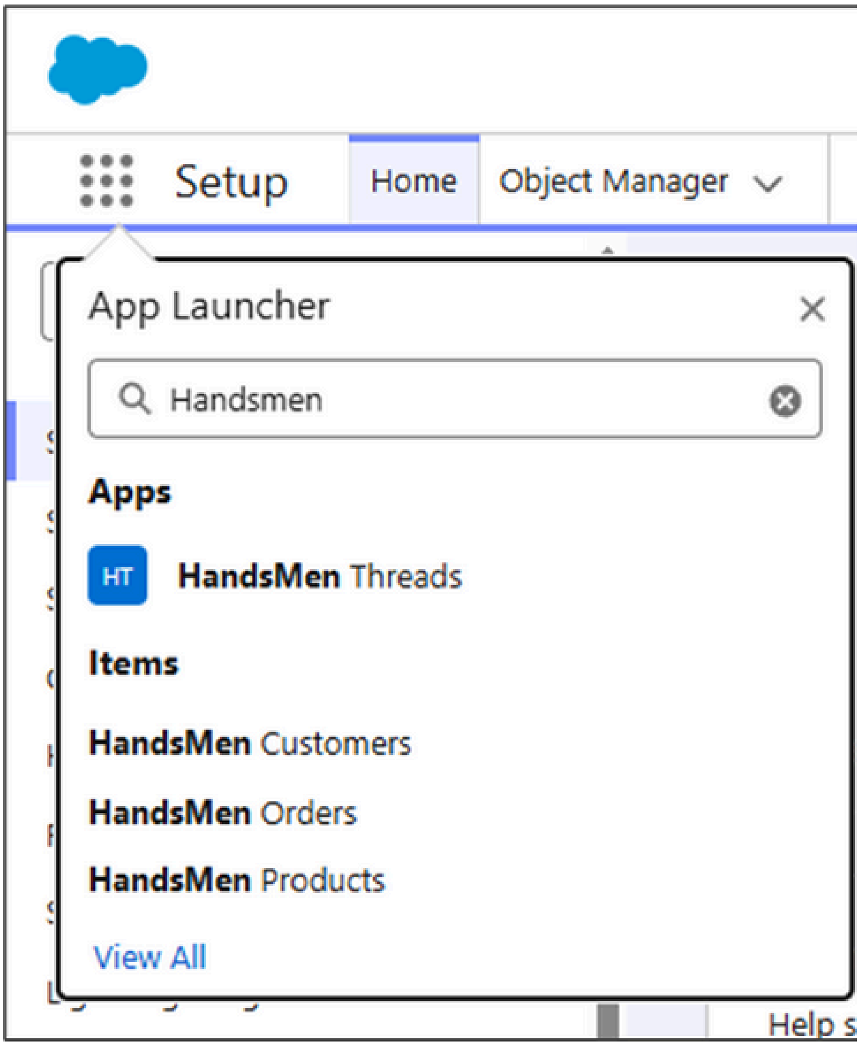
```
trigger StockDeductionTrigger on HandsMen_Order__c (after insert, after update) {
    Set<Id> productIds = new Set<Id>();

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

    if (productIds.isEmpty()) return;

    // Query related inventories based on product
    Map<Id, Inventory__c> inventoryMap = new Map<Id, Inventory__c>(
        [SELECT Id, Stock_Quantity__c, HandsMen_Product__c
         FROM Inventory__c
         WHERE HandsMen_Product__c IN :productIds]
    );

    List<Inventory__c> inventoriesToUpdate = new List<Inventory__c>();

    for (HandsMen_Order__c order : Trigger.new) {
        if (order.Status__c == 'Confirmed' && order.HandsMen_Product__c != null) {
            for (Inventory__c inv : inventoryMap.values()) {
                if (inv.HandsMen_Product__c == order.HandsMen_Product__c) {
                    inv.Stock_Quantity__c -= order.Quantity__c;
                    inventoriesToUpdate.add(inv);
                    break;
                }
            }
        }
    }

    if (!inventoriesToUpdate.isEmpty()) {
        update inventoriesToUpdate;
    }
}
```

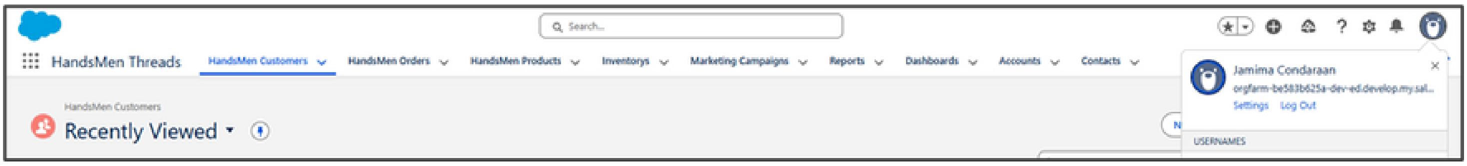
This updates the inventory after the order is confirmed.

Phase 3:

UI/UX Development & Customization

Lightning App Setup





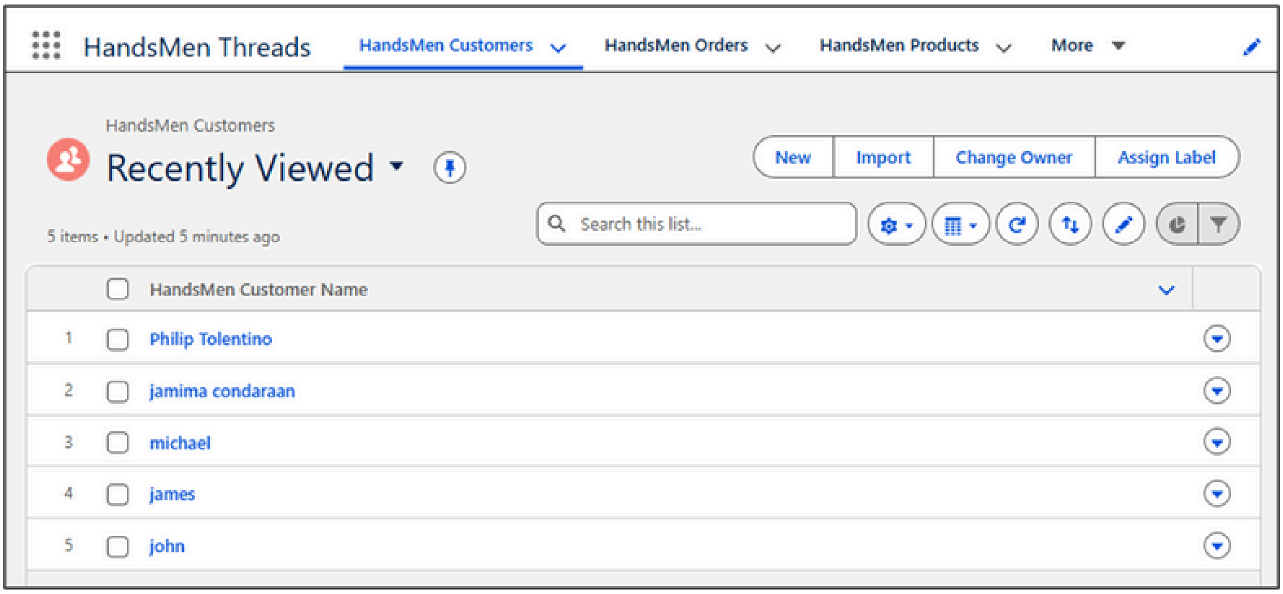
App Name:

HandsMen Threads

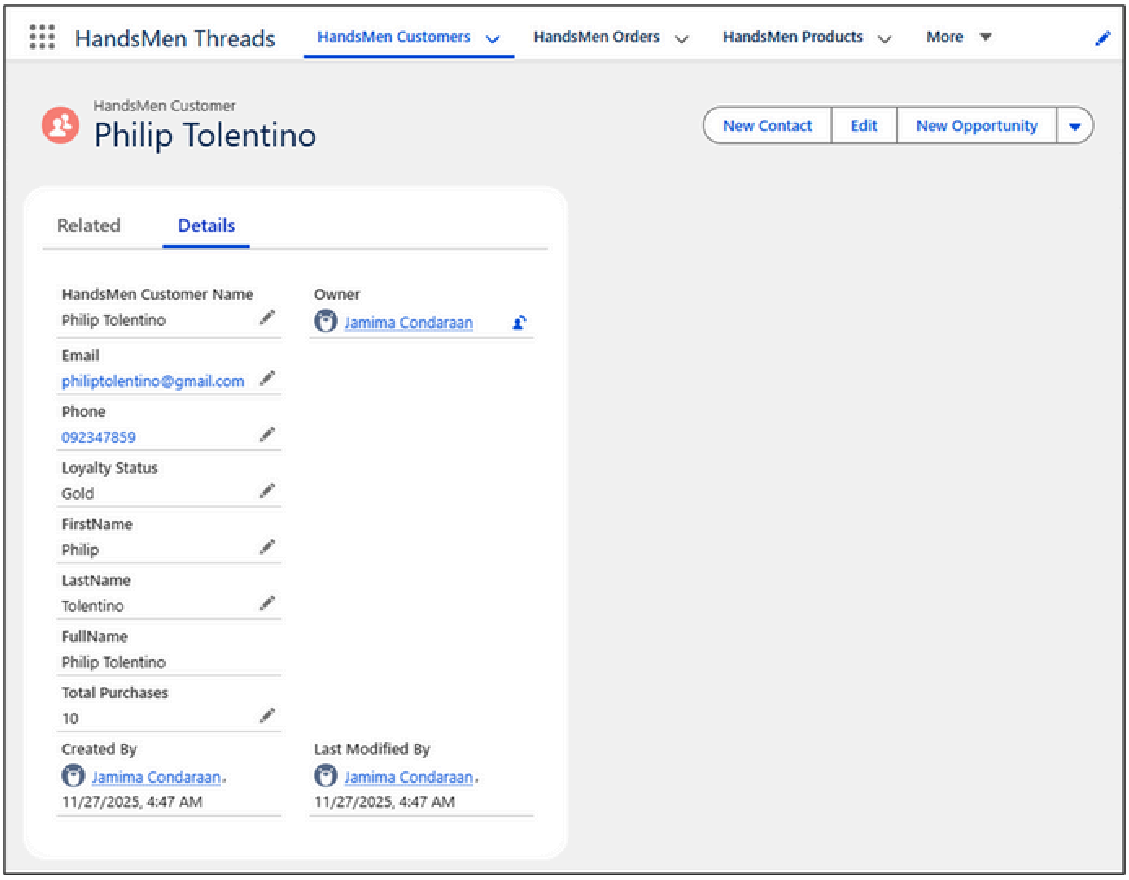
- This app has access to the custom objected that I've created like the HandsMen Customers, Orders, and Products.

Page Layouts & Dynamic Forms

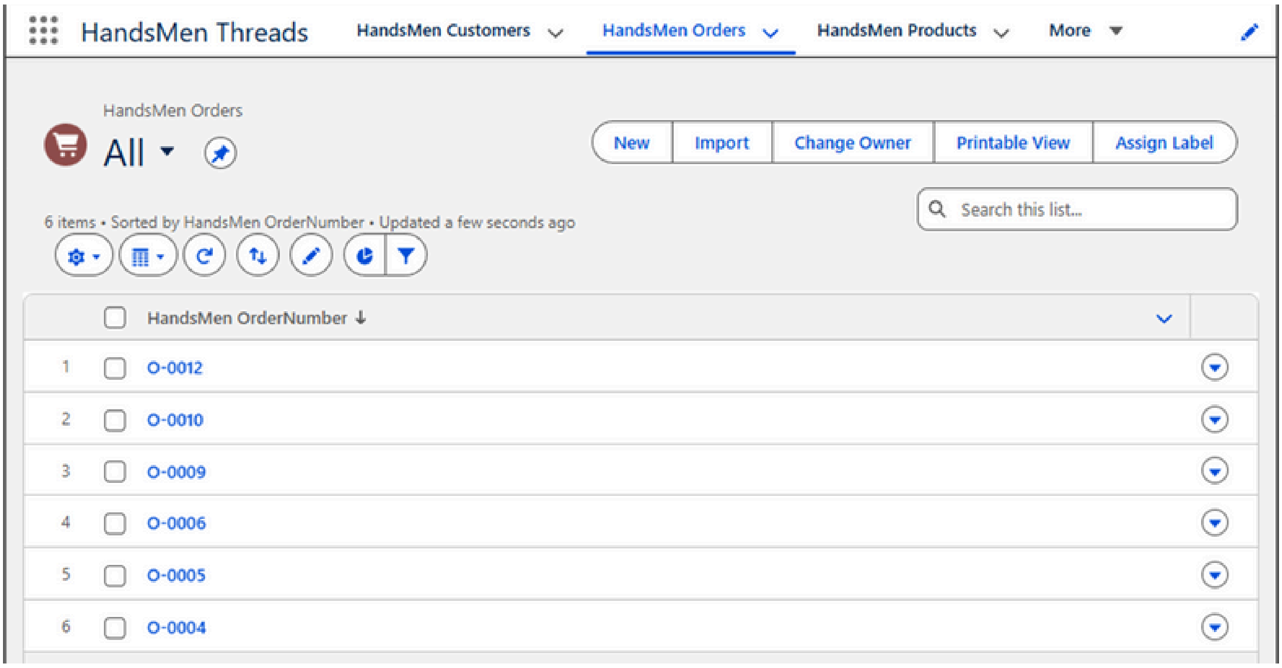
HandsMen Customers - Customers List



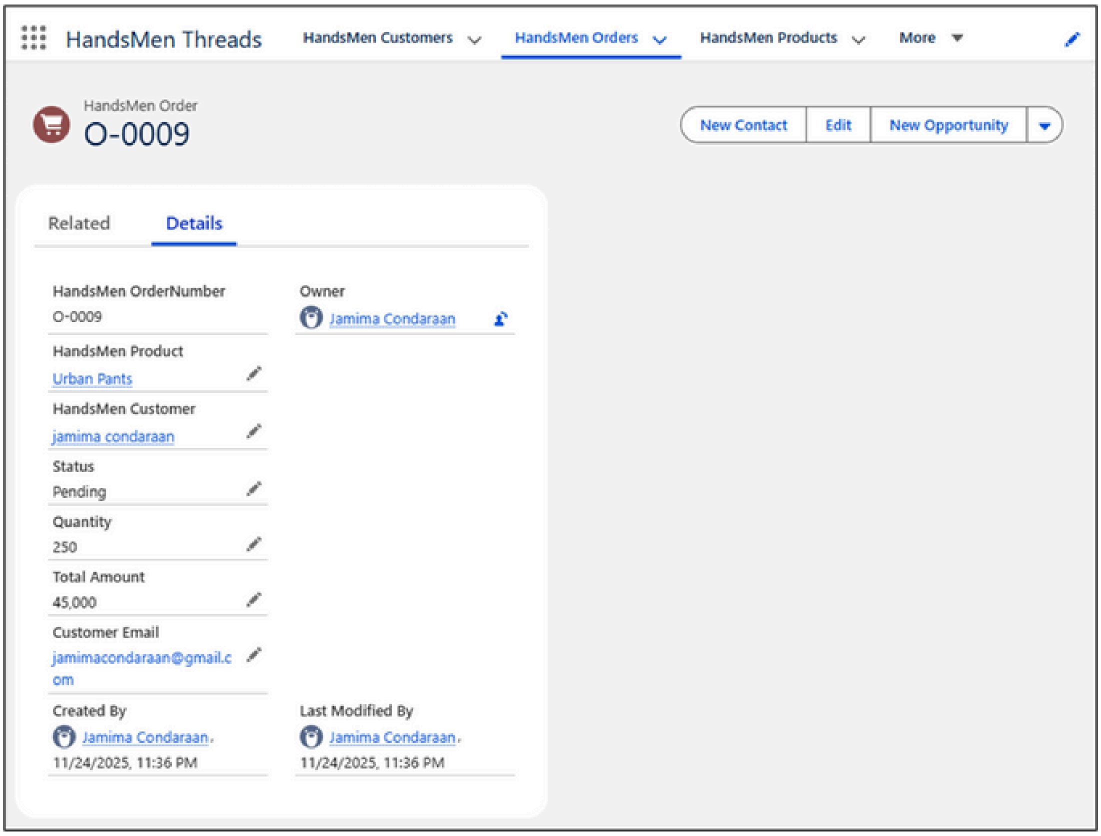
HandsMen Customers - Customers Details



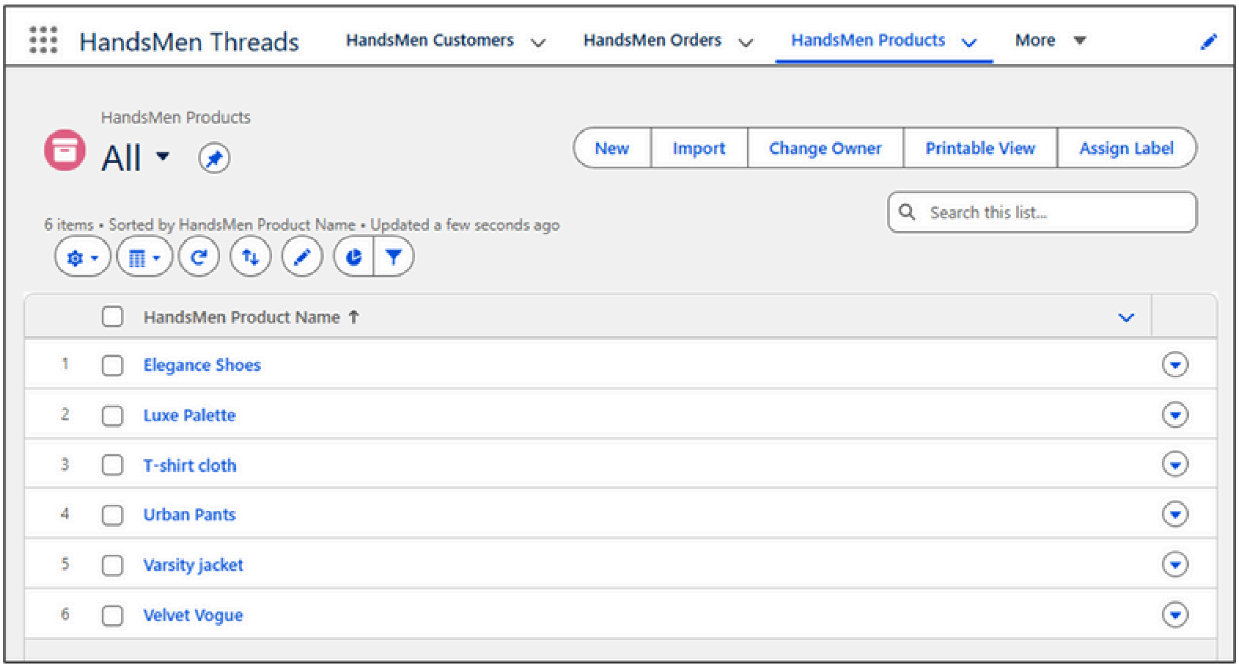
HandsMen Orders - Orders List



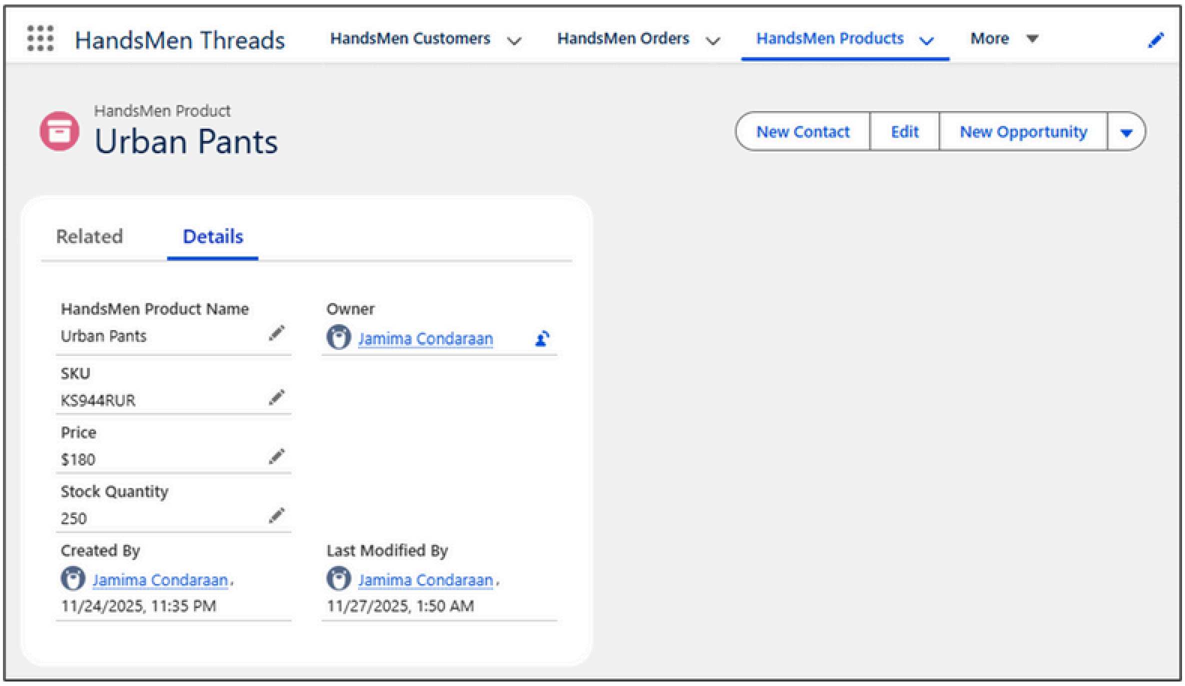
HandsMen Orders – Order Details



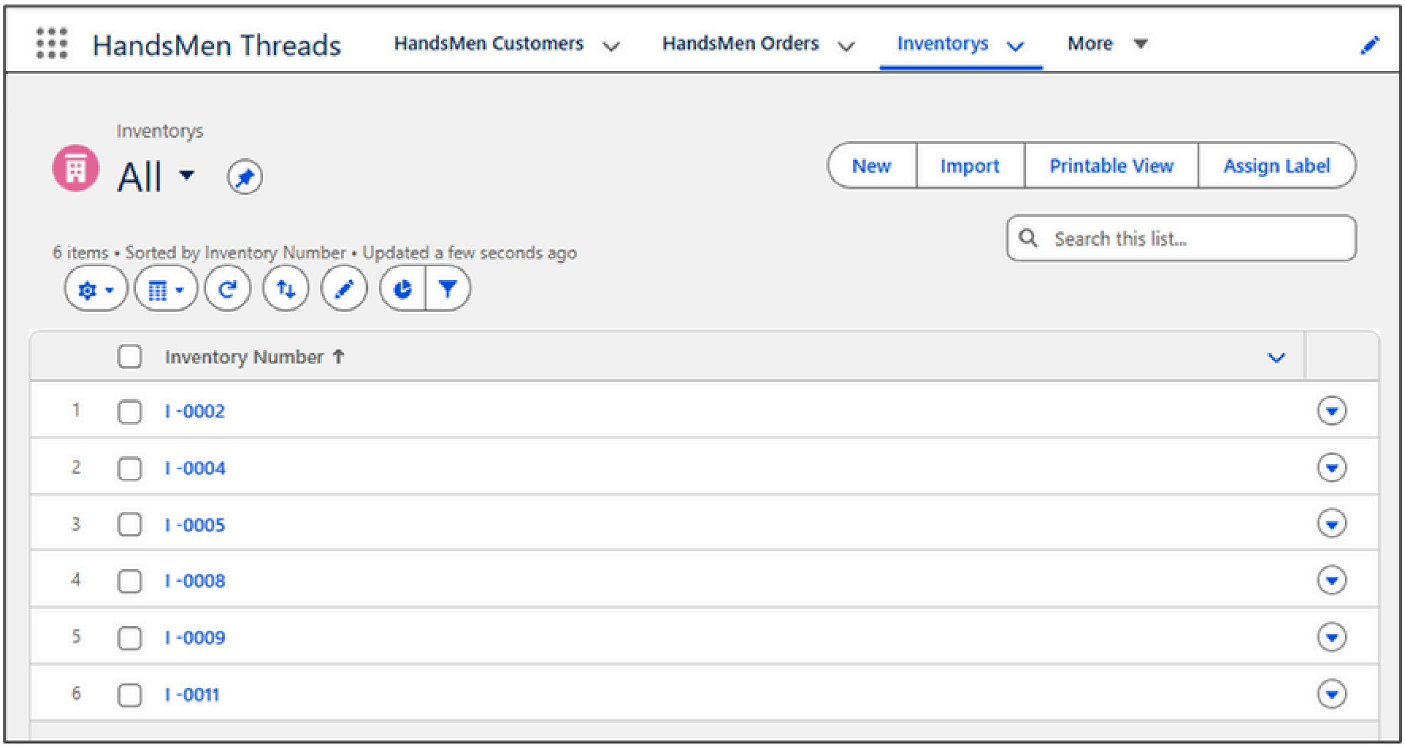
HandsMen Products – Product List



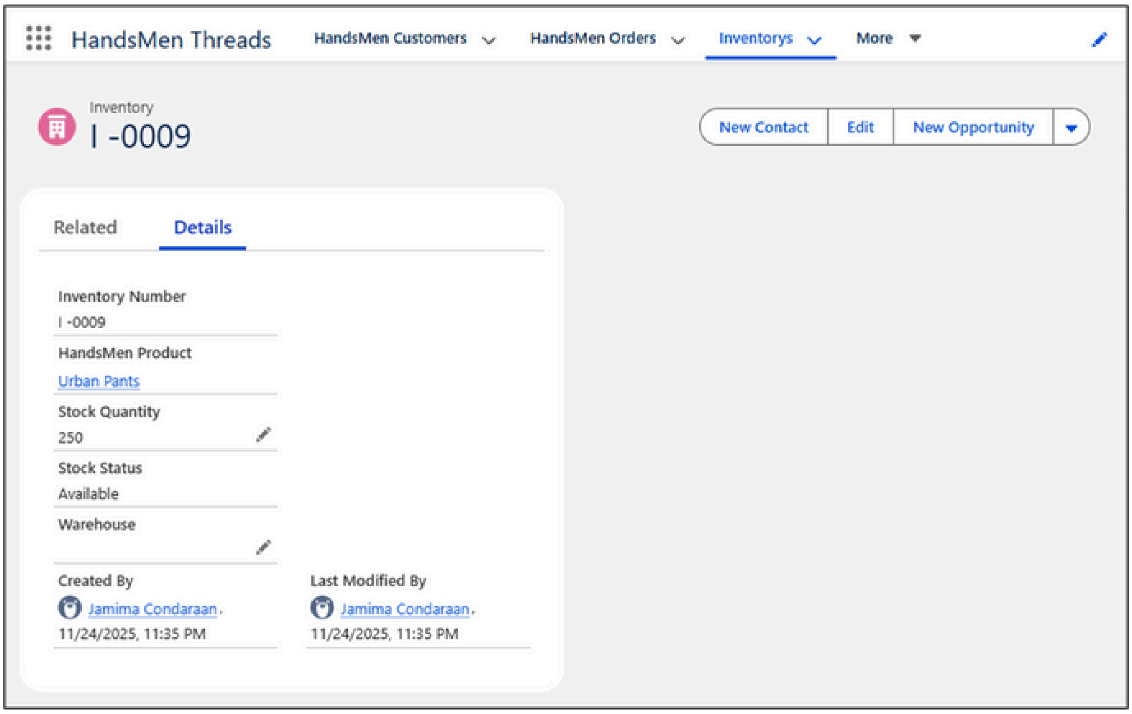
HandsMen Products - Product Details



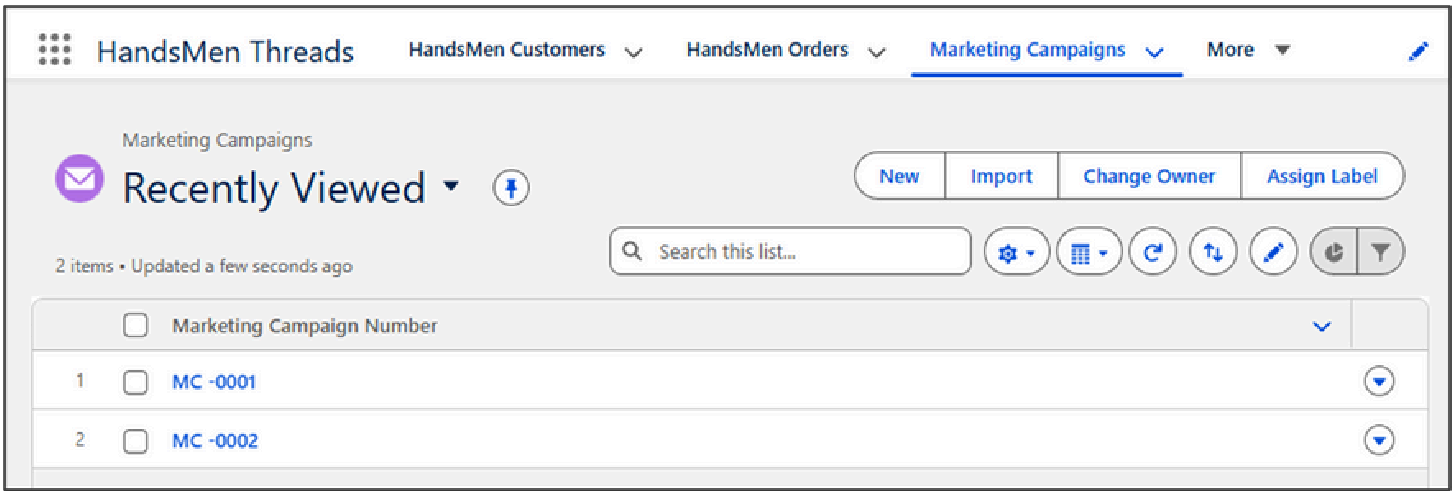
Inventorys List



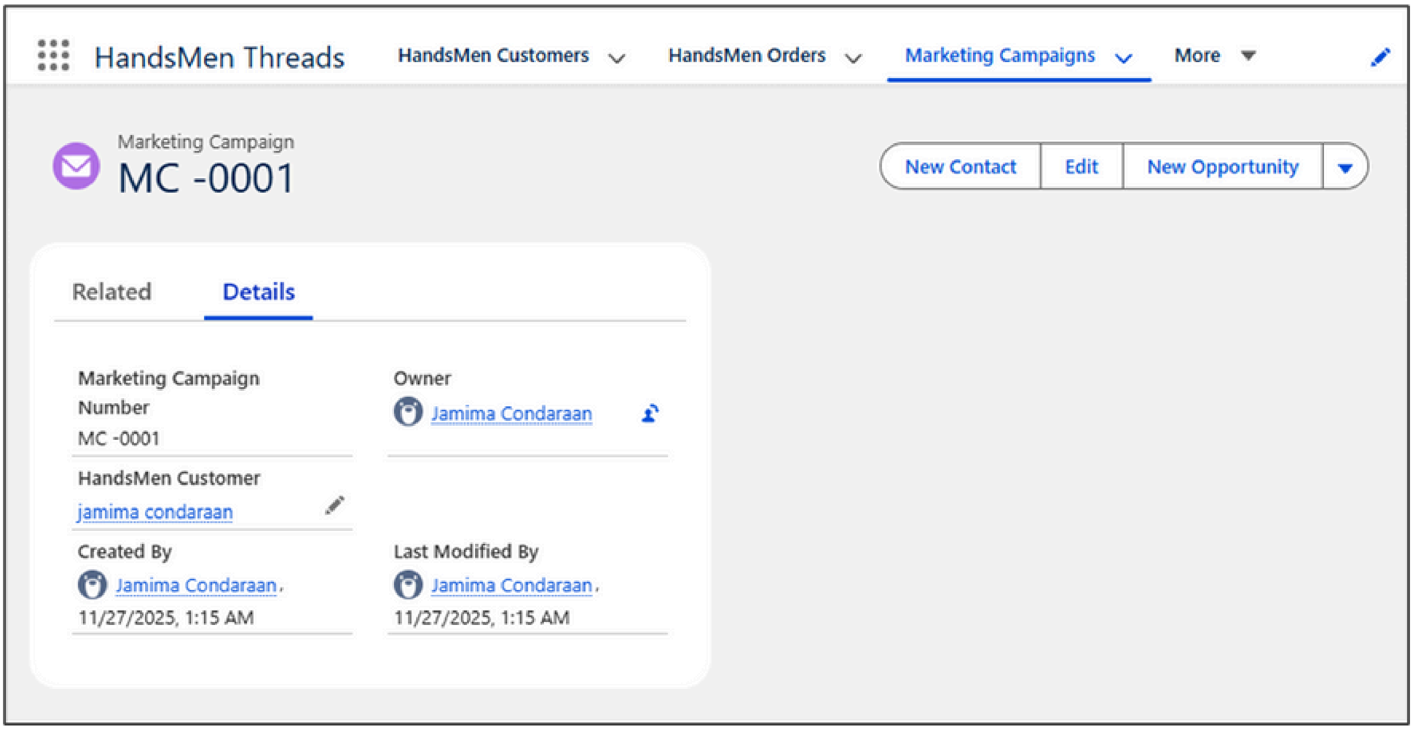
Inventorys – Inventory Item Details



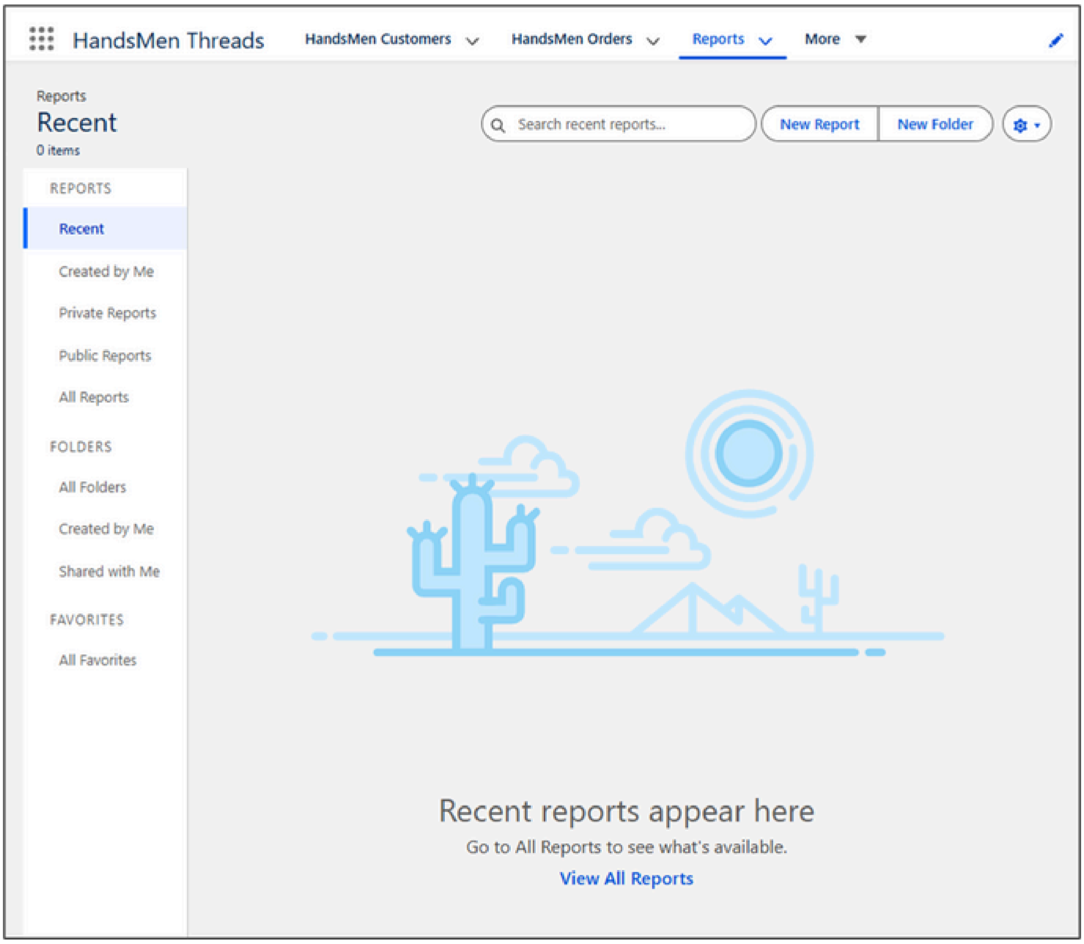
Marketing Campaigns List



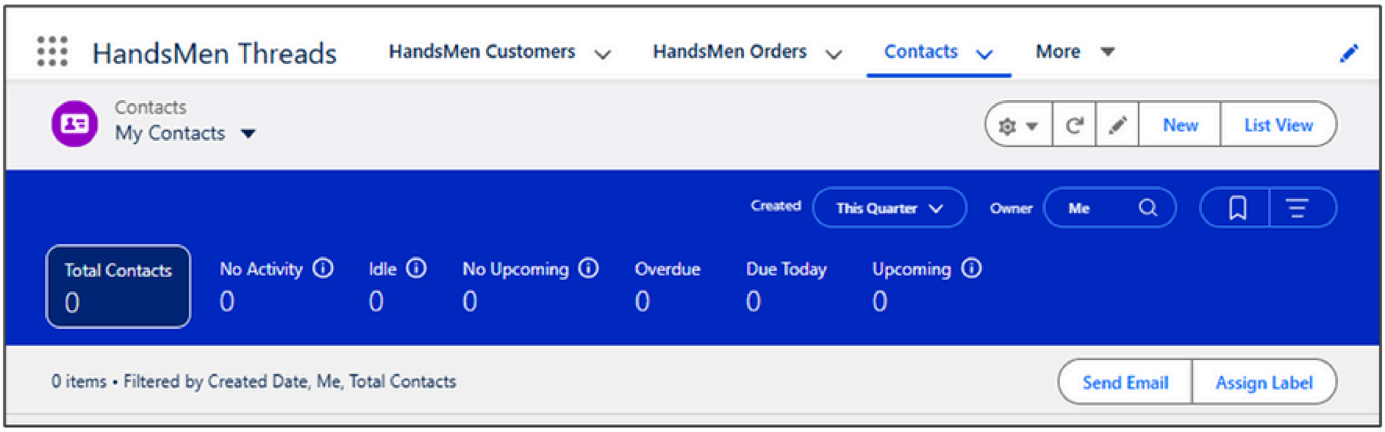
Marketing Campaigns Item Details



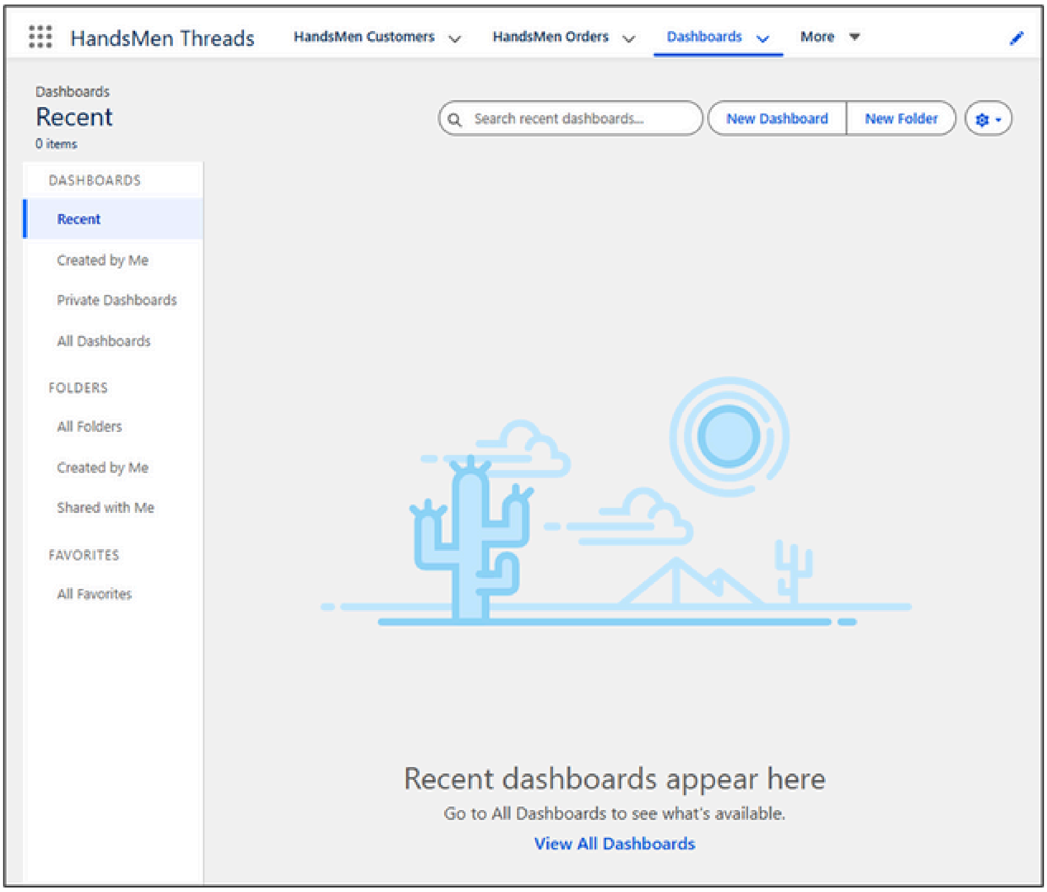
Reports



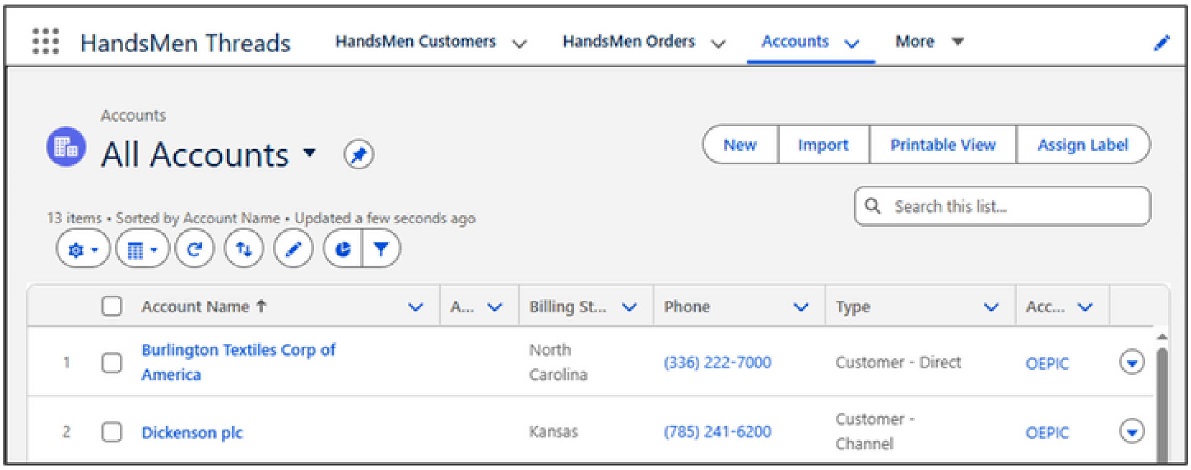
Contacts



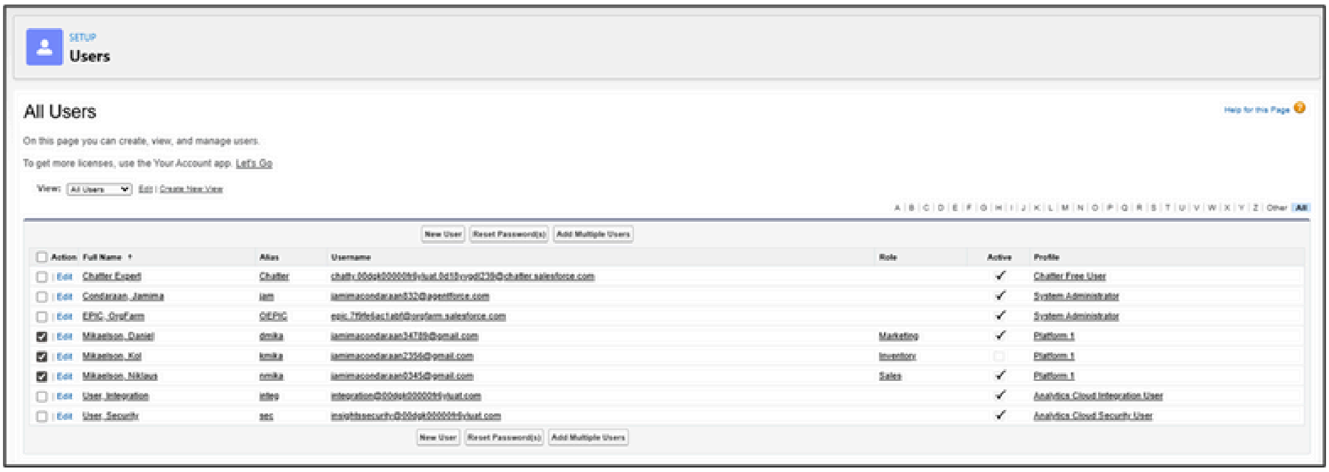
Contacts



Accounts

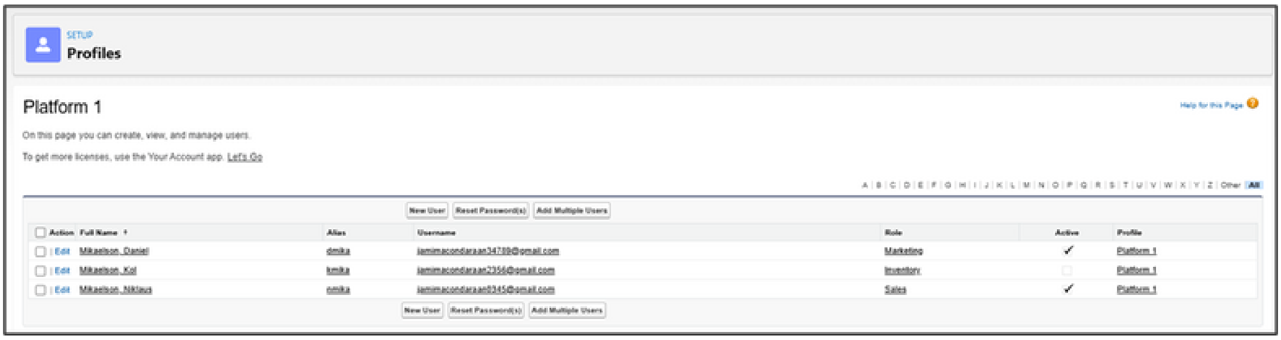


User Management



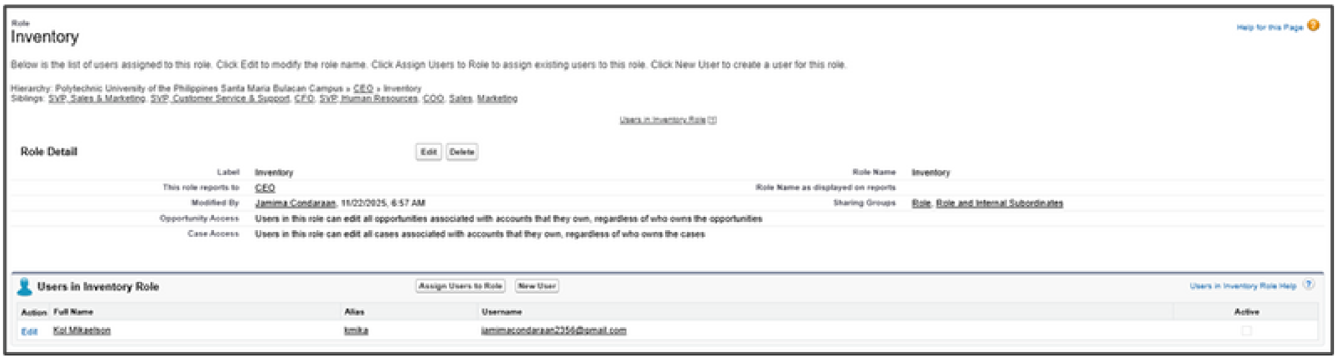
Phase 4:
Data Migration, Testing & Security

Profiles



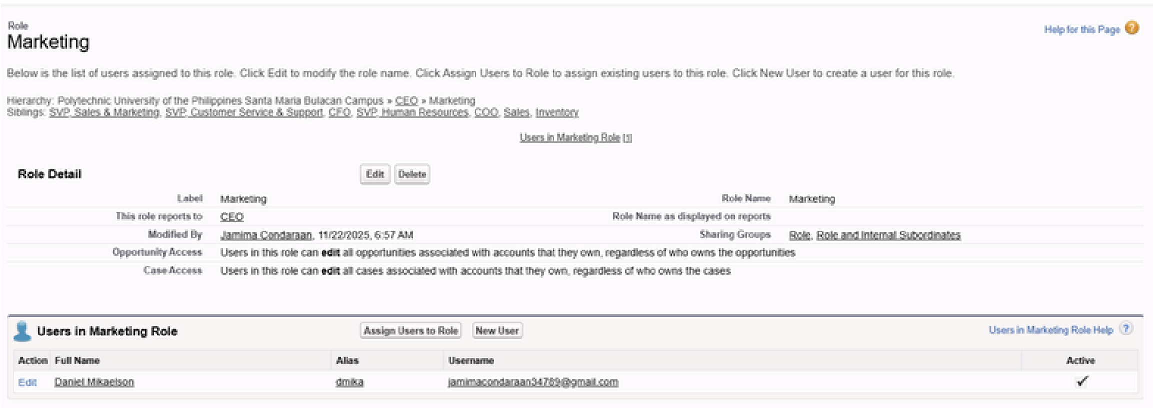
Roles and Role Hierarchy

Inventory Role – Kol Mikaelson



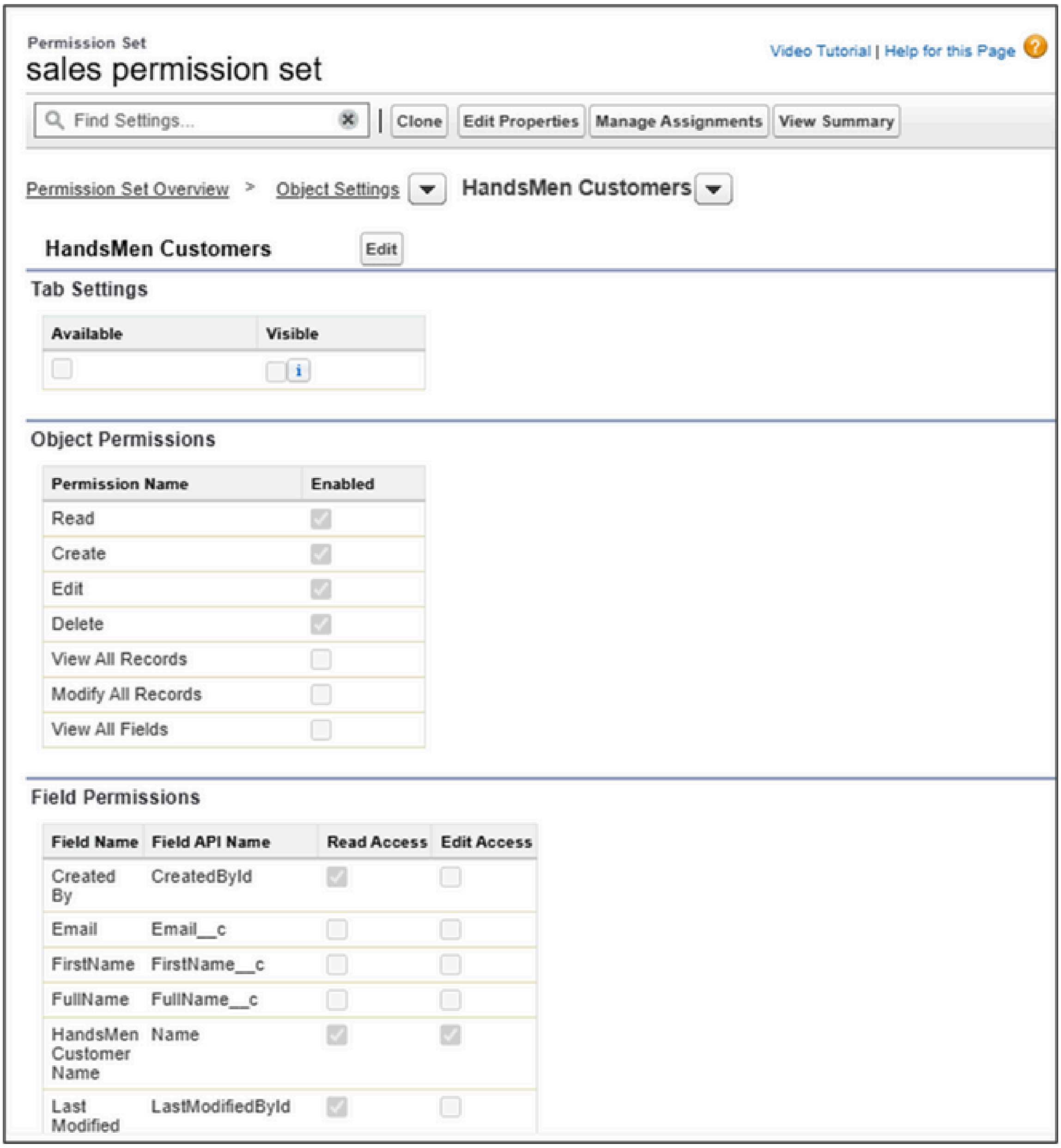
Sales Role – Niklaus Mikaelson

Marketing Role – Daniel Mikaelson

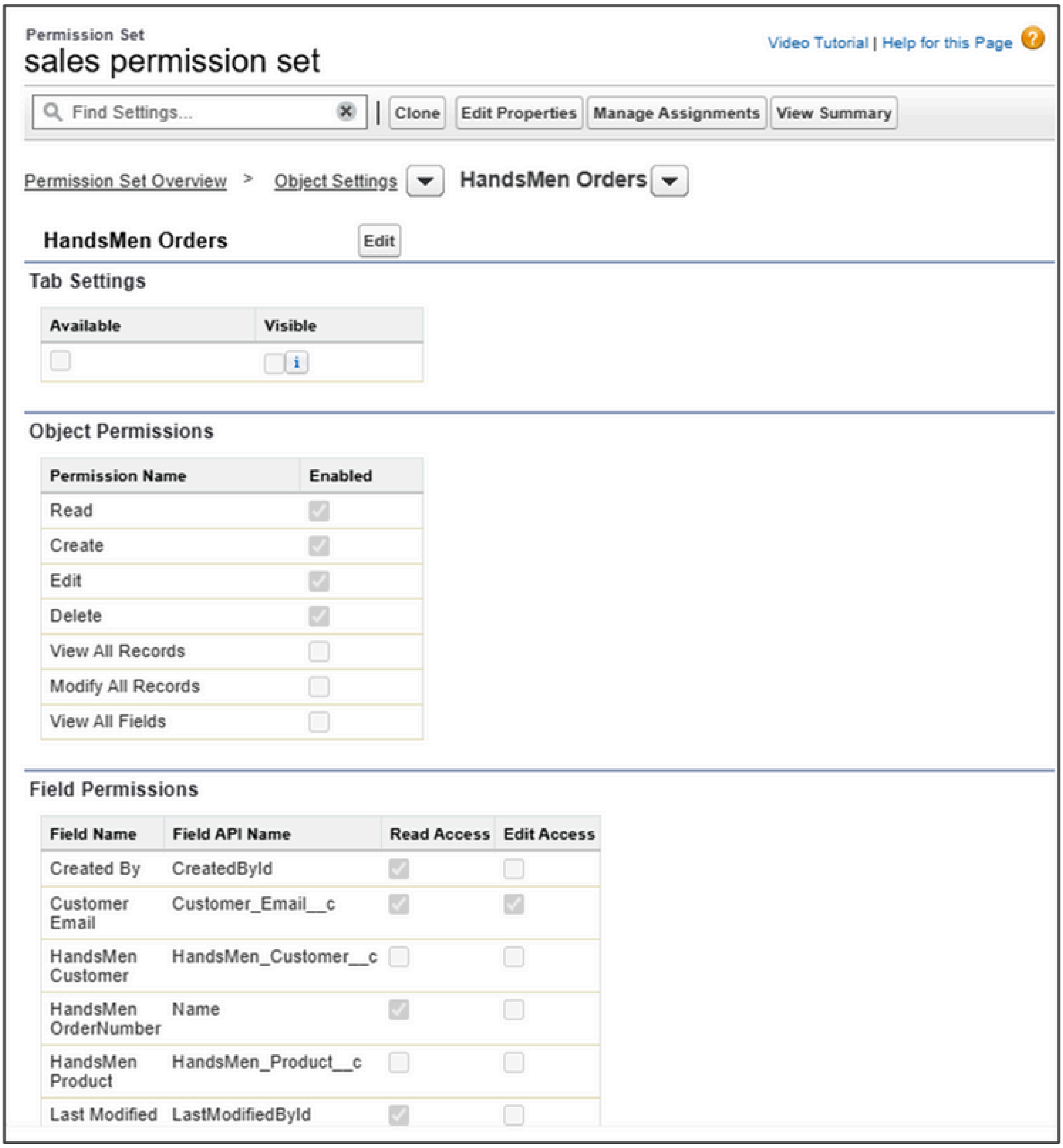


Permission Sets

sales permission set - HandsMen Customers



sales permission set - HandsMen Orders



Permission Set

sales permission set

Video Tutorial | Help for this Page

Find Settings... | Clone | Edit Properties | Manage Assignments | View Summary

Permission Set Overview > Object Settings HandsMen Orders

HandsMen Orders Edit

Tab Settings

Available	Visible
☐	☐

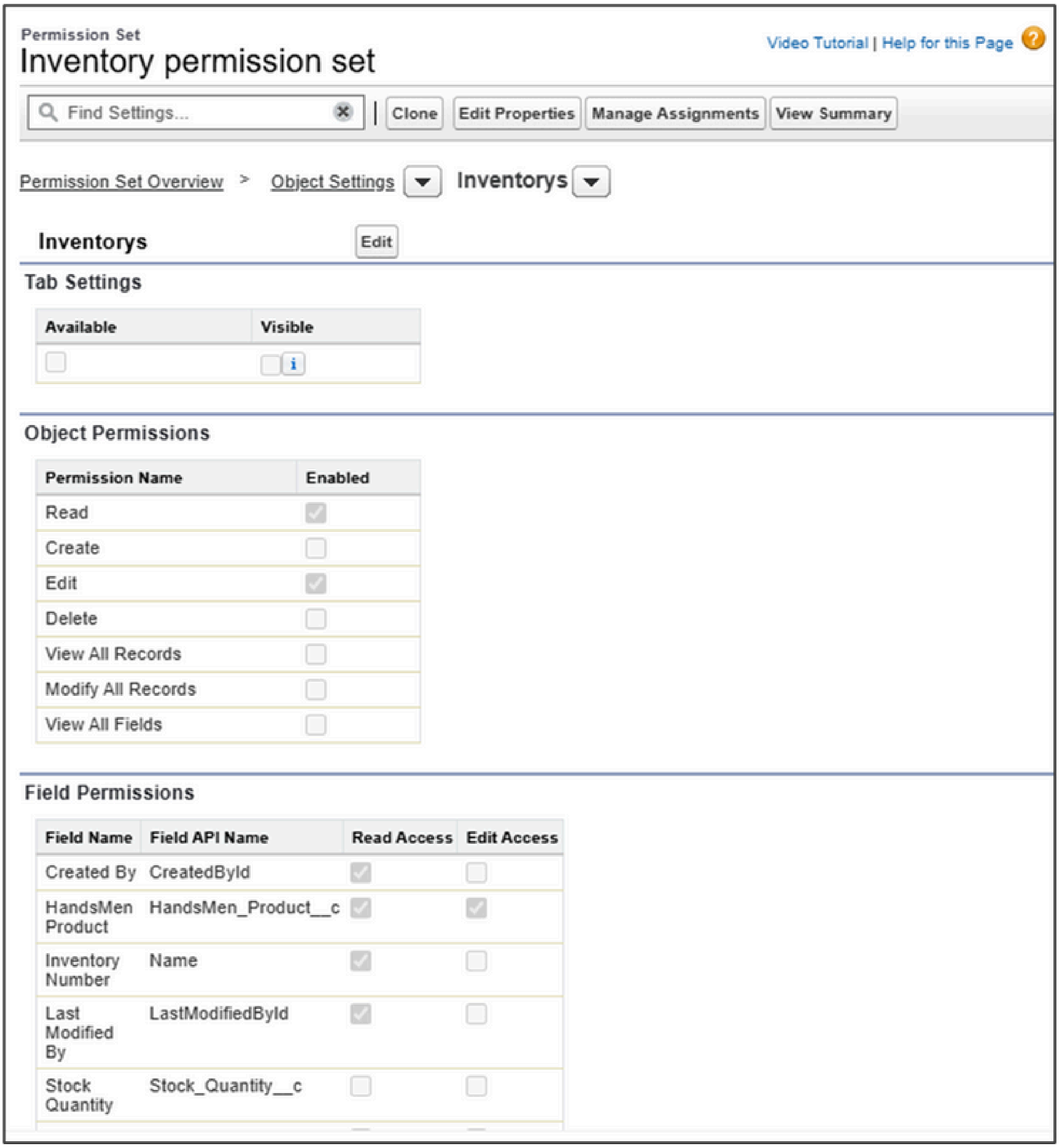
Object Permissions

Permission Name	Enabled
Read	☑
Create	☑
Edit	☑
Delete	☑
View All Records	☐
Modify All Records	☐
View All Fields	☐

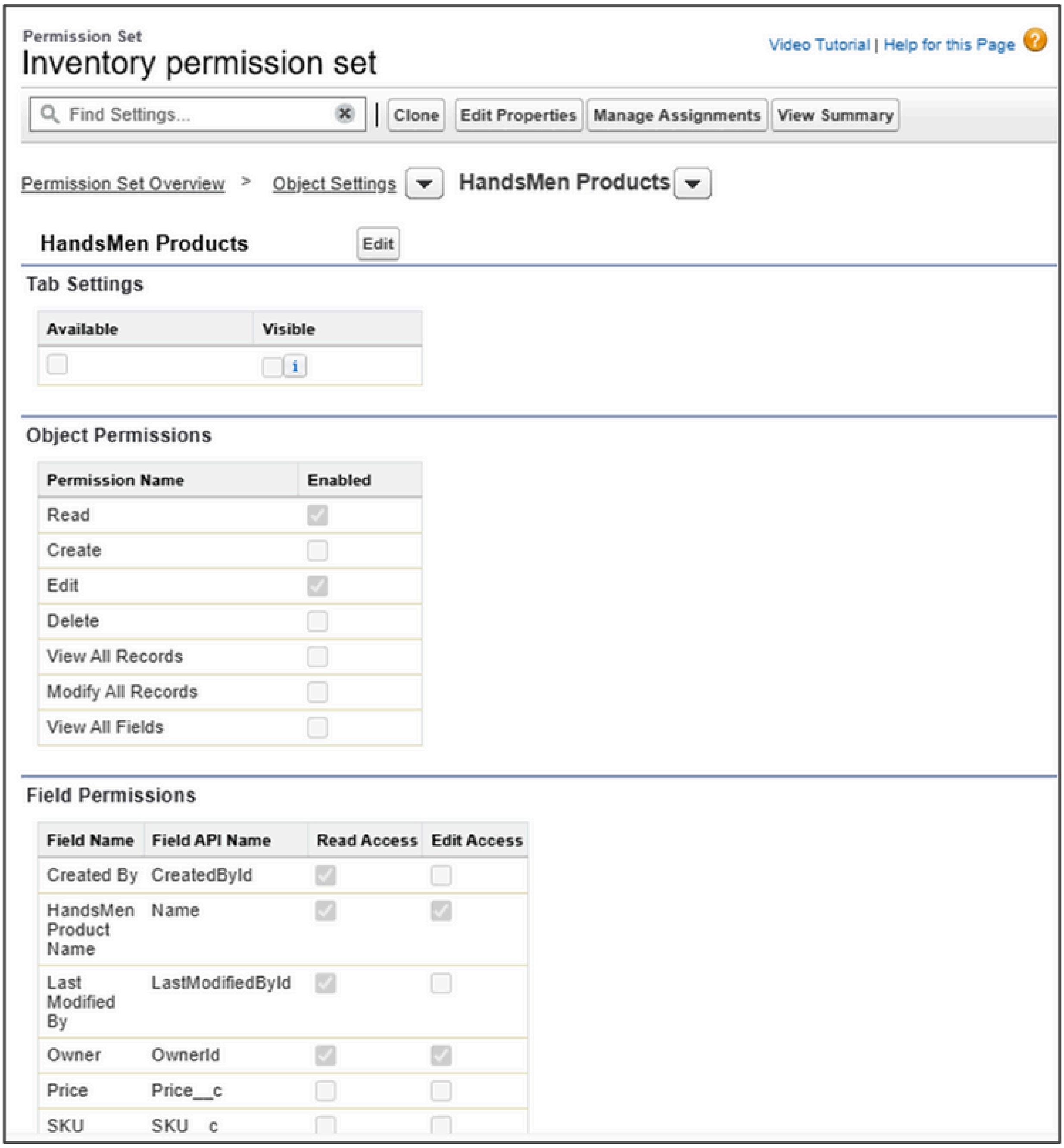
Field Permissions

Field Name	Field API Name	Read Access	Edit Access
Created By	CreatedById	☑	☐
Customer Email	Customer_Email__c	☑	☑
HandsMen Customer	HandsMen_Customer__c	☐	☐
HandsMen OrderNumber	Name	☑	☐
HandsMen Product	HandsMen_Product__c	☐	☐
Last Modified	LastModifiedById	☑	☐

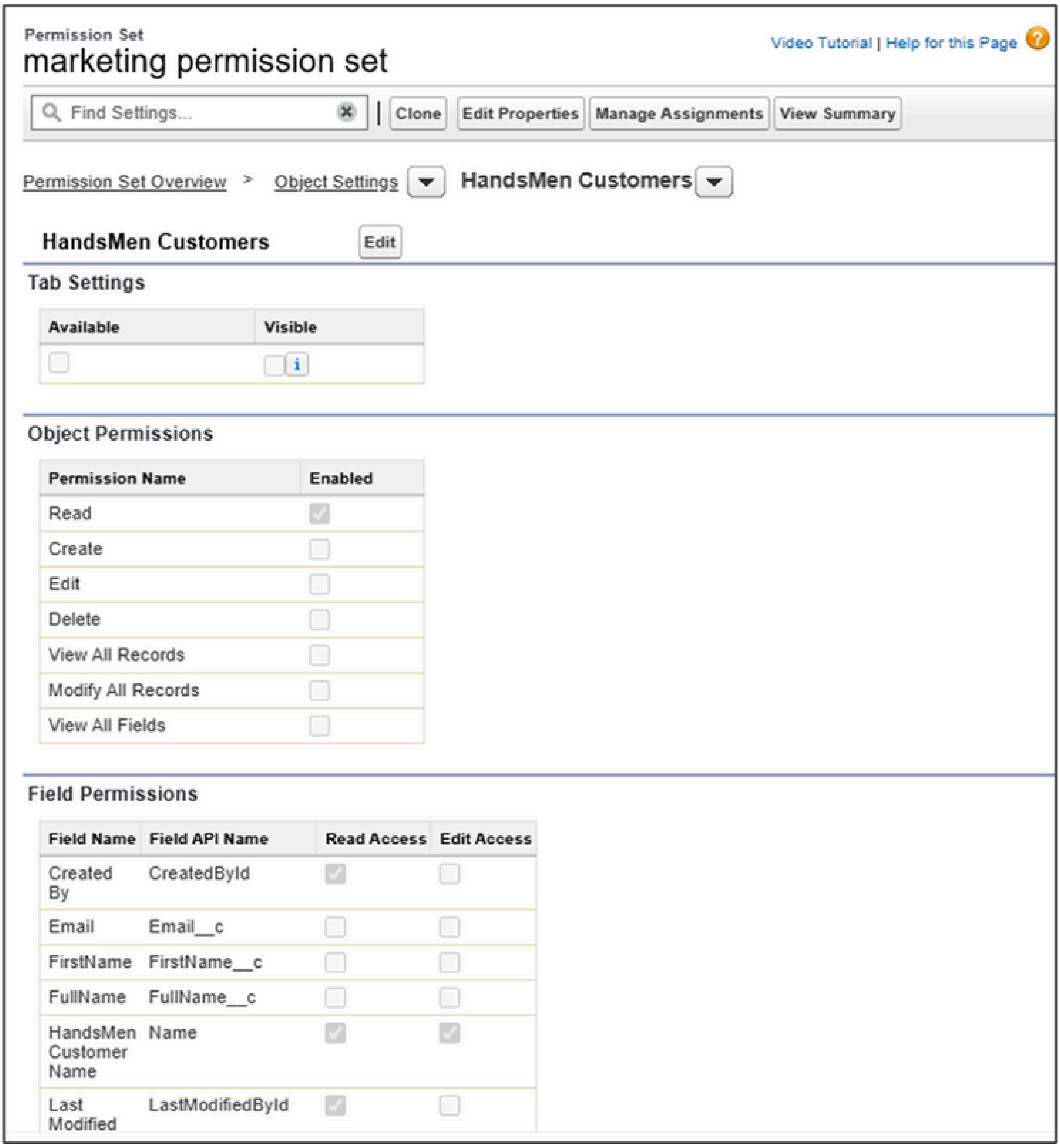
Inventory permission set – Inventorys



Inventory permission set – HandsMen Products



marketing permission set – HandsMen Customers



Permission Set

marketing permission set

Video Tutorial | Help for this Page

Find Settings... | Clone | Edit Properties | Manage Assignments | View Summary

Permission Set Overview > Object Settings > HandsMen Customers

HandsMen Customers Edit

Tab Settings

Available	Visible

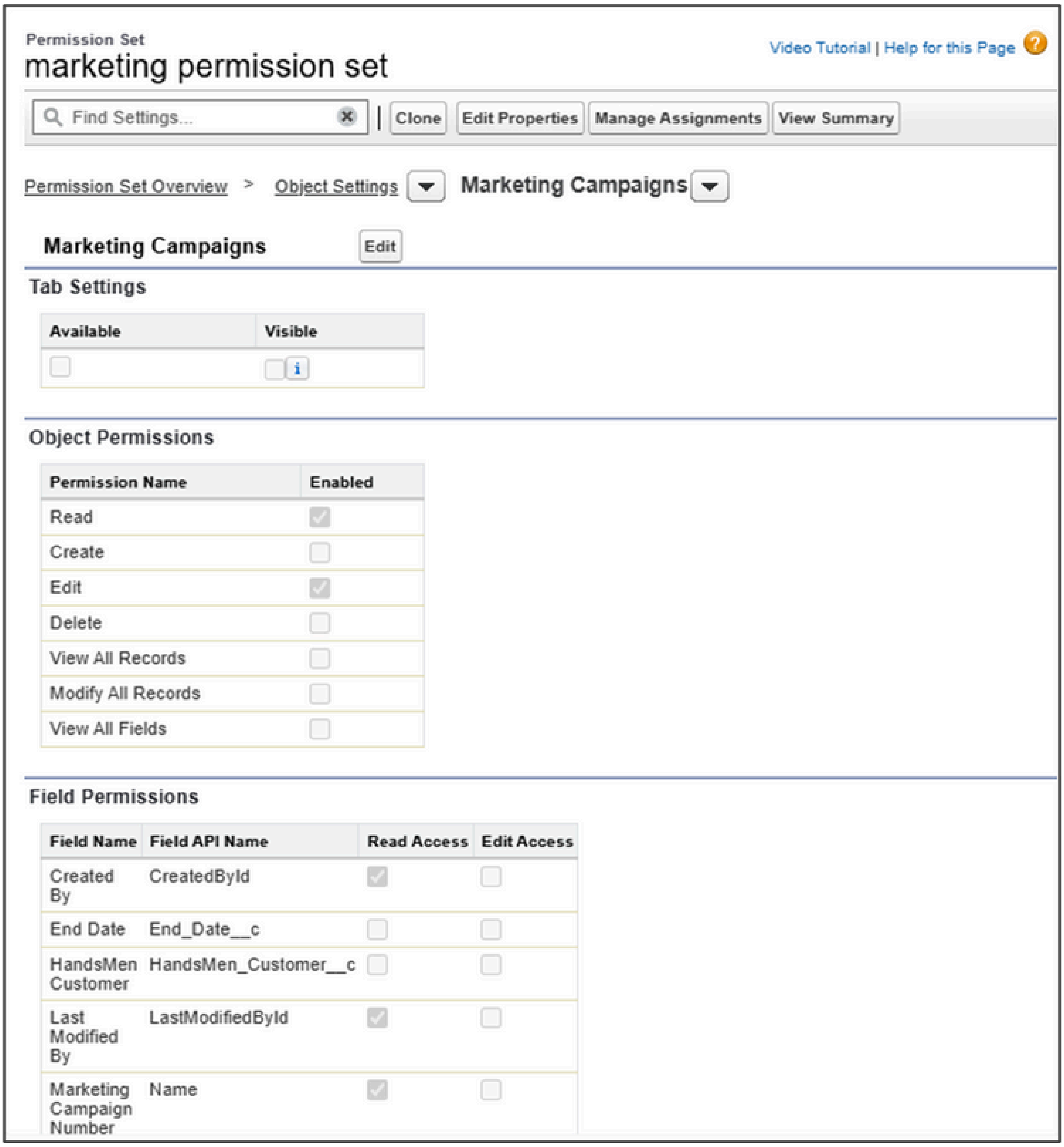
Object Permissions

Permission Name	Enabled
Read	✓
Create	
Edit	
Delete	
View All Records	
Modify All Records	
View All Fields	

Field Permissions

Field Name	Field API Name	Read Access	Edit Access
Created By	CreatedById	✓	
Email	Email__c		
FirstName	FirstName__c		
FullName	FullName__c		
HandsMen Customer Name	Name	✓	✓
Last Modified	LastModifiedById	✓	

marketing permission set – Marketing Campaigns



Apex Triggers

Order Total Trigger

```
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;
            }
        }
    }
}
```

Stock Deduction Trigger

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

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

    if (productIds.isEmpty()) return;

    // Query related inventories based on product
    Map<Id, Inventory__c> inventoryMap = new Map<Id, Inventory__c>(
        [SELECT Id, Stock_Quantity__c, HandsMen_Product__c
         FROM Inventory__c
         WHERE HandsMen_Product__c IN :productIds]
    );

    List<Inventory__c> inventoriesToUpdate = new List<Inventory__c>();

    for (HandsMen_Order__c order : Trigger.new) {
        if (order.Status__c == 'Confirmed' && order.HandsMen_Product__c != null) {
            for (Inventory__c inv : inventoryMap.values()) {
                if (inv.HandsMen_Product__c == order.HandsMen_Product__c) {
                    inv.Stock_Quantity__c -= order.Quantity__c;
                    inventoriesToUpdate.add(inv);
                    break;
                }
            }
        }
    }

    if (!inventoriesToUpdate.isEmpty()) {
        update inventoriesToUpdate;
    }
}
```

Order Trigger Handler

OrderTotalTrigger.apxt | StockDeductionTrigger.apxt | OrderTriggerHandler.apxc

Code Coverage: None | API Version: 65

```java
public class OrderTriggerHandler {
    public static void validateOrderQuantity(List<HandsMen_Order__c> orderList) {
        for (HandsMen_Order__c order : orderList) {
            if (order.Status__c == 'Confirmed') {
                if (order.Quantity__c == null || order.Quantity__c <= 500) {
                    order.Quantity__c.addError('For Status "Confirmed", Quantity must be more than 500.');
                }
            } else if (order.Status__c == 'Pending') {
                if (order.Quantity__c == null || order.Quantity__c <= 200) {
                    order.Quantity__c.addError('For Status "Pending", Quantity must be more than 200.');
                }
            } else if (order.Status__c == 'Rejection') {
                if (order.Quantity__c == null || order.Quantity__c != 0) {
                    order.Quantity__c.addError('For Status "Rejection", Quantity must be 0.');
                }
            }
        }

        System.debug('All records validated successfully.');
    }
}
```

Order Trigger

OrderTotalTrigger.apxt | StockDeductionTrigger.apxt | OrderTriggerHandler.apxc | OrderTrigger.apxt

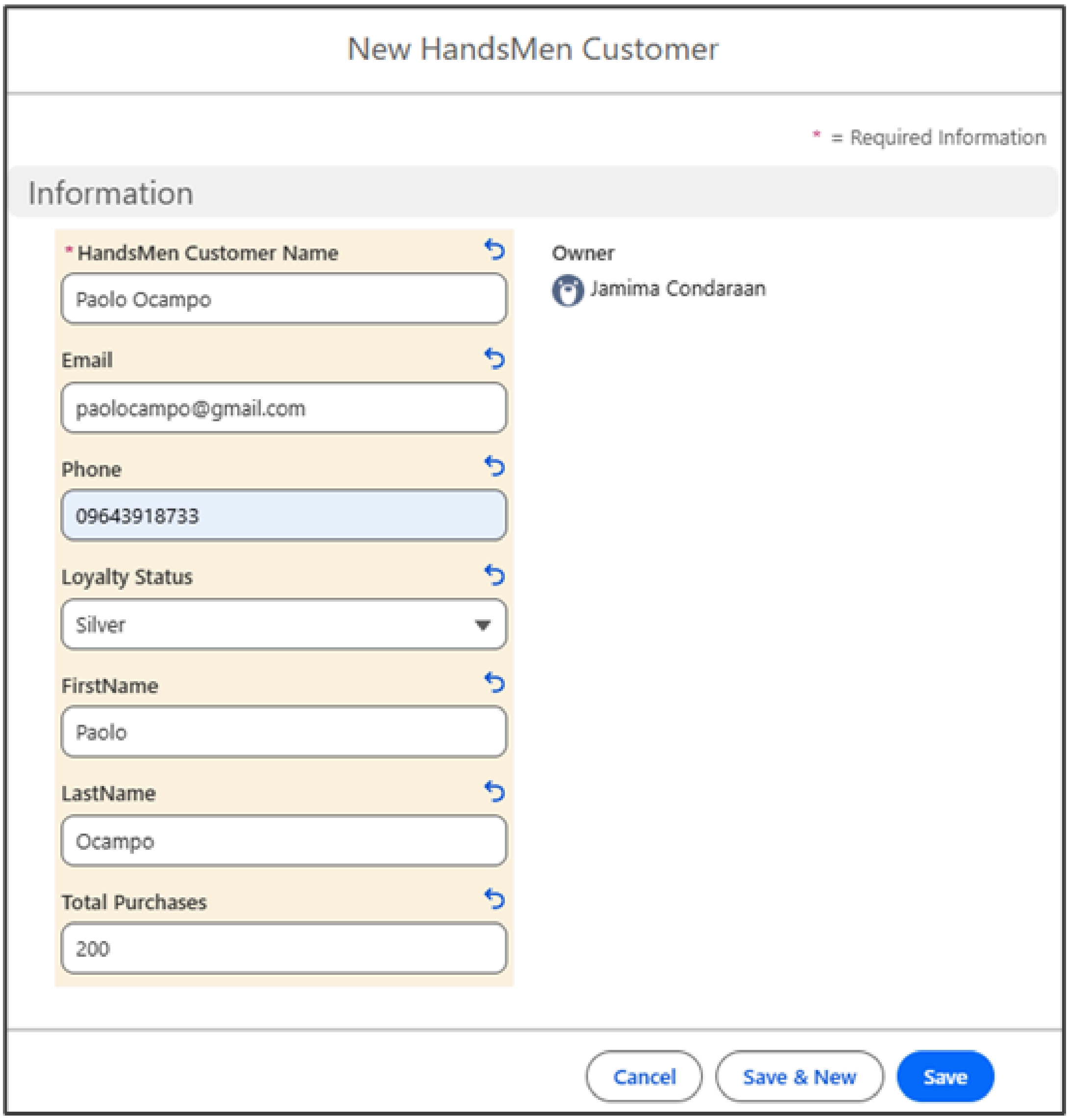
Code Coverage: None | API Version: 65

```java
trigger OrderTrigger on HandsMen_Order__c (before insert, before update) {

    if (Trigger.isBefore && (Trigger.isInsert || Trigger.isUpdate)) {

        OrderTriggerHandler.validateOrderQuantity(Trigger.new);

    }

}
```

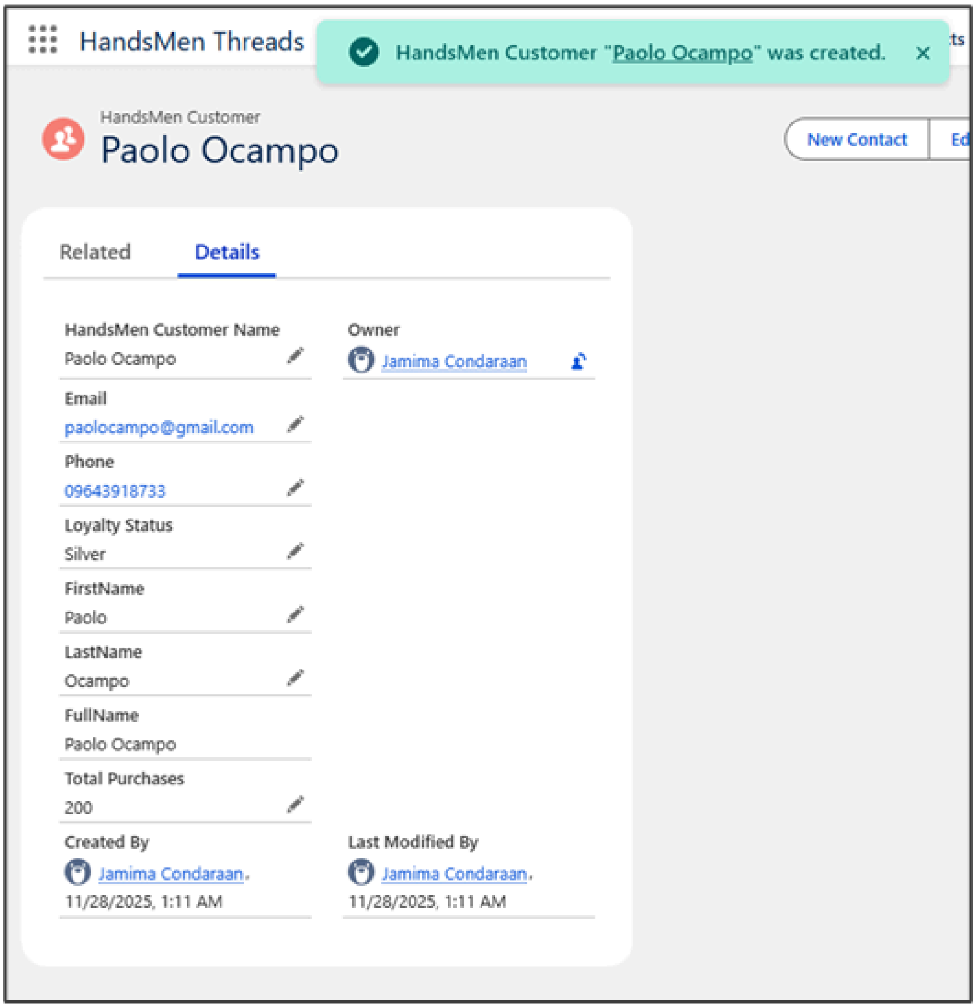
Creation of Test Classes

Creating a customer

Input

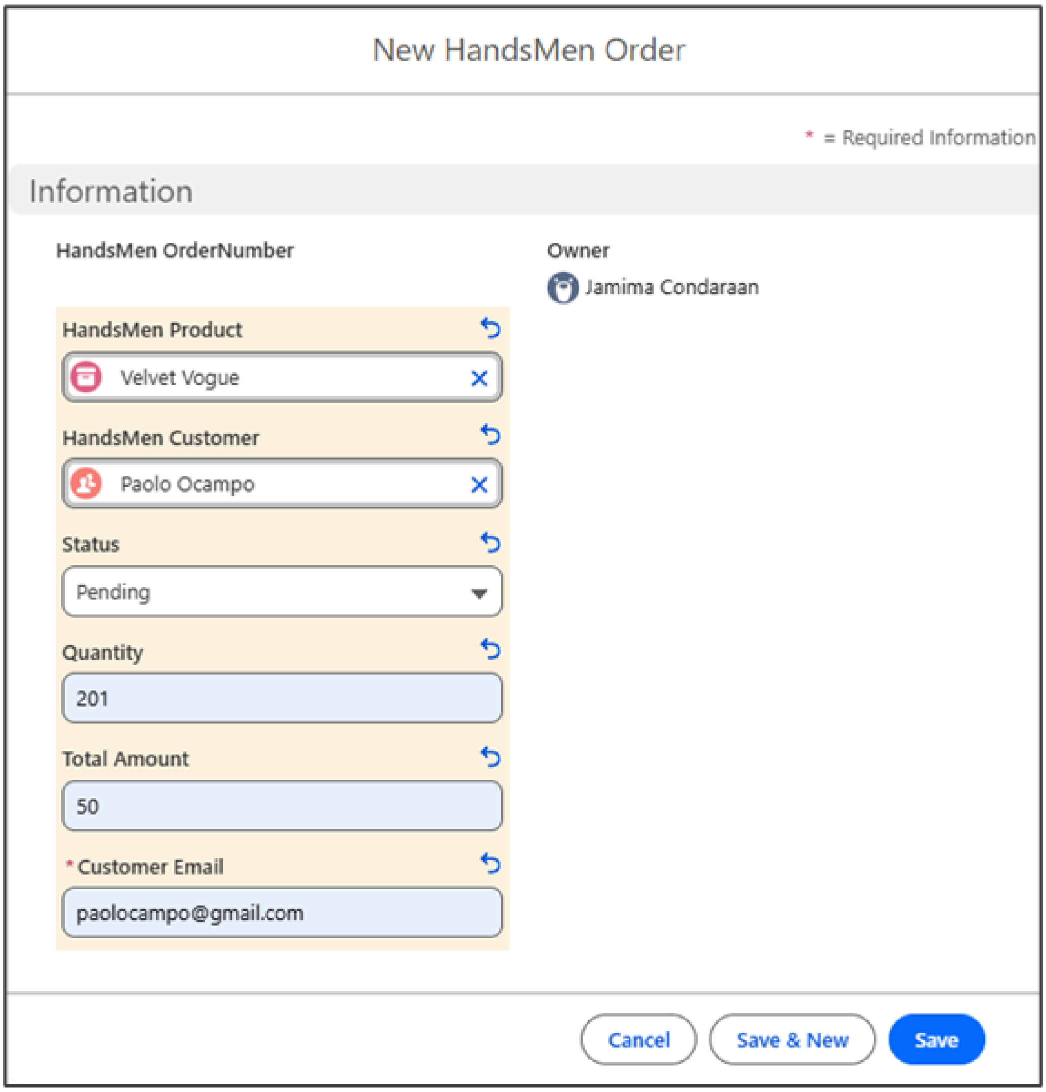


Output

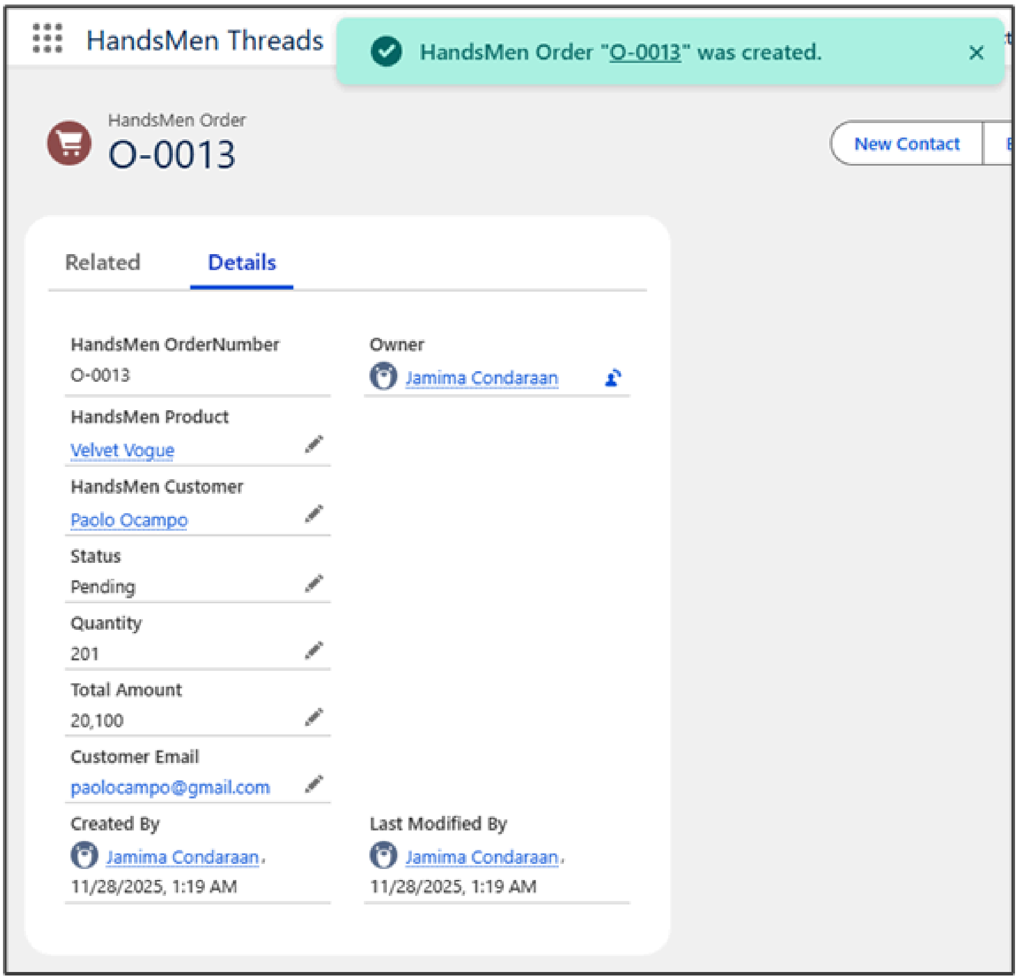

HandsMen Threads
HandsMen Customer "Paolo Ocampo" was created.
HandsMen Customer
Paolo Ocampo
New Contact
Related
Details
HandsMen Customer Name
Paolo Ocampo
Owner
Jamima Condaraan
Email
paolocampo@gmail.com
Phone
09643918733
Loyalty Status
Silver
FirstName
Paolo
LastName
Ocampo
FullName
Paolo Ocampo
Total Purchases
200
Created By
Jamima Condaraan, 11/28/2025, 1:11 AM
Last Modified By
Jamima Condaraan, 11/28/2025, 1:11 AM

Creating an order

Input

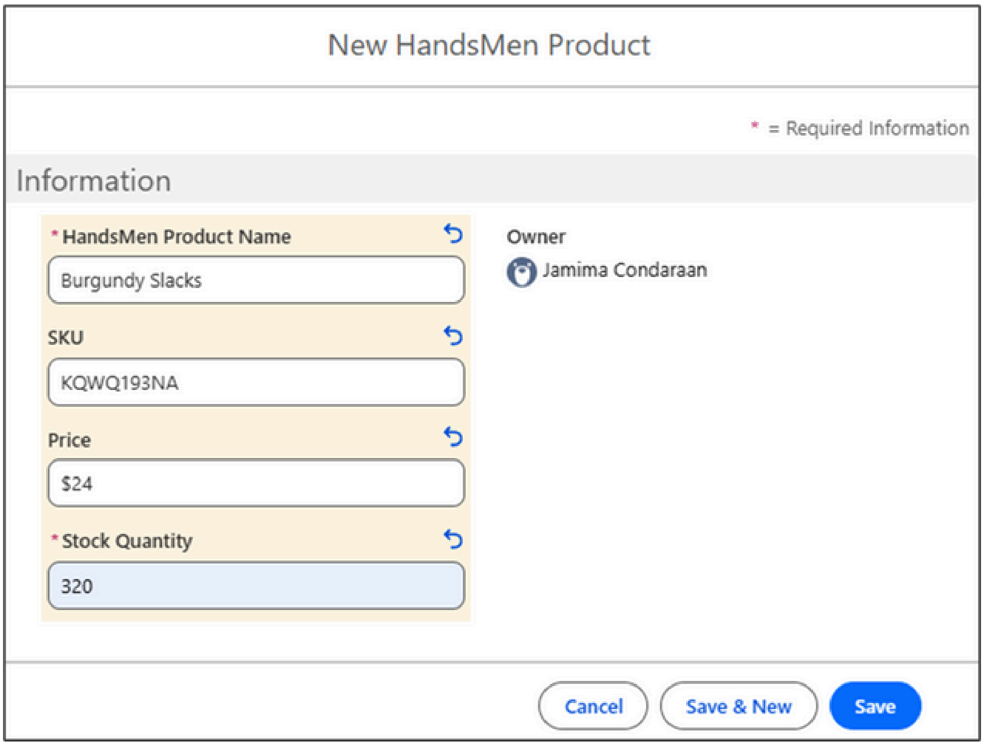


Output

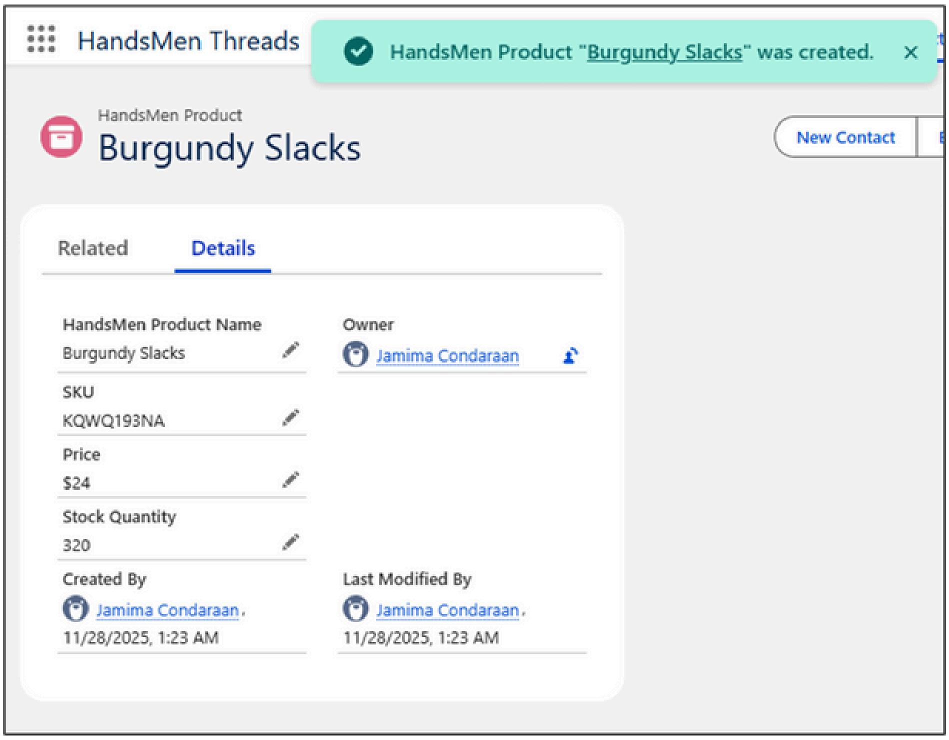

HandsMen Threads
HandsMen Order "O-0013" was created.
HandsMen Order
O-0013
New Contact
Related
Details
HandsMen OrderNumber
O-0013
Owner
Jamima Condaraan
HandsMen Product
Velvet Vogue
HandsMen Customer
Paolo Ocampo
Status
Pending
Quantity
201
Total Amount
20,100
Customer Email
paolocampo@gmail.com
Created By
Jamima Condaraan, 11/28/2025, 1:19 AM
Last Modified By
Jamima Condaraan, 11/28/2025, 1:19 AM

Creating a new Product

Input

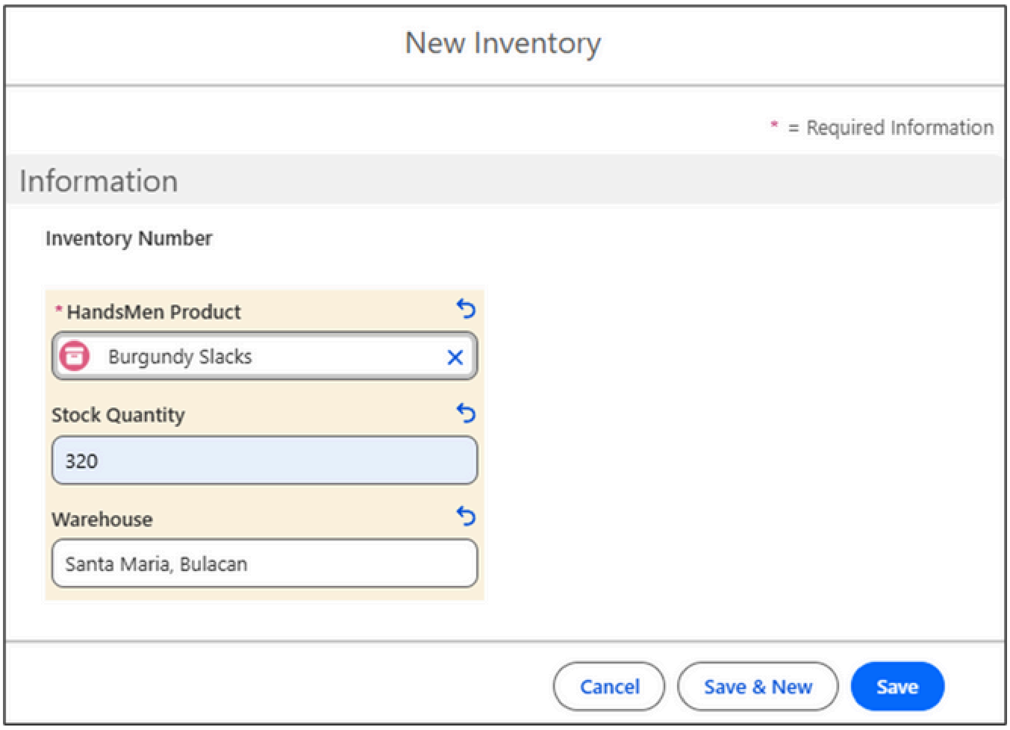


Output

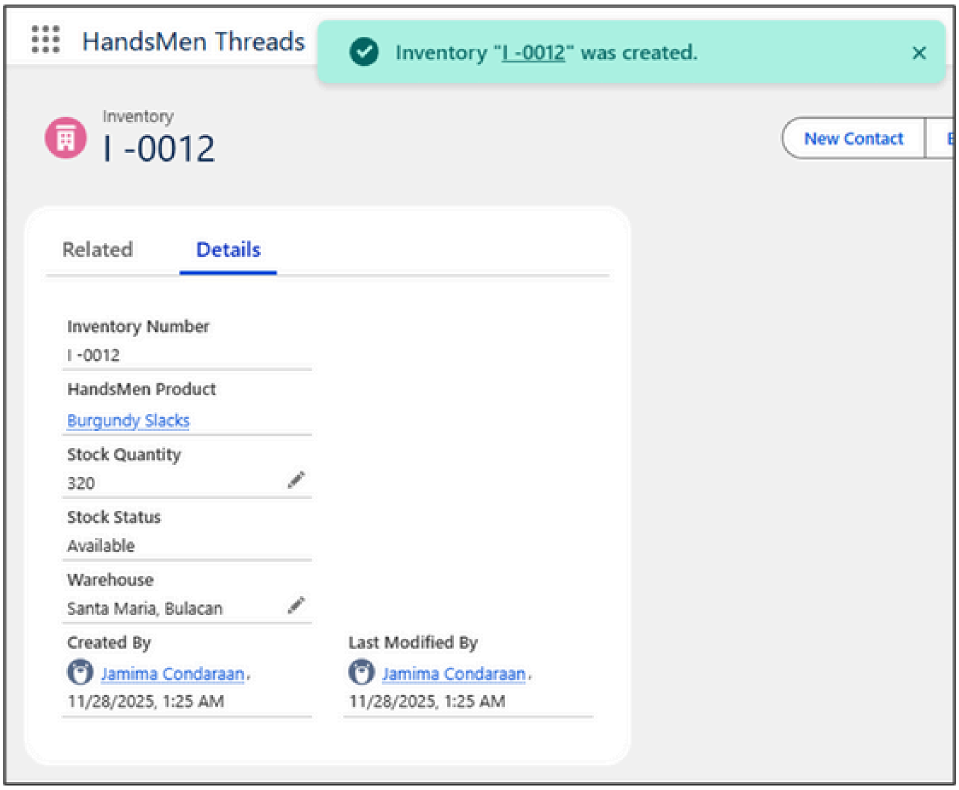


Creating an order item

Input

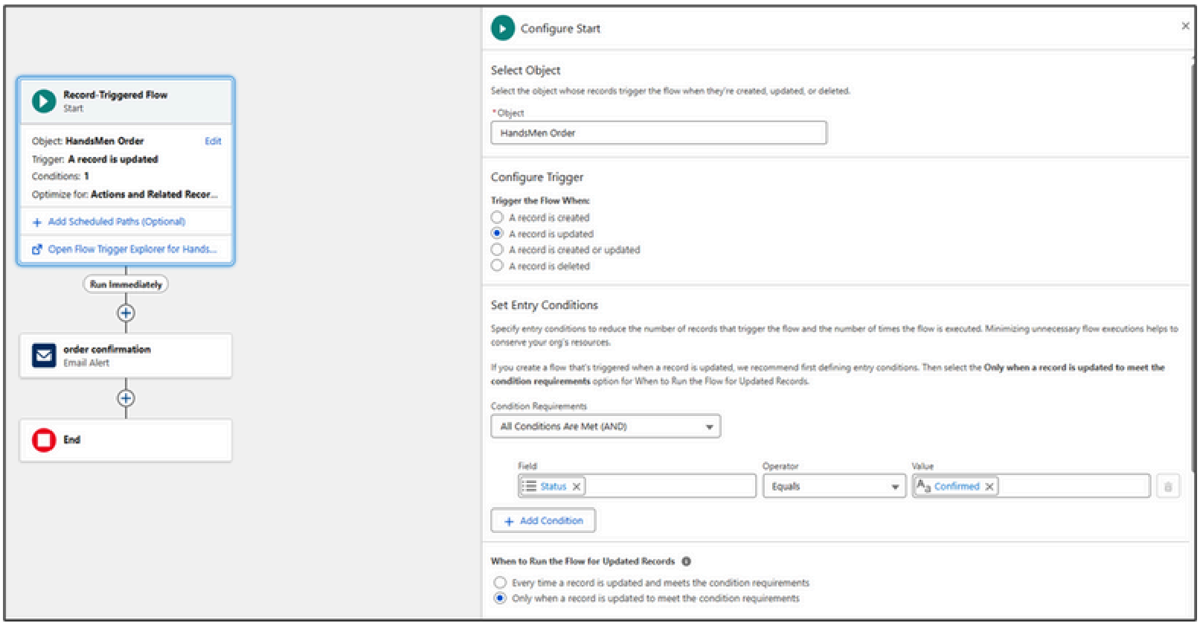


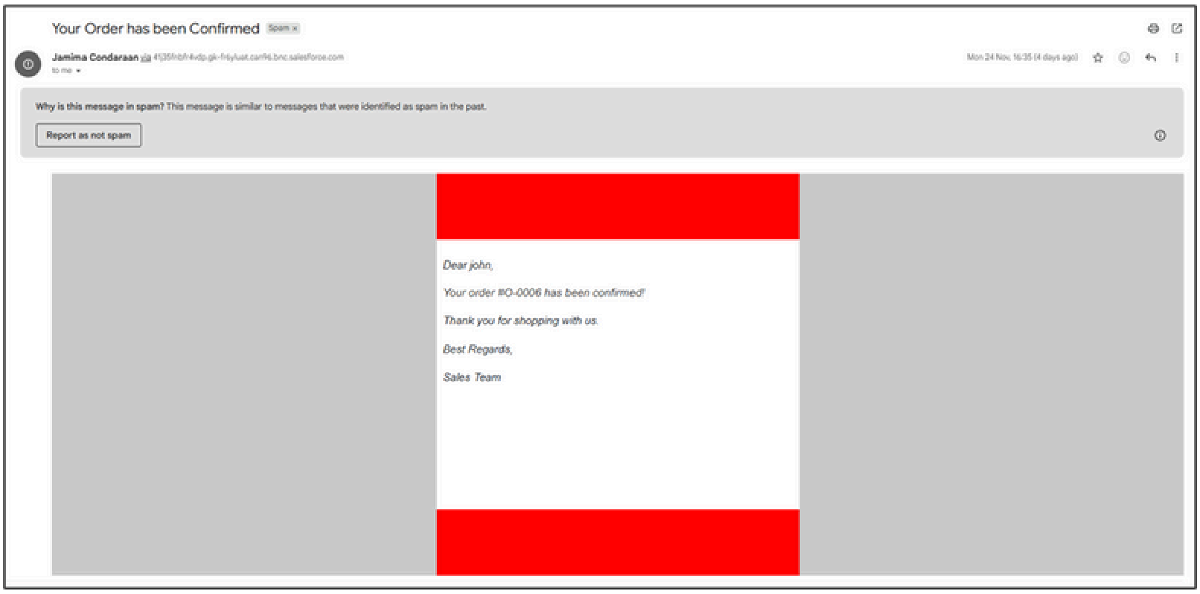
Output



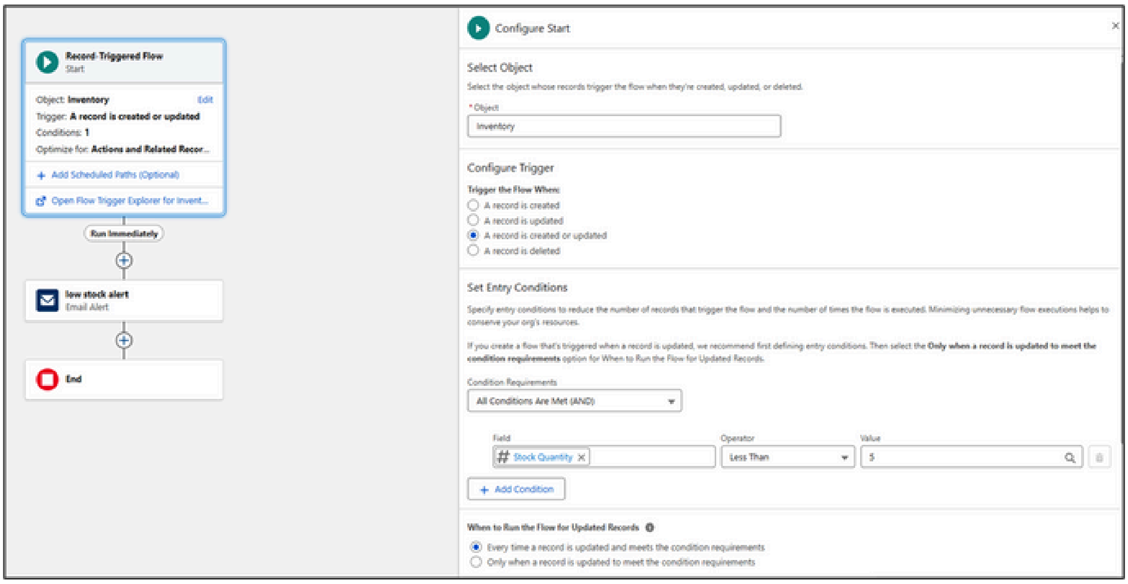
Testing Record Triggered Flow (Email Alerts)

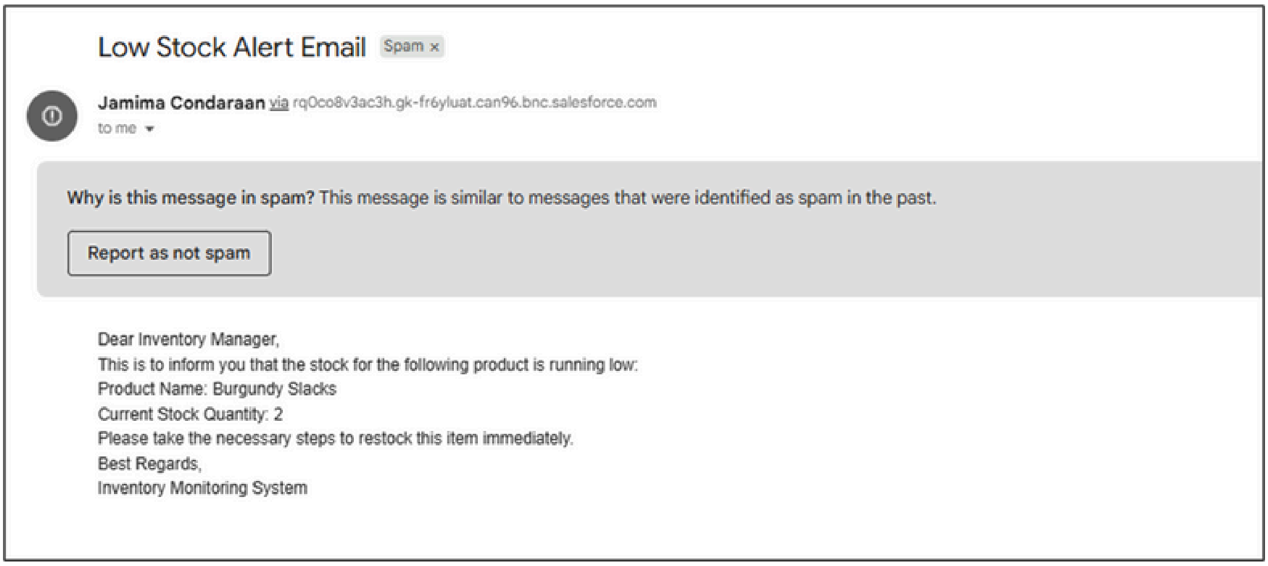
Order Confirmation



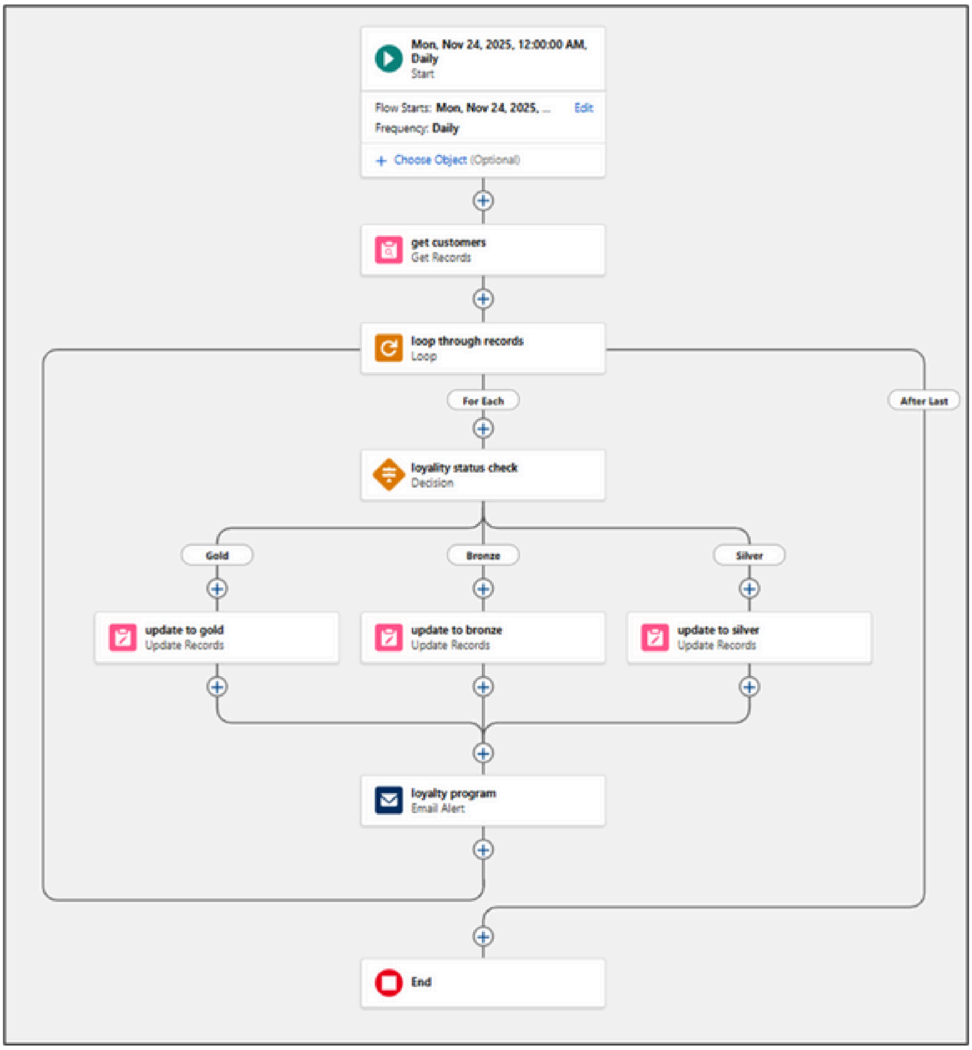


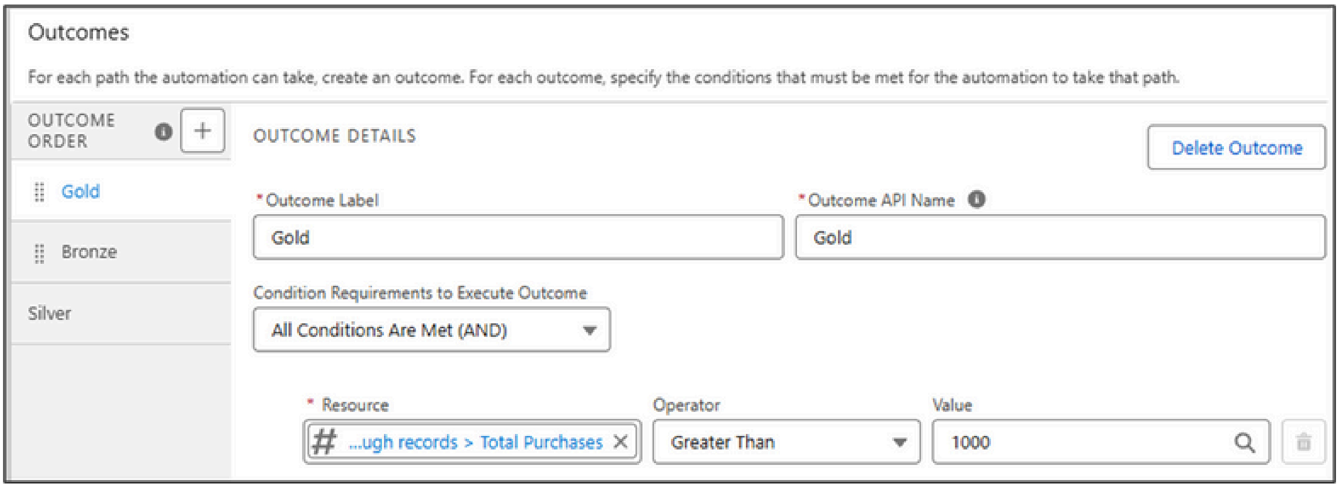
Low Stock Alert Email





Loyalty Program Email





Phase 5:

Deployment, Documentation & Maintenance

Deployment Strategy

- Direct deployment to production environment
- Comprehensive testing before deployment
- User training and testing along with proper documentation

Description of Maintenance and Monitoring

- Regular system health checks
- Performance monitoring for batch jobs
- Error log review and resolution
- User support and troubleshooting

Documentation of Troubleshooting Approach

- Debug logs for real-time issue identification
- Systematic testing methodology
- User feedback incorporation
- Continuous improvement process

Conclusion

This project shows how Salesforce can be used to develop solutions that automate customer relationship management, order processing, inventory tracking, and marketing activities. A CRM can benefit businesses in many ways. We have created a solution that is effective for administrators by utilizing the entire stack of Salesforce capabilities, from point-and-click Flows and security controls to programmatic Apex triggers and batch jobs. Now that HandsMen Threads has a platform that will not only simplify operations but also develop and change with the company for years to come, it truly embodies the idea of working smarter, not harder.

Future Enhancements

- AI Integration: Einstein Analytics for customer behavior prediction
- Chatbot Implementation: Automated customer service and support
- Mobile Application: Custom mobile experience for sales team
- Advanced Analytics: Predictive inventory management