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

PROJECT OVERVIEW

HandsMen Threads is a growing fashion brand specializing in men's apparel and accessories. To streamline operations and strengthen customer engagement, the company implemented a **Salesforce CRM System** that centralizes business data, automates workflows, and enhances data integrity across Sales, Inventory, and Marketing departments.

The CRM introduces:

- A **scalable data model** for customers, orders, products, inventory, and campaigns
  UI-driven data validation for consistent and clean data
- **Automations** like order confirmations, loyalty program updates, and stock alerts
- **Scheduled Apex jobs** for midnight processing and weekly loyalty updates
- **Robust security model** through roles, profiles, and permission sets

This integrated solution addresses key operational pains: manual updates, inconsistent records, slow customer communication, and lack of real-time inventory visibility.

OBJECTIVES

The Salesforce CRM aims to:

2.1 Operational Efficiency

- Centralize customer, product, order, and inventory data
- Automate common workflows to reduce manual processes
- Provide reliable dashboards for business insights

2.2 Customer Engagement

- Auto-send order confirmation emails
- Maintain a dynamic loyalty program
- Provide targeted marketing via campaign management

2.3 Data Integrity & Accuracy

- Enforce validation rules for email formats, totals, and inventory
- Prevent overselling by real-time stock deductions
- Execute automated bulk processing to maintain consistent data
-

PHASE 1: Requirement Analysis & Planning

3.1 Understanding Business Requirements

The CRM must support:

✔ Centralized customer, product, order, inventory & campaign data
✔ Automated order confirmations
✔ Loyalty status updates based on purchase totals
✔ Stock alerts when inventory < 5
✔ Scheduled bulk processing during midnight
✔ Role-based security access

3.2 Scope Definition

In-Scope

- Build 5 custom objects
- Create fields, relationships & page layouts

- Develop validation rules and flows
- Build email templates & alerts
- Implement Apex triggers and batch jobs

- Configure roles, profiles, and permission sets

Out-of-Scope (Phase 1)

- External system integrations
- POS / ERP integration
- Mobile app enhancement

PHASE 2: Salesforce Development - Backend & Configurations

Data Model: Custom Objects

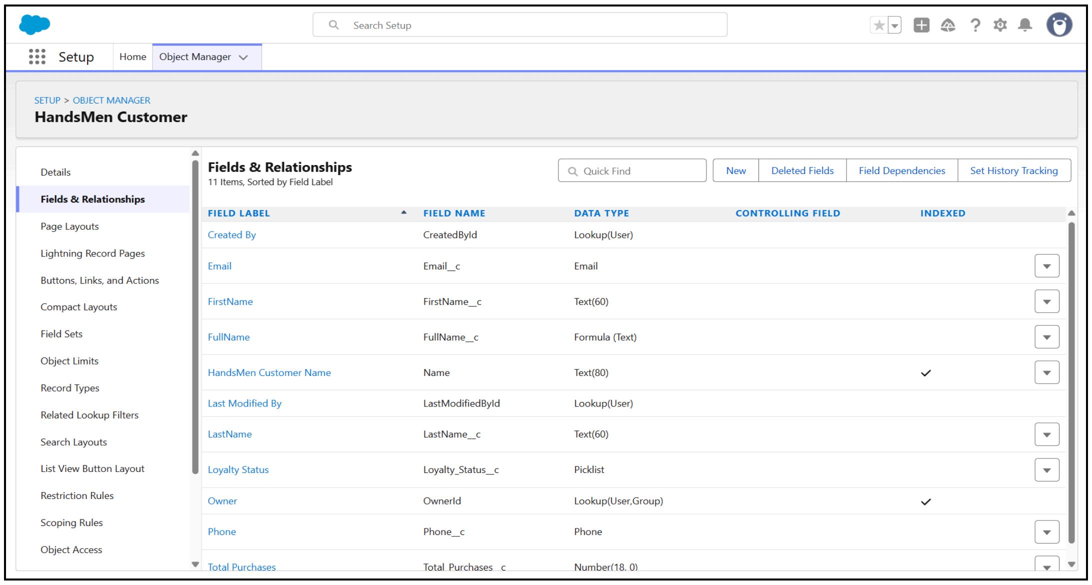
1. HandsMen Customer

Stores customer data and loyalty metrics.

Key Fields:

- FirstName, LastName
- FullName (Formula)
- Email
- Phone
- Loyalty_Status__c
- Total_Purchases__c
- Loyalty_Points__c (for scheduled batch)

Validation Rule:
Must use a Gmail address.



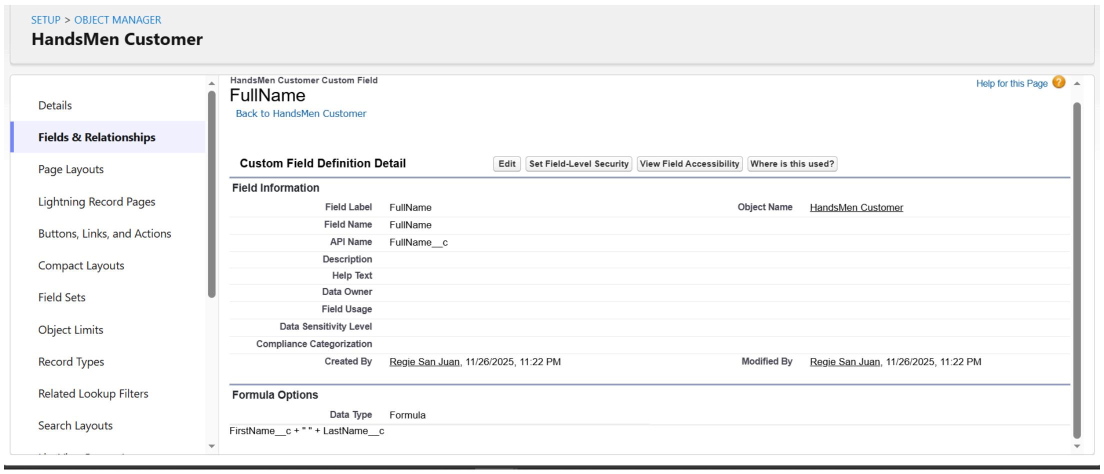
SETUP > OBJECT MANAGER

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

Fields & Relationships
11 Items, Sorted by Field Label

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)		



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

HandsMen Customer Custom Field
FullName
Back to HandsMen Customer

Custom Field Definition Detail

Field Information

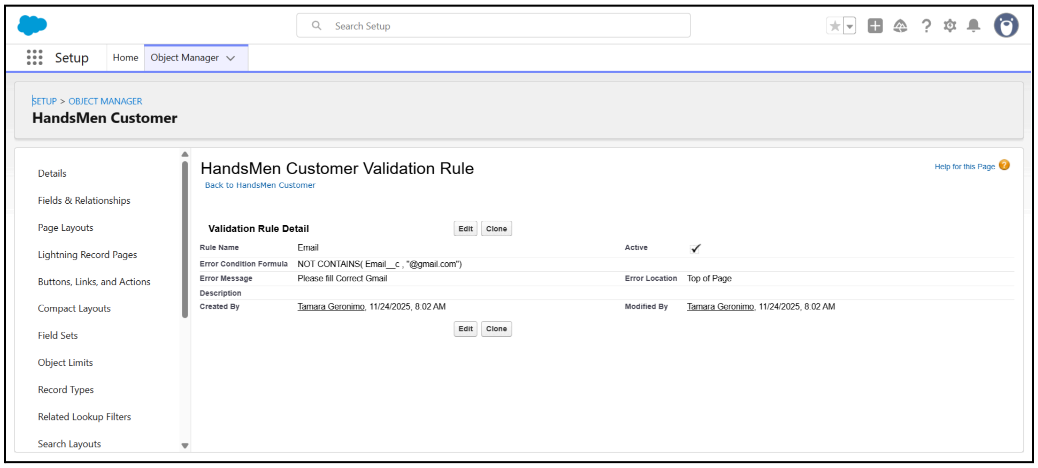
Field Label	FullName	Object Name	HandsMen Customer
Field Name	FullName		
API Name	FullName__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Regie San Juan, 11/26/2025, 11:22 PM	Modified By	Regie San Juan, 11/26/2025, 11:22 PM

Formula Options

Data Type	Formula

FirstName__c + " " + LastName__c

Image 2. FullName – HandsMen Customer Field Setup



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

HandsMen Customer Validation Rule
Back to HandsMen Customer

Validation Rule Detail

Rule Name	Email	Active	✓
Error Condition Formula	NOT CONTAINS(Email__c , "@gmail.com")		
Error Message	Please fill Correct Gmail	Error Location	Top of Page
Description			
Created By	Tamara Geronimo, 11/24/2025, 8:02 AM	Modified By	Tamara Geronimo, 11/24/2025, 8:02 AM

Image 3. Email – Validation Rule

HandsMen Product

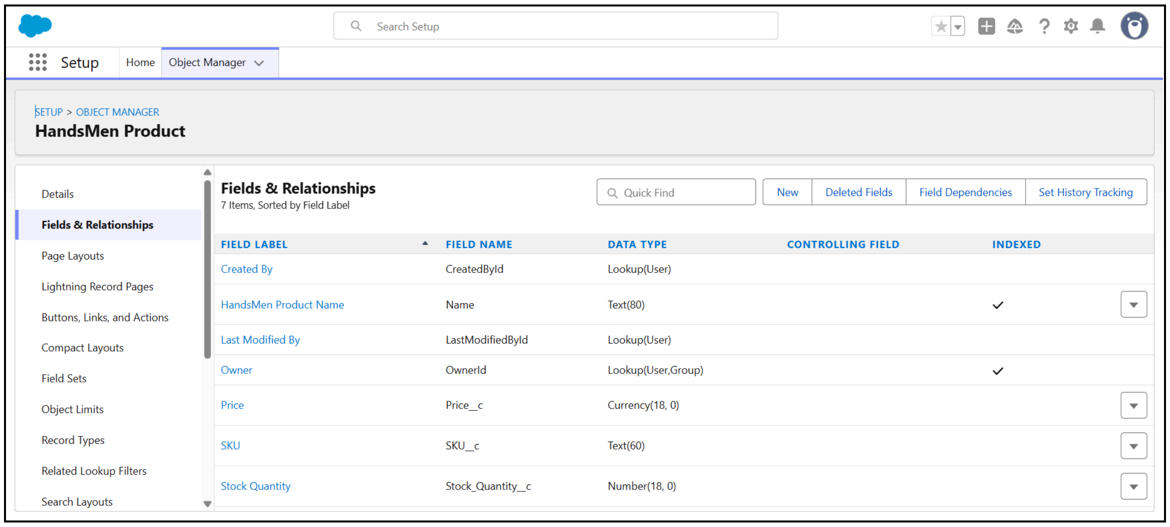
Stores catalog information.

Key Fields:

- Name
- SKU
- Price
- Stock_Quantity__c

Relationships:

Product → Orders (lookup)
Product → Inventory (master-detail)



Fields & Relationships
7 Items, Sorted by Field Label

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)		

Image 4. HandsMen Product – Fields and Relationships Setup

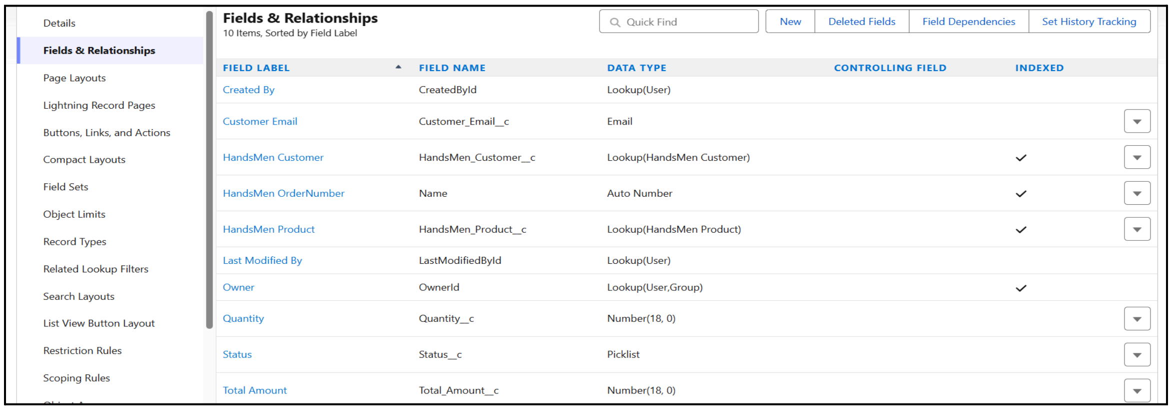
HandsMen Order

Tracks customer purchases.

Key Fields:

- Status (Pending, Confirmed, Rejected)
- Quantity
- Total_Amount__c
- Customer Lookup

Validation Rule:
Total Amount > 0



Fields & Relationships
10 Items, Sorted by Field Label

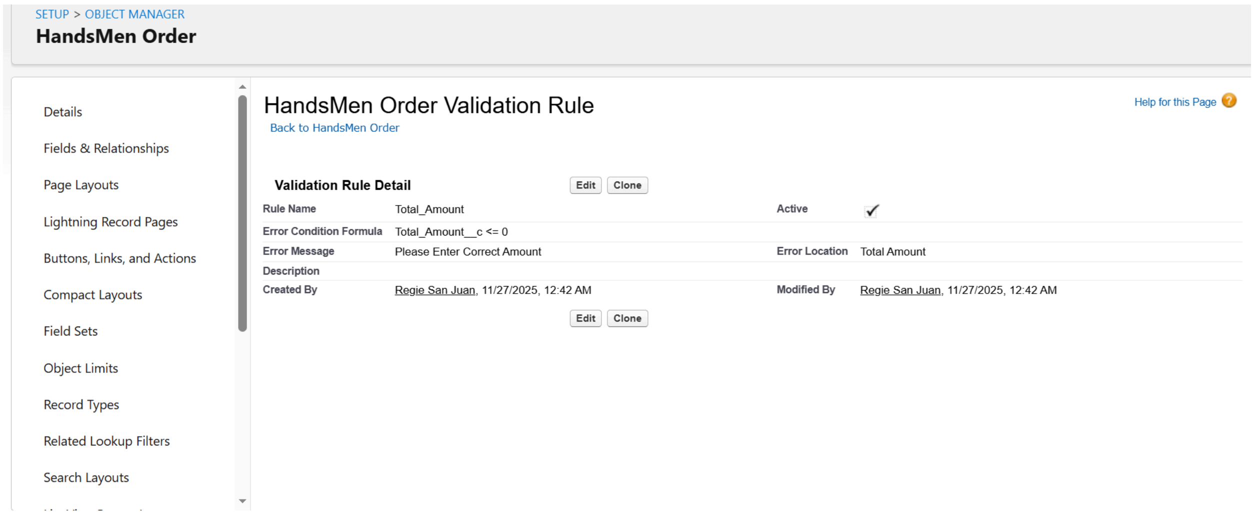
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Customer Email	Customer_Email__c	Email		
HandsMen Customer	HandsMen_Customer__c	Lookup(HandsMen Customer)		✓
HandsMen OrderNumber	Name	Auto Number		✓
HandsMen Product	HandsMen_Product__c	Lookup(HandsMen Product)		✓
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)		

Image 5. HandsMen Order – Fields and Relationships Setup

The fields and relationships setup also reflects the **lookup relationship** between **HandsMen Order (child) and the HandsMen Customer (parent)**. Each order can optionally be associated with a customer. Deleting a customer does not automatically delete related orders.

Validation Rule(s):

- Total_Amount__c <= 0 (Total Amount should be greater than 0)
- Error Message: *"Please enter correct amount."*


SETUP > OBJECT MANAGER

HandsMen Order

HandsMen Order Validation Rule

Back to HandsMen Order

Validation Rule Detail

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	Regie San Juan, 11/27/2025, 12:42 AM	Modified By	Regie San Juan, 11/27/2025, 12:42 AM

Image 6. Total Amount – Validation Rule

The **Total Amount** validation rule ensures that the same field must always be greater than zero before the order record can be saved.

Inventory

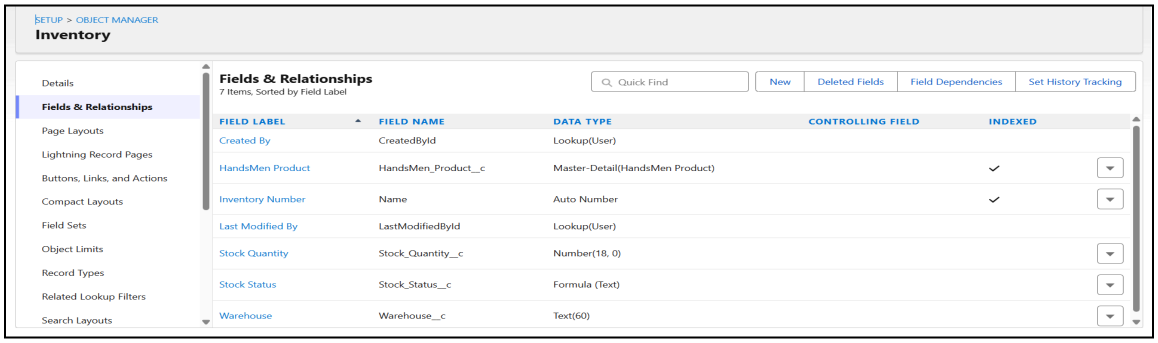
Monitors stock levels.

Key Fields:

- Auto Number
- Stock_Quantity__c
- Warehouse
- Stock Status (formula)

Validation Rule:

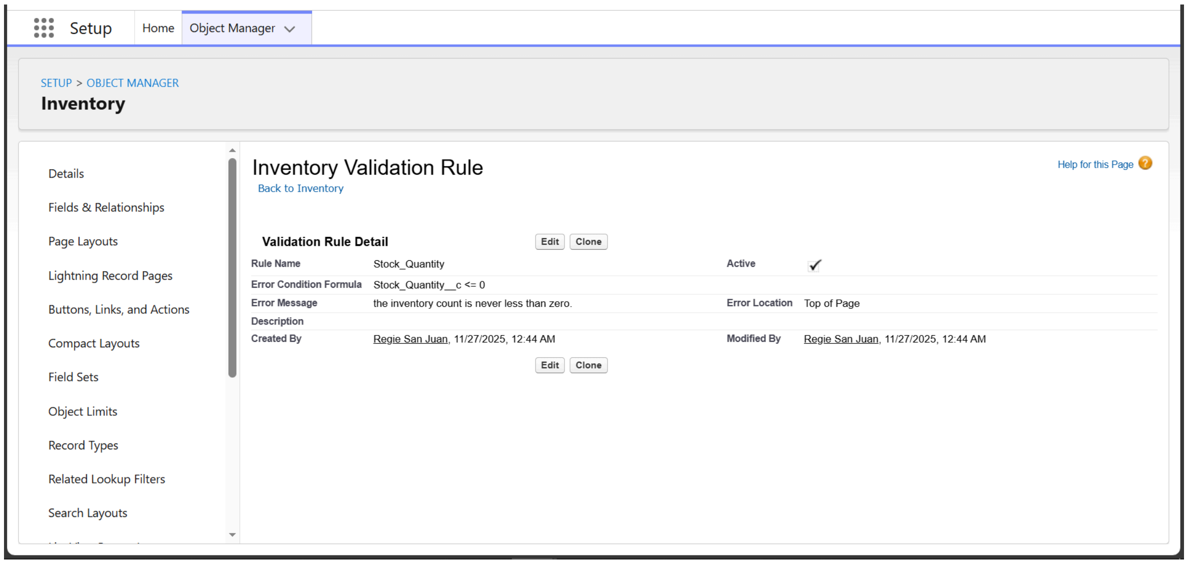
Stock cannot be 0 or negative.


SETUP > OBJECT MANAGER
Inventory

Fields & Relationships
7 Items, Sorted by Field Label

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)		

Image 7. Inventory – Fields and Relationships Setup



SETUP > OBJECT MANAGER
Inventory

Inventory Validation Rule
Back to Inventory

Validation Rule Detail

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	Regie San Juan, 11/27/2025, 12:44 AM	Modified By	Regie San Juan, 11/27/2025, 12:44 AM

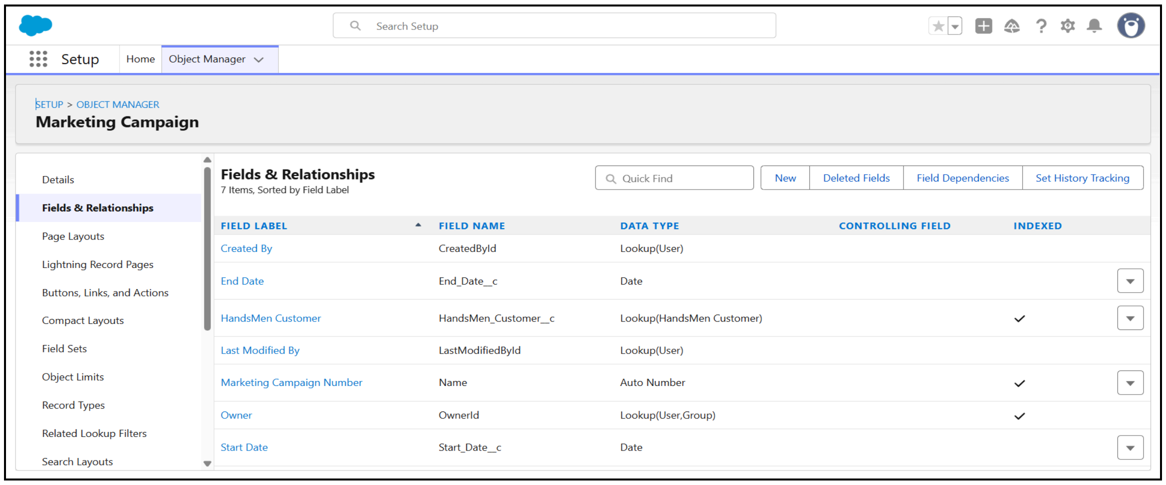
Image 8. Stock Quantity – Validation Rule

Marketing Campaign

Stores marketing activities & customer engagements.

Key Fields:

- Campaign Name
- Start Date
- End Date
- Customer Lookup (optional)


Setup | Home | Object Manager

SETUP > OBJECT MANAGER

Marketing Campaign

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

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
End Date	End_Date__c	Date		
HandsMen Customer	HandsMen_Customer__c	Lookup(HandsMen Customer)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Marketing Campaign Number	Name	Auto Number		✓
Owner	OwnerId	Lookup(User,Group)		✓
Start Date	Start_Date__c	Date		

Image 9. Marketing Campaign – Fields and Relationships Setup

The fields and relationships setup also reflects the **lookup relationship** between **Marketing Campaign (child) and the HandsMen Customer (parent)**. Each campaign can optionally be associated with a customer. Deleting a customer does not automatically delete related campaigns.

4.2 Automation – Flows

✔ Order Confirmation Flow (Record-Triggered)

- Trigger: Order status → Confirmed
- Sends an email using the Order Confirmation Template

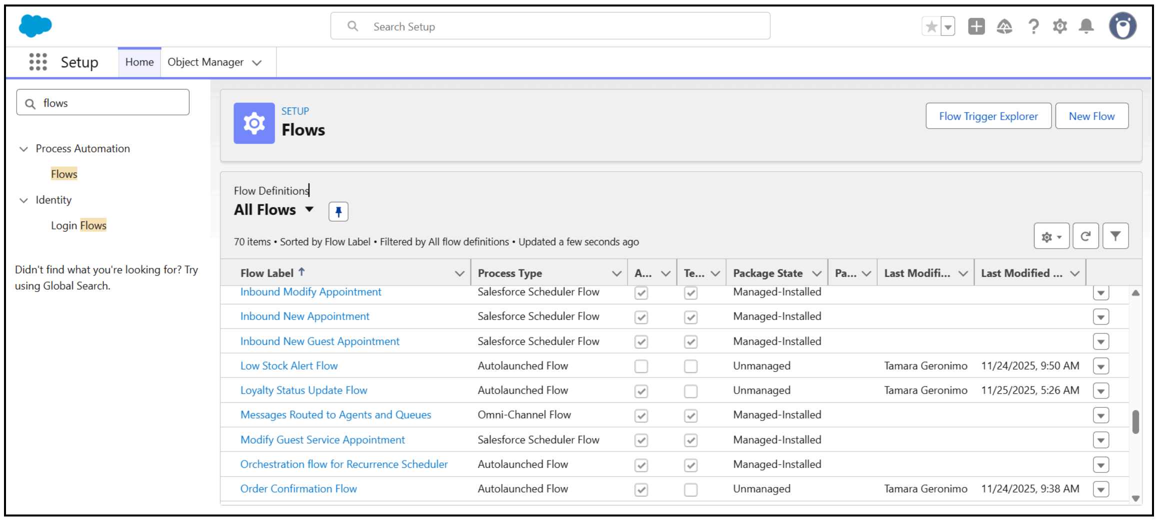
✔ Low Stock Alert Flow (Record-Triggered)

- Trigger: Inventory.Stock_Quantity__c < 5
- Sends alert to Inventory Manager

✔ Loyalty Status Flow (Scheduled)

Scheduled at midnight

- Updates loyalty tier based on Total_Purchases__c
- Sends loyalty update email

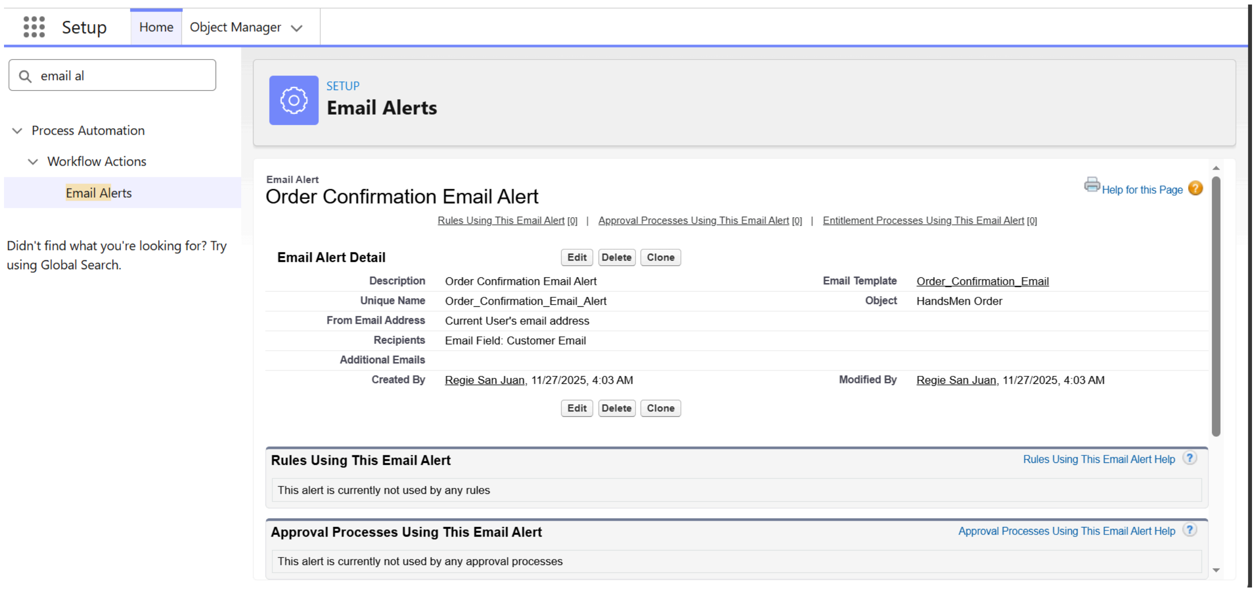


70 items • Sorted by Flow Label • Filtered by All flow definitions • Updated a few seconds ago

Flow Label ↑	Process Type	A...	Te...	Package State	Pa...	Last Modifi...	Last Modified ...
Inbound Modify Appointment	Salesforce Scheduler Flow	✓	✓	Managed-Installed			
Inbound New Appointment	Salesforce Scheduler Flow	✓	✓	Managed-Installed			
Inbound New Guest Appointment	Salesforce Scheduler Flow	✓	✓	Managed-Installed			
Low Stock Alert Flow	Autolaunched Flow	☐	☐	Unmanaged		Tamara Geronimo	11/24/2025, 9:50 AM
Loyalty Status Update Flow	Autolaunched Flow	✓	☐	Unmanaged		Tamara Geronimo	11/25/2025, 5:26 AM
Messages Routed to Agents and Queues	Omni-Channel Flow	✓	✓	Managed-Installed			
Modify Guest Service Appointment	Salesforce Scheduler Flow	✓	✓	Managed-Installed			
Orchestration flow for Recurrence Scheduler	Autolaunched Flow	✓	✓	Managed-Installed			
Order Confirmation Flow	Autolaunched Flow	✓	☐	Unmanaged		Tamara Geronimo	11/24/2025, 9:38 AM

Image 10. Marketing Campaign – Fields and Relationships Setup

The All Flows view shows the three (3) flows configured for this project, with a package state of "Unmanaged".



Email Alert

Order Confirmation Email Alert

Rules Using This Email Alert [0] | Approval Processes Using This Email Alert [0] | Entitlement Processes Using This Email Alert [0]

Email Alert Detail

Description	Order Confirmation Email Alert	Email Template	Order_Confirmation_Email
Unique Name	Order_Confirmation_Email_Alert	Object	HandsMen Order
From Email Address	Current User's email address		
Recipients	Email Field: Customer Email		
Additional Emails			
Created By	Regie San Juan, 11/27/2025, 4:03 AM	Modified By	Regie San Juan, 11/27/2025, 4:03 AM

Rules Using This Email Alert — Rules Using This Email Alert Help

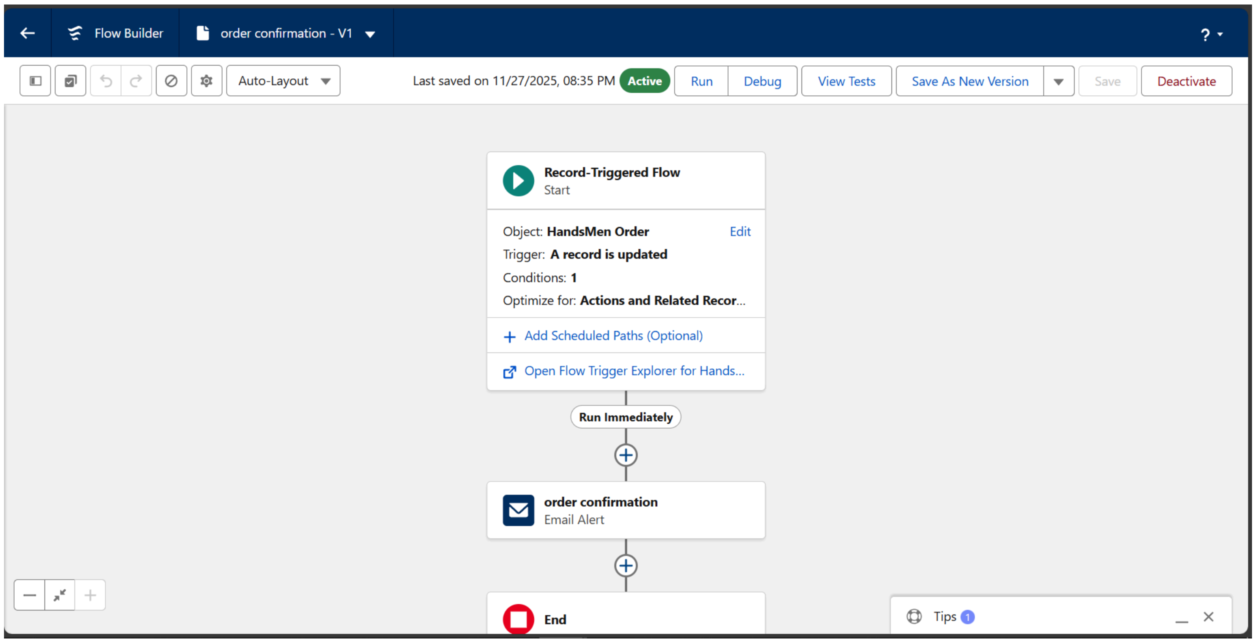
This alert is currently not used by any rules

Approval Processes Using This Email Alert — Approval Processes Using This Email Alert Help

This alert is currently not used by any approval processes

Image 11. Order Confirmation – Email Alert Setup

The Order Confirmation Email Alert is configured and sent out to the registered email address of the customer upon triggered flow.


Flow Builder

order confirmation - V1

Last saved on 11/27/2025, 08:35 PM Active

Record-Triggered Flow
Start

Object: HandsMen Order
Trigger: A record is updated
Conditions: 1
Optimize for: Actions and Related Recor...

Add Scheduled Paths (Optional)

Open Flow Trigger Explorer for Hands...

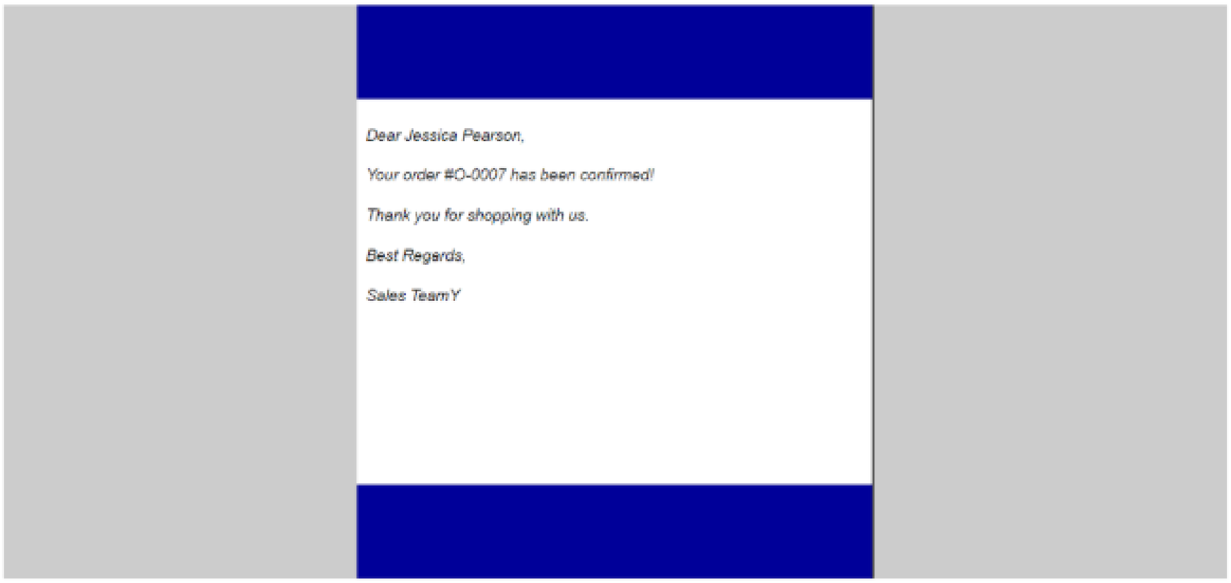
Run Immediately

order confirmation
Email Alert

End

Image 12. Order Confirmation Flow Setup

The Order Confirmation Flow is an automation triggered when a record is created or updated in the HandsMen Order. (An order is confirmed).


Dear Jessica Pearson,

Your order #O-0007 has been confirmed!

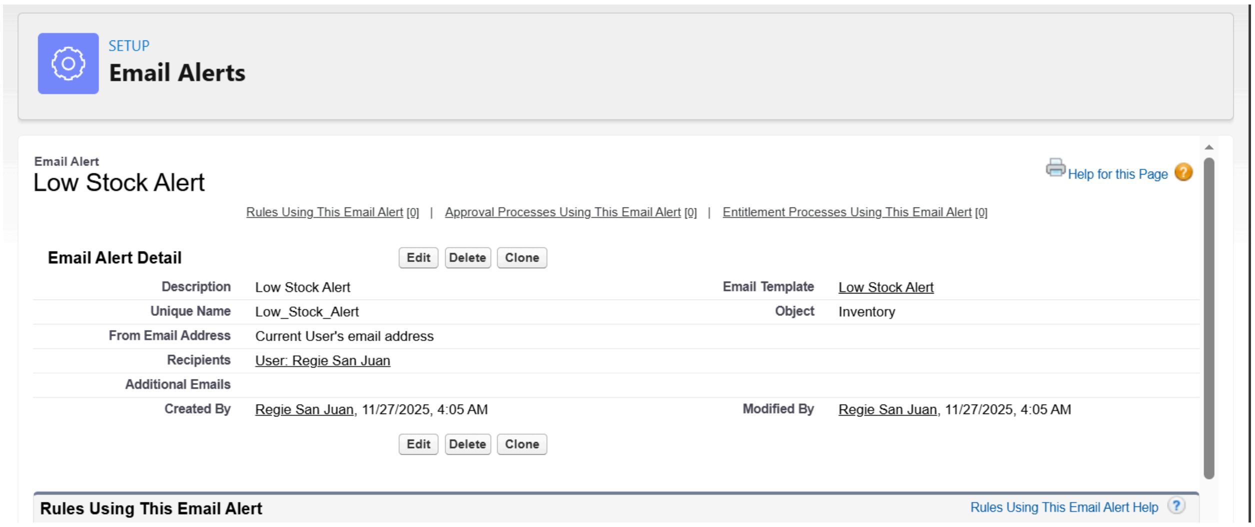
Thank you for shopping with us.

Best Regards,

Sales TeamY

Image 13. Order Confirmation Email

A successful trigger sends an email alert to the registered email address of the **customer**.



Email Alert

Low Stock Alert

Help for this Page

Rules Using This Email Alert [0] | Approval Processes Using This Email Alert [0] | Entitlement Processes Using This Email Alert [0]

Email Alert Detail

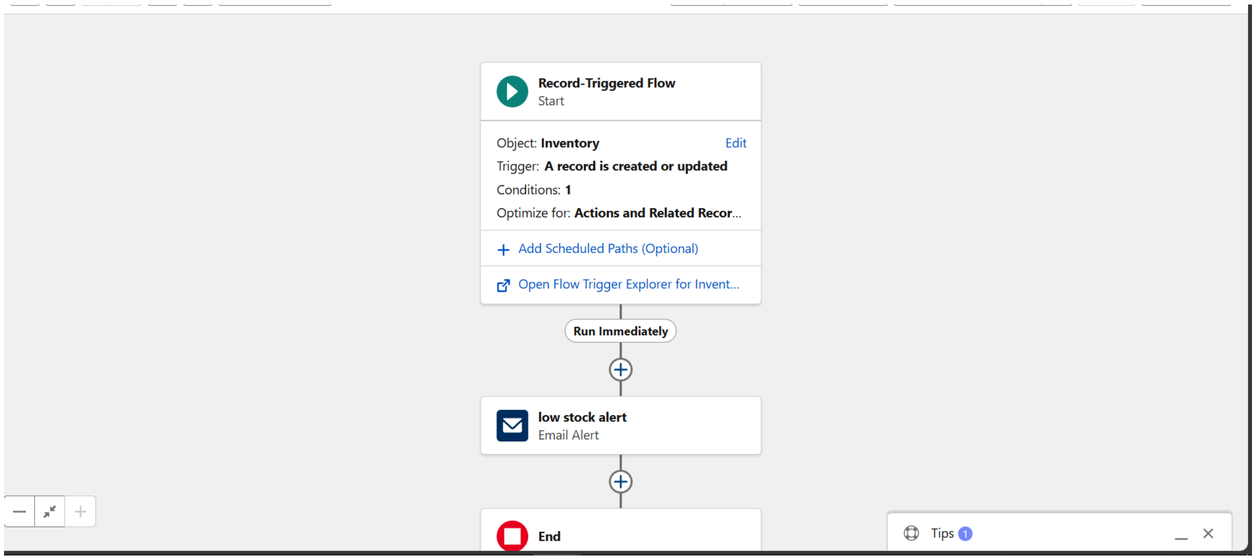
Description	Low Stock Alert	Email Template	Low Stock Alert
Unique Name	Low_Stock_Alert	Object	Inventory
From Email Address	Current User's email address		
Recipients	User: Regie San Juan		
Additional Emails			
Created By	Regie San Juan, 11/27/2025, 4:05 AM	Modified By	Regie San Juan, 11/27/2025, 4:05 AM

Rules Using This Email Alert

Rules Using This Email Alert Help

Image 14. Low Stock - Email Alert Setup

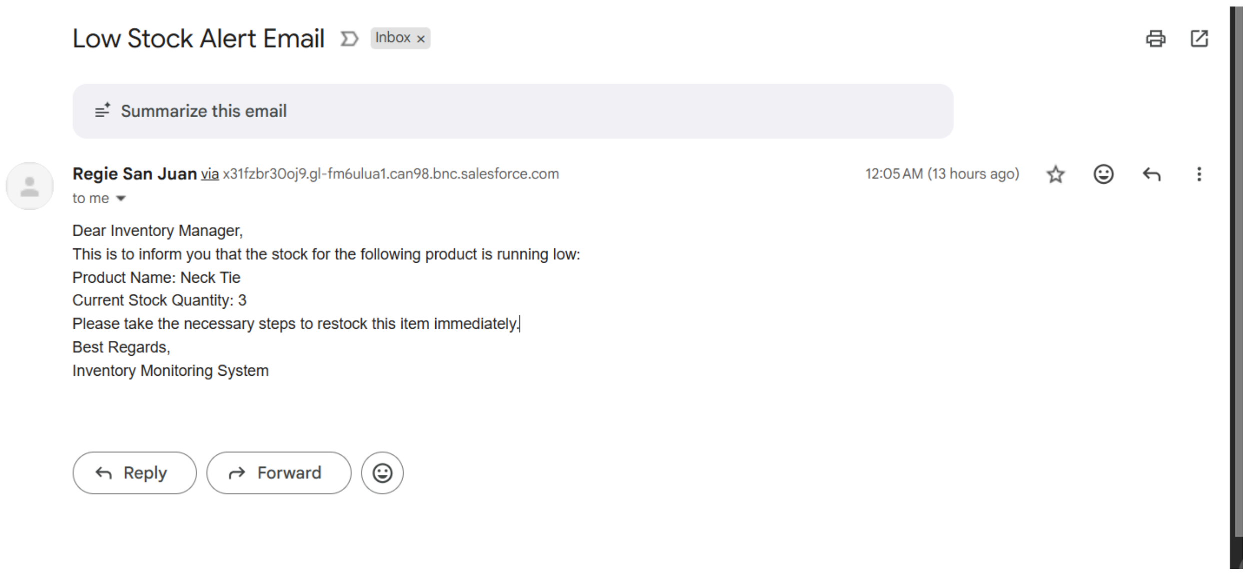
The Order Confirmation Email Alert is configured and sent out to the registered email address of the Inventory Manager upon triggered flow.



Object: Inventory
Trigger: A record is created or updated
Conditions: 1
Optimize for: Actions and Related Recor...

image 15. Stock Alert Flow Setup

The Stock Alert Flow is an automation triggered when a record is created or updated in the Inventory, in which its Stock Quantity is detected to be less than 5.


Low Stock Alert Email Inbox ×

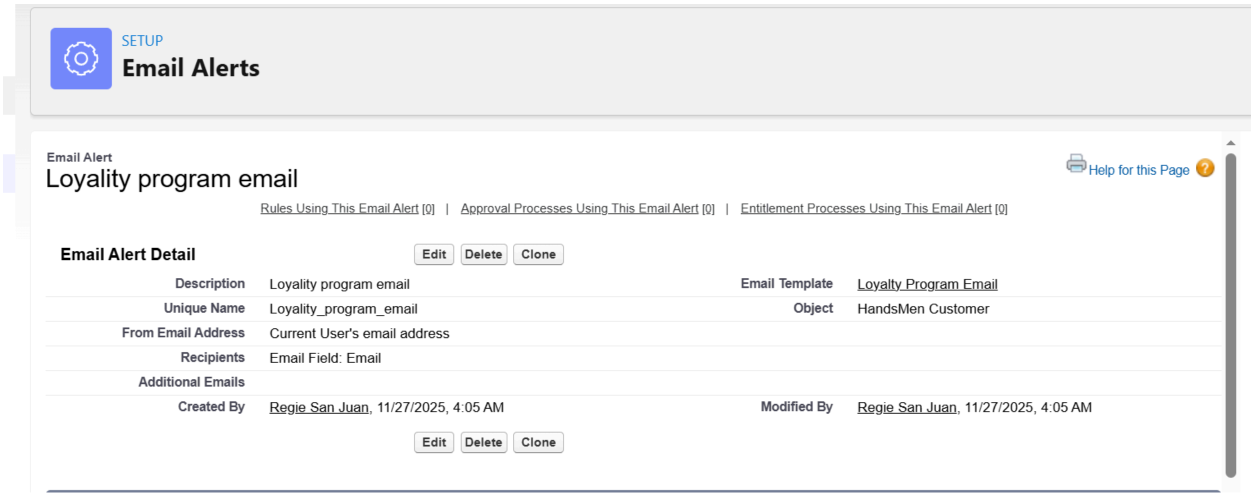
Summarize this email

Regie San Juan via x31fzbr30oj9.gl-fm6ulua1.can98.bnc.salesforce.com 12:05 AM (13 hours ago)
to me

Dear Inventory Manager,
This is to inform you that the stock for the following product is running low:
Product Name: Neck Tie
Current Stock Quantity: 3
Please take the necessary steps to restock this item immediately.
Best Regards,
Inventory Monitoring System

Image 16. Low Stock Alert Email

A successful trigger sends an email alert to the registered email address of the **Inventory Manager.**


SETUP
Email Alerts

Email Alert
Loyality program email

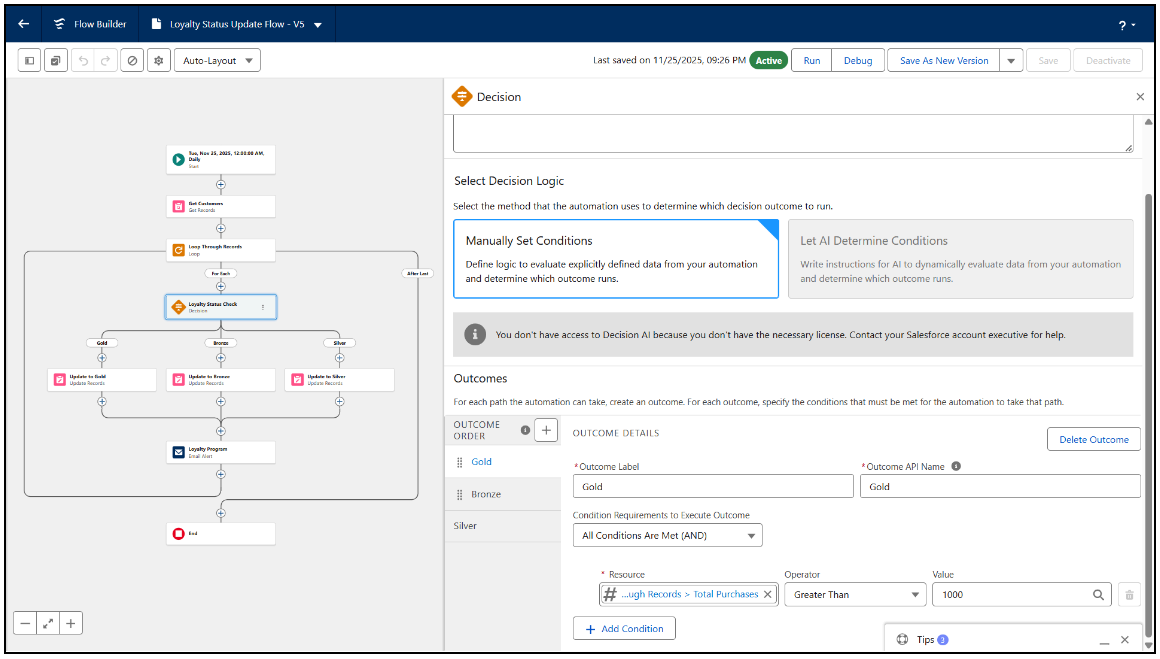
Rules Using This Email Alert [0] | Approval Processes Using This Email Alert [0] | Entitlement Processes Using This Email Alert [0]

Email Alert Detail Edit Delete Clone

Description	Loyality program email	Email Template	Loyalty Program Email
Unique Name	Loyality_program_email	Object	HandsMen Customer
From Email Address	Current User's email address		
Recipients	Email Field: Email		
Additional Emails			
Created By	Regie San Juan, 11/27/2025, 4:05 AM	Modified By	Regie San Juan, 11/27/2025, 4:05 AM

Image 17. Loyalty Program - Email Alert Setup

The Order Confirmation Email Alert is configured and sent out to the registered email address of the Inventory Manager upon triggered flow.



Select Decision Logic

Select the method that the automation uses to determine which decision outcome to run.

Manually Set Conditions
Define logic to evaluate explicitly defined data from your automation and determine which outcome runs.

Let AI Determine Conditions
Write instructions for AI to dynamically evaluate data from your automation and determine which outcome runs.

You don't have access to Decision AI because you don't have the necessary license. Contact your Salesforce account executive for help.

Outcomes

For each path the automation can take, create an outcome. For each outcome, specify the conditions that must be met for the automation to take that path.

OUTCOME ORDER: Gold, Bronze, Silver

OUTCOME DETAILS

Delete Outcome

*Outcome Label: Gold
*Outcome API Name: Gold

Condition Requirements to Execute Outcome: All Conditions Are Met (AND)

* Resource	Operator	Value
...ugh Records > Total Purchases	Greater Than	1000

Add Condition

Image 18. Loyalty Status Update Flow Setup

The *Loyalty Status Update Flow* is a schedule-triggered flow, which is configured to update HandsMen customers' loyalty statuses daily, every 12:00 am.

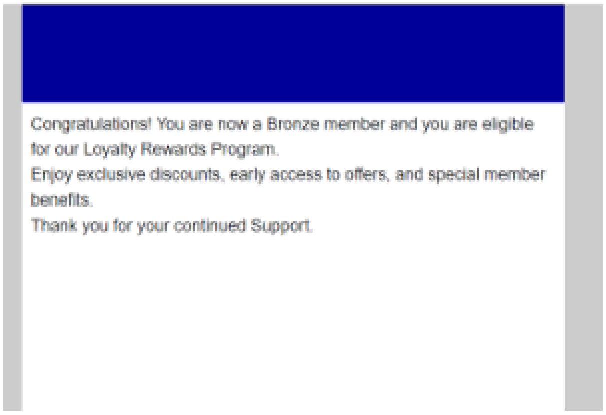

Congratulations! You are now a Bronze member and you are eligible for our Loyalty Rewards Program.
Enjoy exclusive discounts, early access to offers, and special member benefits.
Thank you for your continued Support.

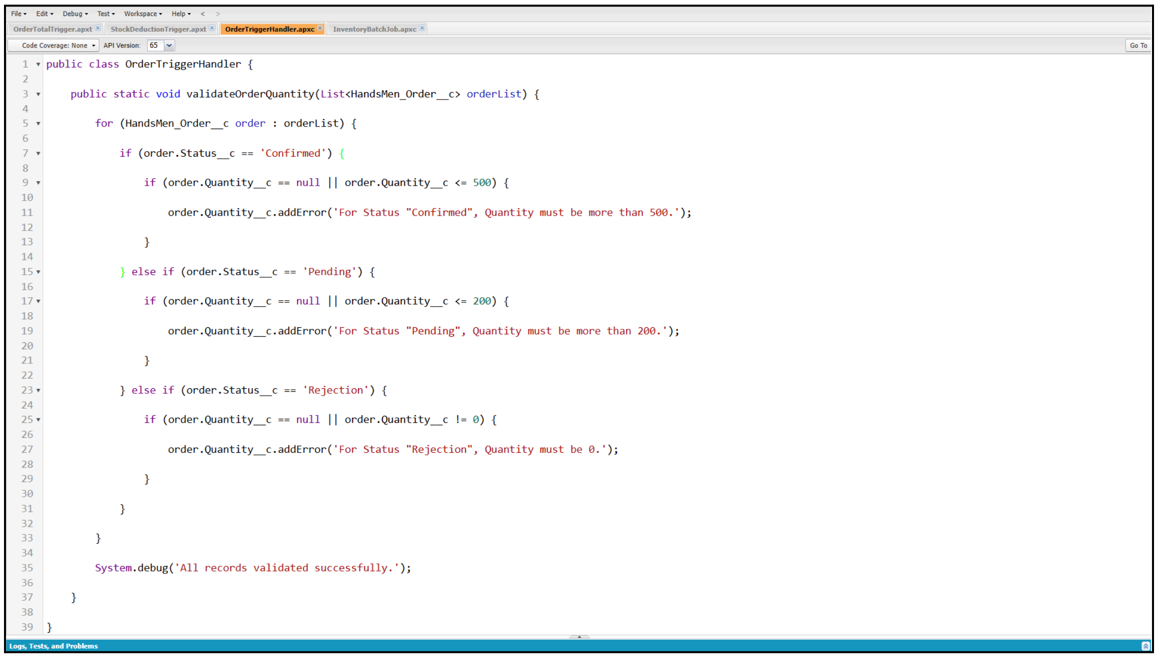
Image 19. Loyalty Program Email

A successful trigger sends an email alert to the registered email address of the **customer.**

4.3 Apex – Triggers & Classes

Trigger 1: OrderTotalTrigger

- **Before Insert/Update**
- **Calculates total amount: Price × Quantity**
- **Validates quantity rules**



Code Coverage: None API Version: 65

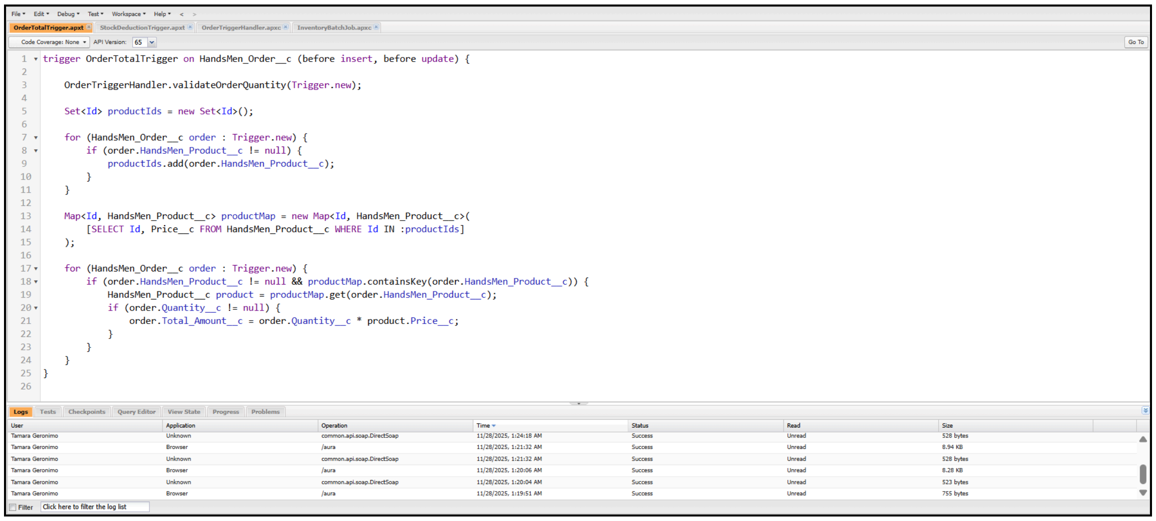
```
public class OrderTriggerHandler {

    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.');

    }

}
```

Image 20. OrderTriggerHandler Source Code

This Apex class contains the validation logic used to ensure that every HandsMen Order follows the correct quantity requirements based on its status. When an order is saved, the class checks the values in the Status and Quantity fields.

- Confirmed orders must have a quantity greater than 500.
- Pending orders must have a quantity greater than 200.
- Rejection orders must have a quantity equal to 0.

If the user enters a quantity that does not match the requirements, the system stops the record from being saved and shows an error message in the Quantity field. This helps maintain accurate and consistent order data in the HandsMen system.



```
trigger OrderTotalTrigger on HandsMen_Order__c (before insert, before update) {

    OrderTriggerHandler.validateOrderQuantity(Trigger.new);

    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;
            }
        }
    }
}

```

User	Application	Operation	Time	Status	Read	Size
Tamara Geronimo	Unknown	common.api.soap.DirectSoap	11/28/2025, 1:24:18 AM	Success	Unread	528 bytes
Tamara Geronimo	Browser	/aura	11/28/2025, 1:21:32 AM	Success	Unread	8.94 KB
Tamara Geronimo	Unknown	common.api.soap.DirectSoap	11/28/2025, 1:21:32 AM	Success	Unread	528 bytes
Tamara Geronimo	Browser	/aura	11/28/2025, 1:20:06 AM	Success	Unread	8.28 KB
Tamara Geronimo	Unknown	common.api.soap.DirectSoap	11/28/2025, 1:20:04 AM	Success	Unread	523 bytes
Tamara Geronimo	Browser	/aura	11/28/2025, 1:19:51 AM	Success	Unread	755 bytes

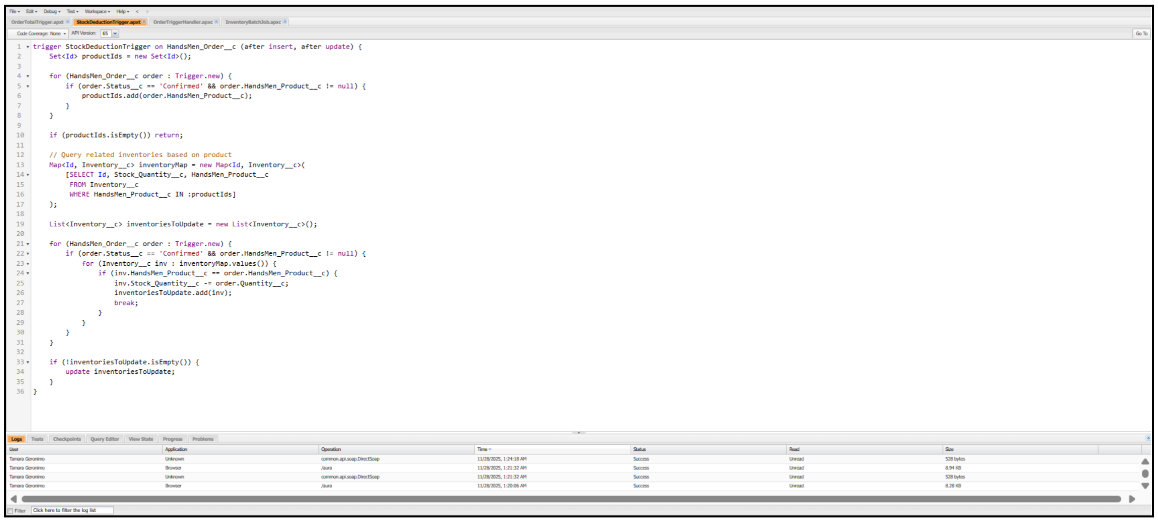
Image 21. OrderTotalTrigger Source Code

This trigger runs automatically before an order is inserted or updated in the HandsMen system. It performs two important functions. It **validates the order quantity based on status** (Confirmed, Pending, Rejection) and **calculates the total amount** by multiplying the product price with the quantity. This ensures accurate totals and enforces business rules.

Overall, this trigger helps maintain correct pricing, prevents invalid orders, and enforces the business rules used in the HandsMen ordering process.

Trigger 2: StockDeductionTrigger

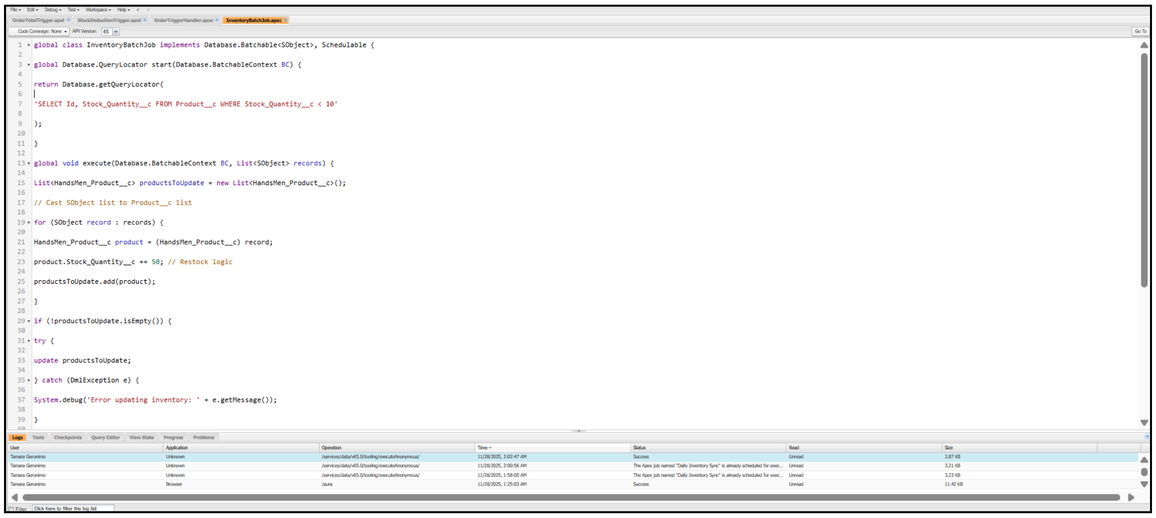
- After Insert/Update
- Deducts ordered quantity when status = Confirmed



```
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;
    }
}
```

User	Application	Operation	Time	Status	Read	Size
Tamara Geronimo	Unknown	common.api.soap.DirectSoap	11/28/2025, 1:24:18 AM	Success	Unread	528 bytes
Tamara Geronimo	Browser	/aura	11/28/2025, 1:21:32 AM	Success	Unread	8.94 KB
Tamara Geronimo	Unknown	common.api.soap.DirectSoap	11/28/2025, 1:21:32 AM	Success	Unread	528 bytes
Tamara Geronimo	Browser	/aura	11/28/2025, 1:20:06 AM	Success	Unread	8.28 KB

Image 22. StockDeductionTrigger Source Code



```
global class InventoryBatchJob implements Database.Batchable<SObject>, Schedulable {

global Database.QueryLocator start(Database.BatchableContext BC) {

return Database.getQueryLocator(

'SELECT Id, Stock_Quantity__c FROM Product__c WHERE Stock_Quantity__c < 10'

);

}

global void execute(Database.BatchableContext BC, List<SObject> records) {

List<HandsMen_Product__c> productsToUpdate = new List<HandsMen_Product__c>();

// Cast SObject list to Product__c list

for (SObject record : records) {

HandsMen_Product__c product = (HandsMen_Product__c) record;

product.Stock_Quantity__c += 50; // Restock logic

productsToUpdate.add(product);

}

if (!productsToUpdate.isEmpty()) {

try {

update productsToUpdate;

} catch (DmlException e) {

System.debug('Error updating inventory: ' + e.getMessage());

}
```

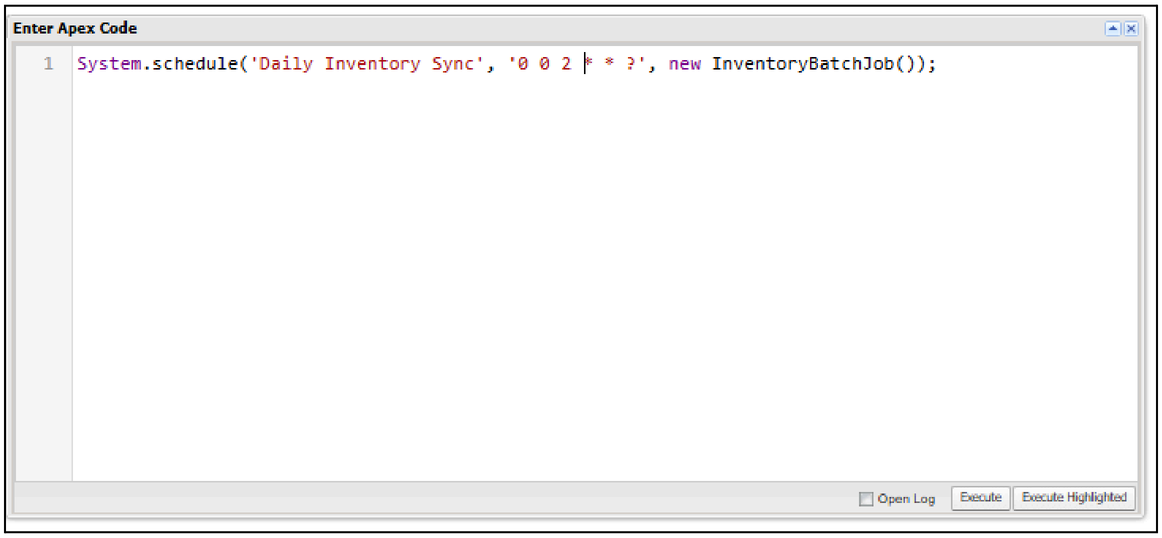
User	Application	Operation	Time	Status	Read	Size
Tamara Geronimo	Unknown	/services/data/v65.0/tooling/executeAnonymous/	11/28/2025, 2:02:47 AM	Success	Unread	2.87 KB
Tamara Geronimo	Unknown	/services/data/v65.0/tooling/executeAnonymous/	11/28/2025, 2:00:56 AM	The Apex job named "Daily Inventory Sync" is already scheduled for exec...	Unread	3.21 KB
Tamara Geronimo	Unknown	/services/data/v65.0/tooling/executeAnonymous/	11/28/2025, 1:58:05 AM	The Apex job named "Daily Inventory Sync" is already scheduled for exec...	Unread	3.23 KB
Tamara Geronimo	Browser	/aura	11/28/2025, 1:25:03 AM	Success	Unread	11.42 KB

Image 23. InventoryBatchJob Source Code

This Apex class automatically monitors HandsMen products with low stock *(less than 10 units)* and restocks them by adding 50 units. It runs as a batch job to process multiple records efficiently and can also be scheduled to run periodically. This ensures that product inventory stays sufficient, reducing the risk of stockouts and helping maintain smooth order fulfillment.

Batch Job 1: InventoryBatchJob

- Restocks products with stock < 10 automatically
- Scheduled daily at 2:00 AM



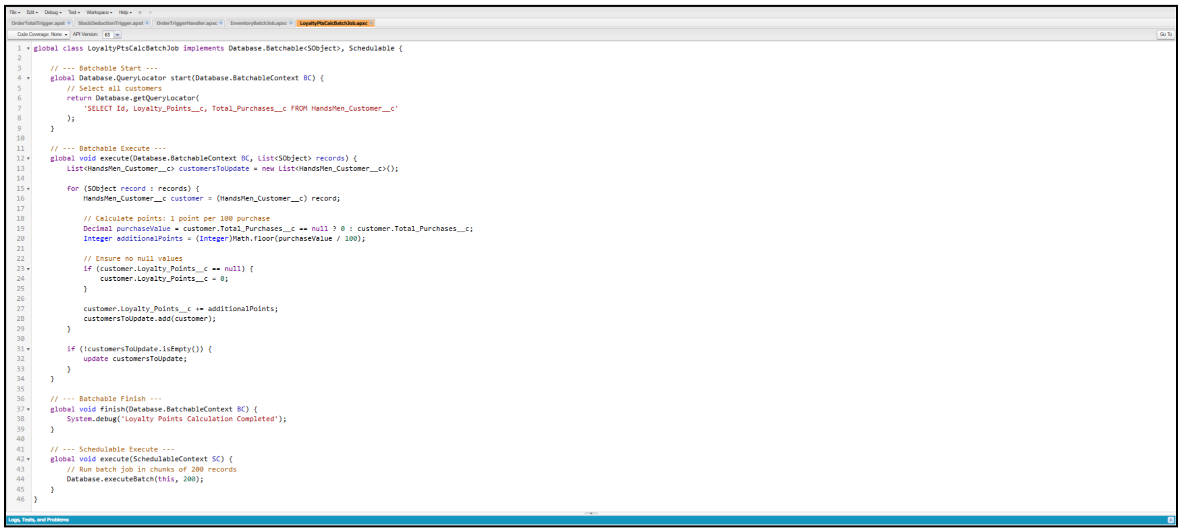
```
System.schedule('Daily Inventory Sync', '0 0 2 * * ?', new InventoryBatchJob());
```

Image 24. InventoryBatchJob Source Code

The Execute Anonymous code schedules the InventoryBatchJob to run automatically every day at 2:00 AM. It checks for products with low stock and triggers restocking, ensuring that inventory levels are updated daily without any manual intervention.

Batch Job 2: LoyaltyPtsCalcBatchJob

- Updates loyalty points weekly
- Scheduled every Sunday at 12:00 AM

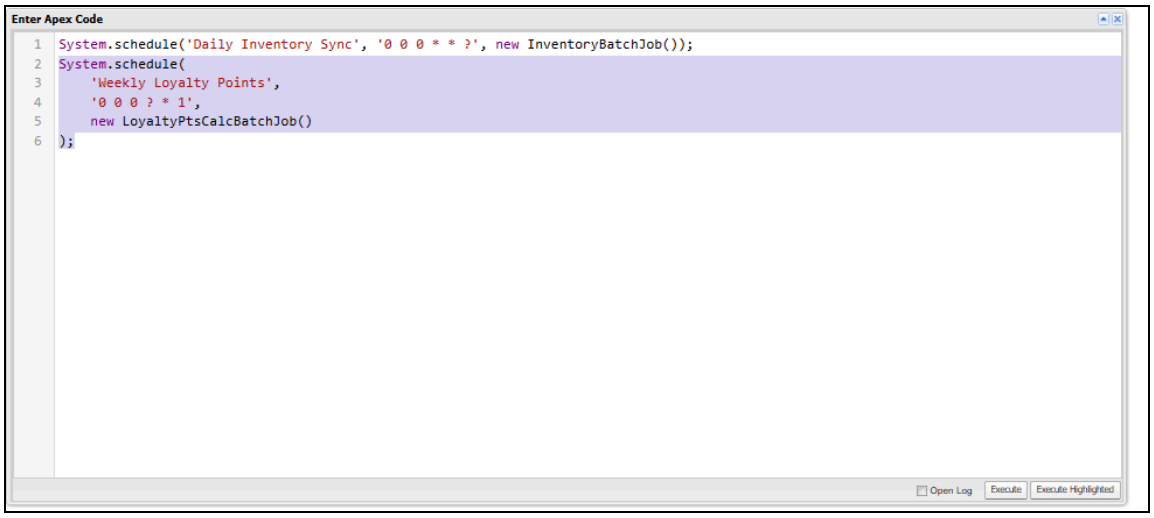


```apex
global class LoyaltyPtsCalcBatchJob implements Database.Batchable<SObject>, Schedulable {

    // --- Batchable Start ---
    global Database.QueryLocator start(Database.BatchableContext BC) {
        // Select all customers
        return Database.getQueryLocator(
            'SELECT Id, Loyalty_Points__c, Total_Purchases__c FROM HandsMen_Customer__c'
        );
    }

    // --- Batchable Execute ---
    global void execute(Database.BatchableContext BC, List<SObject> records) {
        List<HandsMen_Customer__c> customersToUpdate = new List<HandsMen_Customer__c>();

        for (SObject record : records) {
            HandsMen_Customer__c customer = (HandsMen_Customer__c) record;

            // Calculate points: 1 point per 100 purchase
            Decimal purchaseValue = customer.Total_Purchases__c == null ? 0 : customer.Total_Purchases__c;
            Integer additionalPoints = (Integer)Math.floor(purchaseValue / 100);

            // Ensure no null values
            if (customer.Loyalty_Points__c == null) {
                customer.Loyalty_Points__c = 0;
            }

            customer.Loyalty_Points__c += additionalPoints;
            customersToUpdate.add(customer);
        }

        if (!customersToUpdate.isEmpty()) {
            update customersToUpdate;
        }
    }

    // --- Batchable Finish ---
    global void finish(Database.BatchableContext BC) {
        System.debug('Loyalty Points Calculation Completed');
    }

    // --- Schedulable Execute ---
    global void execute(SchedulableContext SC) {
        // Run batch job in chunks of 200 records
        Database.executeBatch(this, 200);
    }
}
```

Image 25. LoyaltyPtsCalcBatchJob Source Code

This Apex class automatically calculates and updates the loyalty points (Loyalty_Points__c) of all HandsMen customers. It runs in weekly batches to ensure that points are consistently updated based on each customer's total purchases, eliminating the need for manual processing.

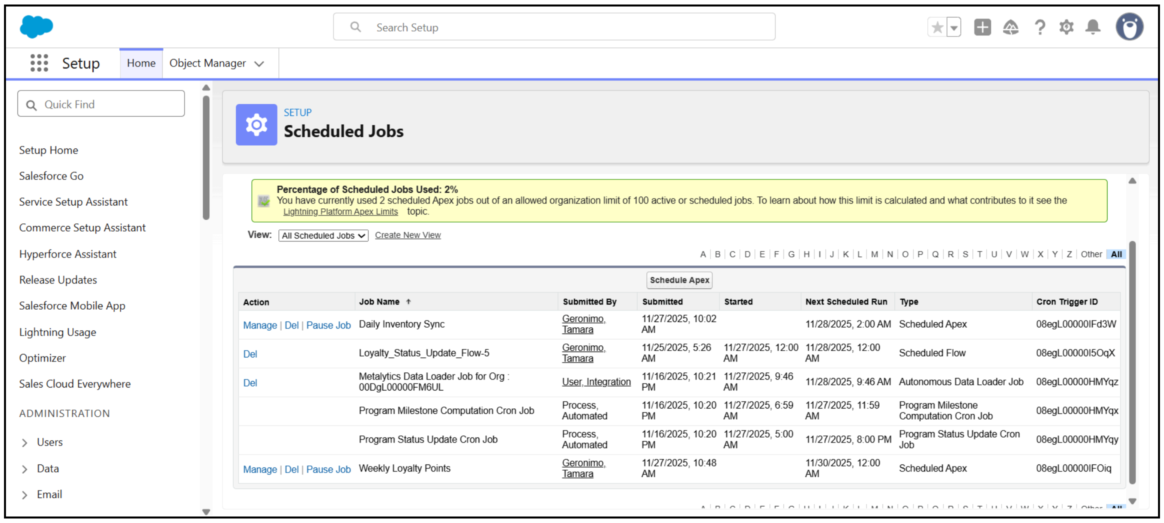
Note: For this batch job, the **Loyalty_Points__c** field was added to the HandsMen Customer object.



Enter Apex Code

```apex
System.schedule('Daily Inventory Sync', '0 0 0 * * ?', new InventoryBatchJob());
System.schedule(
    'Weekly Loyalty Points',
    '0 0 0 ? * 1',
    new LoyaltyPtsCalcBatchJob()
);
```

Image 26. LoyaltyPtsCalcBatchJob Source Code



Scheduled Jobs

Percentage of Scheduled Jobs Used: 2%
You have currently used 2 scheduled Apex jobs out of an allowed organization limit of 100 active or scheduled jobs. To learn about how this limit is calculated and what contributes to it see the Lightning Platform Apex Limits topic.

View: All Scheduled Jobs Create New View

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 | All
Schedule Apex

Action	Job Name ↑	Submitted By	Submitted	Started	Next Scheduled Run	Type	Cron Trigger ID
Manage | Del | Pause Job	Daily Inventory Sync	Geronimo, Tamara	11/27/2025, 10:02 AM		11/28/2025, 2:00 AM	Scheduled Apex	08egL00000IFd3W
Del	Loyalty_Status_Update_Flow-5	Geronimo, Tamara	11/25/2025, 5:26 AM	11/27/2025, 12:00 AM	11/28/2025, 12:00 AM	Scheduled Flow	08egL00000I5OqX
Del	Metalytics Data Loader Job for Org : 00DgL00000FM6UL	User, Integration	11/16/2025, 10:21 PM	11/27/2025, 9:46 AM	11/28/2025, 9:46 AM	Autonomous Data Loader Job	08egL00000HMYqz
	Program Milestone Computation Cron Job	Process, Automated	11/16/2025, 10:20 PM	11/27/2025, 6:59 AM	11/27/2025, 11:59 AM	Program Milestone Computation Cron Job	08egL00000HMYqx
	Program Status Update Cron Job	Process, Automated	11/16/2025, 10:20 PM	11/27/2025, 5:00 AM	11/27/2025, 8:00 PM	Program Status Update Cron Job	08egL00000HMYqy
Manage | Del | Pause Job	Weekly Loyalty Points	Geronimo, Tamara	11/27/2025, 10:48 AM		11/30/2025, 12:00 AM	Scheduled Apex	08egL00000IFOiq

Image 27. Scheduled Jobs in Setup

After running the Execute Anonymous code, both the **InventoryBatchJob** and **LoyaltyPtsCalcBatchJob** appear in the UI, indicating that the Apex jobs were successfully scheduled. The interface also displays their upcoming run times, fulfilling HandsMen Threads’ requirements.

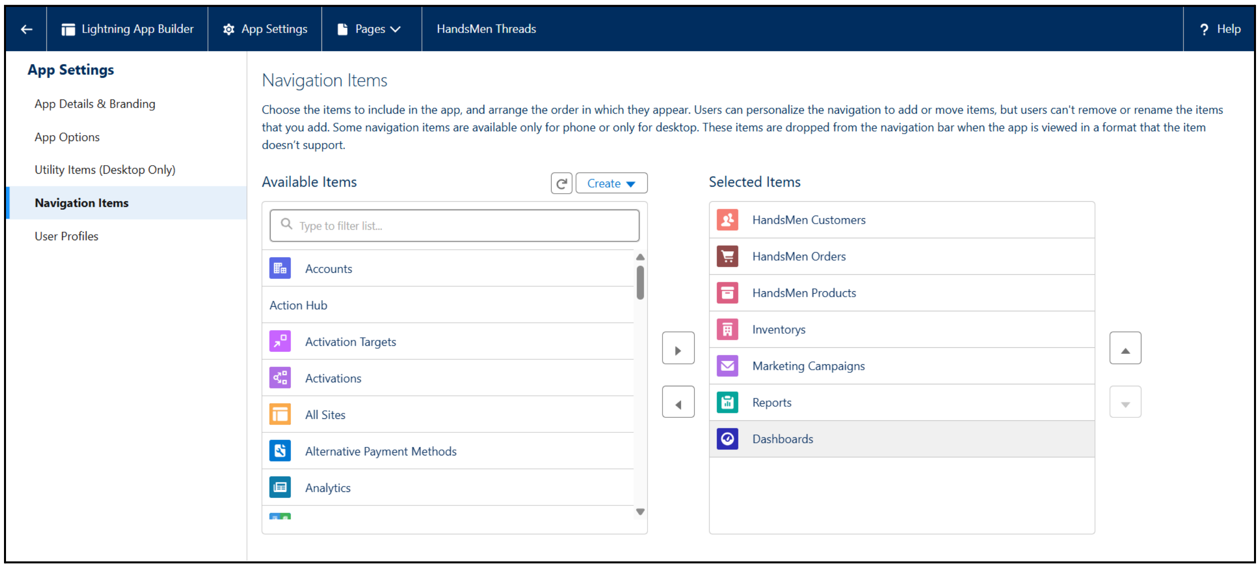
<u>**PHASE 3:UI/UX Development & Customization**</u>

5.1 Lightning App Setup

Custom Lightning App includes:

- Customers
- Orders
- Products
- Inventory
- Campaigns
- Dashboards
- Reports

Only the System Admin & Platform 1 users may access it.



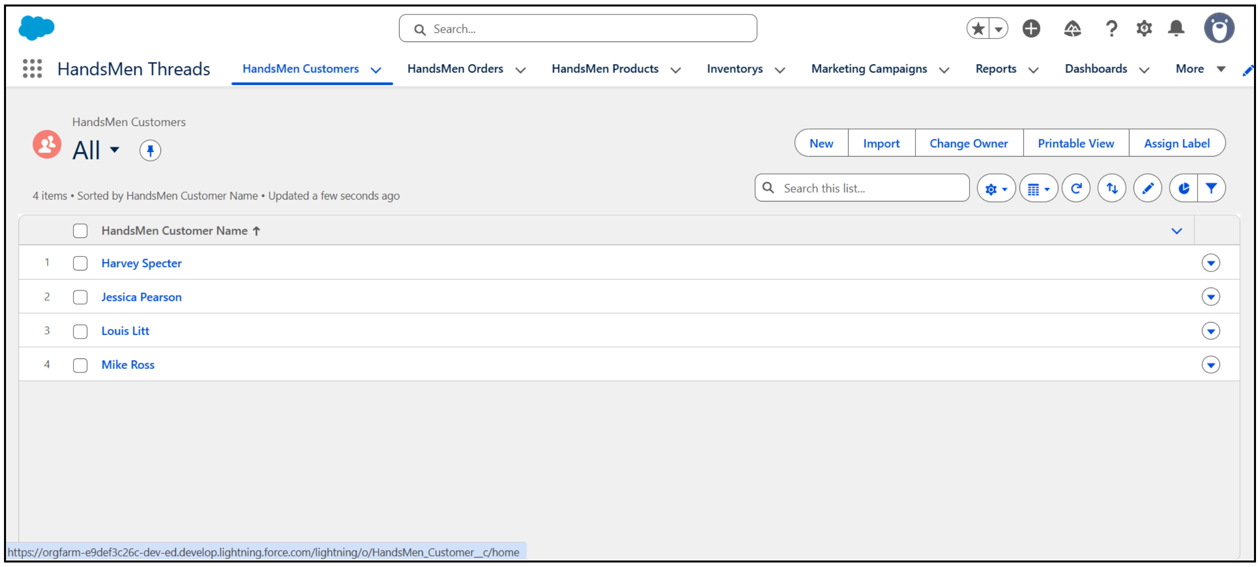
Navigation Items

Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.

Available Items
- Accounts
- Action Hub
- Activation Targets
- Activations
- All Sites
- Alternative Payment Methods
- Analytics

Selected Items
- HandsMen Customers
- HandsMen Orders
- HandsMen Products
- Inventorys
- Marketing Campaigns
- Reports
- Dashboards

Image 28. HandsMen Threads - Navigation Items Setup



4 items • Sorted by HandsMen Customer Name • Updated a few seconds ago

	HandsMen Customer Name ↑
1	Harvey Specter
2	Jessica Pearson
3	Louis Litt
4	Mike Ross

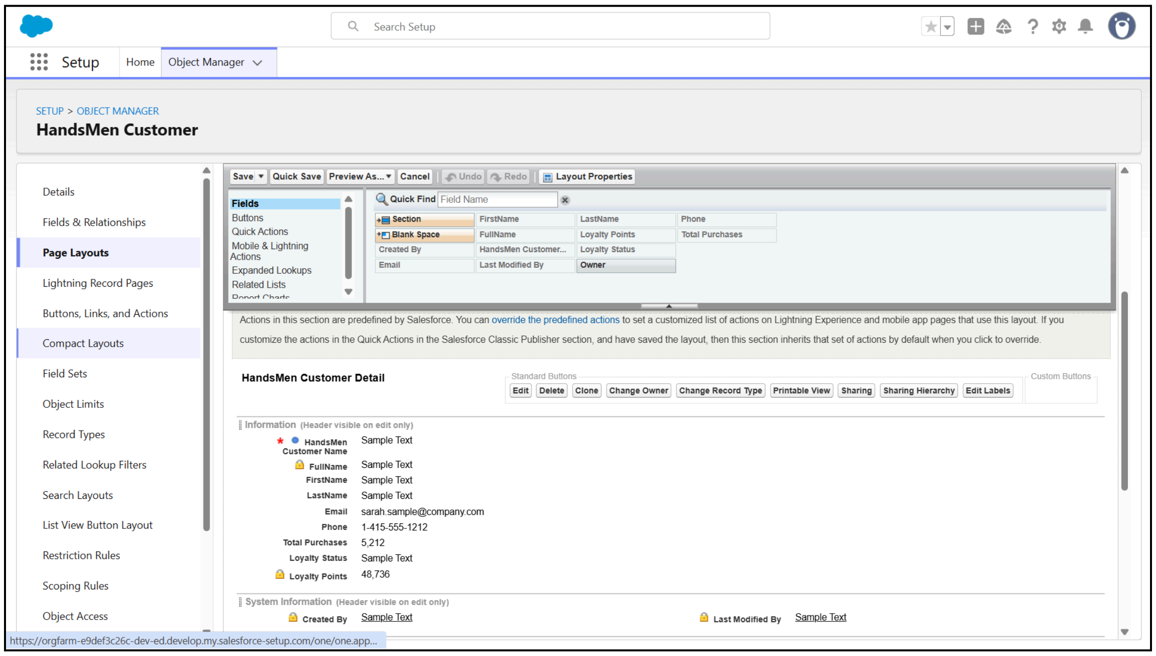
https://orgfarm-e9def3c26c-dev-ed.develop.lightning.force.com/lightning/o/HandsMen_Customer__c/home

Image 29. HandsMen Threads - Navigation Tabs

5.2 Page Layouts

Customized for all objects including:

- Field organization
- Related lists
- Button visibility
- Dynamic forms



Actions in this section are predefined by Salesforce. You can override the predefined actions to set a customized list of actions on Lightning Experience and mobile app pages that use this layout. If you customize the actions in the Quick Actions in the Salesforce Classic Publisher section, and have saved the layout, then this section inherits that set of actions by default when you click to override.

HandsMen Customer Detail

Information (Header visible on edit only)

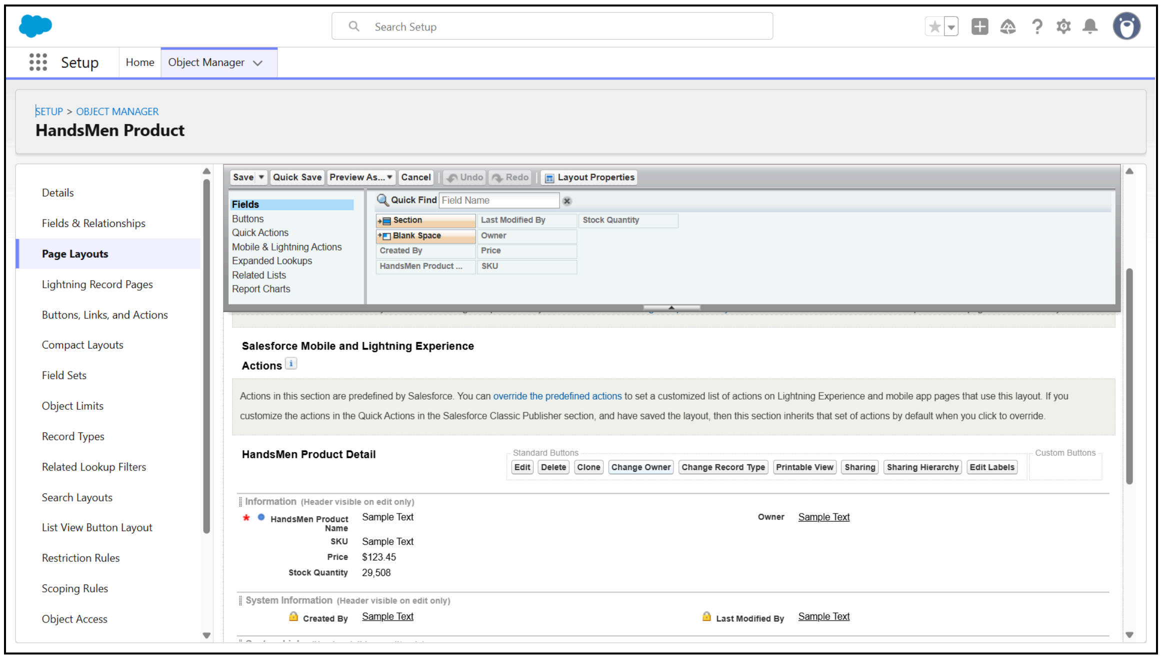
HandsMen Customer Name	Sample Text
FullName	Sample Text
FirstName	Sample Text
LastName	Sample Text
Email	sarah.sample@company.com
Phone	1-415-555-1212
Total Purchases	5,212
Loyalty Status	Sample Text
Loyalty Points	48,736

System Information (Header visible on edit only)

Created By	Sample Text	Last Modified By	Sample Text

https://orgfarm-e9def3c26c-dev-ed.develop.my.salesforce-setup.com/one/one.app...

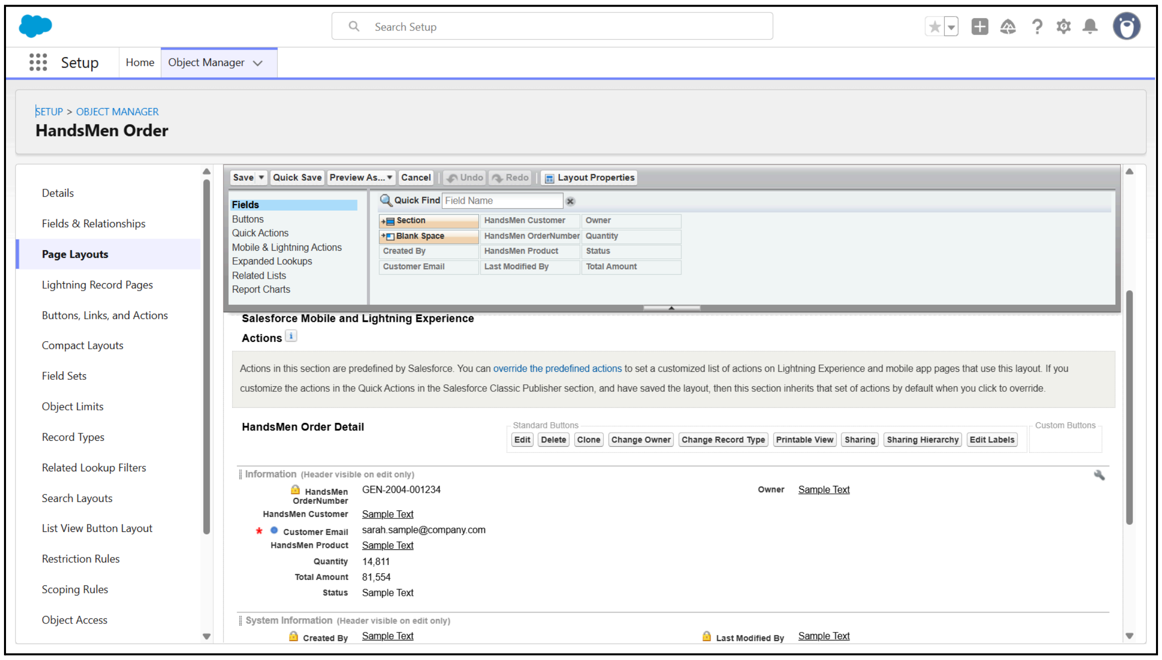
Image 30. HandsMen Customer Page Layout Setup



Actions in this section are predefined by Salesforce. You can override the predefined actions to set a customized list of actions on Lightning Experience and mobile app pages that use this layout. If you customize the actions in the Quick Actions in the Salesforce Classic Publisher section, and have saved the layout, then this section inherits that set of actions by default when you click to override.

HandsMen Product Name	Sample Text	Owner	Sample Text
SKU	Sample Text		
Price	$123.45		
Stock Quantity	29,508		
Created By	Sample Text	Last Modified By	Sample Text

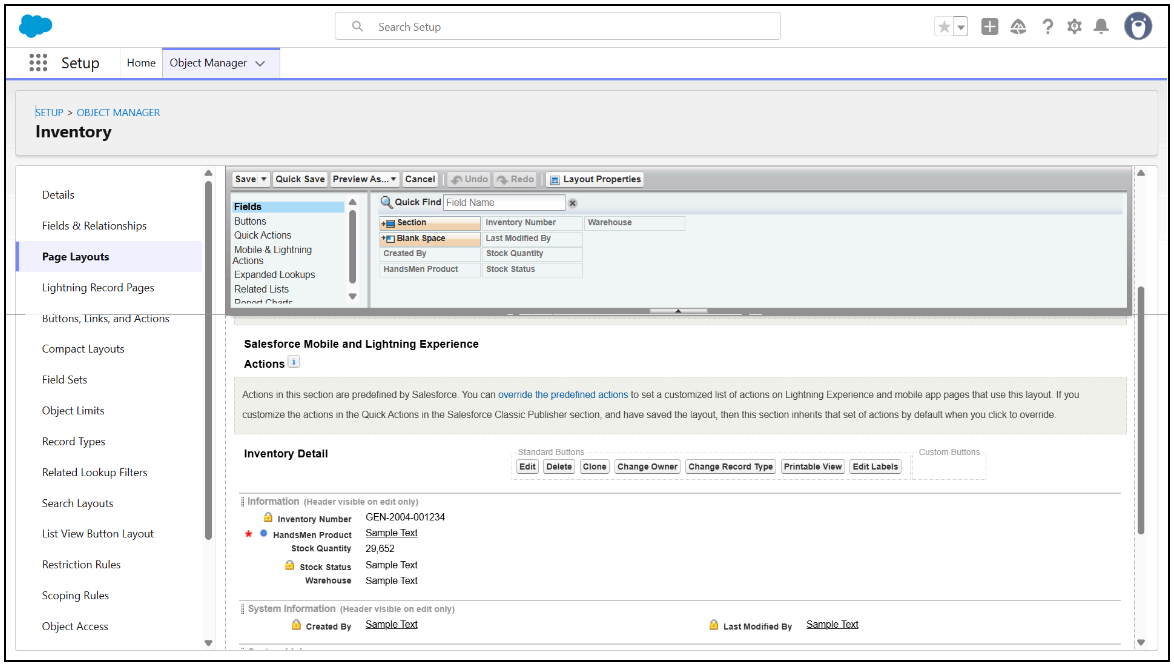
Image 30. HandsMen Product Page Layout Setup



Actions in this section are predefined by Salesforce. You can override the predefined actions to set a customized list of actions on Lightning Experience and mobile app pages that use this layout. If you customize the actions in the Quick Actions in the Salesforce Classic Publisher section, and have saved the layout, then this section inherits that set of actions by default when you click to override.

HandsMen OrderNumber	GEN-2004-001234	Owner	Sample Text
HandsMen Customer	Sample Text		
Customer Email	sarah.sample@company.com		
HandsMen Product	Sample Text		
Quantity	14,811		
Total Amount	81,554		
Status	Sample Text		
Created By	Sample Text	Last Modified By	Sample Text

Image 30. HandsMen Order Page Layout Setup



Salesforce Mobile and Lightning Experience Actions

Actions in this section are predefined by Salesforce. You can override the predefined actions to set a customized list of actions on Lightning Experience and mobile app pages that use this layout. If you customize the actions in the Quick Actions in the Salesforce Classic Publisher section, and have saved the layout, then this section inherits that set of actions by default when you click to override.

Inventory Detail

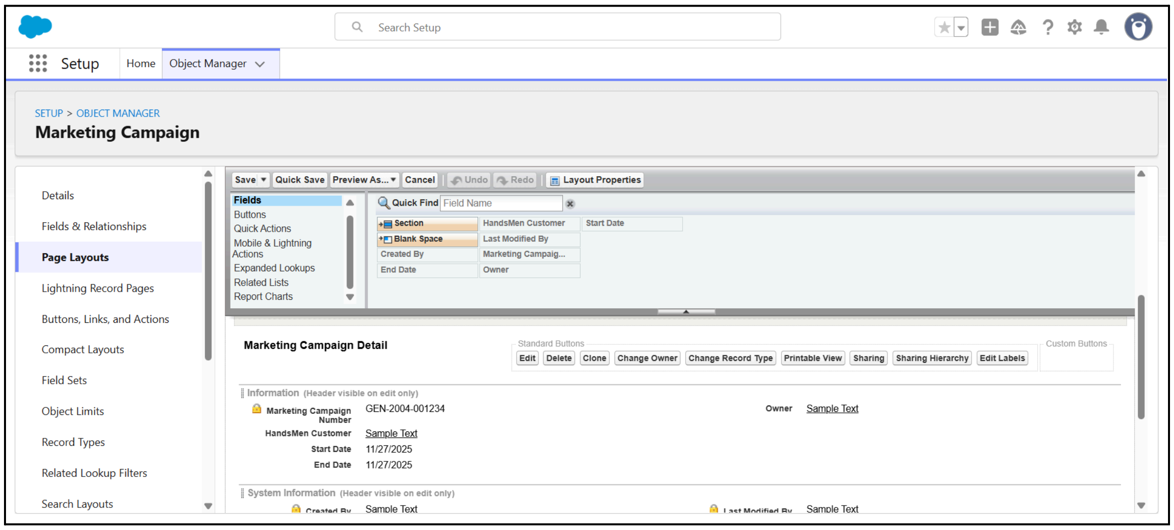
Information (Header visible on edit only)

Inventory Number	GEN-2004-001234
HandsMen Product	Sample Text
Stock Quantity	29,652
Stock Status	Sample Text
Warehouse	Sample Text

System Information (Header visible on edit only)

Created By	Sample Text	Last Modified By	Sample Text

Image 30. Inventory Page Layout Setup



Marketing Campaign Detail

Information (Header visible on edit only)

Marketing Campaign Number	GEN-2004-001234	Owner	Sample Text
HandsMen Customer	Sample Text		
Start Date	11/27/2025		
End Date	11/27/2025		

System Information (Header visible on edit only)

Created By	Sample Text	Last Modified By	Sample Text

Image 30. Marketing Campaign Page Layout Setup

5.3 Email Templates

1. Order Confirmation Emai

Sent when order is confirmed.

2. Low Stock Alert Email

Sent to Inventory Manager.

3. Loyalty Program Email

Sent when loyalty tier is updated.

PHASE 4:Data Migration, Testing & Security

6.1 Data Loading

- **Data Import Wizard** for basic data
- **Data Loader** for bulk loading

6.2 Security Configuration

Profiles

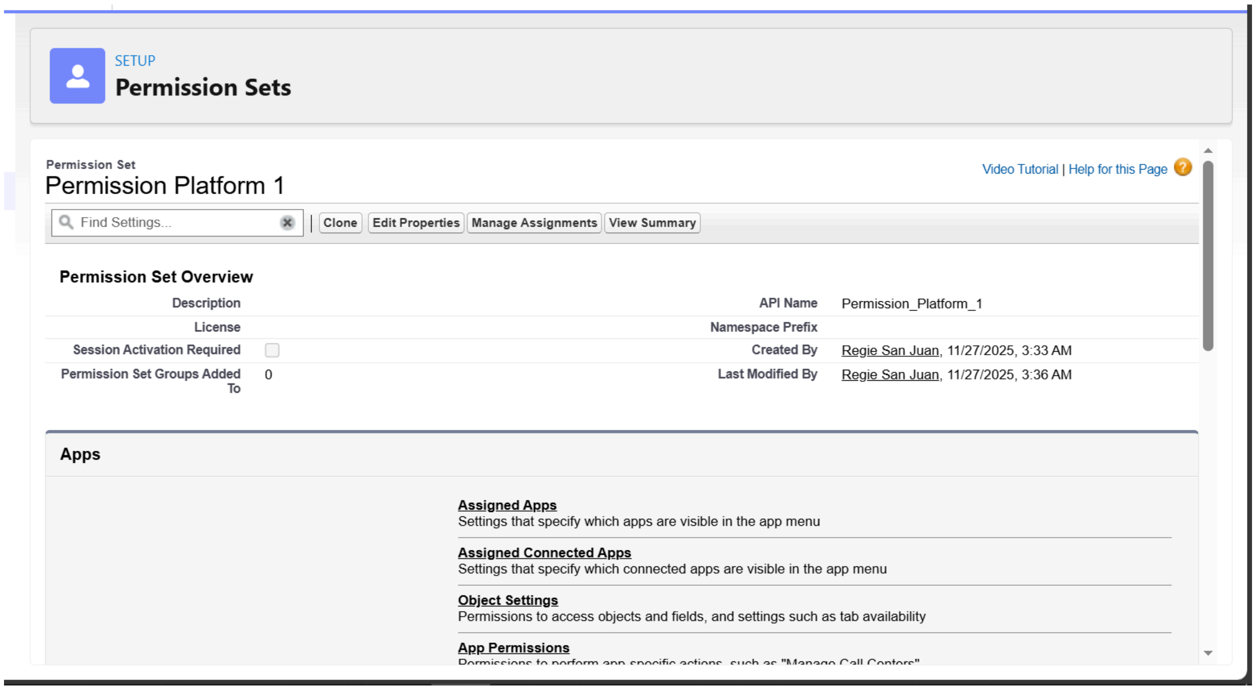
Platform 1 Profile (cloned from Standard User)

Roles

CEO
↳ Sales
↳ Inventory
↳ Marketing

Permission Set – permission_platform_1

Object	Read	Create	Edit	Delete
Customer	✔	✔	✔	✔
Orders	✔	✔	✔	✔
Products	✔	✔	❌	❌
Inventory	✔	✔	✔	❌


SETUP
Permission Sets

Permission Set
Permission Platform 1

Video Tutorial | Help for this Page

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

Permission Set Overview

Description		API Name	Permission_Platform_1
License		Namespace Prefix	
Session Activation Required	☐	Created By	Regie San Juan, 11/27/2025, 3:33 AM
Permission Set Groups Added To	0	Last Modified By	Regie San Juan, 11/27/2025, 3:36 AM

Apps

Assigned Apps
Settings that specify which apps are visible in the app menu

Assigned Connected Apps
Settings that specify which connected apps are visible in the app menu

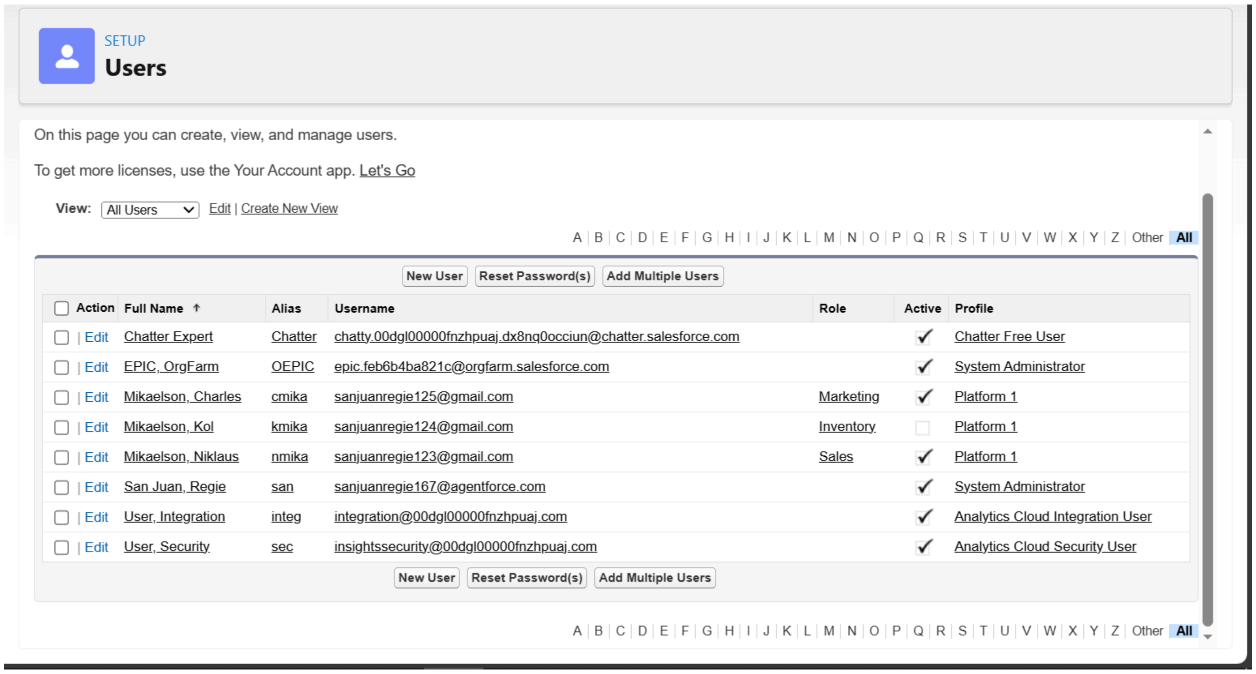
Object Settings
Permissions to access objects and fields, and settings such as tab availability

App Permissions

Image 31. Permission set for platform 1

6.3 Users

1. Sales User
2. Inventory User
3. Marketing User



SETUP
Users

On this page you can create, view, and manage users.

To get more licenses, use the Your Account app. Let's Go

View: All Users Edit | Create New View

Action	Full Name ↑	Alias	Username	Role	Active	Profile
Edit	Chatter Expert	Chatter	chatty.00dgl00000fnzhpuaj.dx8nq0occiun@chatter.salesforce.com		✓	Chatter Free User
Edit	EPIC, OrgFarm	OEPIC	epic.feb6b4ba821c@orgfarm.salesforce.com		✓	System Administrator
Edit	Mikaelson, Charles	cmika	sanjuanregie125@gmail.com	Marketing	✓	Platform 1
Edit	Mikaelson, Kol	kmika	sanjuanregie124@gmail.com	Inventory		Platform 1
Edit	Mikaelson, Niklaus	nmika	sanjuanregie123@gmail.com	Sales	✓	Platform 1
Edit	San Juan, Regie	san	sanjuanregie167@agentforce.com		✓	System Administrator
Edit	User, Integration	integ	integration@00dgl00000fnzhpuaj.com		✓	Analytics Cloud Integration User
Edit	User, Security	sec	insightssecurity@00dgl00000fnzhpuaj.com		✓	Analytics Cloud Security User

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 | All
New User
Reset Password(s)
Add Multiple Users

Image 32. Users

6.4 Testing Scenarios

✔ Order Confirmation

Changing Status → Confirmed sends email

✔ Stock Quantity Deduction

Inventory reduces automatically

✔ Validation Rules

Email, Stock Quantity, Total Amount tested

✔ Batch Jobs

Checked in Scheduled Jobs panel

PHASE 5:Deployment, Documentation & Maintenance

7.1 Deployment Strategy

The deployment process for the HandsMen Threads CRM followed Salesforce best practices to ensure stability, accuracy, and risk-free migration of components from development to production environments. The strategy consisted of multiple controlled stages:

1. Development in Sandbox

All configurations, custom objects, fields, flows, validation rules, Apex triggers, and batch jobs were initially built in a **Developer Sandbox**. This isolated environment allowed safe experimentation without affecting real business data.

Key tasks performed:

- Creating and modifying custom metadata
- Building and testing automation flows
- Writing and debugging Apex classes and triggers
- Preparing email templates and alerts
- Configuring permission sets, roles, and profiles

2. Unit Testing & Apex Code Validation

Before deployment, Salesforce required **at least 75% code coverage** for Apex classes and triggers.
Developers performed:

- Unit tests for each trigger
- Assert tests for batch jobs
- Negative test scenarios to verify error handling
- Flow-level testing for decision outcomes

3. Packaging Through Change Sets

Once validated, required components were grouped into **Outbound Change Sets**. Items included:

- Custom objects & fields
- Record-Triggered and Scheduled Flows
- Validation rules
- Email templates
- Permission sets, profiles, and role hierarchy
- Apex classes & triggers
- Lightning pages and app configuration

These Change Sets were then deployed to the **UAT Sandbox** for business testing.

4. User Acceptance Testing (UAT)

Sales, Inventory, and Marketing managers tested the system end-to-end. UAT covered:

- Creating and confirming orders
- Generating order confirmation emails

- Detecting low stock and receiving alerts
- Loyalty updates triggered by purchase history
- Inventory deductions
- Running scheduled apex jobs
- Permission-based access checks

Feedback was logged, documented, and fixed through iteration cycles.

5. Deployment to Production

After UAT approval, the final Change Set was deployed to **Production**.

Post-deployment tasks included:

- Re-activating scheduled flows
- Assigning permission sets to users
- Rebuilding any environment-specific email alerts
- Conducting smoke tests for orders, inventory, and loyalty flows

6. Quick Deploy for Minor Updates

For smaller configuration changes (e.g., label updates, layout adjustments), Quick Deploy was used to minimize downtime.

7.2 System Maintenance

Ongoing maintenance ensures the CRM remains reliable, accurate, and aligned with HandsMen Threads' evolving business processes.

1. Weekly Validation Checks

- Review recent automation executions
- Inspect validation rule performance
- Verify object data integrity
- Clean up inactive or faulty automation versions

2. Debug Log Monitoring

Admins review Salesforce debug logs to identify:

- Flow failures
- Apex exceptions
- SOQL governor limit warnings
- Data processing anomalies

This proactive approach reduces system downtime.

3. Flow Error Monitoring

Salesforce automatically sends **Flow Error Email Alerts** to the administrator whenever a process fails.

Each email is reviewed to determine:

- Missing field values
- Validation rule conflicts
- Permission issues

- Incorrect relationships

4. Scheduled Job Review

Admins check the status of Apex jobs such as:

- Daily inventory restock checks
- Weekly loyalty point recalculations

The monitoring ensures all scheduled jobs executed successfully and on time.

5. Automation Updates

Whenever business rules change (e.g., new loyalty tier logic, updated price rules), the corresponding flows or triggers are:

- Updated in Sandbox
- Retested for compatibility
- Redeployed to production

6. Security & Access Reviews

Periodic review of:

- Permission sets
- Role hierarchy
- Field-level security access
- New user onboarding requirements

This keeps the CRM aligned with data privacy and internal security policies.

7.3 Troubleshooting Approach

A structured troubleshooting methodology ensures issues are diagnosed and resolved effectively.

Step 1: Issue Identification

Sources used to detect problems:

- User-reported issues
- Flow error emails
- Apex unhandled exception logs
- Debug logs
- Inconsistent data behavior

Step 2: Root Cause Diagnosis

Admins analyze:

- Whether the failure is caused by a validation rule
- If a flow decision path was not met
- Missing field access due to permission restrictions
- Incorrect lookup relations or missing required fields
- Apex logic errors or governor limit violations

Step 3: Replication in Sandbox

The issue is recreated in a safe environment to confirm:

- The exact cause
- The appropriate fix
- The interaction with other automation

Step 4: Applying Fixes

Depending on the cause:

- Fix validation rules or formula logic
- Adjust Trigger logic
- Modify Flow decision elements
- Update or add required permissions
- Clean up incorrect data

Step 5: Testing

After applying a fix, the admin performs:

- Unit tests
- Flow path tests
- End-to-end scenario testing
- Cross-object interaction tests

Step 6: Deployment

Once verified, the fix is deployed to Production through:

- Change Sets (for large changes)
- Quick Deploy (for small adjustments)

Step 7: Documentation

All resolved issues are logged in an internal technical document including:

- Description of the issue
- Root cause
- Resolution steps
- Components involved
- Date resolved
- Future prevention notes

8. FUTURE ENHANCEMENTS

1. AI-Powered Product Recommendations

Integrate Salesforce Einstein or custom AI models to:

- Suggest items based on purchase behavior
- Recommend accessories based on order history
- Increase average order value (AOV)

2. Predictive Stock Shortage Alerts

Use predictive analytics to:

- Forecast stock depletion
- Recommend restock quantities
- Identify fast-moving vs slow-moving products

3. Chatbot & Omni-Channel Support

Implement a chatbot to answer:

- Order status inquiries
- Loyalty program questions
- Inventory availability requests

AI chat can operate 24/7 for better customer service.

4. POS & E-commerce Integration

Integrate Shopify / WooCommerce / POS machines with Salesforce so:

- Inventory syncs in real time
- Customer purchase history consolidates
- Orders automatically flow into Salesforce

5. Multi-Channel Loyalty Program

Create:

- SMS-based loyalty updates

- Email point statements
- Rewards catalog for points redemption
- Gamified loyalty tiers

CONCLUSION

The Salesforce CRM implementation for HandsMen Threads marks a major step forward in modernizing the company's operational and customer engagement processes. The system consolidates all critical data—customers, orders, products, inventory, and campaigns—into a single, reliable platform.

Through structured automation, validation rules, and security controls, the CRM delivers:

✔ Data Accuracy

Strong UI-driven validations, real-time stock adjustments, and automated totals ensure that all records remain reliable and consistent.

✔ Improved Efficiency

Automations eliminate repetitive manual tasks such as sending order confirmations, tracking stock levels, and updating loyalty statuses.

✔ Enhanced Customer Engagement

Personalized communication and a dynamic loyalty program boost customer satisfaction and retention.

✔ Operational Transparency

Dashboards, reports, and scheduled jobs provide teams with real-time visibility into the business.

✔ Scalability for Future Growth

The CRM is structured to support advanced AI capabilities, external system integration, and multi-channel expansion.

Overall, HandsMen Threads now operates with a **modern, automated, and scalable CRM system** that supports business growth, strengthens customer relationships, and improves efficiency across all departments.