



BULACAN STATE UNIVERSITY

COLLEGE OF INFORMATION AND COMMUNICATION TECHNOLOGY



City of Malolos, Bulacan

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

Salesforce Capstone Project

By:

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

Project Overview:

HandsMen Threads is a dynamic company in the fashion industry. This Salesforce CRM project is designed to centralize business data, automate key processes, and improve customer engagement.

The project focuses on:

- Keeping all customer, order, product, inventory, and marketing campaign data organized in Salesforce.
- Automating tasks such as order confirmation emails, loyalty program updates, and low stock alerts.
- Ensuring accuracy in inventory, orders, and customer data for better decision-making.

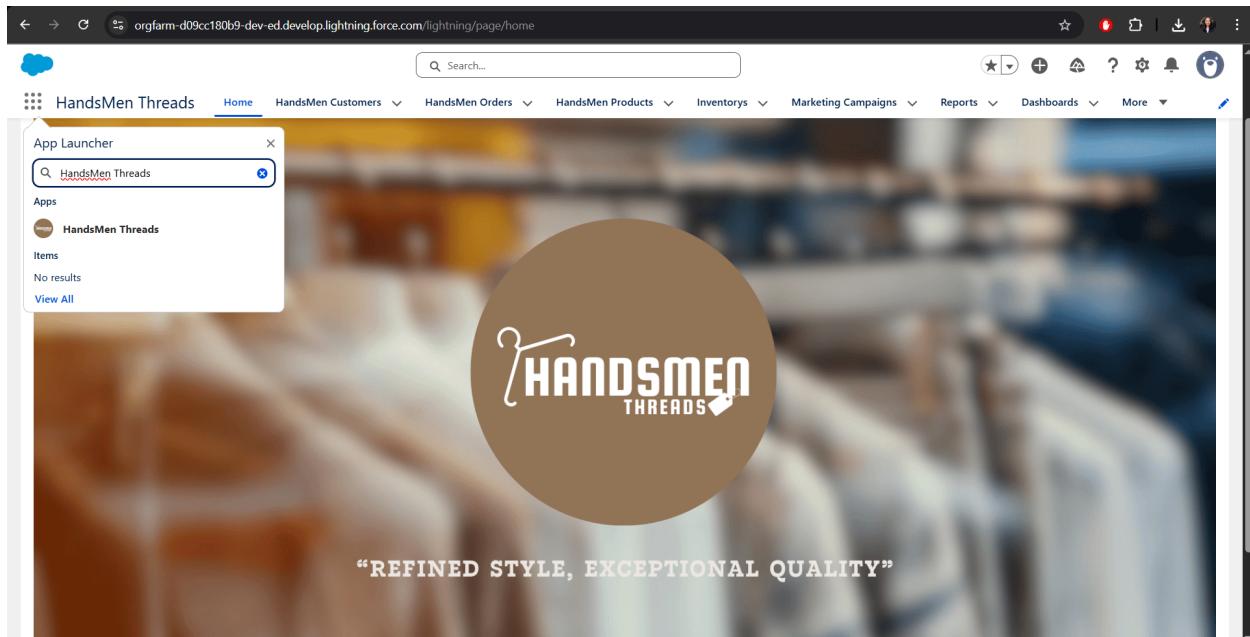


Figure 1: HandsMen Threads App view

Key Features & Business Needs

1. Automated Order Confirmations: Customers receive an email automatically when orders are confirmed.
2. Dynamic Loyalty Program: Loyalty status (Bronze, Silver, Gold) updates based on total purchases.
3. Proactive Stock Alerts: Warehouse receives automatic email notifications when inventory is low.
4. Scheduled Bulk Order Updates: Daily processing at midnight ensures accurate inventory and financial records.

Objectives:

- Improve customer engagement through automation.
- Ensure accurate and consistent data across all objects.
- Streamline workflows for orders, inventory management, and loyalty programs.
- Enable reporting and dashboard insights for management decision-making.

Phase 1: Requirement Analysis & Planning

Understanding Business Requirements

The project aims to automate key business processes for HandsMen Threads, including order confirmations, low stock alerts, and loyalty program updates. Accurate inventory and order data must be maintained, and customer engagement should be improved through automated notifications.

Project Scope & Objectives

- CRM includes Customers, Orders, Products, Inventory, and Marketing Campaigns.
- Automation of notifications and updates to improve operational efficiency.
- Ensure high-quality data using validation rules, formulas, and triggers.

Data Model & Security

- **Custom Objects:**
 - HandsMen_Customer__c
 - HandsMen_Product__c
 - HandsMen_Order__c
 - Inventory__c
 - Marketing_Campaign__c
- **Relationships:** Lookup & Master-Detail between orders, products, customers, and inventory.
- **Security:** Profiles, Roles, Permission Sets, and Sharing Rules implemented.

The screenshot shows the Salesforce Object Manager interface. The URL in the browser is <https://orgfarm-d09cc180b9-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/home>. The page title is "Object Manager". A table lists the custom objects:

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
HandsMen Order	HandsMen_Order__c	Custom Object		11/9/2025	✓
Marketing Campaign	Marketing_Campaign__c	Custom Object		11/8/2025	✓
Inventory	Inventory__c	Custom Object		11/8/2025	✓
HandsMen Product	HandsMen_Product__c	Custom Object		11/8/2025	✓
HandsMen Customer	HandsMen_Customer__c	Custom Object		11/8/2025	✓

Figure 2: Object Manager Showing All Custom Objects

Stakeholders & Roles

- **Internal Stakeholders:** Sales, Inventory, and Marketing teams, who are directly involved in day-to-day operations.
- **External Stakeholders:** Customers, whose experience the system seeks to enhance.

Roles and Access Levels

Role	Access Level
Sales Manager	Full Access to Customers, Orders
Inventory Manager	Read & Edit on Inventory, Products
Marketing Team	Read on Customers, Edit on Marketing Campaigns

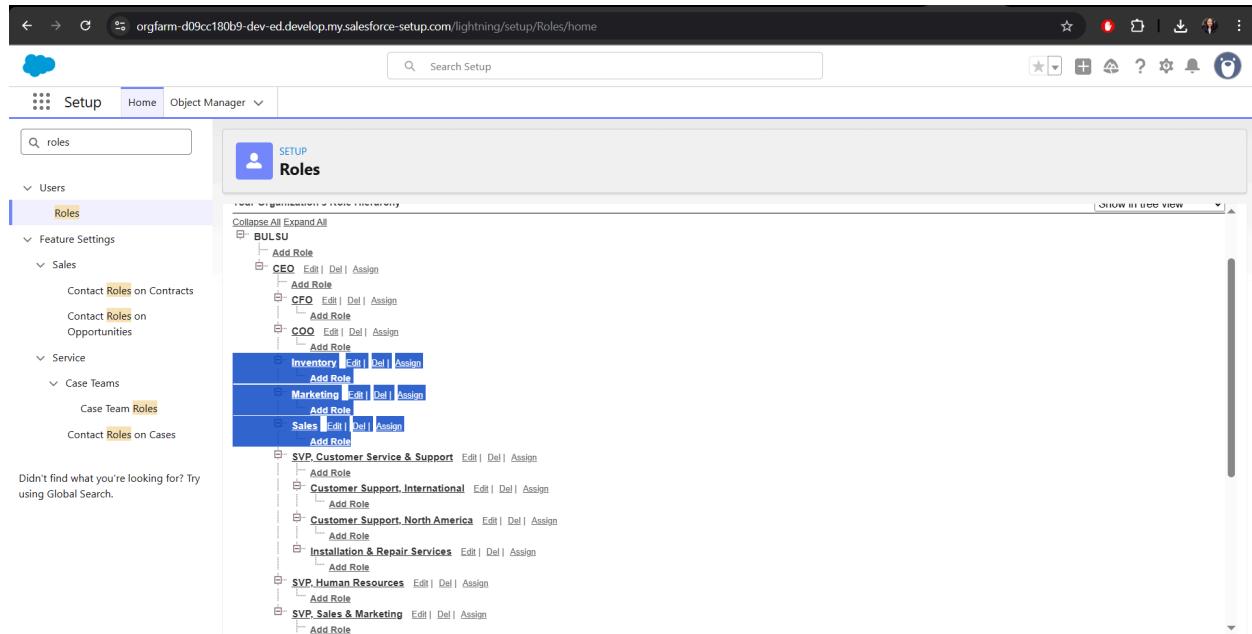


Figure 3: Roles Setup

Execution Roadmap

The project execution followed a structured roadmap to ensure systematic development and implementation:

- Requirement Analysis & Planning – Gathered business requirements, defined scope, and designed the data model.
- Salesforce Development & Configuration – Created custom objects, fields, relationships, validation rules, and automation.
- UI/UX Development & Customization – Designed Lightning Apps, page layouts, dynamic forms, reports, and dashboards.
- Data Migration, Testing & Security – Imported data, configured profiles and permission sets, and tested flows, triggers, and automations.
- Deployment, Documentation & Maintenance – Deployed the system from Sandbox to Production, documented configurations, and outlined maintenance strategies.

Phase 2: Salesforce Development – Backend & Configurations

Custom Objects & Key Fields

Object	Type	Key Fields	Description
HandsMen Customer_c	Custom	Name, Email, Phone, Loyalty_Status_c, Total_Purchases_c	Stores customer info

HandsMen Product__c	Custom	Name, SKU, Price, Stock_Quantity__c	Stores product catalog
HandsMen Order__c	Custom	Order_Number, Status, Quantity__c, Total_Amount__c	Stores customer orders
Inventory__c	Custom	Auto Number, Warehouse, Stock_Quantity__c	Tracks inventory
Marketing_Campaign__c	Custom	Campaign_Name, Start_Date, End_Date	Stores marketing campaigns

The screenshot shows the Salesforce Setup interface under Object Manager for the 'HandsMen Customer' object. The left sidebar lists various configuration options like Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, etc. The main content area displays the 'Fields & Relationships' section with 11 items. The table lists fields such as Created By, Email, FirstName, FullName, HandsMen Customer Name, Last Modified By, LastName, Loyalty Status, Owner, Phone, and Total Purchases, along with their respective field labels, data types, controlling fields, and indexing status.

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)		

Figure 4: HandsMen Customer Fields

Fields & Relationships					
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)			▼

Figure 5: HandsMen Product Fields

Fields & Relationships					
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)			▼

Figure 6: HandsMen Order Fields

Fields & Relationships					
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)			▼

Figure 7: Inventory Fields

Fields & Relationships					
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			▼

Figure 8: Marketing Campaign Fields

Formulas

Object	Field	Formula	Return Type
Inventory__c	Stock_Status__c	IF(Stock_Quantity__c > 10, "Available", "Low Stock")	Text
HandsMen Customer__c	Full_Name__c	FirstName & " " & LastName	Text

The screenshot shows the Salesforce Setup interface for the Object Manager. The URL is <https://orgfarm-d09cc180b9-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01lg5000000Lat/FieldsAndRelationships/00Ng5000003aDwH/view>. The page title is "Inventory". The left sidebar shows navigation options like 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, and Scoping Rules. The main content area displays the "Custom Field Definition Detail" for the "Stock Status" field. The "Field Information" section shows the field label "Stock Status", field name "Stock_Status", API name "Stock_Status__c", and a formula: `IF(Stock_Quantity__c > 10, "Available", "Low Stock")`. The "Formula Options" section shows the data type as "Text". The "Object Name" is listed as "Inventory". The "Created By" is Shayne San Pedro, and the "Modified By" is also Shayne San Pedro.

Figure 9: Formula Fields: Stock_Status in Inventory

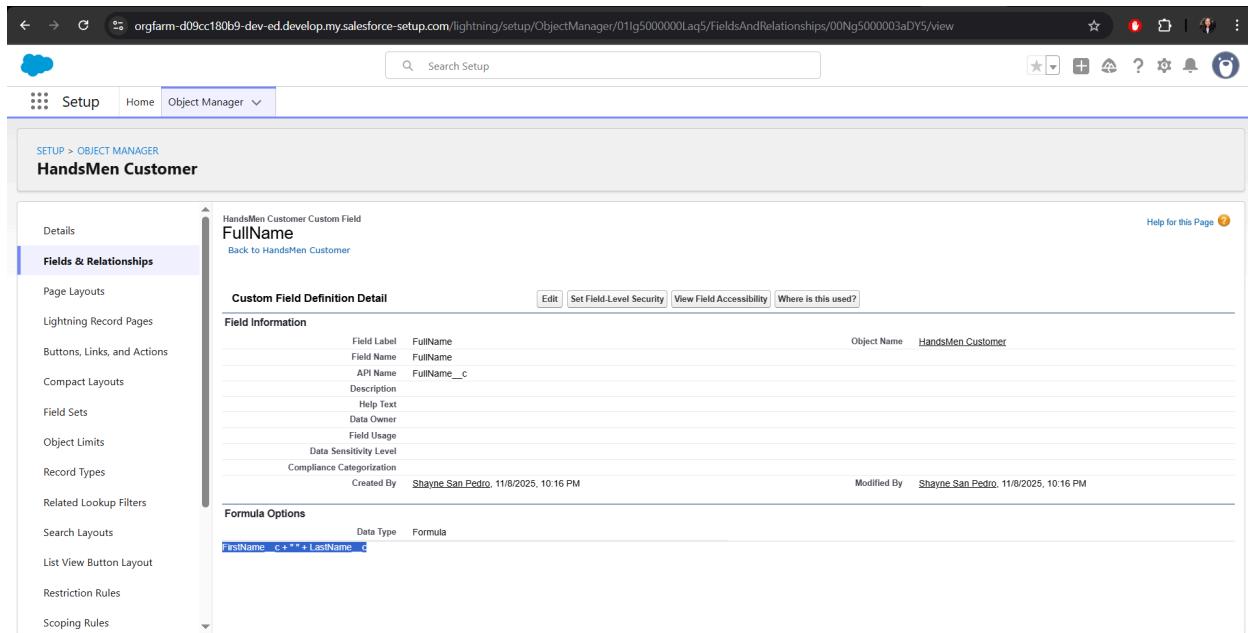


Figure 10: Formula Fields: Full_Name in HandsMen Customer

Validation Rules

Object	Field	Validation Rule	Error Message
HandsMen Order	Total_Amount	Total_Amount <= 0	Please Enter Correct Amount
Inventory	Stock_Quantity	Stock_Quantity <= 0	The inventory count is never less than zero.
HandsMen Customer	Email	NOT CONTAINS>Email, "@gmail.com"	Please fill Correct Email

The screenshot shows the Salesforce Setup interface for the 'HandsMen Order' object. The left sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, etc. The main content area displays a table titled 'Validation Rules' with one item:

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Total_Amount	Total Amount	Please Enter Correct Amount	✓	Shayne San Pedro, 11/9/2025, 5:38 PM

Figure 11: Validation Rule for HandsMen Order – Total_Amount

The screenshot shows the Salesforce Setup interface for the 'Inventory' object. The left sidebar lists various setup categories. The main content area displays a table titled 'Validation Rules' with one item:

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Stock_Quantity	Top of Page	the inventory count is never less than zero.	✓	Shayne San Pedro, 11/9/2025, 5:40 PM

Figure 12: Validation Rule for Inventory – Stock_Quantity

Figure 13: Validation Rule for HandsMen Customer – Email

Business Automation

Flows

Flow Name	Type	Trigger	Function
Order Confirmation Email	Record-Trigge red	Order Status = Confirmed	Sends confirmation email & updates inventory
Low Stock Alert	Record-Trigge red	Inventory Stock < 5	Sends email to warehouse
Loyalty Program Email	Scheduled	Total Purchases	Updates loyalty status & sends email at midnight

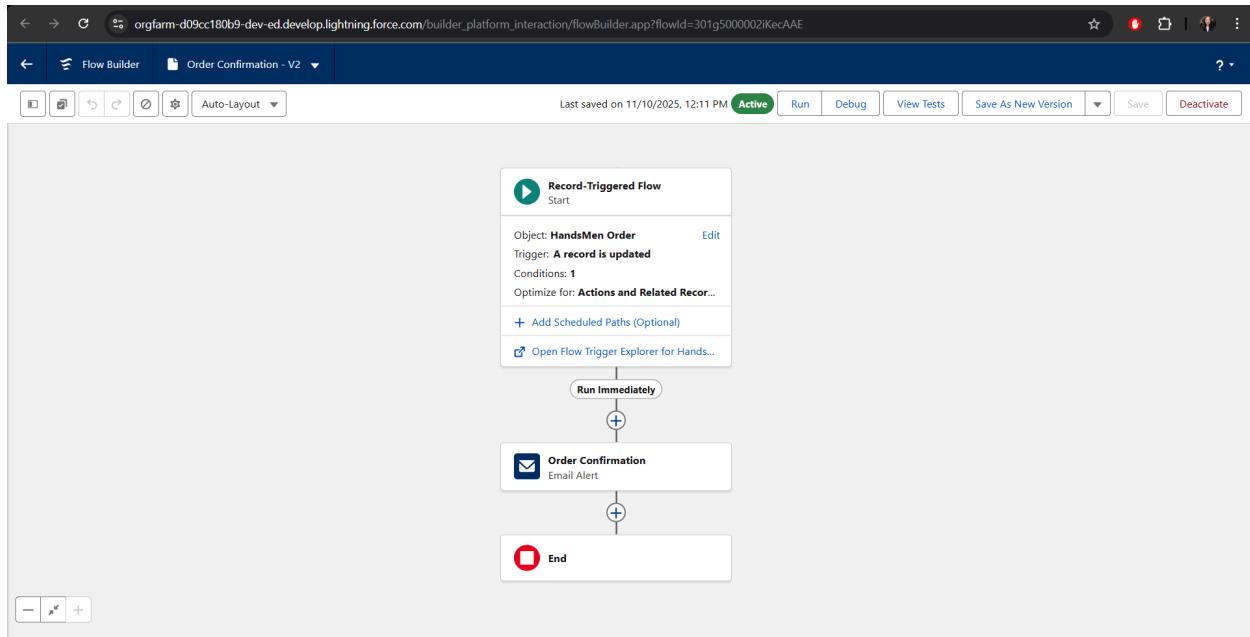


Figure 14: Order Confirmation Email Flow

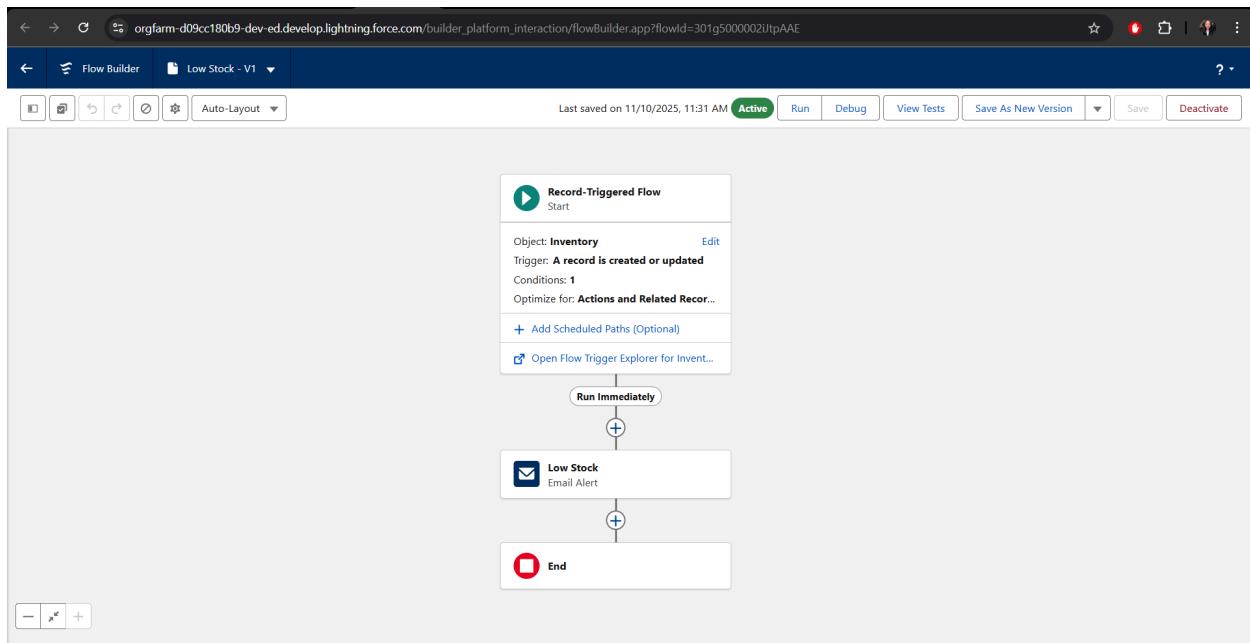


Figure 15: Low Stock Alert Flow

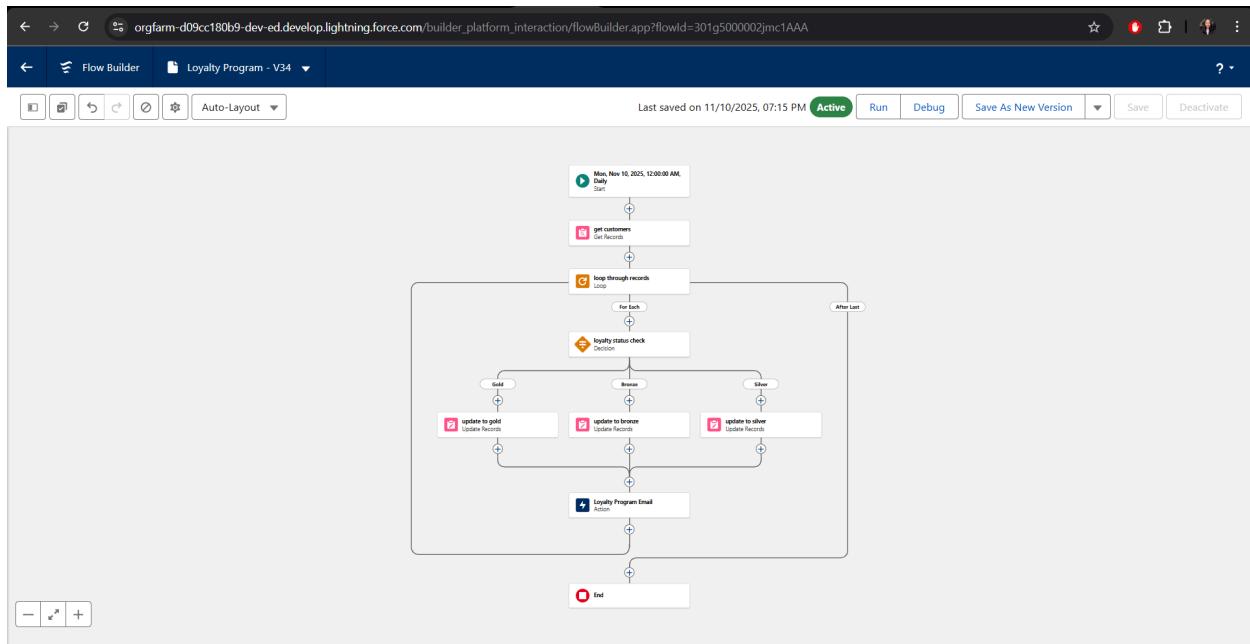


Figure 16: Loyalty Program Email Flow

Apex Triggers

Trigger	Function
OrderTotalTrigger	Calculates Total_Amount__c (Price × Quantity) for each order
StockDeductionTrigger	Deducts inventory stock when order is confirmed

The screenshot shows the Salesforce Apex Editor interface. The top navigation bar includes File, Edit, Debug, Test, Workspace, Help, and a Go To button. The tabs at the top are OrderTotalTrigger.apex and StockDeductionTrigger.apex. The code coverage is set to None, and the API version is 65. The code itself is as follows:

```

1 trigger OrderTotalTrigger on HandsMen_Order__c (before insert, before update) {
2     Set<Id> productIds = new Set<Id>();
3
4     for (HandsMen_Order__c order : Trigger.new) {
5         if (order.HandsMen_Product__c != null) {
6             productIds.add(order.HandsMen_Product__c);
7         }
8     }
9
10 Map<Id, HandsMen_Product__c> productMap = new Map<Id, HandsMen_Product__c>(
11     [SELECT Id, Price__c FROM HandsMen_Product__c WHERE Id IN :productIds]
12 );
13
14 for (HandsMen_Order__c order : Trigger.new) {
15     if (order.HandsMen_Product__c != null && productMap.containsKey(order.HandsMen_Product__c)) {
16         HandsMen_Product__c product = productMap.get(order.HandsMen_Product__c);
17         if (order.Quantity__c != null) {
18             order.Total_Amount__c = order.Quantity__c * product.Price__c;
19         }
20     }
21 }
22 }
```

Below the code editor is a log viewer with tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The logs table has columns for User, Application, Operation, Time, Status, Read, and Size. A filter bar at the bottom allows filtering the log list.

Figure 17: Apex Trigger Setup for OrderTotalTrigger

The screenshot shows the Salesforce Apex Editor interface. The top navigation bar includes File, Edit, Debug, Test, Workspace, Help, and a Go To button. The tabs at the top are OrderTotalTrigger.apex and StockDeductionTrigger.apex. The code coverage is set to None, and the API version is 65. The code itself is as follows:

```

1 trigger StockDeductionTrigger on HandsMen_Order__c (after insert, after update) {
2     Set<Id> productIds = new Set<Id>();
3
4     for (HandsMen_Order__c order : Trigger.new) {
5         if (order.Status__c == 'Confirmed' && order.HandsMen_Product__c != null) {
6             productIds.add(order.HandsMen_Product__c);
7         }
8     }
9
10 if (productIds.isEmpty()) return;
11
12 Map<Id, Inventory__c> inventoryMap = new Map<Id, Inventory__c>(
13     [SELECT Id, Stock_Quantity__c, HandsMen_Product__c
14      FROM Inventory__c
15      WHERE HandsMen_Product__c IN :productIds]
16 );
17
18 List<Inventory__c> inventoriesToUpdate = new List<Inventory__c>();
19
20 for (HandsMen_Order__c order : Trigger.new) {
21     if (order.Status__c == 'Confirmed' && order.HandsMen_Product__c != null) {
22         for (Inventory__c inv : inventoryMap.values()) {
23             if (inv.HandsMen_Product__c == order.HandsMen_Product__c) {
24                 inv.Stock_Quantity__c -= order.Quantity__c;
25                 inventoriesToUpdate.add(inv);
26                 break;
27             }
28         }
29     }
30 }
31
32 if (!inventoriesToUpdate.isEmpty()) {
33     update inventoriesToUpdate;
34 }
```

Below the code editor is a log viewer with tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The logs table has columns for User, Application, Operation, Time, Status, Read, and Size. A filter bar at the bottom allows filtering the log list.

Figure 18: Apex Trigger Setup for StockDeductionTrigger

Phase 3: UI/UX Development & Customization

- Lightning App created via App Manager.
- Page Layouts and Dynamic Forms configured for easy data entry.
- User management implemented with Profiles, Roles, and Permission Sets.
- Reports & Dashboards created: New Customers, Orders, Inventory Status, Loyalty Program.
- Lightning Pages optimized for workflow.

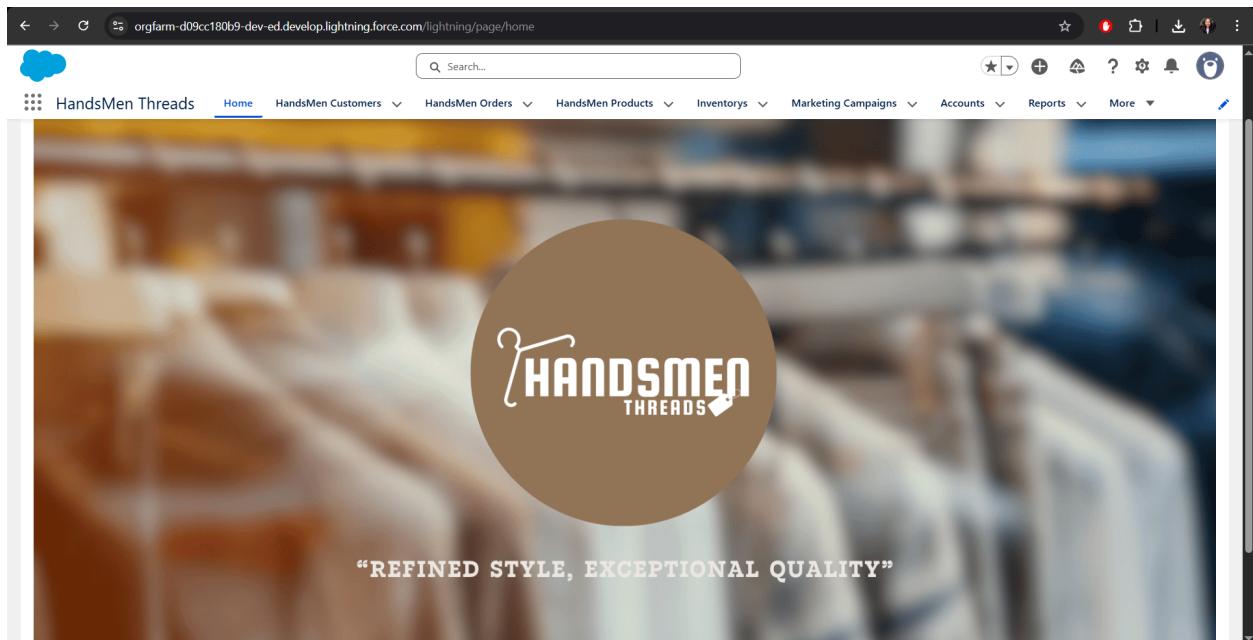


Figure 19: Home Page

New HandsMen Product Inventory

Inventory: Inventory Number	HandsMen Product: HandsMen Product Name	Price	Stock Quantity
I-0001	Shorts	\$10	450
I-0002	Dress	\$20	380
I-0003	Coat	\$20	600
I-0004	Pants	\$20	600

[View Report \(New HandsMen Product Inventory\)](#) As of Nov 10, 2025, 10:09 PM

New HandsMen Orders Report

HandsMen Order: HandsMen OrderNumber	HandsMen Customer	HandsMen Product	Total Amount
O-0001	Ali	Shorts	1k
O-0002	Maria	Dress	400
O-0003	Maria	Shorts	200
O-0004	Ali	Coat	400

[View Report \(New HandsMen Orders Report\)](#) As of Nov 10, 2025, 10:14 PM

New HandsMen Customers Report

HandsMen Customer: HandsMen Customer Name	Total Purchases	Loyalty Status
Ali	450	Bronze
Jose	600	Silver
Maria	1k	Gold

[View Report \(New HandsMen Customers Report\)](#) As of Nov 10, 2025, 10:14 PM

Thank you for choosing HandsMen Threads.
For inquiries, contact us at: HandsMenThreads@org.com.ph
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Figure 20: Dashboard Page

Report: HandsMen Products with Inventory
New HandsMen Product Inventory

Total Records	Total Price	Total Stock Quantity
4	\$70	2,030

Inventory: Inventory Number **HandsMen Product: HandsMen Product Name** **Price** **Stock Quantity**

1 I-0001	Shorts	\$10	450
2 I-0002	Dress	\$20	380
3 I-0003	Coat	\$20	600
4 I-0004	Pants	\$20	600
5		\$70	2,030

Figure 21: Sample Report “New HandsMen Product Inventory”

Phase 4: Data Migration, Testing & Security

Data Migration

- Loaded Customers, Orders, Products, and Inventory using Data Import Wizard.

Security

- Duplicate Rules and Field History Tracking enabled.
- Profiles, Roles, Permission Sets, and Sharing Rules configured.

Testing Approach

Test Cases & Screenshots for Each Feature

1. Order Confirmation Email Flow:

- Input: New order created, Status = Pending → Confirmed
- Output: Confirmation email sent, Inventory reduced

HandsMen Threads

HandsMen Orders

Owner: Shayne San Pedro

Pants

Customer: Jose

Status: Pending

Quantity: 10

Last Modified By: Shayne San Pedro

Figure 22: Creation of a new HandsMen Order record with status set to “Pending” and quantity of 10

HandsMen Threads

HandsMen Orders

Owner: Shayne San Pedro

Pants

Customer: Jose

Status: Confirmed

Quantity: 10

Last Modified By: Shayne San Pedro

Figure 23: Updating the HandsMen Order status from “Pending” to “Confirmed” to trigger the Order Confirmation Flow

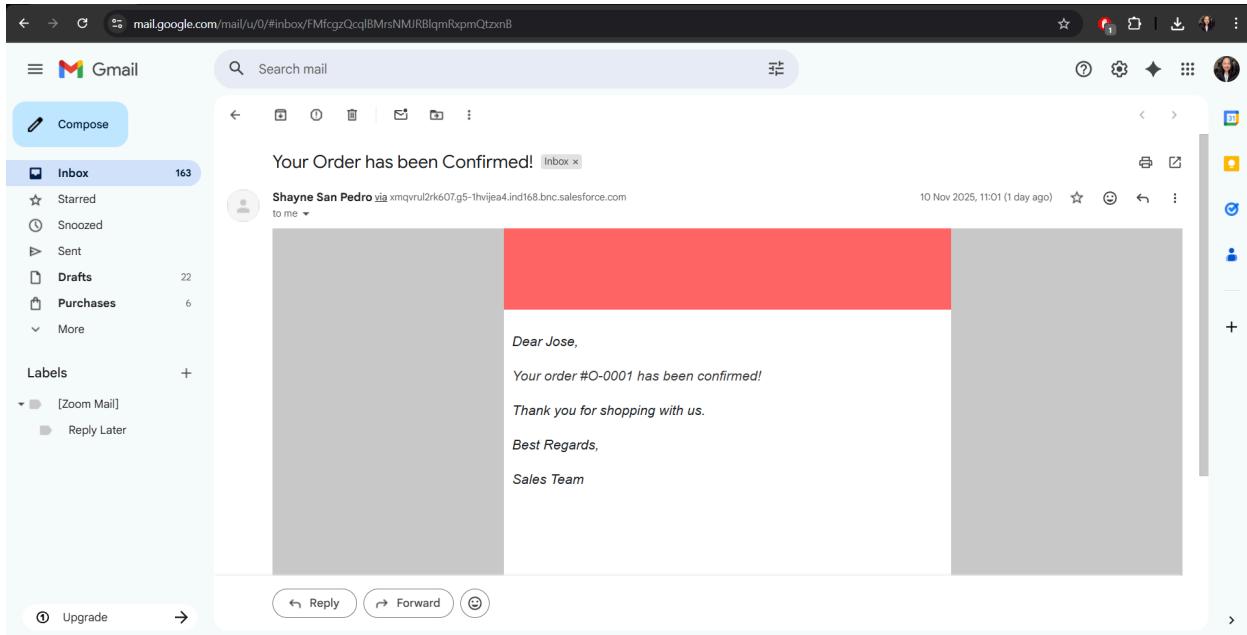


Figure 24: Sample confirmation email automatically sent to the customer after the order status was confirmed

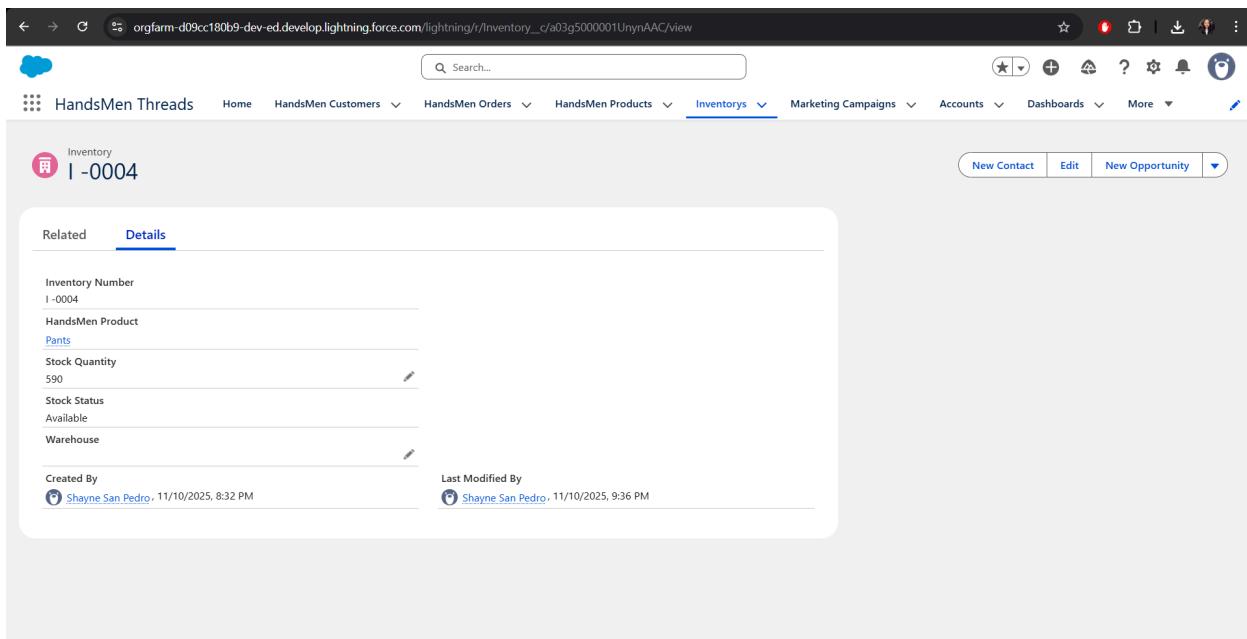


Figure 25: Updated Inventory record showing stock quantity reduced from 600 to 590 after order confirmation

2. Low Stock Alert Flow:

- Input: Inventory reduced to <5
- Output: Low stock email sent to warehouse

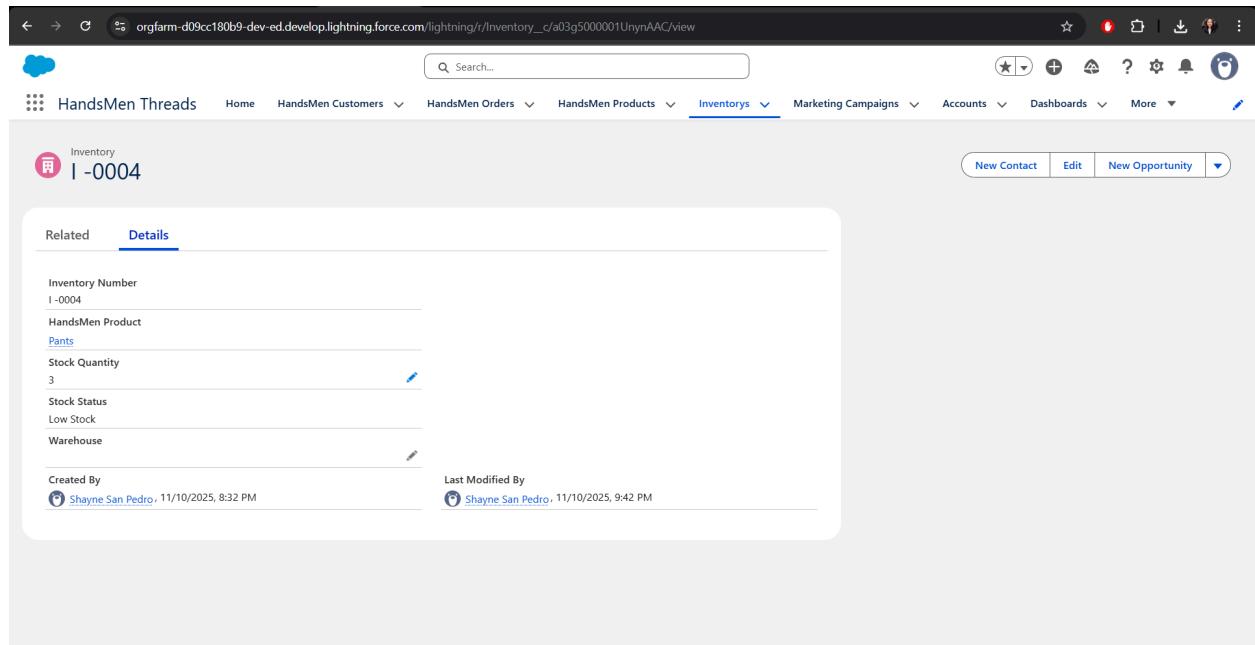


Figure 26: Inventory record updated with stock quantity changed to 3, automatically setting the stock status to “Low Stock.”

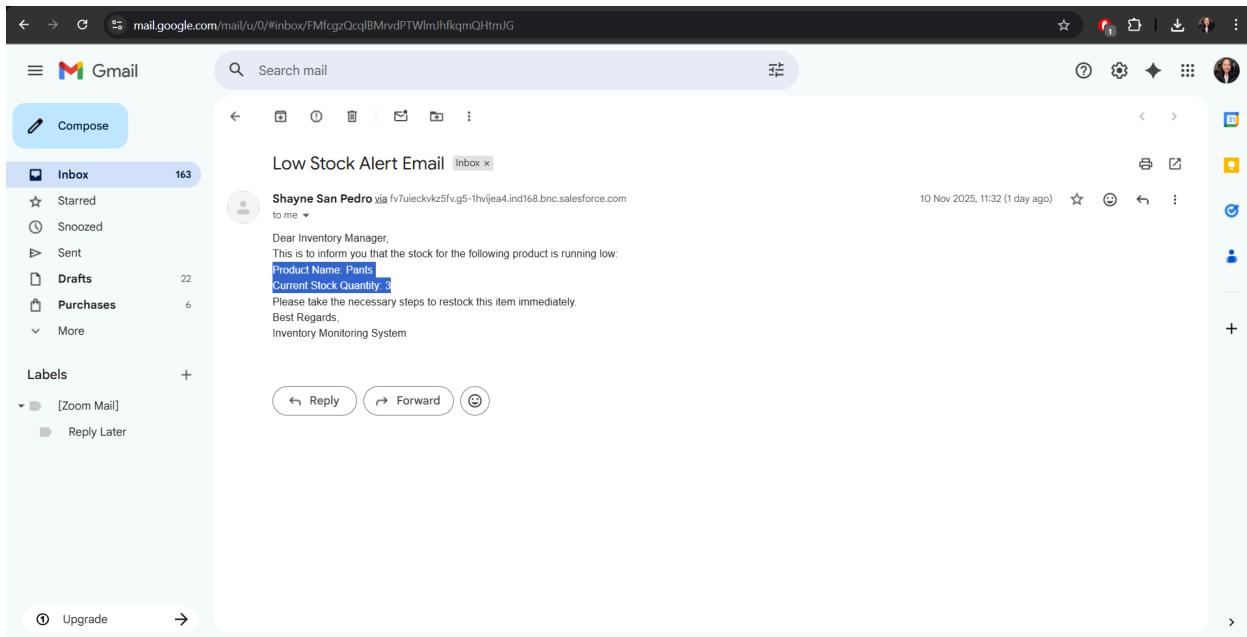


Figure 27: Sample low stock alert email sent to the warehouse indicating the product is running low in inventory

3. Loyalty Program Flow:

- Input: Customer total purchases evaluated
- Output: Loyalty status updated (Bronze/Silver/Gold), email scheduled

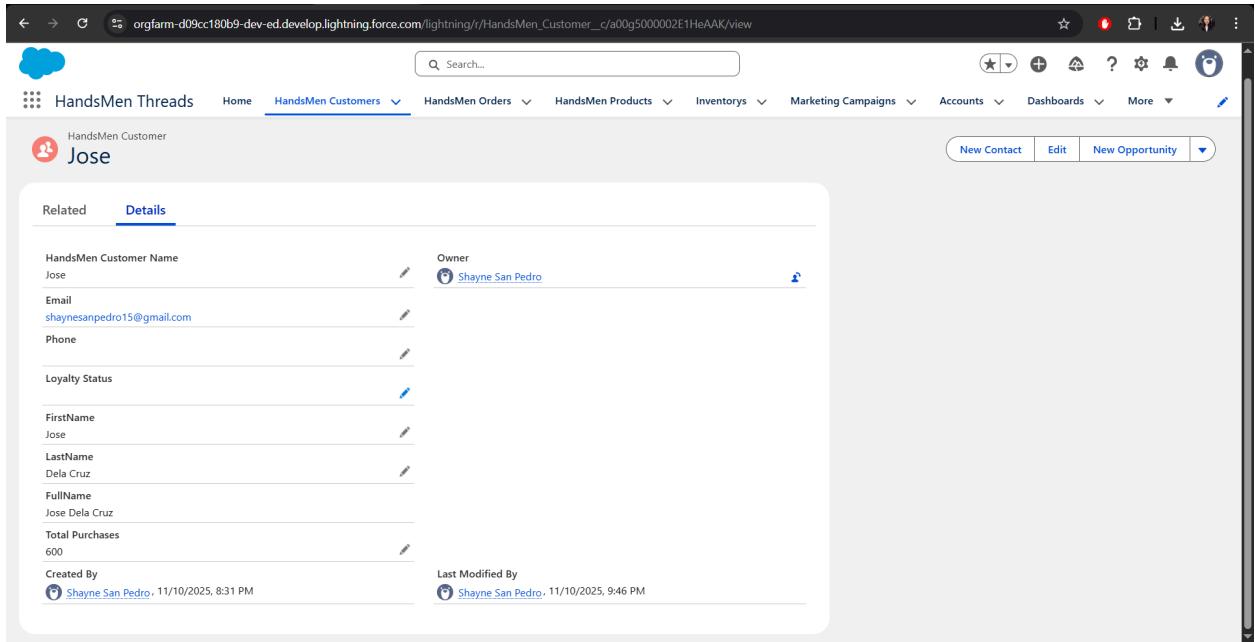


Figure 28: Customer record “Jose” updated with total purchases set to 600 to test the Loyalty Program Flow conditions.

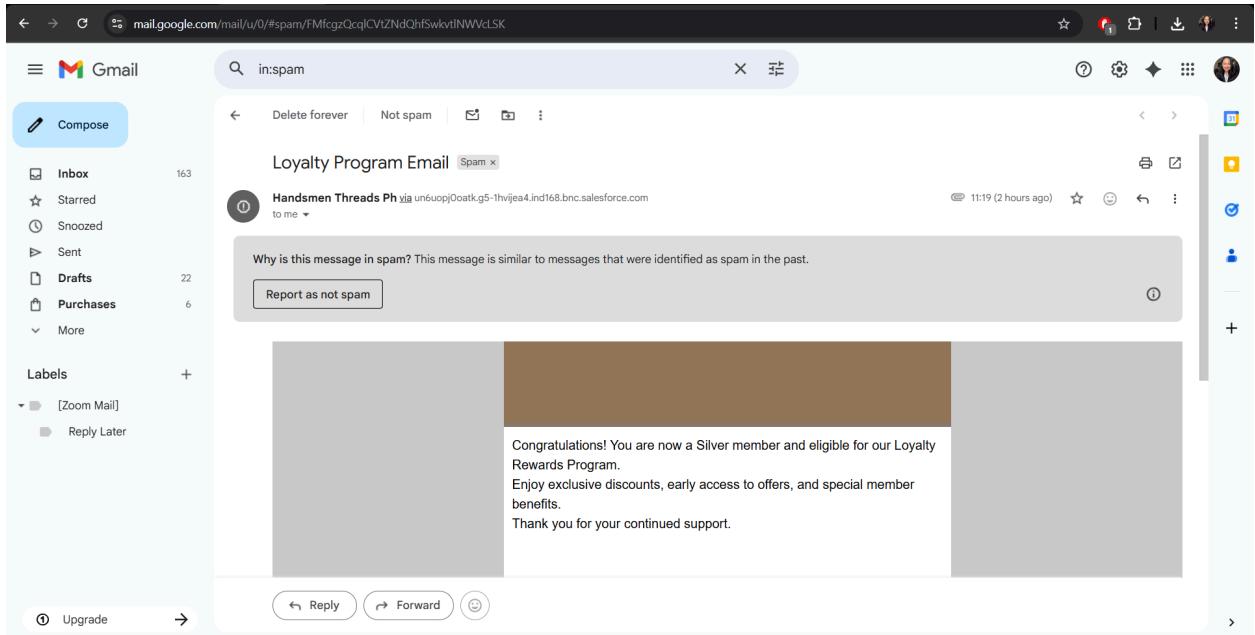


Figure 29: Sample loyalty program email generated when the flow is triggered at midnight, informing the customer of their loyalty status

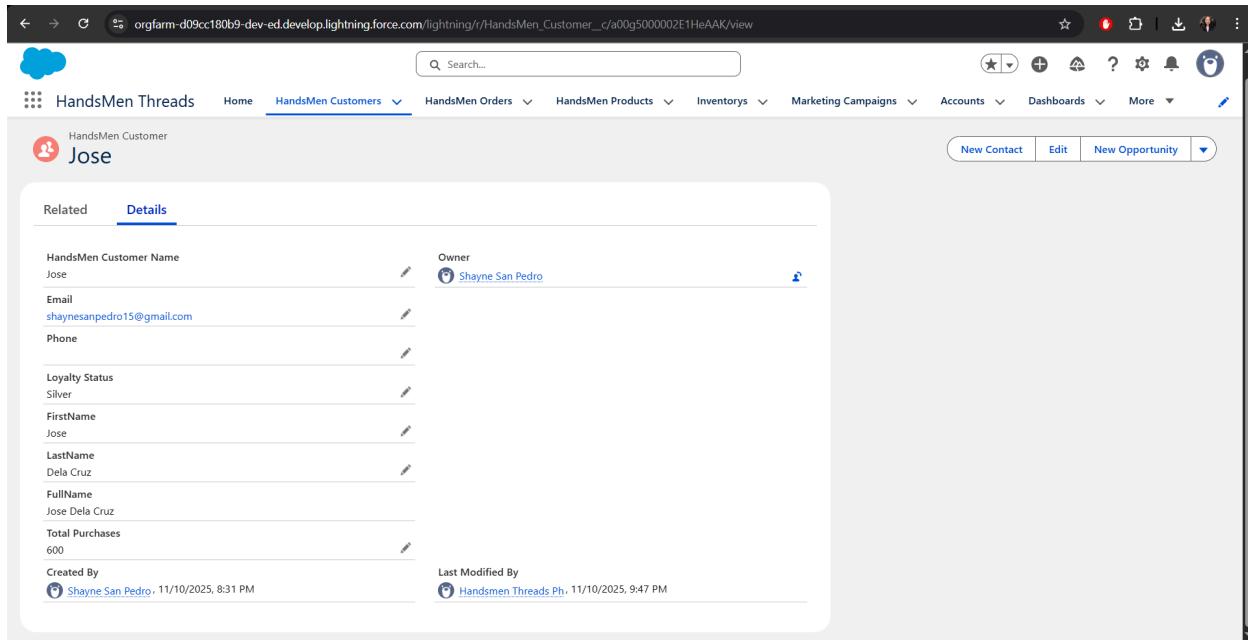


Figure 30: Customer record showing updated Loyalty Status automatically set to “Silver” based on the total purchase amount

4. Apex Triggers:

- OrderTotalTrigger: Input: Product price × quantity → Output: Total_Amount__c updated

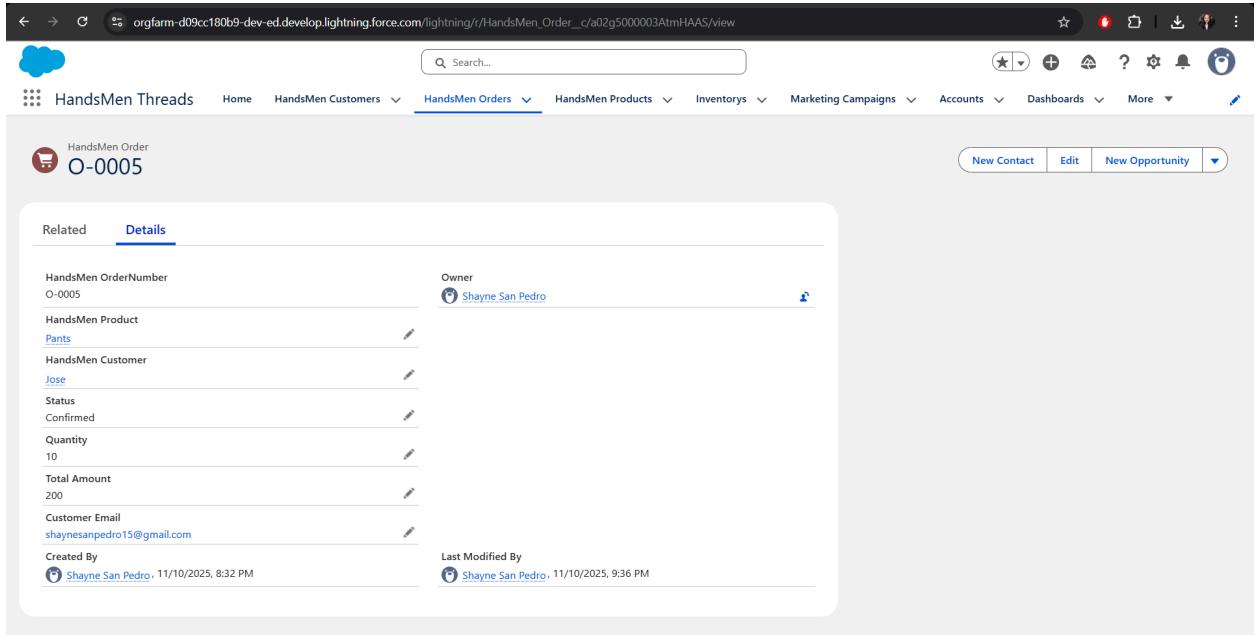


Figure 31: Order record showing the Total Amount automatically calculated based on the product price multiplied by the ordered quantity through the OrderTotalTrigger.

- StockDeductionTrigger: Input: Confirmed order → Output: Inventory updated

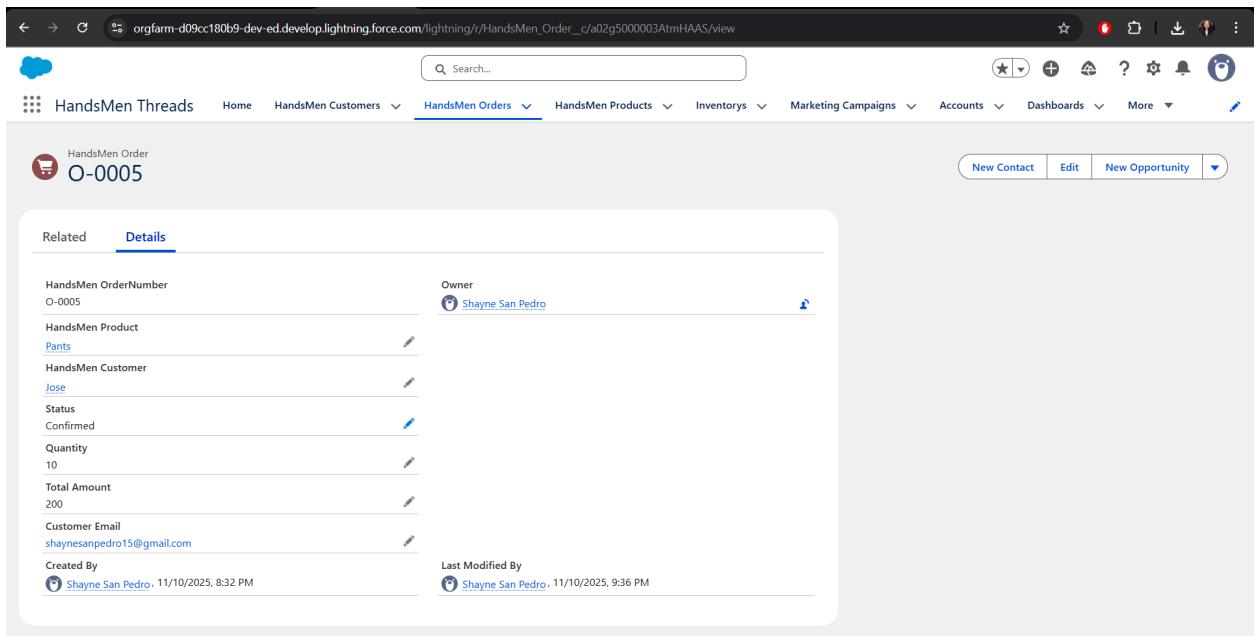


Figure 32: Order record with status updated to “Confirmed,” triggering the StockDeductionTrigger

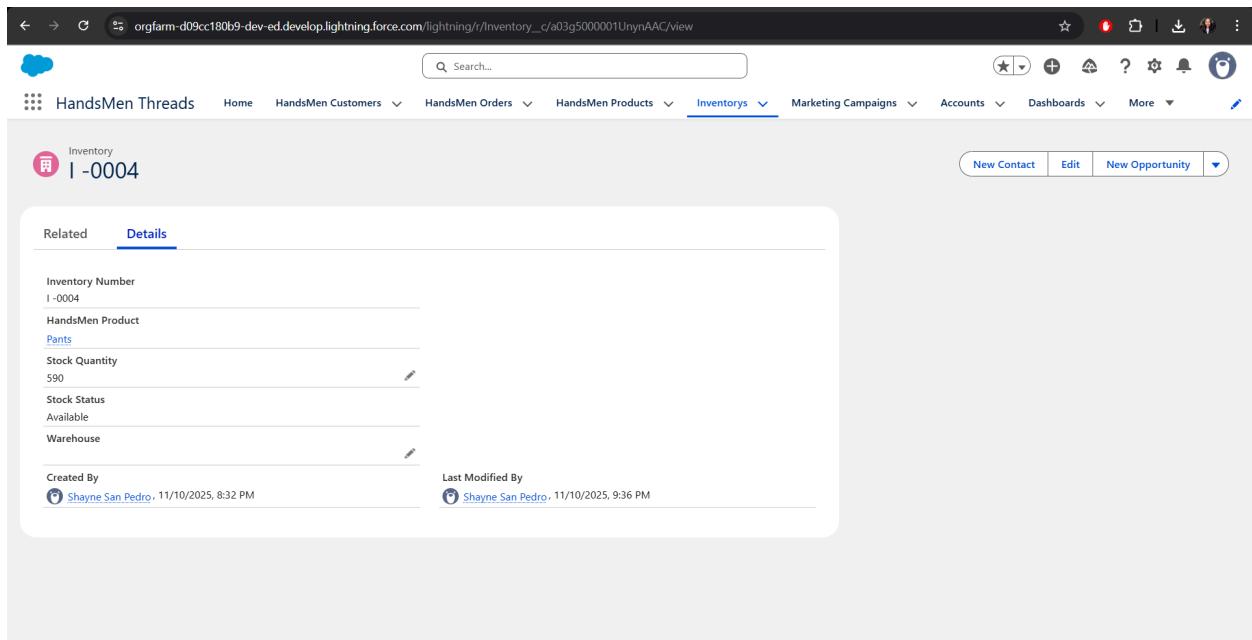


Figure 33: Inventory record showing reduced stock quantity after the confirmed order was processed by the trigger.

Phase 5: Deployment, Documentation & Maintenance

- Deployment is done via Change Sets from Sandbox to Production.
- Flows and triggers are monitored using Flow Interviews and Apex debug logs.
- Common issues such as emails not sending, incorrect totals, or flow errors are documented for troubleshooting and ongoing maintenance.

Conclusion

The HandsMen Threads Salesforce CRM project successfully achieved its main goal of streamlining business operations and enhancing customer engagement. By centralizing customer, product, order, inventory, and marketing data within Salesforce, the organization now has a single source of truth for all business processes. Automated features such as order confirmation emails, low stock alerts, and the loyalty program ensure that critical tasks are handled consistently and efficiently, reducing the risk of human error and improving operational accuracy. The implementation of validation rules, formulas, flows, and Apex triggers helped maintain data integrity, ensuring that orders are correctly calculated, inventory levels are accurate, and customers receive timely communication based on their purchase history.