



POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

PROJECT OVERVIEW

This capstone project presents a customized Salesforce CRM solution for HandsMen Threads aimed at improving the way customer, product, and order data are managed across the organization. The system provides a structured and centralized data model that ensures important business information—such as customer records, product details, inventory statuses, and transaction histories—is accurate, accessible, and consistently maintained. To address key business needs, the CRM integrates automated processes such as order confirmation emails, loyalty program updates, low-stock alerts, and scheduled bulk order synchronization. These features help streamline operations, prevent manual errors, maintain healthy inventory levels, and enhance customer engagement. Through the use of Salesforce tools like Lightning App Builder, Flows, Apex, and data validation controls, the project delivers a scalable, efficient, and user-friendly CRM solution that supports both daily operations and long-term business growth.

OBJECTIVES

The primary goal of developing this CRM is to create a structured, automated, and reliable system that enhances both customer management and internal operations at HandsMen Threads. By focusing on accurate data capture, seamless process automation, and user-specific access control, the project aims to improve customer interactions, simplify order handling, and ensure efficient inventory tracking. These objectives directly support business value by enabling faster services, more personalized customer engagement, reduced manual work, and improved visibility across departments. Furthermore, the CRM equips the organization with a foundation that supports scalability, operational consistency, and long-term process improvement.

SPECIFIC OBJECTIVES

HandsMen Threads Project Documentation



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- Develop a centralized Salesforce data model to organize and store key business information efficiently.
- Maintain high data accuracy by applying validation rules and data quality controls within the user interface.
- Automate customer communication, including order confirmation emails and loyalty program updates.
- Implement internal workflow automations, such as inventory level alerts and scheduled bulk order processing.
- Strengthen technical proficiency in Salesforce development tools, including Apex, Flows, and Lightning App Builder.
- Build a scalable and adaptable system capable of supporting future business requirements and enhancements.

TECHNOLOGY DESCRIPTION

This project uses several Salesforce platform features to build a customized and efficient system for managing business processes at HandsMen Threads. Each component plays a specific role in ensuring data accuracy, secure access, and workflow automation.

Salesforce Platform

Serves as the primary environment for building custom applications, storing business data, and automating processes.

Custom Objects

Custom objects are created to store business-specific records such as orders, products, customer profiles, and loyalty details.

Tabs



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Tabs provide direct access to custom objects, enabling users to view, create, and manage records easily.

Custom App

A tailored application is developed to group essential tabs, dashboards, and utilities for users, offering a focused workspace aligned with business needs.

Profiles

Profiles control user permissions by defining what data and features each user can access within the system.

Roles

Roles organize users in a hierarchy that supports data visibility and reporting based on an individual's position in the company.

Permission Sets

Permission sets grant additional access rights without changing a user's profile, giving flexibility in managing permissions.

Validation Rules

Validation rules ensure that all required information is accurate and complete before a record is saved, supporting strong data quality.

Email Templates

Predefined email templates help standardize communication for order confirmations, loyalty updates, and stock alerts.

Email Alerts



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Email alerts work with automation tools to send templated emails automatically when certain conditions are met.

Flows

Flows automate processes such as updating loyalty status, generating notifications, and performing record updates without manual intervention.

Apex

Apex is used for advanced business logic and automation that cannot be achieved through standard configuration tools, including scheduled processing for bulk order updates.

DETAILED EXECUTION OF PROJECT PHASES

This section outlines the step-by-step phases followed in developing the Salesforce solution for HandsMen Threads, ensuring a structured and systematic implementation.

1. Developer Org Setup

- Created a Salesforce Developer Org to serve as the project environment.
- Configured company information, default settings, and security configurations.
- Installed necessary packages and enabled required features such as Dev Hub, Flows, and Email Deliverability.



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The image consists of two side-by-side screenshots. The left screenshot shows a computer monitor displaying a drag-and-drop application builder interface, with a blue circular icon with arrows indicating a workflow or process. Below the monitor, the text reads: "Build enterprise-quality apps fast to bring your ideas to life". A bulleted list follows: • Build apps fast with drag and drop tools • Customize your data model with clicks • Go further with Apex code • Integrate with anything using powerful APIs • Stay protected with enterprise-grade security • Customize UI with clicks or any leading-edge web framework. The right screenshot shows the Salesforce sign-up page. It features the Salesforce logo at the top, followed by the heading "Sign up for your Salesforce Developer Edition" and the subtext "A full-featured copy of the Platform, for free". A call-to-action button says "Complete the form to start your free trial. Our team will be in touch to help you make the most of your trial.". Below this are several input fields: "First Name*" (with placeholder "Your first name"), "Last Name*" (with placeholder "Your last name"), "Email*" (with placeholder "Your email address"), "Role*" (with placeholder "Your job role" and a dropdown arrow), and "Company*" (with placeholder "Company Name").

2. Custom Object Creation

- Designed data models based on the business workflow.
- Created custom objects such as HandsMen Customer, Handsmen Orders, Handsmen Order, Inventory, and Marketing Campaigns.

Step Followed:

- Navigate to Setup - Object Manager - Create - Custom Object
- Provided Label, Name, and Enable reports/ search



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- Saved and Created Tabs for Each object

A screenshot of a computer screen displaying the Salesforce Object Manager. The main title is "HandsMen Customer". On the left, there's a sidebar with various tabs like Details, Fields & Relationships, Page Layouts, etc. The main panel shows the "Details" tab for the HandsMen Customer object. It includes fields for Description (Stores customer details), API Name (HandsMen_Customer__c), Singular Label (HandsMen Customer), Plural Label (HandsMen Customers), and several checkboxes for reports, activities, and history. At the bottom right of the main panel are "Edit" and "Delete" buttons. The status bar at the bottom shows weather (Partly sunny), time (2:55 PM), and date (2/25).

3. Lightning App Setup

- Developed a custom Lightning App named HandsMen Operations App.
- Added custom objects, reports, dashboards, and utility items to the navigation bar.
- Customized Lightning Record Pages using Lightning App Builder for better usability.

4. Validation Rules Implementation

- Created validation rules to prevent incorrect or incomplete data submission (e.g., quantity cannot be negative, product fields cannot be blank).
- Added error messages aligned with user workflows.
- Tested rules to ensure they accurately enforce data quality.



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New HandsMen Customer

* = Required Information

Information

* HandsMen Customer Name
∅
Complete this field.

Email

Phone

Loyalty Status
--None--

HandsMen Customer
Search HandsMen Customers...

We hit a snag.
Review the following fields
• HandsMen Customer Name

Cancel Save & New Save

A screenshot of a web-based application form titled "New HandsMen Customer". The form includes fields for "HandsMen Customer Name" (marked with a red asterisk), "Email", "Phone", "Loyalty Status", and "HandsMen Customer". A validation error message "We hit a snag." is displayed in a pink box, pointing to the "HandsMen Customer Name" field. The "Cancel", "Save & New", and "Save" buttons are visible at the bottom right.

5. User Roles & Profiles Setup

- Designed a role hierarchy representing the business structure (Admin → Manager → Staff).
- Configured profiles such as System Administrator, Operations User, and Sales User.
- Set field-level security, object permissions, and tab visibility according to each profile.



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6. User Creation

- Created test users to simulate business roles.
- Assigned appropriate profiles, roles, and permission sets.
- Tested login access and visibility controls to confirm correct configuration.

A screenshot of a web browser displaying the Salesforce Setup interface. The left sidebar shows a navigation menu with 'Users' selected under 'User Management Settings'. The main content area is titled 'New User' and contains a 'User Edit' form with fields for 'First Name', 'Last Name', 'Alias', 'Email', 'Username', 'Nickname', 'Title', 'Company', 'Department', and 'Division'. To the right of the form, there are dropdown menus for 'Role' (set to '<None Specified>'), 'User License' (set to 'Identity'), 'Profile' (set to '-None-'), and 'Active' (checkbox checked). Below these are additional dropdowns for various user types like 'Marketing User', 'Offline User', etc., and settings for 'Data.com Monthly Addition Limit' (set to 'Default Limit (300)'). The browser's address bar shows the URL: https://orgfarm-0a8a72cfbd-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ManageUsers/page?address=%2F005%2Fe%3FrerURL%3D%252F005%253FisUserEntityOver... .

7. Email Templates & Email Alerts

Designed email templates for:

- Order Confirmation
- Loyalty Status Update
- Low Stock Notification
- Created email alerts that work with flows or triggers to send automatic notifications.
- Verified deliverability through test records.



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A screenshot of the Salesforce Setup interface under the 'Email' section, specifically the 'Classic Email Templates' tab. The template shown is named 'Low Stock Alert'.

Email Template Detail

Email Templates from Salesforce	Unfiled Public Classic Email Templates
Email Template Name	Low Stock Alert
Template Unique Name	Low_Stock_Alert
Encoding	Unicode (UTF-8)
Author	Louis Manuel Cacho [Change]
Description	
Created By	Louis Manuel Cacho, 11/25/2025, 6:55 AM
Modified By	Louis Manuel Cacho, 11/25/2025, 6:56 AM

Email Template

Send Test and Verify Merge Fields

Plain Text Preview

Subject: Low Stock Alert Email

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

A screenshot of the Salesforce Setup interface under the 'Email' section, specifically the 'Classic Email Templates' tab. The template shown is named 'Order_Confirmation_Email'.

Email Template Detail

Email Templates from Salesforce	Unfiled Public Classic Email Templates
Email Template Name	Order_Confirmation_Email
Template Unique Name	Order_Confirmation_Email
Classic Letterhead	Handmen Threads
Email Layout	Free Form Letter
Encoding	Unicode (UTF-8)
Author	Louis Manuel Cacho [Change]
Description	
Created By	Louis Manuel Cacho, 11/25/2025, 6:53 AM
Modified By	Louis Manuel Cacho, 11/25/2025, 8:35 AM

Email Template

Send Test and Verify Merge Fields

HTML Preview

Subject: Your Order has been Confirmed!

The preview area shows a red rectangular placeholder where the actual HTML content would be displayed.



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A screenshot of a computer screen displaying the Salesforce Setup interface. The user is navigating through the 'Email' section under 'Classic Email Templates'. A specific template named 'Loyalty Program Email' is selected and displayed in the main pane. The template details include its name, unique identifier, letterhead, layout, encoding, author (Louis Manuel Cacho), and creation date (11/25/2025). Below the details, there is an 'Email Template' preview area showing a red placeholder for the content. The browser's address bar shows the URL for the Salesforce setup page. The desktop taskbar at the bottom includes icons for various applications like File Explorer, Edge, and Task View.

8. Flow Implementation

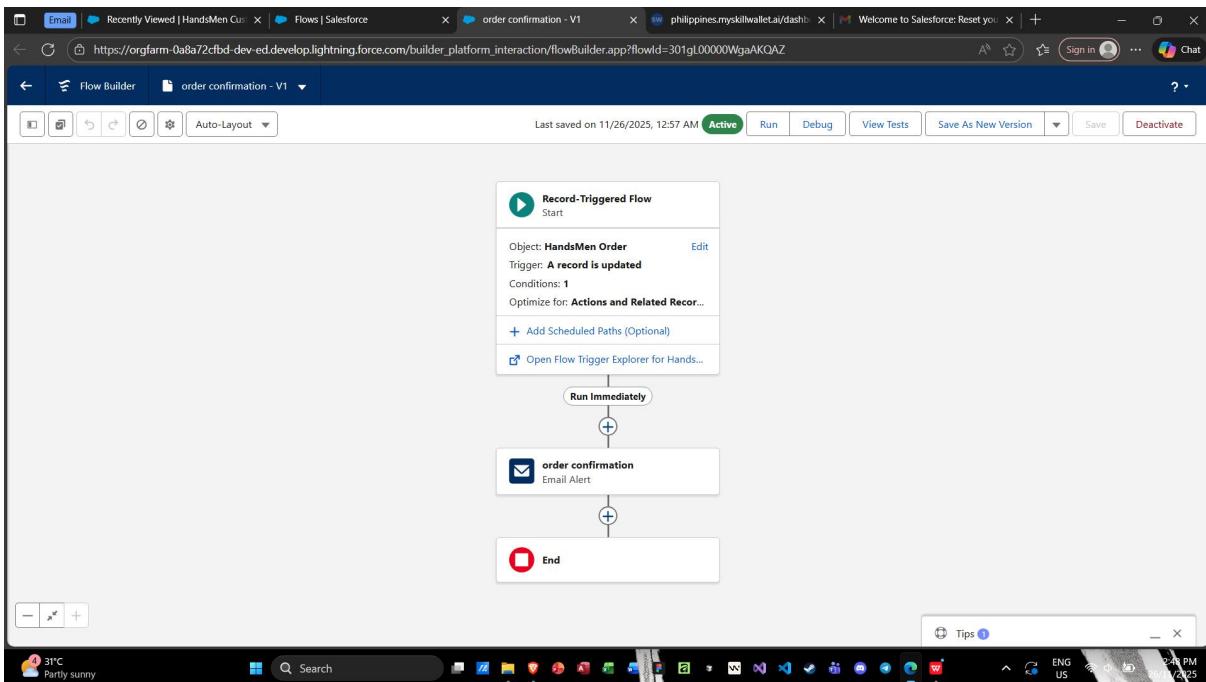
Built Record-Triggered Flows for:

- Updating loyalty levels based on order history
- Sending stock alerts when inventory drops below threshold
- Automating field updates during order confirmation
- Designed Scheduled Flows for daily processing of bulk orders.
- Ensured error handling with fault paths and debug logs.

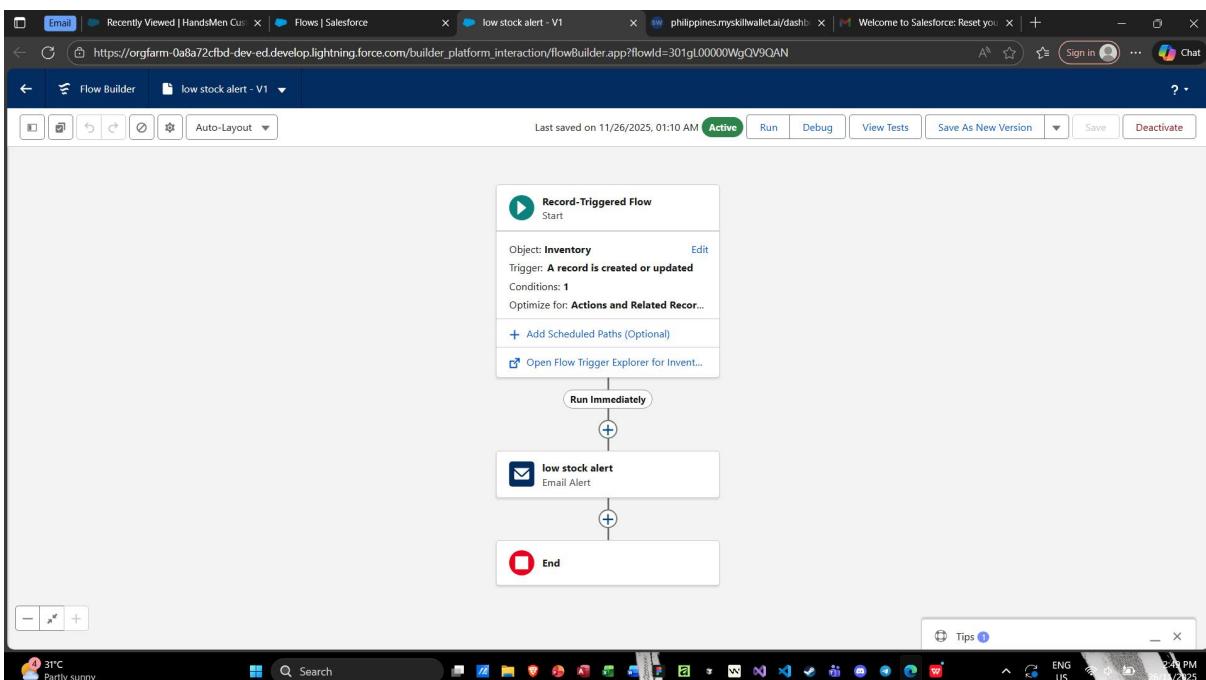
A. Order Confirmation Flow



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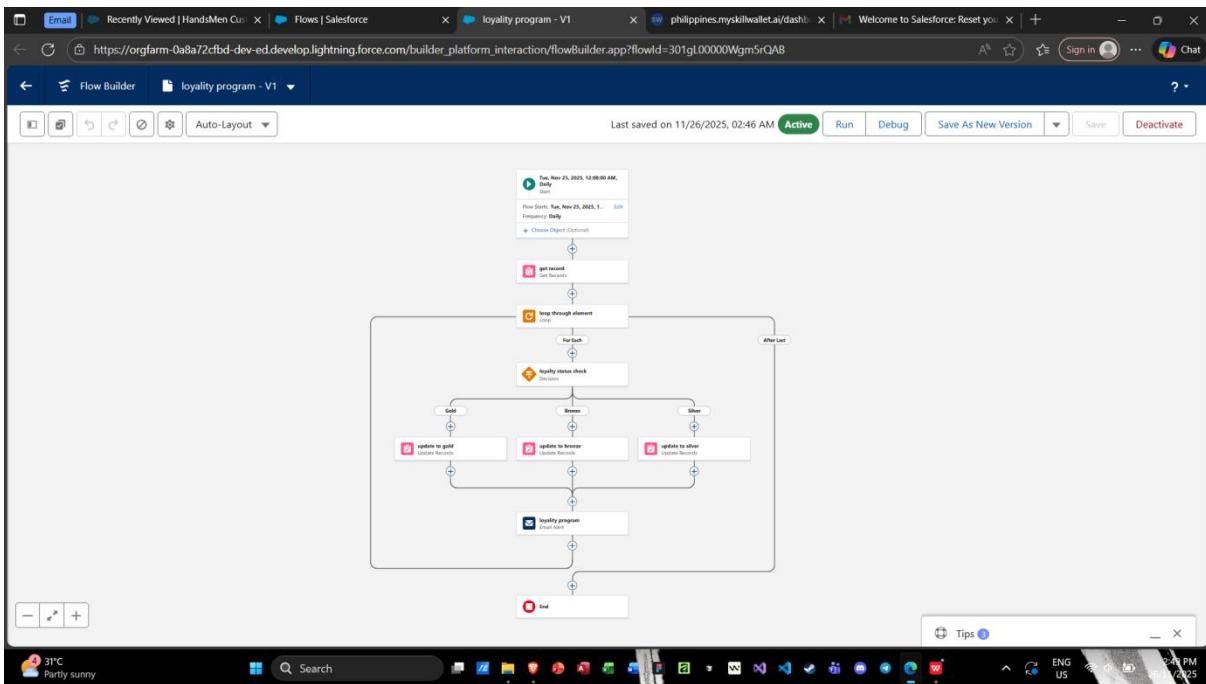
B. Stock Alert Flow



C. Scheduled Flow: Loyalty Update



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9. Apex Development

- Developed Apex triggers for advanced logic not achievable with flows, such as complex inventory deduction.
- Created asynchronous Apex classes for scheduled daily financial and inventory updates.
- Implemented test classes to meet Salesforce deployment standards.

PROJECT EXPLANATION WITH REAL-WORLD EXAMPLE

A realistic walkthrough of customer interactions and system operations.



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To better understand how the solution works, imagine a real scenario in HandsMen Threads' daily operations.

1. Customer Registration

- A walk-in or online customer named Ava Santos wants to purchase clothing items.
- A sales representative enters her information into the Customer object:
- Name: Ava Santos
- Email: ava.santos@example.com
- Loyalty Status: New Customer

The system checks input through validation rules to ensure the email address is present for notifications.

2. Product Setup

- Warehouse staff enters new products:
- Product Name: Denim Jacket
- Stock: 12
- Price: 1,500 PHP
- Category: Outerwear
- Each product includes fields for stock and category, enabling later reporting and automation.

3. Order Placement

- Ava purchases 1 Denim Jacket.
- The Sales Representative creates an order:
- Customer: Ava Santos



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- Product: Denim Jacket
- Quantity: 1
- Status: Pending → Updated to Confirmed
- When the order is confirmed:
- Stock automatically decreases from 12 → 11
- An email confirmation is sent to Ava
- The system logs the transaction in the Inventory Log

4. Inventory Update

After deducting the stock:

Inventory Log captures:

- Product: Denim Jacket
- Change: -1
- Date: Today
- Performed by: Sales Representative

If the stock falls below 5 units:

The Low Stock Flow triggers

Warehouse receives an email alert:

“Denim Jacket stock is now low (4 units remaining). Please restock soon.”

5. Loyalty Program Update

Each confirmed order adds loyalty points to Ava's record.



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Example:

- Ava earns 10 points for this purchase.
- Once she reaches a threshold (e.g., 50 points), the system updates her status to:
- “Silver Member”

A personalized loyalty update email is automatically sent.

6. Email Notifications

The system sends:

- Order Confirmation – triggers instantly when order is confirmed
- Loyalty Update – if Ava reaches a new tier
- Low Stock Alert – sent to warehouse team
- Daily Bulk Summary – sent at midnight to Finance and Warehouse

These automated alerts ensure smooth communication.

7. User and Role Authorization

Each user sees only what they need:

- Sales Representative sees Customers and Orders
- Warehouse User sees Products and Inventory Logs
- Finance User sees daily summaries
- Admin sees and manages everything
- This ensures secure and efficient access.



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SCREENSHOTS

A screenshot of a web browser displaying a custom Salesforce application named 'HandsMen Threads'. The page shows a list titled 'Recently Viewed' under the 'HandsMen Customers' tab. It lists one item: 'Mikaelson'. The interface includes standard Salesforce navigation bars at the top and bottom.

Fig: Custom App HandsMen Threads

A screenshot of a web browser displaying a custom Salesforce application named 'HandsMen Threads'. A modal window titled 'New HandsMen Customer' is open, showing a form with fields for 'Handsmen Customer Name' (with a placeholder 'Mikaelson'), 'Email', 'Phone', 'Loyalty Status' (set to '--None--'), 'Handsmen Customer' (a dropdown search field), 'FirstName', and 'LastName'. The form also includes 'Save & New' and 'Save' buttons. The background shows the 'Recently Viewed' list from the previous screenshot.

Fig: Customer Creation in HandsMen Threads



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A screenshot of a Salesforce Lightning interface titled "HandsMen Products". The top navigation bar includes "HandsMen Customers", "HandsMen Orders", "HandsMen Products" (which is selected), "Inventory", "Marketing Campaigns", "Reports", "Dashboards", "Accounts", and "Contacts". A sub-header "Recently Viewed" shows one item: "T Shirt". The main content area has a search bar and various icons for managing the list.

Fig: HandsMen Threads Products

A screenshot of a Salesforce Lightning interface titled "HandsMen Orders". The top navigation bar includes "HandsMen Customers", "HandsMen Orders" (which is selected), "HandsMen Products", "Inventory", "Marketing Campaigns", "Reports", "Dashboards", "Accounts", and "Contacts". A sub-header "Recently Viewed" shows three items: "O-0003", "O-0002", and "O-0001". The main content area has a search bar and various icons for managing the list.

Fig: HandsMen Threads Orders



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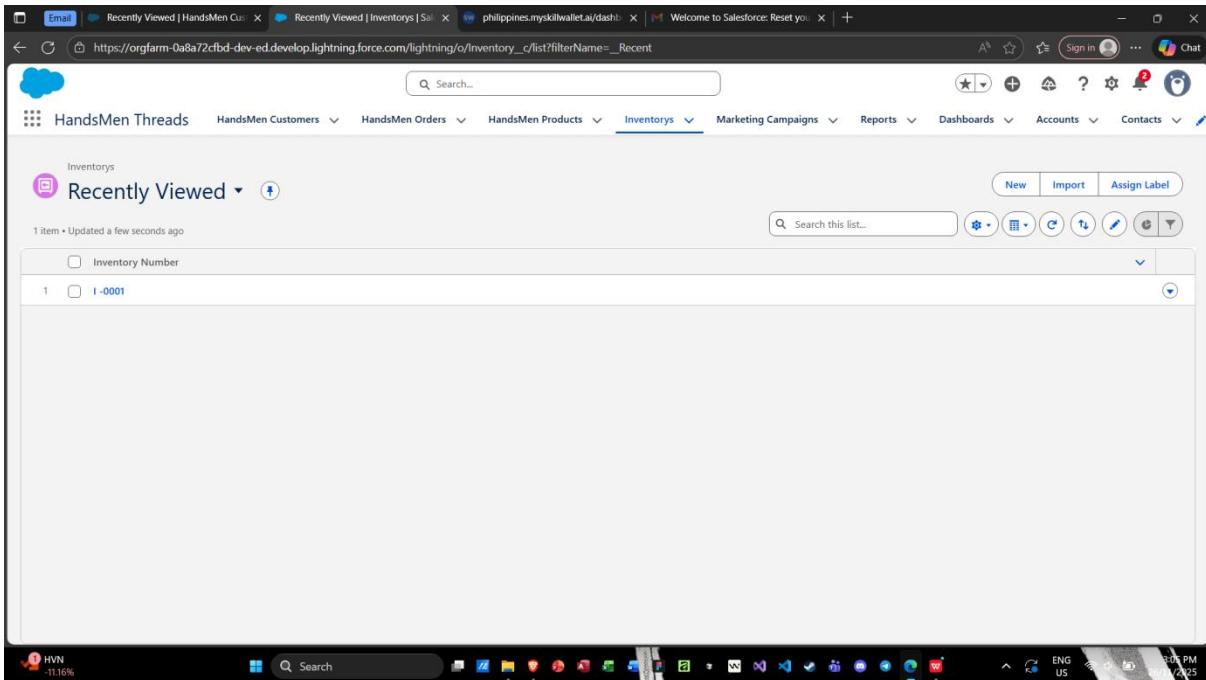


Fig: HandsMen Threads Inventories

CONCLUSION

This project successfully developed a structured and automated Salesforce system tailored to the needs of HandsMen Threads. By integrating custom objects, data validation, automation tools, and Apex logic, the system improves data accuracy, streamlines operations, and enhances customer engagement. The platform not only supports current business processes but also strengthens operational reliability and boosts overall efficiency. The implementation demonstrates the value of well-designed digital systems in supporting modern business workflows.

Future Scope:

While the current system addresses key operational needs, there are several opportunities for expansion:



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- **Mobile App Integration:** Allow warehouse staff and sales agents to update records directly from a mobile device.
- **AI-Powered Recommendations:** Use Einstein AI to recommend products and predict inventory shortages.
- **Advanced Reporting Dashboard:** Provide visual analytics for sales trends, customer retention, and stock movement.
- **Customer Self-Service Portal:** Enable customers to track orders, update details, and view loyalty points online.
- **Integration with Payment Gateways:** Automate payment status updates and financial reconciliation.
- **Multi-Warehouse Management:** Support larger operations with multiple storage locations.

These advancements can further enhance efficiency, improve customer satisfaction, and support long-term digital growth.