

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

Project Overview:

HandsMen Threads is a Salesforce-based Customer Relationship Management (CRM) solution designed to support a premium men's bespoke tailoring business. The system aims to digitize and streamline key business operations such as client profiling, appointment bookings, tailoring order management, and personalized customer communication.

The CRM addresses the limitations of manual record-keeping by centralizing customer data, tailoring preferences, measurements, and order statuses within a unified Salesforce platform. Through automation and structured workflows, HandsMen Threads enhances customer experience, operational efficiency, and service consistency while supporting the brand's commitment to sophistication and personalization.

Objectives:

The primary objective of this project is to develop a robust and scalable **Salesforce CRM** that enhances customer relationship management and optimizes bespoke tailoring operations. Specifically, the system aims to:

- Improve customer profiling by maintaining accurate and centralized customer records
- Streamline appointment booking and order tracking processes
- Automate notifications and approval workflows to reduce manual intervention
- Provide management with actionable insights through reports and dashboards

By achieving these objectives, the CRM delivers significant business value, including:

- Improved customer satisfaction
- Reduced manual errors
- More efficient and structured workflow management

Phase 1: Requirement Analysis & Planning

➤ Understanding Business Requirements

HandsMen Threads operates within the luxury men's fashion industry, where customer experience, accurate order handling, inventory reliability, and loyalty recognition are essential to business success. Prior to the implementation of Salesforce, key business data such as customer records, purchase history, inventory levels, and loyalty status were managed through fragmented and manual processes. This resulted in delayed order confirmations, inconsistent loyalty updates, reactive stock management, and limited visibility into overall business performance.

The organization required a centralized CRM solution capable of managing real-time transactions while ensuring data accuracy and process consistency. Critical business needs identified during this phase included immediate customer communication upon order confirmation, automated loyalty tier updates based on purchase behavior, proactive inventory monitoring to prevent stockouts, and reliable daily processing of bulk financial and inventory adjustments.

To address these requirements, the Salesforce CRM was designed to serve as a single source of truth, enabling structured data storage, automated business logic, and real-time operational visibility across sales, warehouse, and management teams. This approach ensures improved customer satisfaction, reduced operational risks, and a scalable foundation to support future growth and system enhancements.

➤ Defining Project Scope and Objectives

Based on the identified business requirements of HandsMen Threads, the project scope was clearly defined to focus on automating the most critical operations within the luxury men's fashion business. The primary objective at this stage was to ensure that Salesforce would effectively support real-time customer engagement, accurate inventory management, and reliable data processing.

The scope of the project includes:

- Development of custom and standard Salesforce objects to represent Customers, Orders, Products, Inventories, Loyalty Status, and Marketing Campaigns.
- Implementation of automation to support the four core business processes: order confirmation, loyalty tier updates, proactive stock alerts, and scheduled bulk order processing.
- Configuration of role-based security controls to protect sensitive customer, inventory, and financial data.
- Creation of reports and dashboards to provide actionable operational and management insights.

The project scope intentionally excludes external system integrations such as online payment gateways and third-party marketing platforms, which were identified as future enhancements beyond the current capstone implementation.

➤ Design of Data Model and Security Model

The Salesforce data model for HandsMen Threads was designed using custom objects to reflect the company's sales, inventory, and marketing processes. Core objects include **HandsMen Customer**, **HandsMen Order**, **HandsMen Product**, **Inventory**, and **Marketing Campaigns**, connected through clearly defined lookup and master-detail relationships. A one-to-many relationship allows each customer to place multiple orders, while products are linked to inventory records through a master-detail relationship to maintain accurate stock control. Marketing campaigns are associated with customers to support promotional tracking and reporting.



Figure 1. Object Relationship Diagram (ERD) – Salesforce Schema Builder

To protect business and customer information, a role-based security model was implemented using Salesforce profiles, role hierarchies, and permission sets. This design aligns data access with organizational roles and job responsibilities.

- **Profiles and Permission Sets** define user permissions, controlling which objects and fields users can view, create, edit, or delete.
- **Role Hierarchy** mirrors the organizational structure (CEO, Managers, Staff) and governs record visibility, allowing managers to access records owned by their subordinates.

This structured security model ensures data confidentiality and integrity, supports system scalability and automation, and prevents unauthorized access to sensitive information.

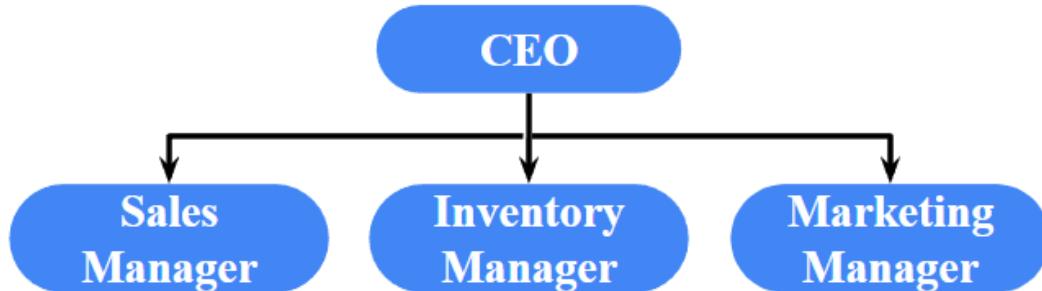


Figure 2. Role Hierarchy Diagram – Salesforce Role Setup

➤ Stakeholder Mapping

Key stakeholders were identified to ensure the CRM meets HandsMen Threads' business needs, with roles and access defined for secure and efficient operations.

- **Developer** – Designs, develops, and documents the CRM.
- **Instructor / Project Advisor** – Provides guidance, sets requirements, and evaluates deliverables.
- **End Users (Staff: Sales, Inventory, Marketing Managers)** – Manage customer records, sales, inventory, and marketing; access is role-based.
- **Customers (Indirect Users)** – Receive automated notifications like order confirmations and loyalty updates.
- **Salesforce Administrator** – Maintains the system, manages security, and implements future enhancements.

➤ Execution Roadmap

A structured execution roadmap was followed to guide the development of the HandsMen Threads Salesforce solution from planning to deployment. Each phase was implemented systematically to align with project objectives.

The roadmap included:

1. **Requirement Analysis and System Design** – Defining use cases, user scenarios, and user stories to map business processes.
2. **Salesforce Backend Configuration** – Setting up credentials, objects, fields, tabs, apps, and user access (profiles, roles, and permission sets).
3. **Automation and Flows** – Creating flows, Apex automation, and batch jobs to streamline business operations.

4. **Email Templates** – Developing automated communication for customer notifications.
5. **Reporting and Dashboards** – Designing insights for sales, inventory, and marketing operations.
6. **Data Testing, Validation, and Security Verification** – Ensuring data integrity, correct permissions, and role-based access.
7. **System Deployment and Technical Documentation** – Final rollout of the CRM along with complete project documentation.

Phase 2: Salesforce Development – Backend & Configurations

➤ Setup Environment & DevOps Workflow

The development of the HandsMen Threads Salesforce CRM was conducted entirely within a **Salesforce Developer Org**, providing a secure environment for configuration, development, and testing. Development followed a structured workflow using **task-based Kanban boards** to plan, execute, and track progress. All changes were implemented and tested in the Developer Org before being marked complete, ensuring systematic development, proper sequencing of tasks, and clear documentation of progress.

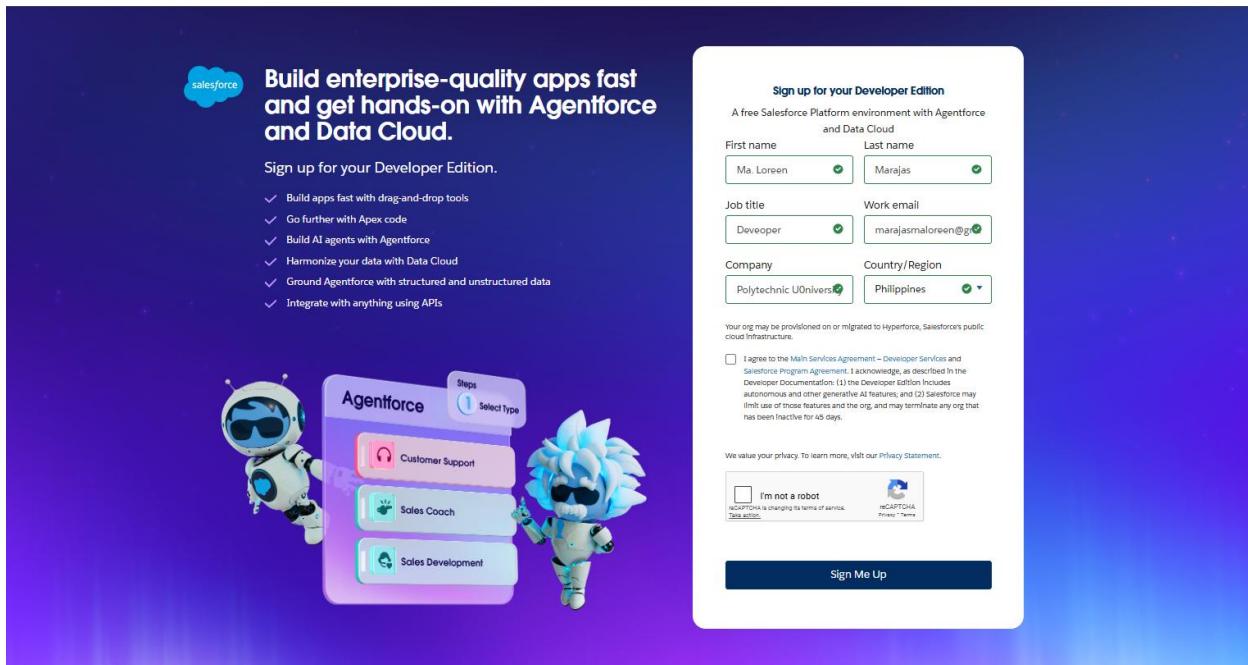


Figure 3.1. Salesforce Developer Org – Sign-Up Page

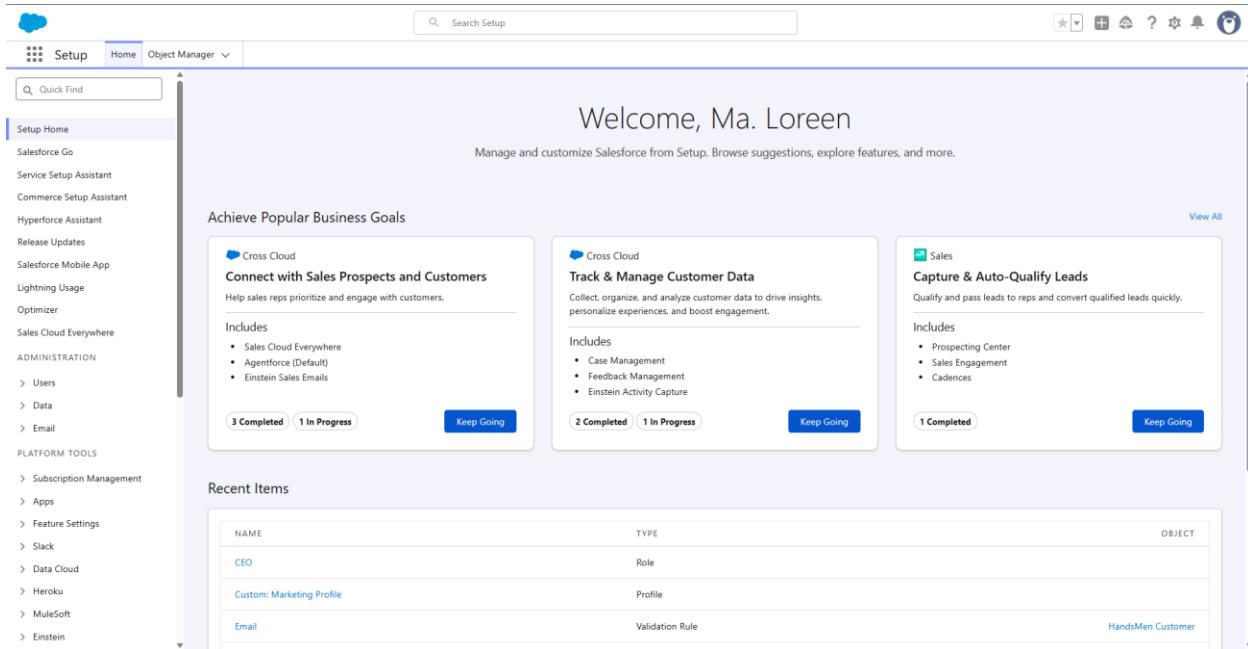


Figure 3.2. Salesforce Developer Org – Logged-In Home Page

Figure 3.3. Kanban Board – Task Progress for HandsMen Threads Development

➤ Customization of Objects, Fields, Validation Rules, Automation (Workflow Rules, Process Builder, Flows, Approval Process).

- Custom Objects and Fields

The CRM was designed with custom objects to capture and organize HandsMen Threads' core business data, enabling accurate tracking, reporting, and automation. Relationships and key fields were defined to ensure data consistency across the system.

The five custom objects include:

- **HandsMen Customer** – Stores customer details such as email, full name, loyalty status, and total purchases.

The screenshot shows the Salesforce Object Manager interface for the 'HandsMen Customer' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, and Field Sets. The main area displays the 'Fields & Relationships' section with 11 items. The table shows the following fields:

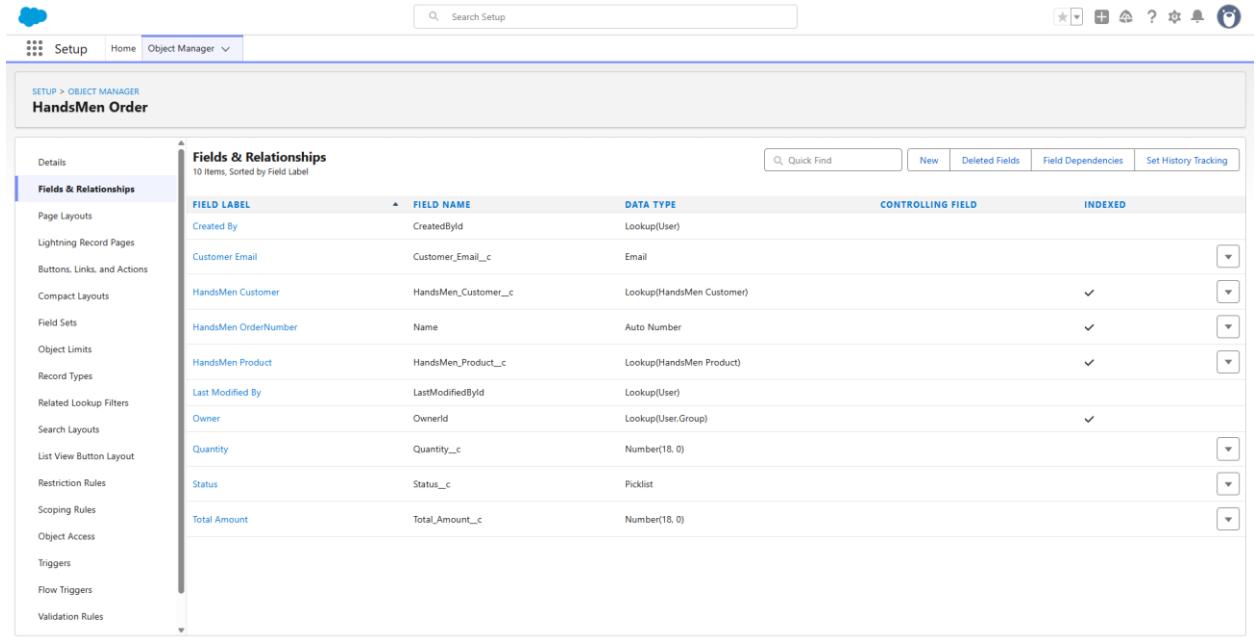
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
FirstName	FirstName__c	Text(50)		
FullName	FullName__c	Formula (Text)		
HandsMen Customer Name	Name	Text(50)		
Last Modified By	LastModifiedById	Lookup(User)		
LastName	LastName__c	Text(50)		
Loyalty Status	Loyalty_Status__c	Picklist		
Owner	OwnerId	Lookup(User,Group)		
Phone	Phone__c	Phone		
Total Purchases	Total_Purchases__c	Number(18, 0)		

- **HandsMen Product** – Contains product information including SKU, price, and stock levels.

The screenshot shows the Salesforce Object Manager interface for the 'HandsMen Product' object. The left sidebar lists various setup options. The main area displays the 'Fields & Relationships' section with 7 items. The table shows the following fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
HandsMen Product Name	Name	Text(50)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		
Price	Price__c	Currency(18, 0)		
SKU	SKU__c	Text(50)		
Stock Quantity	Stock_Quantity__c	Number(18, 0)		

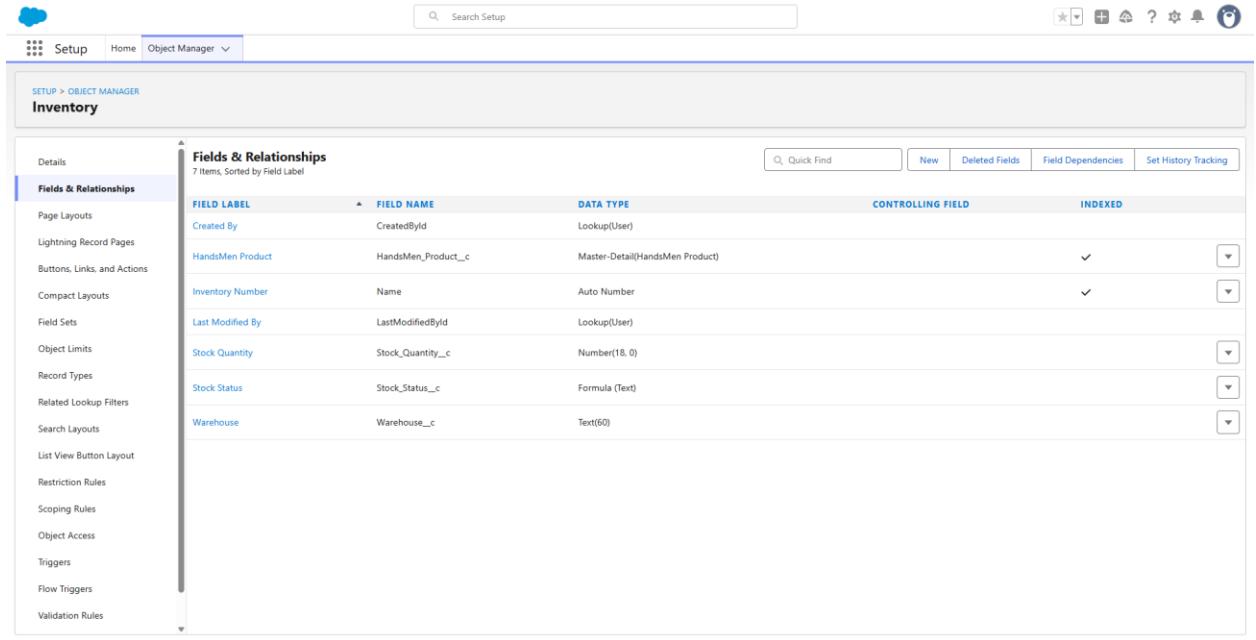
- **HandsMen Order** – Records customer orders with details on quantity, status and total amount.



The screenshot shows the Salesforce Object Manager interface for the 'HandsMen Order' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, and Field Sets. The main area displays the 'Fields & Relationships' section with 10 items. The table columns are: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are:

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)		

- **Inventory** – Tracks stock quantities, stock status, and warehouse locations.



The screenshot shows the Salesforce Object Manager interface for the 'Inventory' object. The left sidebar lists various setup options. The main area displays the 'Fields & Relationships' section with 7 items. The table columns are: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are:

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

- **Marketing Campaign** – Manages promotion details and campaign schedules.

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		

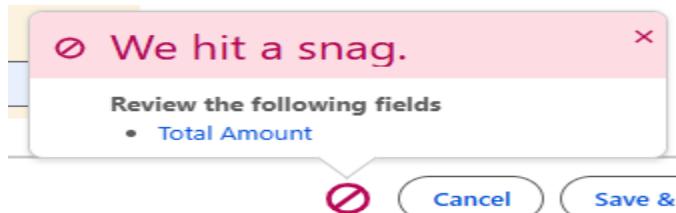
- Validation Rules

Validation rules were implemented in the CRM to ensure data accuracy and enforce business logic.

- **HandsMen Customer** – Ensures that email addresses entered are valid Gmail accounts. If an email does not contain “@gmail.com,” the system displays the error: “*Please fill Correct Gmail.*”



- **HandsMen Order** – Prevents orders from being saved with zero or negative amounts. If Total_Amount__c is less than or equal to zero, the error message “*Please Enter Correct Amount*” appears.



- **Inventory** – Ensures that stock levels cannot be zero or negative. If `Stock_Quantity_c` is less than or equal to zero, the system displays “*The inventory count is never less than zero.*”



- **Email Templates**

Email templates are predefined message formats that allow automated, consistent communication by dynamically including relevant data. Three email templates were created to automate and standardize communication with customers and staff:

- **Order Confirmation** – Sent automatically when an order is confirmed.

- **Low Stock Alert** – Triggered when inventory drops below 5 units.

Classic Email Templates

Text Email Template
Low Stock Alert

Preview your email template below.

Email Template Detail

Email Templates from Salesforce	Unified Public Classic Email Templates
Email Template Name	Low Stock Alert
Template Unique Name	Low_Stock_Alert
Encoding	Unicode (UTF-8)
Author	Ma_Loreen Marajas [Change]
Description	
Created By	Ma_Loreen Marajas , 11/25/2025, 5:05 PM
Modified By	Ma_Loreen Marajas , 11/25/2025, 5:05 PM

Email Template

Subject: Low Stock Alert Email

Plain Text Preview:

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

Send Test and Verify Merge Fields

Attachments

No records to display

- **Loyalty Program Email** – Sent when a customer's loyalty status is updated.

Classic Email Templates

Subject: Loyalty Program Email

HTML Preview:



Congratulations! You are now a ({HandsMen_Customer__c.Loyalty_Status__c}) 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.

Plain Text Preview

Congratulations! You are now a ({HandsMen_Customer__c.Loyalty_Status__c}) member and you are eligible for our Loyalty Rewards Program.

Enjoy exclusive discounts, early access to offers, and special member benefits.

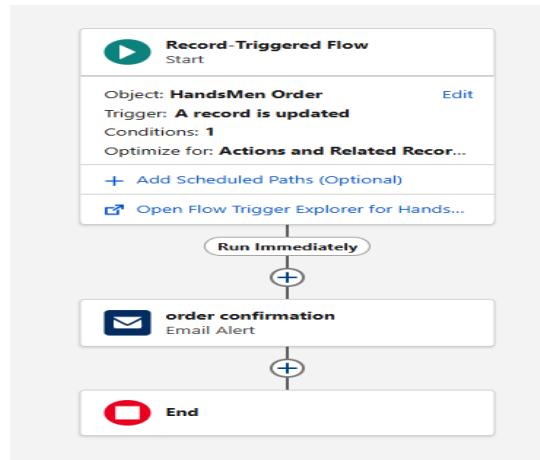


- Automation

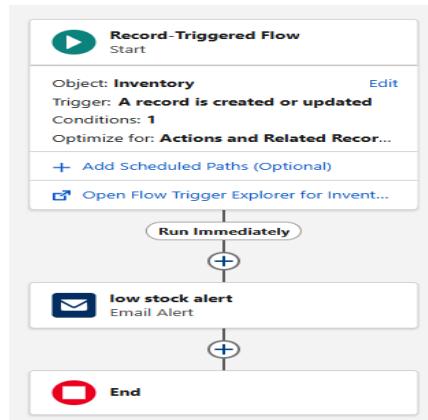
Automation was implemented to streamline routine business processes, reduce manual effort, and ensure consistent execution of critical operations. Salesforce Flows were primarily used to automate tasks such as sending emails, updating loyalty statuses, and monitoring inventory.

Key automated processes include:

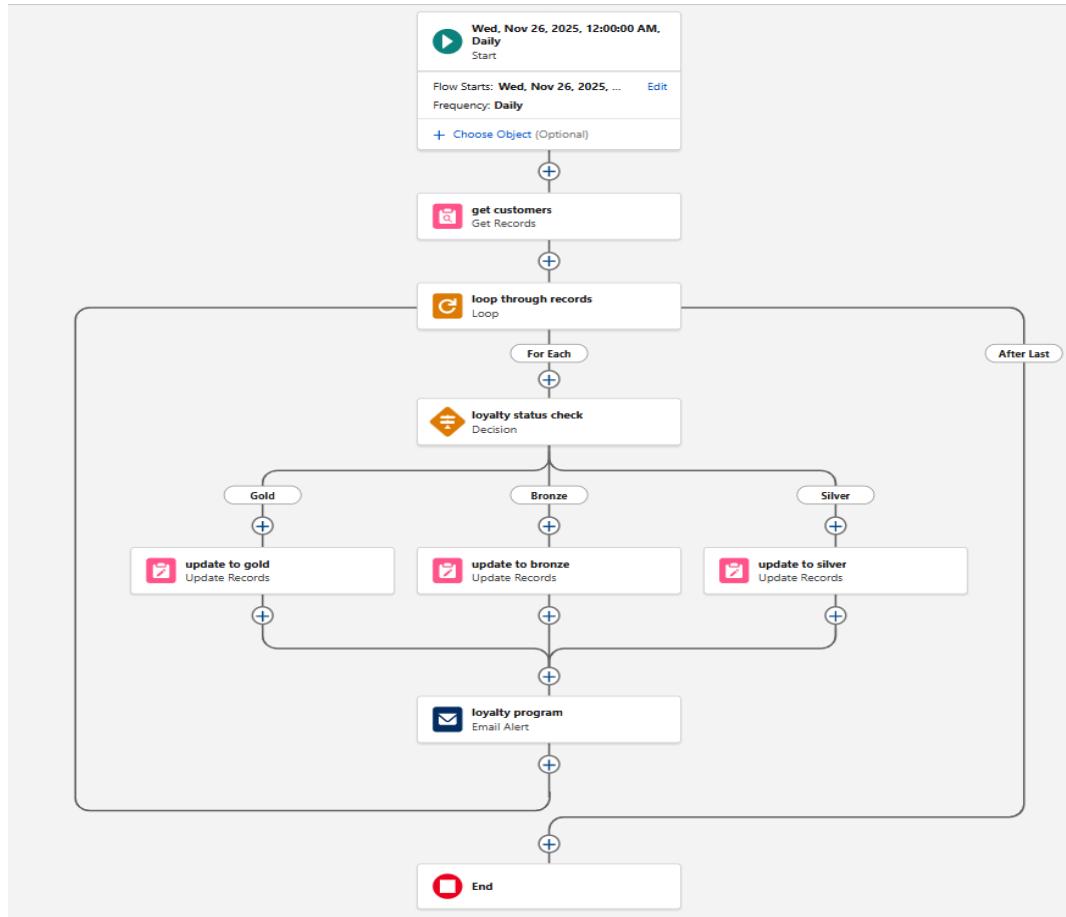
- **Order Confirmation Flow** – A record-triggered Flow on the Order object that automatically sends a personalized confirmation email to the customer when the order status is updated to *Confirmed*.



- **Low Stock Alert Flow** – A record-triggered Flow on the Product or Inventory object that sends an immediate email notification to inventory managers when stock drops to 5 units or below, preventing stockouts.



- **Loyalty Status Flow** – A record-triggered or scheduled Flow that evaluates a customer's total purchase history and updates their loyalty tier accordingly, sending an email notification to inform them of the status change.



➤ Apex Classes, Triggers, and Asynchronous Apex

Apex was used to implement complex business logic that could not be fully handled by declarative tools. This ensured **consistent enforcement of business rules**, **data integrity**, and automation of high-volume processes.

Key Apex Components Implemented:

- **Order Validation & Total Calculation**
 - **Trigger:** OrderTrigger – validates order quantity before insert/update
 - **Handler Class:** OrderTriggerHandler – enforces rules for status based on quantity
 - **Trigger:** OrderTotalTrigger – calculates Total_Amount__c as Quantity × Product Price

```

trigger OrderTotalTrigger on HandsMen_Order__c (before insert, before update) {
    Set<Id> productIds = new Set<Id>();
    for (HandsMen_Order__c order : Trigger.new) {
        if (order.HandsMen_Product__c != null) {
            productIds.add(order.HandsMen_Product__c);
        }
    }
    Map<Id, HandsMen_Product__c> productMap = new Map<Id, HandsMen_Product__c>(
        [SELECT Id, Price__c FROM HandsMen_Product__c WHERE Id IN :productIds]
    );
    for (HandsMen_Order__c order : Trigger.new) {
        if (order.HandsMen_Product__c != null && productMap.containsKey(order.HandsMen_Product__c)) {
            HandsMen_Product__c product = productMap.get(order.HandsMen_Product__c);
            if (order.Quantity__c != null) {
                order.Total_Amount__c = order.Quantity__c * product.Price__c;
            }
        }
    }
}

```

- **Inventory Management**

- **Trigger:** StockDeductionTrigger – reduces inventory stock after order confirmation
- **Handler Class:** StockDeductionHandler – queries inventory and deducts ordered quantities

```

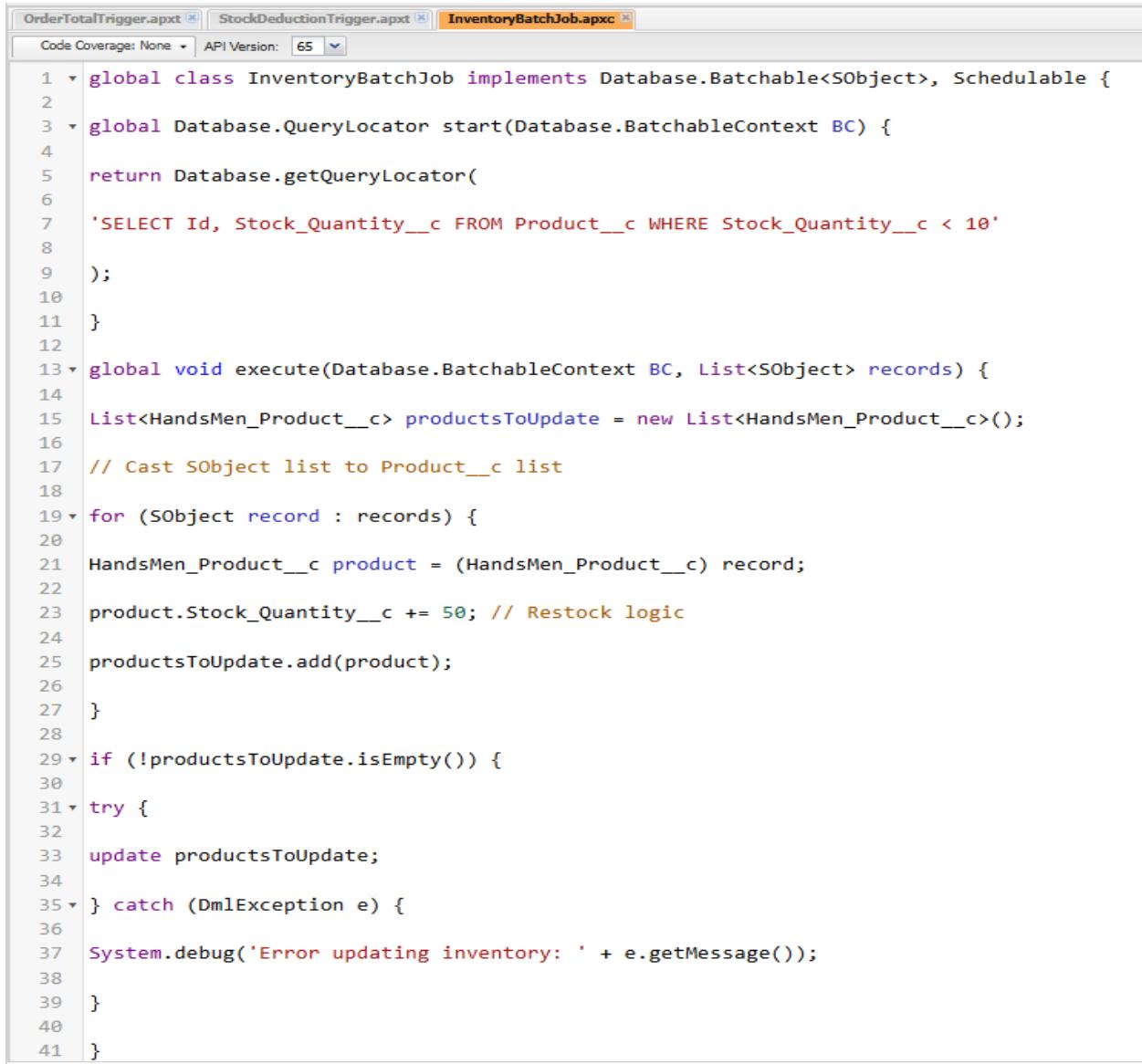
trigger StockDeductionTrigger on HandsMen_Order__c (after insert, after update) {
    Set<Id> productIds = new Set<Id>();
    for (HandsMen_Order__c order : Trigger.new) {
        if (order.Status__c == 'Confirmed' && order.HandsMen_Product__c != null) {
            productIds.add(order.HandsMen_Product__c);
        }
    }
    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;
    }
}

```

- **Customer Loyalty Automation**

- **Trigger:** LoyaltyStatusUpdateTrigger – updates loyalty status after customer purchase changes
- **Handler Class:** LoyaltyStatusHandler – applies tier rules (Gold/Silver/Bronze) based on total purchases

- **Asynchronous Apex (Batch / Scheduler)**
 - Scheduled batch jobs were developed to handle **bulk order processing** and **automatic inventory restocking** during off-peak hours, ensuring system performance and accurate daily records.



```

1  global class InventoryBatchJob implements Database.Batchable<SObject>, Schedulable {
2
3  global Database.QueryLocator start(Database.BatchableContext BC) {
4
5    return Database.getQueryLocator(
6
7      'SELECT Id, Stock_Quantity__c FROM Product__c WHERE Stock_Quantity__c < 10'
8
9    );
10
11  }
12
13  global void execute(Database.BatchableContext BC, List<SObject> records) {
14
15    List<HandsMen_Product__c> productsToUpdate = new List<HandsMen_Product__c>();
16
17    // Cast SObject list to Product__c list
18
19    for (SObject record : records) {
20
21      HandsMen_Product__c product = (HandsMen_Product__c) record;
22
23      product.Stock_Quantity__c += 50; // Restock logic
24
25      productsToUpdate.add(product);
26
27    }
28
29    if (!productsToUpdate.isEmpty()) {
30
31      try {
32
33        update productsToUpdate;
34
35      } catch (DmlException e) {
36
37        System.debug('Error updating inventory: ' + e.getMessage());
38
39      }
40
41    }
42  }

```

Phase 3: UI/UX Development & Customization

➤ Lightning App Setup

A custom Salesforce Lightning App named “**HandsMen Threads**” was created using the **App Manager**. The app consolidates all essential tabs which includes Customers, Orders, Products, Inventory, Loyalty Status, and Marketing Campaigns, into a single workspace. This setup allows users to access all relevant CRM functions efficiently without switching between multiple applications.

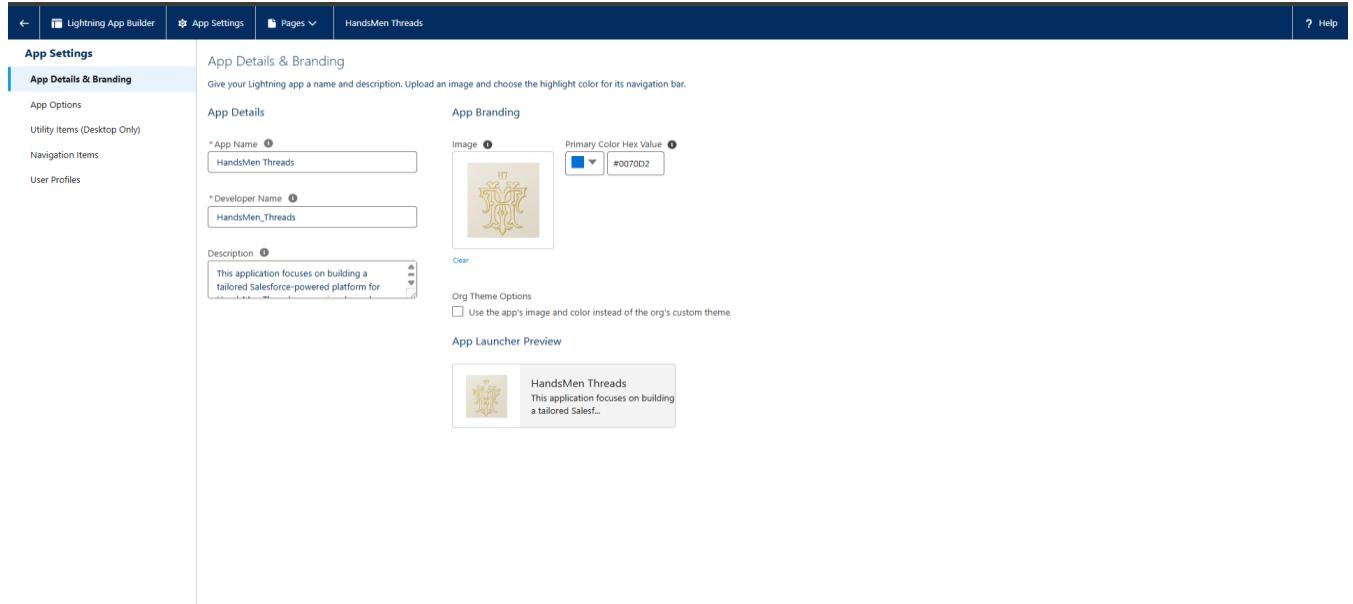


Figure 4.1. HandsMen Threads Lightning App Configuration in Salesforce App Manager

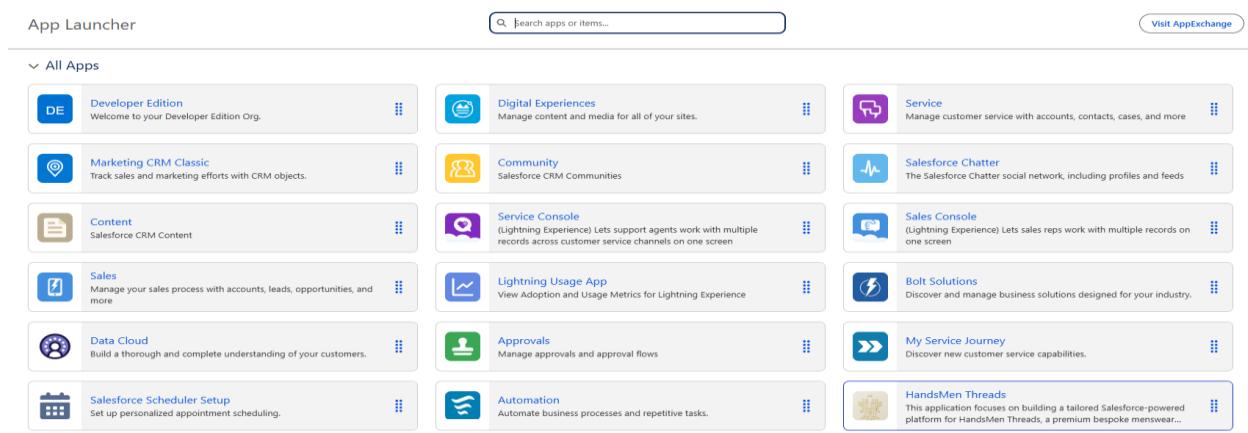


Figure 4.2. HandsMen Threads Application in Salesforce App Launcher

➤ Page Layouts and Dynamic Forms

Page layouts were customized using Dynamic Forms and standard layout configurations to improve data visibility and user guidance. Fields were logically grouped and arranged in a simple two-column layout across key objects, ensuring that users can quickly locate and update important information while minimizing data entry errors.

Page layouts and Dynamic Forms were customized for the following Salesforce objects:

a. HandsMen Customers

The screenshot shows the 'HandsMen Customer' page layout configuration. The left sidebar lists various customization options like Details, Fields & Relationships, Page Layouts (which is selected), Lightning Record Pages, Buttons, Links, and Actions, among others. The main area is titled 'HandsMen Customer Layout'. It features a 'Fields' section with a 'Quick Find' field for 'Field Name'. Below this is a table showing field mappings between 'Old Section' and 'New Section'. The table includes fields such as FirstName, LastName, Loyalty Status, and Total Purchases. A 'Highlights Panel' is present, followed by sections for 'Quick Actions in the Salesforce Classic Publisher' and 'Salesforce Mobile and Lightning Experience Actions'. At the bottom is the 'HandsMen Customer Detail' section, which displays sample data for a customer record, including fields like Name, Email, Phone, Loyalty Status, and Total Purchases.

b. HandsMen Orders

The screenshot shows the 'HandsMen Order' page layout configuration. The left sidebar is identical to the customer layout. The main area is titled 'HandsMen Order Layout'. It features a 'Fields' section with a 'Quick Find' field for 'Field Name'. Below this is a table showing field mappings between 'Old Section' and 'New Section'. The table includes fields such as HandsMen Customer, HandsMen OrderNumber, Owner, HandsMen Product, Status, and Total Amount. A 'Highlights Panel' is present, followed by sections for 'Quick Actions in the Salesforce Classic Publisher' and 'Salesforce Mobile and Lightning Experience Actions'. At the bottom is the 'HandsMen Order Detail' section, which displays sample data for an order record, including fields like Order Number, Status, Product, Quantity, Total Amount, and Customer Email.

c. HandsMen Products

The screenshot shows the 'HandsMen Product' page layout configuration in the Salesforce Setup interface. The left sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, etc. The 'Page Layouts' section is selected. The main area displays the 'HandsMen Product Layout' configuration. It includes a 'Fields' section with fields like Buttons, Quick Actions, Mobile & Lightning Actions, Actions, Expanded Lookups, and Related Lists. Below this is a 'Highlights Panel' and sections for 'Quick Actions in the Salesforce Classic Publisher' and 'Salesforce Mobile and Lightning Experience Actions'. The 'Inventory Detail' section shows fields such as Inventory Number, Last Modified By, Stock Quantity, and Stock Status. At the bottom, there are 'Information' and 'System Information' sections, each with 'Created By' and 'Last Modified By' fields.

d. Inventory

The screenshot shows the 'Inventory' page layout configuration in the Salesforce Setup interface. The left sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, etc. The 'Page Layouts' section is selected. The main area displays the 'Inventory Layout' configuration. It includes a 'Fields' section with fields like Buttons, Quick Actions, Mobile & Lightning Actions, Actions, Expanded Lookups, and Related Lists. Below this is a 'Highlights Panel' and sections for 'Quick Actions in the Salesforce Classic Publisher' and 'Salesforce Mobile and Lightning Experience Actions'. The 'Inventory Detail' section shows fields such as Inventory Number, Last Modified By, Stock Quantity, and Stock Status. At the bottom, there are 'Information' and 'System Information' sections, each with 'Created By' and 'Last Modified By' fields.

e. Marketing Campaigns

The screenshot shows the 'Marketing Campaign Layout' configuration page in the Salesforce Setup. The left sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, and Lightning Record Pages. The 'Page Layouts' section is selected. The main area displays the 'Marketing Campaign Sample' layout. It includes sections for 'Highlights Panel', 'Quick Actions in the Salesforce Classic Publisher', 'Salesforce Mobile and Lightning Experience Actions', and 'Marketing Campaign Detail'. The 'Marketing Campaign Detail' section shows fields such as Marketing Campaign Number (GEN-2024-001234), HandsMen Customer (Sample Text), Start Date (11/26/2025), End Date (11/26/2025), Created By (Owner), Last Modified By (Last Modified By), and Owner (Owner). Buttons for Edit, Delete, Clone, Change Owner, Change Record Type, Printable View, Sharing, Sharing Hierarchy, and Edit Labels are visible at the bottom.

➤ User Management

User management was configured to align system access with defined business roles and responsibilities. Roles, profiles, and permission sets were used to control access to CRM data and features, ensuring data security and appropriate user privileges.

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 5. User Role and Permission Setup – HandsMen Threads CRM

➤ Reports and Dashboards

Although no custom reports or dashboards were implemented during this phase, the system is fully capable of generating Salesforce reports and dashboards. These can be used to monitor key performance indicators such as order volume, current inventory levels, and customer loyalty distribution, supporting data-driven decision-making for management.

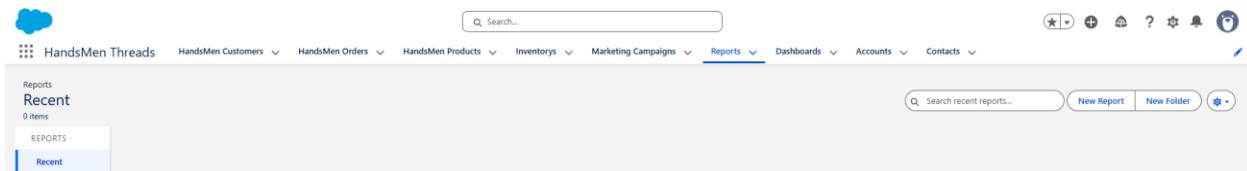


Figure 6.1. Reports Module in Salesforce Lightning App

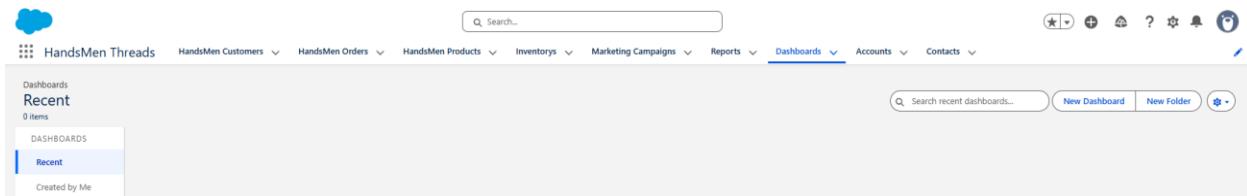


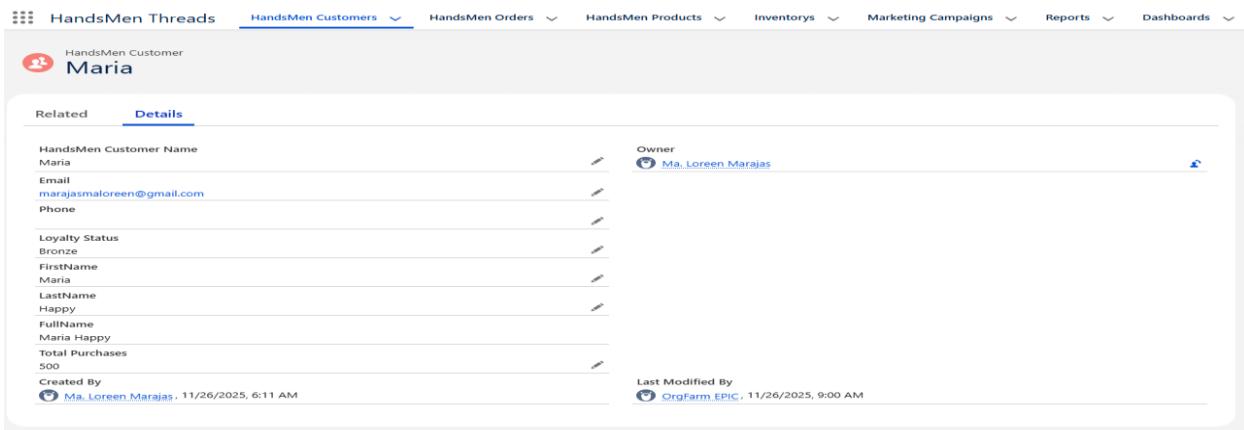
Figure 6.2. Dashboards Module in Salesforce Lightning App

➤ Lightning Pages

Custom **Lightning Record Pages** were developed using the Lightning App Builder for core objects, including Customers, Orders, Products, Inventory, and Marketing Campaigns. These pages were optimized for clarity and consistency, providing users with a structured view of record details and related information within the Salesforce interface.

Custom Lightning Record Pages were developed using the **Lightning App Builder** for the core Salesforce objects, including:

a. HandsMen Customers



b. HandsMen Orders

The screenshot shows the HandsMen Orders detail view for Order O-0012. The top navigation bar includes links for HandsMen Threads, HandsMen Customers, HandsMen Orders (selected), HandsMen Products, Inventory, Marketing Campaigns, Reports, and Dashboards. The main content area displays the following details:

Field	Value
HandsMen OrderNumber	O-0012
HandsMen Product	Polo Shirt
HandsMen Customer	Maria
Status	Confirmed
Quantity	400
Total Amount	80,000
Customer Email	marajasmaloreen@gmail.com
Created By	Ma. Loreen Marajas, 11/26/2025, 10:25 PM
Owner	Ma. Loreen Marajas
Last Modified By	Ma. Loreen Marajas, 11/26/2025, 11:56 PM

c. HandsMen Products

The screenshot shows the HandsMen Products detail view for Polo Shirt. The top navigation bar includes links for HandsMen Threads, HandsMen Customers, HandsMen Orders, HandsMen Products (selected), Inventory, Marketing Campaigns, Reports, and Dashboards. The main content area displays the following details:

Field	Value
HandsMen Product Name	Polo Shirt
SKU	
Price	\$200
Stock Quantity	1,000
Created By	Ma. Loreen Marajas, 11/26/2025, 9:49 PM
Owner	Ma. Loreen Marajas
Last Modified By	Ma. Loreen Marajas, 11/26/2025, 9:49 PM

d. Inventory

The screenshot shows the Inventory detail view for Item I-0004. The top navigation bar includes links for HandsMen Threads, HandsMen Customers, HandsMen Orders, HandsMen Products, Inventory (selected), Marketing Campaigns, Reports, and Dashboards. The main content area displays the following details:

Field	Value
Inventory Number	I-0004
HandsMen Product	Polo Shirt
Stock Quantity	1,200
Stock Status	Available
Warehouse	
Created By	Ma. Loreen Marajas, 11/26/2025, 9:49 PM
Last Modified By	Ma. Loreen Marajas, 11/26/2025, 11:56 PM

e. Marketing Campaigns

The screenshot shows a marketing campaign record titled "MC -0001". The "Details" tab is selected. The record includes fields for Marketing Campaign Number (MC -0001), Owner (Ma. Loreen Marajas), HandsMen Customer (Maria), Start Date (11/26/2025), End Date (11/30/2025), and Created By (Ma. Loreen Marajas). The last modified by field also shows Ma. Loreen Marajas.

Phase 4: Data Migration, Testing & Security

➤ Data Loading Process

- **Initial Data Migration:** Master data for HandsMen Threads, including Customers, Products, and Inventory records, was migrated using the **Data Import Wizard** for its simplicity and suitability for small to medium datasets (<50,000 records).

The screenshot shows the Salesforce Data Import Wizard. The "Choose data" step is active. It asks "What kind of data are you importing?", listing "Standard objects" and "Custom objects" with options for "Accounts and Contacts", "Leads", and "Solutions". It also asks "What do you want to do?", which is currently empty. Finally, it asks "Where is your data located?", also currently empty. At the bottom, there are "Cancel", "Previous", and "Next" buttons.

- **Bulk or Ongoing Loads:** For larger volumes or regular updates, the **Data Loader** was designated as the standard tool.

The screenshot shows the 'Import your Data into Salesforce' setup page. It includes sections for selecting objects, defining actions, and specifying data location.

What kind of data are you importing?

- Standard objects: HandsMen Customers
- Custom objects: None selected

What do you want to do?

- Add new records (selected)
- Match by: None
- Which User field in your file designates record owners?: None
- Trigger workflow rules and processes?: Trigger workflow rules and processes for new and updated records (checked)
- Update existing records
- Add new and update existing records

Where is your data located?

- CSV file: customers.csv
- Character Code: ISO-8859-1 (General US & Western European, ISO-LATIN-1)
- Values Separated By: Comma

Buttons at the bottom: Cancel, Previous, Next

- **Field Mappings:** Carefully configured to ensure data integrity and consistency during migration.

The screenshot shows the 'Edit Field Mapping: HandsMen Customers' configuration page. It displays a table of mapped fields.

Edit	Mapped Salesforce Object	CSV Header	Example	Example	Example
Change	FirstName	FirstName	John	Jane	Alex
Change	LastName	LastName	Doe	Smith	Johnson
Change	Email	Email	john1@gmail.com	jane1@gmail.com	alex1@gmail.com
Change	Total Purchases	Total_Purchases__c	100	500	1200
Change	Loyalty Status	Loyalty_Status__c	Bronze	Silver	Gold

Buttons at the bottom: Cancel, Previous, Next

Below are the screenshots of the successful bulk import of customer records for HandsMen Customers:

The screenshot shows the Salesforce Bulk Data Load Job status page. A modal dialog box is open, displaying a message: "Congratulations, your import has started! Click OK to view your import status on the Bulk Data Load Job page." Below the message, there are two sections: "Your import will include:" which lists "HandsMen Customers" and "customers.csv" with a count of 5 mapped fields, and "Your import will not include:" which lists 0 unmapped fields. At the bottom right of the modal is an "OK" button.

The screenshot shows the Bulk Data Load Jobs detail page for job ID 750gL00000J9bAJ. The page displays various details about the job, including the job ID, submitted by Ma_Loreen_Marajahs, start time (11/27/2025, 1:41 AM PST), end time (11/27/2025, 1:41 AM PST), and time to complete (00:00). The object is set to HandsMen Customer, and the content type is CSV. The concurrency mode is Parallel, and the API version is 65.0. The job type is Bulk V1, operation is Insert, and the status is Closed with a total processing time of 124 ms. The API active processing time is 47 ms, and the apex processing time is 0 ms. The progress is 100%, and 25 records were processed with 0 failures. The batches section shows one batch with 25 records processed, 0 failed, and 0 retried.

The screenshot shows the HandsMen Threads customer list page. The header includes navigation links for HandsMen Customers, HandsMen Orders, HandsMen Products, Inventory, Marketing Campaigns, Reports, Dashboards, Accounts, and More. The main content area shows a list of 14 customers, each with a checkbox and their name: Sarah, Ria, Michael, Maria, Maria, Jonce, John, Jay, Jane, Grace, Eunice, Emma, David, and n. The customer "Jonce" is currently selected, as indicated by a blue border around the row. The page also features a search bar at the top and various action buttons like New, Import, Change Owner, and Assign Label.

➤ Field History Tracking, Duplicate Rules, and Matching Rules

Field History Tracking, Duplicate Rules, and Matching Rules were not configured in this version of the system. While these features are useful for monitoring changes to critical fields, preventing duplicate records, and defining criteria for identifying matches, they were not implemented during this phase. These functionalities can be added in future system enhancements to further improve data integrity, auditability, and database quality.

➤ Profiles, Roles, Permission Sets, and Sharing Rules

Custom profiles and a simple role hierarchy were configured to provide appropriate access based on job functions. Sales users were able to manage Customers, Orders, and Products, while Warehouse users could manage Inventory and view Orders. Permission Sets were used to grant additional access to managers without modifying their base profiles. No sharing rules were implemented in this version of the system, meaning all record access was controlled solely through profiles, roles, and permission sets. This configuration ensured users had the necessary access for their responsibilities while maintaining data security.

Action	Profile Name	User License	Custom
<input type="checkbox"/> Edit Clone	Analytics Cloud Integration User	Analytics Cloud Integration User	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Analytics Cloud Security User	Analytics Cloud Integration User	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Anypoint Integration	Identity	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Authenticated Website	Authenticated Website	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Authenticated Website	Authenticated Website	<input type="checkbox"/>
<input type="checkbox"/> Edit Del ...	B2B Reordering Portal Buyer Profile	External Apps Login	<input checked="" type="checkbox"/>
<input type="checkbox"/> Edit Clone	Chatter External User	Chatter External	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Chatter Free User	Chatter Free	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Chatter Moderator User	Chatter Free	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Contract Manager	Salesforce	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Cross Org Data Proxy User	XOrg Proxy User	<input type="checkbox"/>
<input type="checkbox"/> Edit Del ...	Custom Marketing Profile	Salesforce	<input checked="" type="checkbox"/>
<input type="checkbox"/> Edit Del ...	Custom Sales Profile	Salesforce	<input checked="" type="checkbox"/>
<input type="checkbox"/> Edit Clone	Custom Support Profile	Salesforce	<input checked="" type="checkbox"/>
<input type="checkbox"/> Edit Clone	Customer Community Login User	Customer Community Login	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Customer Community Plus Login User	Customer Community Plus Login	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Customer Community Plus User	Customer Community Plus	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Customer Community User	Customer Community	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Customer Portal Manager Custom	Customer Portal Manager Custom	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Customer Portal Manager Standard	Customer Portal Manager Standard	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Einstein Agent User	Einstein Agent	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	External Apps Login User	External Apps Login	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	External Identity User	External Identity	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Force.com - App Subscription User	Force.com - App Subscription	<input type="checkbox"/>
<input type="checkbox"/> Edit Clone	Force.com - Free User	Force.com - Free	<input type="checkbox"/>

Figure 7.1. Profiles

Creating the Role Hierarchy

You can build on the existing role hierarchy shown on this page. To insert a new role, click **Add Role**.

Your Organization's Role Hierarchy

Polytechnic University of the Philippines Santo Tomas Campus

- CEO** (Edit | Del | Assign)
 - CFO** (Edit | Del | Assign)
 - Add Role**
 - COO** (Edit | Del | Assign)
 - Add Role**
 - Inventory** (Edit | Del | Assign)
 - Add Role**
 - Marketing** (Edit | Del | Assign)
 - Add Role**
 - Sales** (Edit | Del | Assign)
 - Add Role**
 - SVP, Customer Service & Support** (Edit | Del | Assign)
 - Add Role**
 - SVP, Human Resources** (Edit | Del | Assign)
 - Add Role**
 - SVP, Sales & Marketing** (Edit | Del | Assign)
 - Add Role**

Figure 7.2. Roles and Role Hierarchy

Permission Sets

On this page you can create, view, and manage permission sets.

All Permission Sets (Edit | Delete | Create New View)

Action	Permission Set Name	Description	License
<input type="checkbox"/>	<input type="checkbox"/> sales permission set		
<input type="checkbox"/>	<input type="checkbox"/> inventory permission set		
<input type="checkbox"/>	<input type="checkbox"/> marketing permission set		
<input type="checkbox"/> Clone			

Figure 7.3. Permission Sets

Sharing Settings

Work Step Sharing Rules (New | Recalculate) Work Under Sharing Rules Help (?

No sharing rules specified.

Work Plan Sharing Rules (New | Recalculate) Work Plan Sharing Rules Help (?

No sharing rules specified.

Work Plan Template Sharing Rules (New | Recalculate) Work Plan Template Sharing Rules Help (?

No sharing rules specified.

Work Step Template Sharing Rules (New | Recalculate) Work Step Template Sharing Rules Help (?

No sharing rules specified.

Work Type Sharing Rules (New | Recalculate) Work Type Sharing Rules Help (?

No sharing rules specified.

Work Type Group Sharing Rules (New | Recalculate) Work Type Group Sharing Rules Help (?

No sharing rules specified.

HandsMen Customer Sharing Rules (New | Recalculate) HandsMen Customer Sharing Rules Help (?

No sharing rules specified.

HandsMen Order Sharing Rules (New | Recalculate) HandsMen Order Sharing Rules Help (?

No sharing rules specified.

HandsMen Product Sharing Rules (New | Recalculate) HandsMen Product Sharing Rules Help (?

No sharing rules specified.

Marketing Campaign Sharing Rules (New | Recalculate) Marketing Campaign Sharing Rules Help (?

No sharing rules specified.

Figure 7.4. Sharing Rules

Creation of Test Classes

Apex test classes were developed to validate the custom business logic, ensuring that triggers and automations operate correctly under normal and bulk conditions. These tests also maintain the required 75% code coverage for deployment.

- **OrderTotalTriggerTest:** Inserts sample product and order records to verify that `Total_Amount__c` is calculated correctly as `Quantity__c × Price__c`. This test confirms the order total trigger works as expected across multiple records.

The screenshot shows the Salesforce IDE interface. The top part displays the Apex code for the `OrderTotalTriggerTest`. The bottom part shows the log tab with two entries for the test execution.

```

trigger OrderTotalTrigger on HandsMen_Order__c (before insert, before update) {
    Set<Id> productIds = new Set<Id>();
    for (HandsMen_Order__c order : Trigger.new) {
        if (order.HandsMen_Product__c != null) {
            productIds.add(order.HandsMen_Product__c);
        }
    }
    Map<Id, HandsMen_Product__c> productMap = new Map<Id, HandsMen_Product__c>(
        [SELECT Id, Price__c FROM HandsMen_Product__c WHERE Id IN :productIds]
    );
    for (HandsMen_Order__c order : Trigger.new) {
        if (order.HandsMen_Product__c != null && productMap.containsKey(order.HandsMen_Product__c)) {
            HandsMen_Product__c product = productMap.get(order.HandsMen_Product__c);
            if (order.Quantity__c != null) {
                order.Total_Amount__c = order.Quantity__c * product.Price__c;
            }
        }
    }
}

```

User	Operation	Timestamp	Status	Size
Ma. Loren Marjaz	ApexTestHandler	11/27/2020, 7:03:51 AM	Success	524 bytes
Ma. Loren Marjaz	ApexTestHandler	11/27/2020, 7:03:55 AM	Success	2.19 KB
Ma. Loren Marjaz	ApexTestHandler	11/27/2020, 7:03:55 AM	Success	524 bytes
Ma. Loren Marjaz	ApexTestHandler	11/27/2020, 7:03:55 AM	Success	2.2 KB

- **StockUpdateTriggerTest:** Inserts inventory and order records, then updates an order status to 'Confirmed'. The test ensures the related `Stock_Quantity__c` is automatically decremented, validating the stock update trigger

The screenshot shows the Salesforce IDE interface. The top part displays the Apex code for the `StockUpdateTriggerTest`. The bottom part shows the log tab with four entries for the test execution.

```

trigger StockReductionTrigger 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;
    }
}

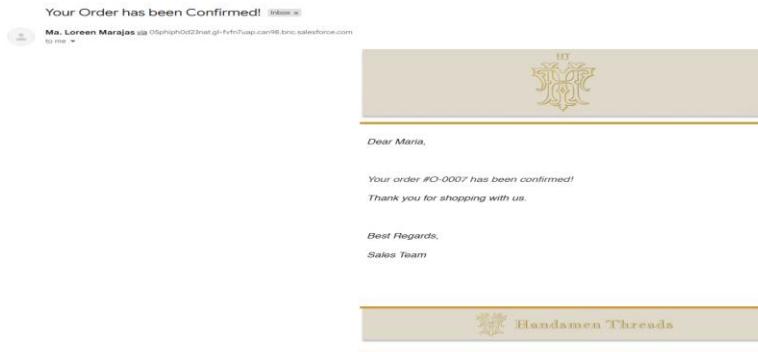
```

User	Operation	Timestamp	Status	Size
Ma. Loren Marjaz	ApexTestHandler	11/27/2020, 7:04:52 AM	Success	524 bytes
Ma. Loren Marjaz	ApexTestHandler	11/27/2020, 7:04:51 AM	Success	2.19 KB
Ma. Loren Marjaz	ApexTestHandler	11/27/2020, 7:03:55 AM	Success	524 bytes
Ma. Loren Marjaz	ApexTestHandler	11/27/2020, 7:03:55 AM	Success	2.2 KB

Functional Test Scenarios

1. Automated Order Confirmation

- **Scenario:** Confirm an order for a customer.
- **Steps:**
 1. Open HandsMen Orders tab.
 2. Create a new order with 'Draft' status.
 3. Save, then update status to 'Confirmed'.
- **Expected Outcome:** Confirmation email sent to customer automatically.
- **Observed Outcome:** Email sent successfully; verified in debug logs and customer inbox.



2. Loyalty Program Update

- **Scenario:** Update loyalty status based on purchase amount.
- **Steps:**
 1. Select a customer with Bronze status and \$0 total purchases.
 2. Create an order with Total Amount \$1,200.
- **Expected Outcome:** Customer status upgrades from Bronze to Gold.
- **Observed Outcome:** Status updated correctly; system automation verified.

BEFORE:

The screenshot shows a software interface for 'HandsMen Threads'. At the top, there are navigation tabs: 'HandsMen Threads', 'HandsMen Customers', 'HandsMen Orders', and 'Hand'. Below the tabs, a user profile for 'Jay' is displayed, showing the following details:

Related	Details
HandsMen Customer Name	Jay
Email	maraasmaloreen@gmail.com
Phone	
Loyalty Status	Bronze
FirstName	Jay
LastName	Park
FullName	Jay Park
Total Purchases	
Created By	Ma. Loreen Marajas , 11/26/2025, 9:48 PM

AFTER:

The screenshot shows the same software interface for 'HandsMen Threads' after changes have been made. The 'Loyalty Status' has been updated from 'Bronze' to 'Silver'. The rest of the fields remain the same as in the 'Before' screenshot.

3. Low Stock Alert

- Scenario:** Notify inventory manager when stock drops below threshold.
- Steps:**
 1. Open Inventory record for a product.
 2. Reduce Stock_Quantity_c from 6 to 4.
 3. Save changes.
- Expected Outcome:** Email alert sent to Inventory Manager.
- Observed Outcome:** Alert received; team confirmed notification.

The email subject is 'Low Stock Alert Email'. The recipient is 'Ma. Loreen Marajas' via s90xylifo0vy.gl-fvfn7uap.can98.bnc.salesforce.com. The message content is as follows:

Why is this message in spam? This message is similar to messages that were identified as spam in the past.
[Report not spam](#)

Dear Inventory Manager,

This is to inform you that the stock for the following product is running low:
Product Name: T-shirt Y2K
Current Stock Quantity: 4
Please take the necessary steps to restock this item immediately.

Best Regards,
Inventory Monitoring System

At the bottom are three buttons: 'Reply', 'Forward', and a smiley face icon.

4. Order Total Calculation

- **Scenario:** Verify automatic calculation of order total.
- **Steps:**
 1. Create a new order.
 2. Select a product ("Jacket" \$10) and quantity 50.
 3. Save the record.
- **Expected Outcome:** Total_Amount_c calculates to \$500.
- **Observed Outcome:** Field populated correctly upon saving.

The image consists of two side-by-side screenshots from a software application. The left screenshot shows the 'New HandsMen Order' form with fields for Product (Polo Shirt), Customer (Jay), Status (Confirmed), Quantity (2), and Total Amount (400). The right screenshot shows the 'HandsMen Orders' page with a selected order (O-0017) displaying the same information.

New HandsMen Order

Information
HandsMen OrderNumber HandsMen Product Polo Shirt
HandsMen Customer Jay
Status Confirmed
Quantity 2
Total Amount 400
*Customer Email marajasmaloreen@gmail.com

HandsMen Threads

HandsMen Order O-0017

Related	Details
HandsMen OrderNumber O-0017	
HandsMen Product Polo Shirt	
HandsMen Customer Jay	
Status Confirmed	
Quantity 2	
Total Amount 400	
Customer Email marajasmaloreen@gmail.com	
Created By Ma. Loreen Marajas, 11/27/2025, 3:30 AM	

5. Stock Quantity Update

- **Scenario:** Inventory decrement after order confirmation.
- **Steps:**
 1. Check Inventory record (e.g., Stock 100).
 2. Create order with quantity 20 and status 'Confirmed'.
 3. Save record.
- **Expected Outcome:** Stock decreases to 80 automatically.
- **Observed Outcome:** Inventory updated correctly; automation verified.

The image displays two side-by-side screenshots of a Salesforce CRM application. Both screens show the 'Details' tab for an inventory item with the ID I-0004. The top navigation bar includes 'HandsMen Threads', 'HandsMen Customers', 'HandsMen Orders', and 'HandsM'. The left screenshot shows fields for 'Inventory Number' (I-0004), 'HandsMen Product' (Polo Shirt), 'Stock Quantity' (3,200), 'Stock Status' (Available), and 'Warehouse'. The right screenshot shows similar fields with slight differences: 'Stock Quantity' is 3,198, and the 'Warehouse' field has a small edit icon. Both screens include a 'Created By' section with a profile picture of Ma. Loreen Marajas and the timestamp 11/26/2025, 9:49 PM.

Phase 5: Deployment, Documentation & Maintenance

➤ Deployment Strategy

The deployment of the HandsMen Threads CRM was planned to ensure a smooth transition from development to production. Change Sets were used to move customizations from the Developer Org to a UAT sandbox for testing. Once approved, the same Change Sets were deployed to the production environment, providing a controlled and traceable deployment process.\

➤ Maintenance and Monitoring

System maintenance focuses on ensuring continuous, reliable operation. Scheduled jobs, workflows, flows, and Apex triggers are regularly monitored using debug logs and system reports. Periodic data backups and user feedback reviews help identify and resolve potential issues proactively. Updates to business logic, objects, or automation are first tested in a sandbox before deployment to production.

➤ Troubleshooting

Troubleshooting follows a structured approach: errors are first analyzed using debug logs and Salesforce error messages, then validation rules, flows, and Apex triggers are reviewed for conflicts or logic issues. Any fixes are tested in a sandbox prior to production deployment, and each step is documented to create a knowledge base for future reference. This approach ensures that the CRM remains reliable, maintainable, and aligned with business needs.

Conclusion

The Salesforce CRM developed for HandsMen Threads successfully integrates and automates critical business processes, including managing customers, products, orders, inventory, and loyalty programs. By leveraging tools such as Custom Objects, Flows, Validation Rules, Email Alerts, and Apex triggers, the system ensures data accuracy, timely updates, and a seamless customer experience. Automation and role-based access controls reduce manual errors, accelerate operations, and provide management with actionable insights for decision-making.

Future Enhancements:

1. **Customer Self-Service Portal:** Allow customers to track orders, update information, and access support resources.
2. **Mobile Inventory & Sales Management:** Enable staff to manage inventory, process orders, and monitor loyalty on mobile devices.
3. **Advanced Analytics & Reporting:** Implement dashboards to visualize sales trends, inventory levels, and customer loyalty metrics.
4. **AI-Driven Insights:** Use predictive analytics to suggest cross-selling opportunities, forecast demand, and analyze customer behavior.
5. **Field History Tracking & Duplicate Rules:** Improve data accuracy and security by auditing changes and preventing duplicates.