

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

## Project Overview:

This project focuses on developing a Salesforce CRM solution tailored to support the operations of HandsMen Threads. The project is designed to showcase a structured approach to managing customer, order, and inventory information within a fashion retail setting. The system models the core business data and introduces automated workflows that help simulate real operational processes. Key features include automated order confirmations, loyalty status updates based on purchase behavior, low-stock alerts for inventory control, and scheduled updates for bulk order processing. Together, these components demonstrate how the CRM enables smoother workflows and a more responsive customer experience across the organization.

## Objectives:

The main objective of this CRM project is to provide HandsMen Threads with a streamlined, reliable system that improves how the business manages customer information, order processing, and inventory operations. By automating key tasks and ensuring data accuracy, the CRM is designed to enhance daily workflows and support better customer service. The following specific goals outline how the system contributes to overall business efficiency and value:

- **Centralize customer, order, and inventory data** to improve accuracy, consistency, and accessibility across the business.
- **Automate routine processes** such as order confirmations, loyalty status updates, and inventory alerts to reduce manual workload.
- **Enhance customer engagement** by ensuring timely communication and loyalty status updates.
- **Improve operational efficiency** by streamlining workflows and minimizing errors caused by manual processes.
- **Strengthen inventory management** with proactive low-stock notifications and scheduled bulk order updates.

## Phase 1:Requirement Analysis & Planning

### Understanding Business Requirements

During this phase, the operational needs of HandsMen Threads were analyzed to determine the core functionalities required in the CRM. The system is designed to manage customer information, track orders, and monitor inventory levels efficiently. Key problems addressed include maintaining accurate records, automating routine communications, and ensuring timely notifications for low-stock items and order confirmations.

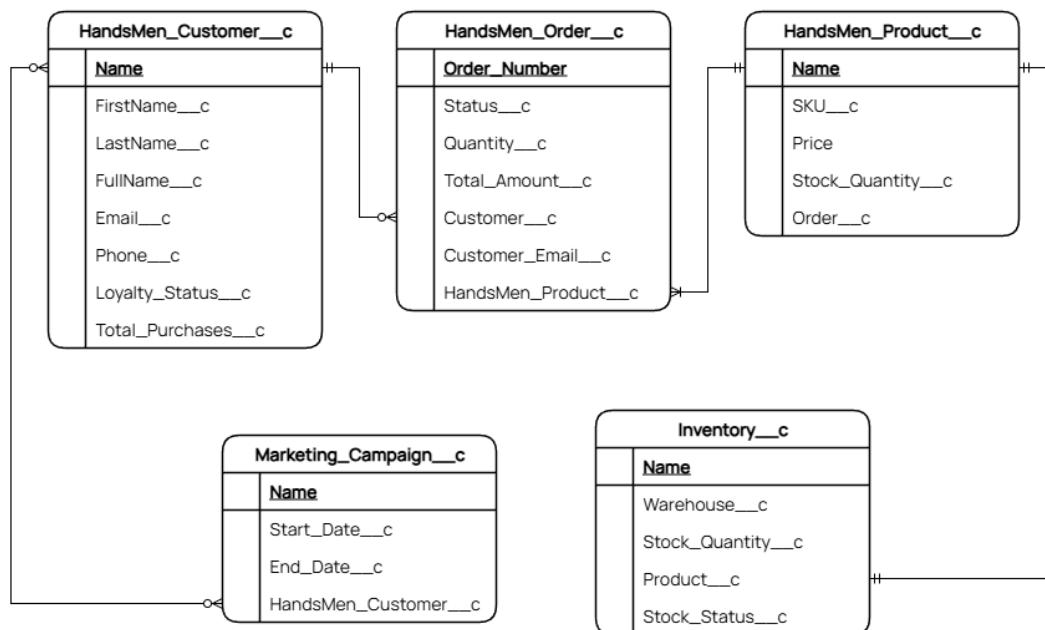
### Defining Scope and Objectives

The project scope and objectives were defined to ensure a clear roadmap and realistic deliverables:

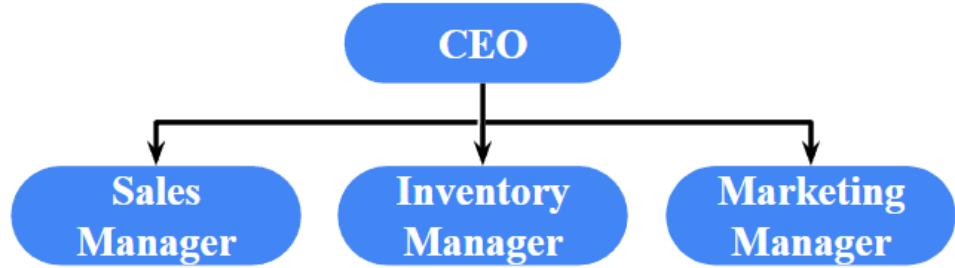
- Develop a Salesforce CRM tailored for HandsMen Threads' customer, product, order, inventory, and marketing management.
- Ensure data integrity through validation rules and structured relationships between objects.
- Implement data security measures by defining roles, profiles, and permission sets to control access to objects and fields based on user role.
- Enable proactive notifications and communication through email templates.
- Implement automation for order confirmations, loyalty status updates, and inventory alerts using Flows, Apex triggers, and batch jobs.

### Data Model and Security Model

The data model was designed to organize all essential business data for HandsMen Threads, including customers, products, orders, inventory, and marketing campaigns. Relationships, fields, and formula fields were defined to ensure accurate and consistent data.



Data security was implemented through roles, profiles, and permission sets to control access based on responsibilities.



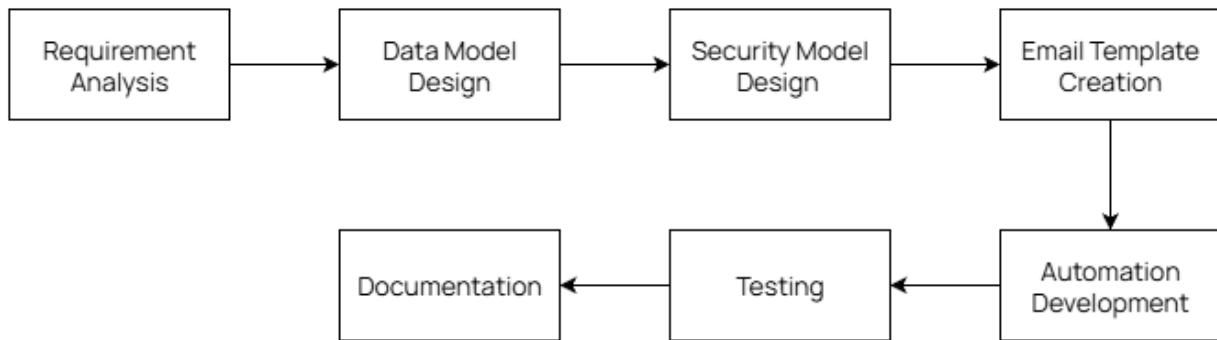
### Stakeholders Mapping

The key stakeholders involved in the project are:

- **Developer:** Responsible for all aspects of design, development, and documentation.
- **Instructor:** Provided guidance, requirements, and evaluation.
- **End Users:** HandsMen Threads staff (sales, inventory, and marketing managers) as the intended beneficiaries of the CRM features.

### Execution RoadMap

The roadmap outlines the step-by-step plan to implement the CRM:



1. **Requirement Analysis** – Identify business needs, problems, and objectives.
2. **Data Model Design** – Define objects, fields, relationships, formula fields, and validation rules, as well as create tabs and app.
3. **Security Model Design** – Set up roles, profiles, and permission sets.
4. **Email Template Design** – Create email templates for orders, loyalty updates, and stock alerts.
5. **Automation Development** – Implement Flows, Apex triggers, and batch jobs.
6. **Testing** – Validate data integrity, automation, and role-based access.
7. **Documentation** – Record all design choices, workflows, and configurations for reference.

## Phase 2: Salesforce Development - Backend & Configurations

### Setup Environment

The development environment for this project was a Salesforce Developer Org, which provided all the tools needed to build and test the CRM. All configurations, development, and testing were performed directly in this org.

The image shows two screenshots of the Salesforce interface. The top screenshot is the 'Sign up for your Developer Edition' page, featuring a purple background with a white robot character. It displays a list of benefits for using Agentforce and Data Cloud, including drag-and-drop tools, Apex code, AI agents, harmonized data, structured/unstructured data integration, and API support. The bottom screenshot is the 'Welcome' screen in the Salesforce Setup Home, showing the user's name 'Najila Joanne' and a sidebar with various setup categories like Setup Go, Service Setup Assistant, and Administration.

### Customization of Objects, Fields, Validation Rules, Email Templates, and Automation

#### **• Custom Objects and Fields**

The CRM was designed with several custom objects to capture the core business data of HandsMen Threads. These objects store information about customers, orders, products, inventory, and marketing campaigns. Relationships between objects and key fields were defined to ensure accurate tracking and automation across the system.

- **HandsMen\_Customer\_\_c** - stores customer details

Fields & Relationships				
Field Label	Field Name	Data Type	Controlling Field	Indexed
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
FirstName	FirstName__c	Text(60)		
FullName	FullName__c	Formula (Text)		
HandsMen Customer Name	Name	Text(80)		
Last Modified By	LastModifiedById	Lookup(User)		
LastName	LastName__c	Text(60)		
Loyalty Status	Loyalty_Status__c	Picklist		
Owner	OwnerId	Lookup(User,Group)		
Phone	Phone__c	Phone		
Total Purchases	Total_Purchases__c	Number(18, 0)		

- **HandsMen\_Product\_\_c** - stores product catalog

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)		
Order	Order__c	Lookup(HandsMen Order)		
Owner	OwnerId	Lookup(User,Group)		
Price	Price__c	Currency(18, 0)		
SKU	SKU__c	Text(60)		
Stock Quantity	Stock_Quantity__c	Number(18, 0)		

- **HandsMen\_Order\_\_c** - stores customer orders

Fields & Relationships				
Field Label	Field Name	Data Type	Controlling Field	Indexed
Created By	CreatedById	Lookup(User)		
Customer	Customer__c	Lookup(HandsMen Customer)		
Customer Email	Customer_Email__c	Email		
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\_c** - tracks inventory levels

Fields & Relationships				
Field Label	Field Name	Data Type	Controlling Field	Indexed
Created By	CreatedById	Lookup(User)		
Inventory Number	Name	Auto Number		
Last Modified By	LastModifiedById	Lookup(User)		
Product	Product__c	Master Detail(HandsMen Product)		
Stock Quantity	Stock_Quantity__c	Number(18, 0)		
Stock Status	Stock_Status__c	Formula (Text)		
Warehouse	Warehouse__c	Text(60)		

- **Marketing\_Campaign\_c** - records promotional campaigns

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		

## • Validation Rules

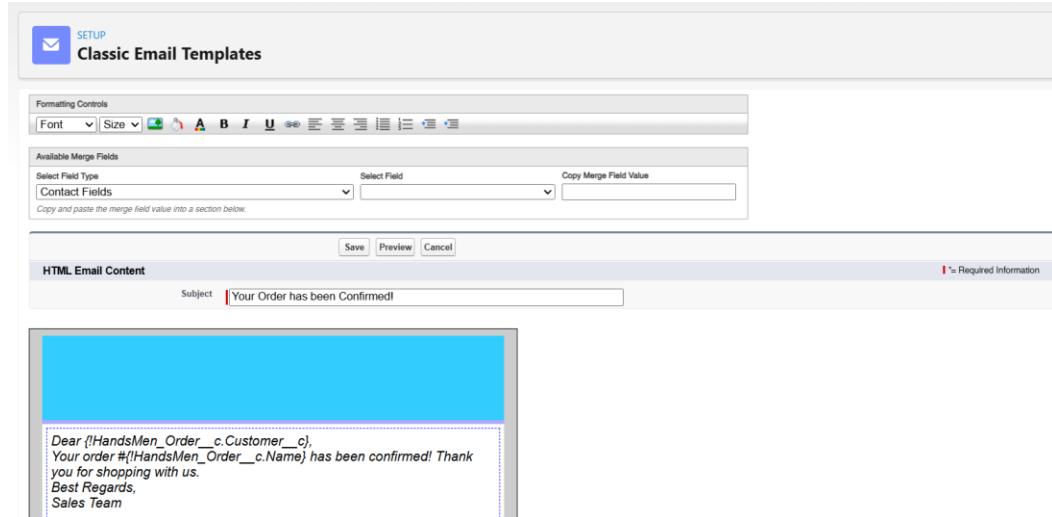
Validation rules were implemented to ensure data accuracy and prevent incorrect records from being saved in the system. These rules check critical fields in key objects and enforce logical constraints that reflect real-world business requirements.

- **HandsMen Order\_c Object Validation Rule**
  - Purpose: Prevents orders from being saved with zero or negative amounts
  - Rule: `Total_Amount__c <= 0`
  - Error Message: “Please Enter Correct Amount”
- **Inventory\_c Object Validation Rule**
  - Purpose: Prevents inventory records with zero or negative stock levels.
  - Rule: `Stock_Quantity__c <= 0`
  - Error Message: “The inventory count is never less than zero.”
- **HandsMen Customer\_c Object Validation Rule**
  - Purpose: Ensures only valid email addresses with “@gmail.com” are entered.
  - Rule: `NOT CONTAINS (Email, "@gmail.com")`
  - Error Message: “Please fill Correct Gmail”

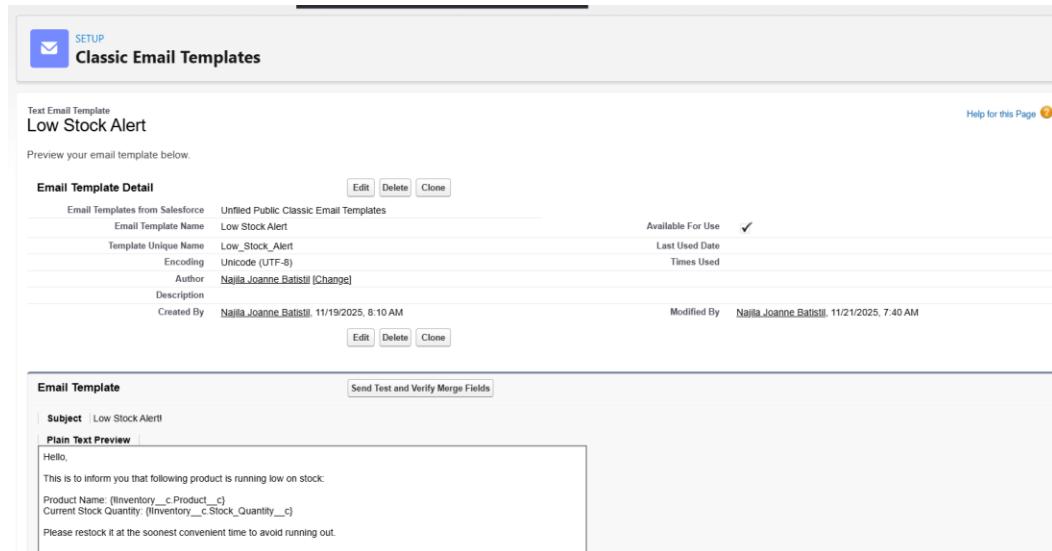
- **Email Templates**

Email templates were created for communication with customers and staff. These templates use merge fields to dynamically include relevant data such as customer names, order details, and inventory information.

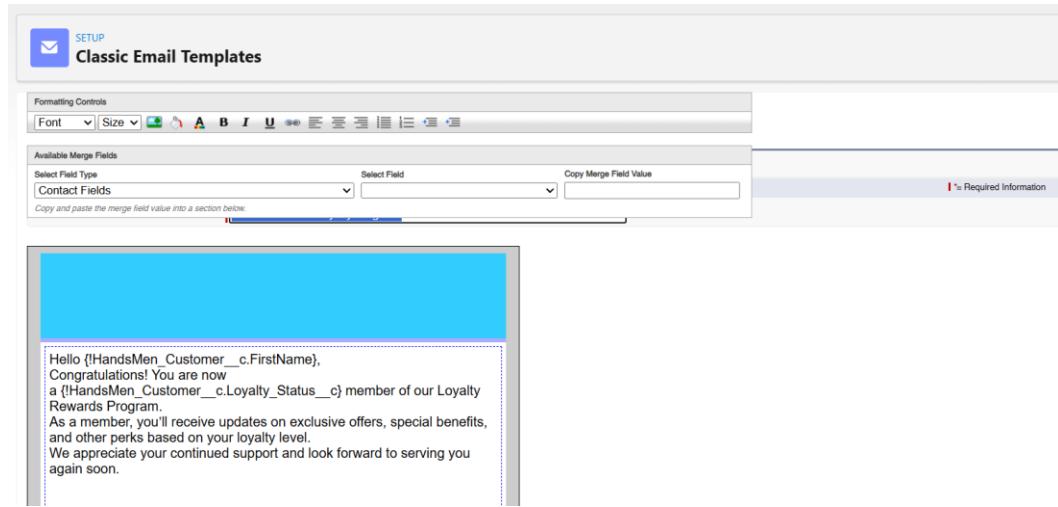
- **Order Confirmation Email**



- **Low Stock Alert Email**



- **Loyalty Program Email**

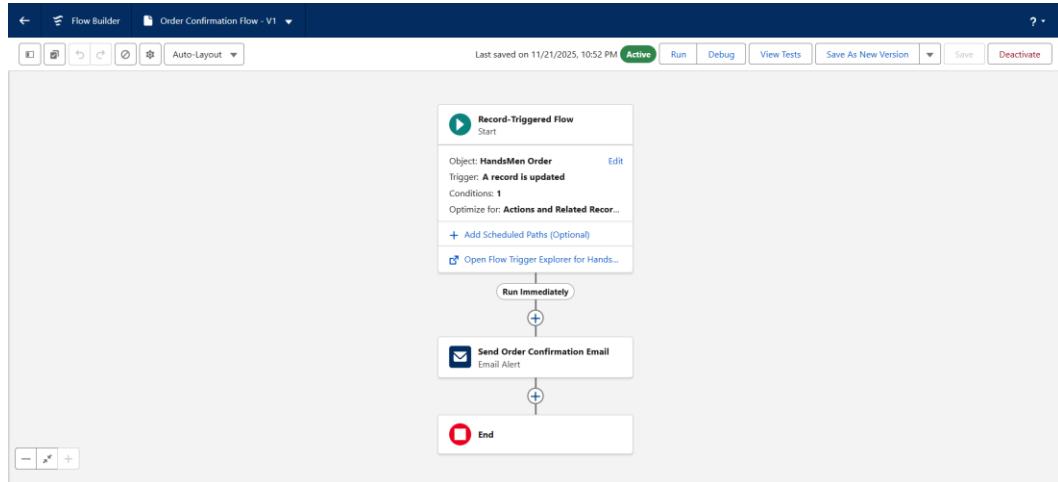


- **Automation**

Automation was implemented to streamline routine business processes and reduce manual effort. Flows were primarily used to handle tasks such as sending confirmation email, updating loyalty status, and sending inventory alerts. Automation ensures that critical business operations occur consistently and efficiently without manual intervention.

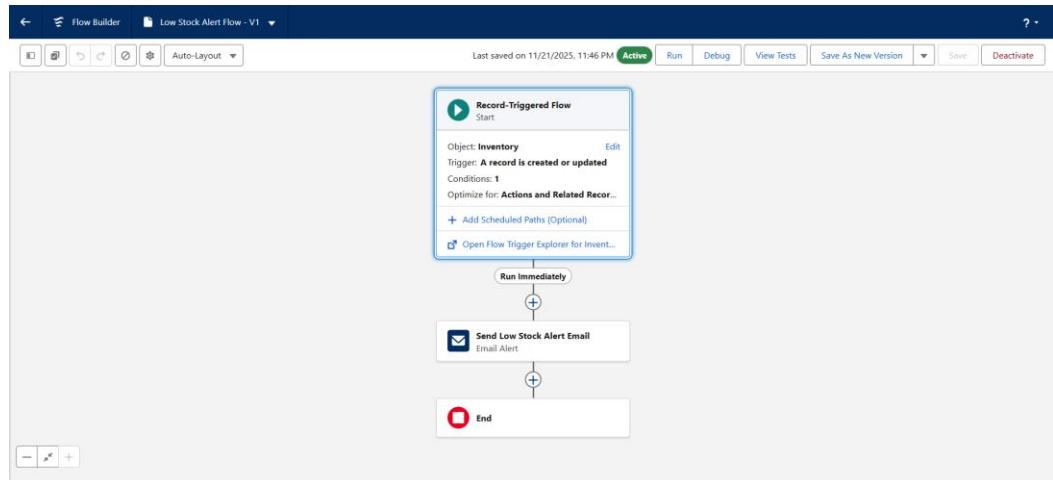
- **Order Confirmation Flow**

- A record-triggered flow that automatically sends an email to the customer after order status is updated to confirmed.



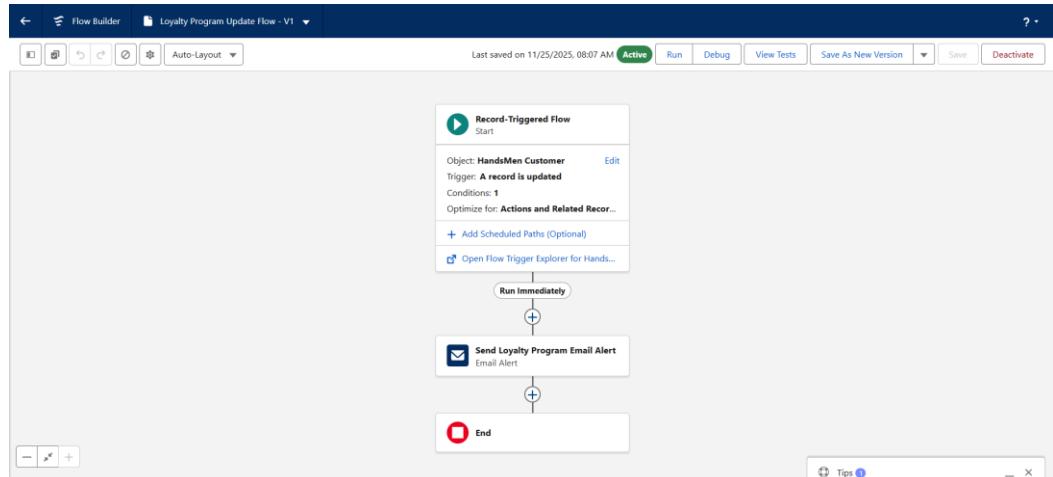
- **Low Stock Alert Flow**

- A record-triggered flow that automatically sends an email to inventory managers when stock drops below 5 units.



- **Loyalty Status Flow**

- A record-triggered flow that automatically sends an email to customers when their loyalty status is changed.



## Apex Classes and Triggers

Apex was used to handle more complex logic that could not be fully achieved through standard automation. This includes custom triggers and classes to manage order details, inventory updates, customer loyalty status, and bulk order processing. Apex ensures that business rules are consistently enforced and data integrity is maintained, even during high-volume operations.

- **Order Validation**

- Updates order status based on order quantity.

- **OrderTrigger Trigger**

- Object: HandsMen\_Order\_\_c
- Fires: before insert, before update

- **OrderTriggerHandler Class**

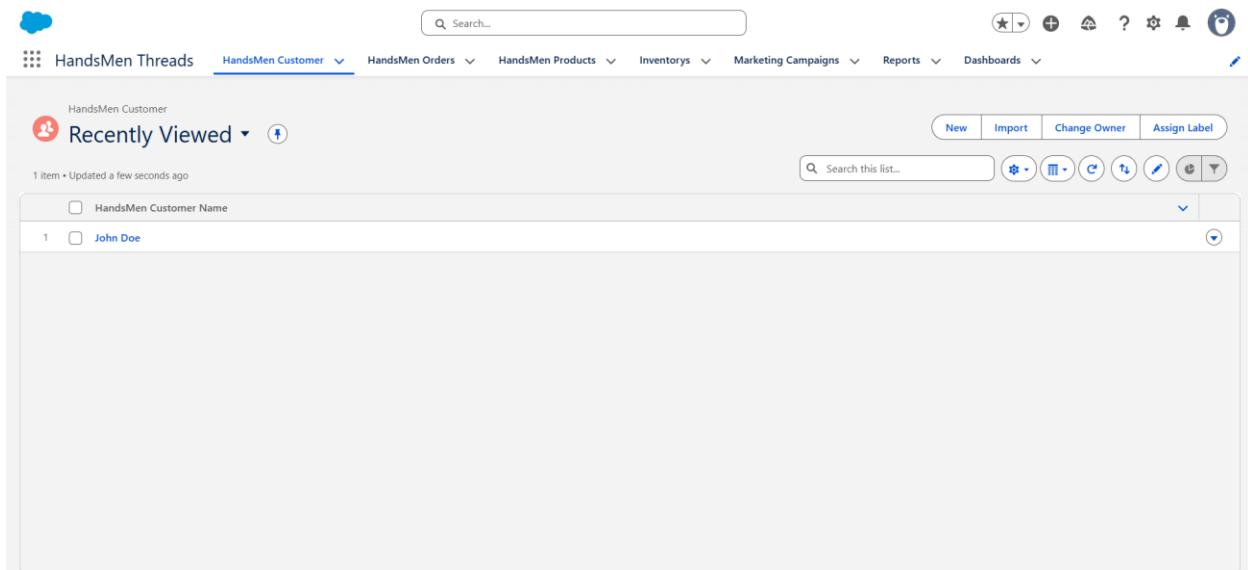
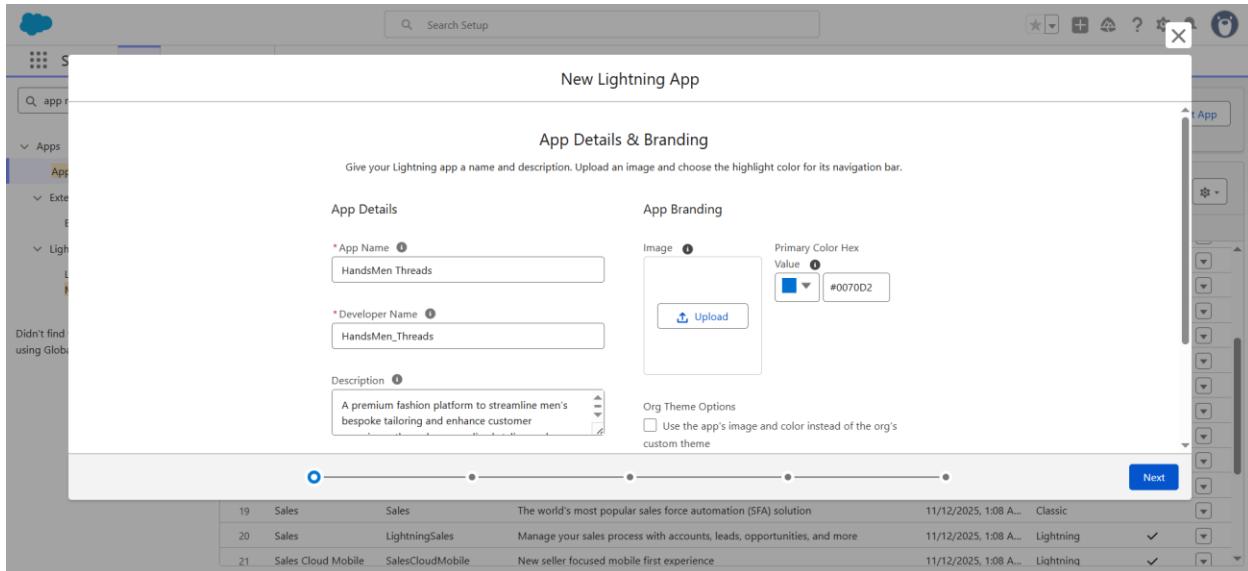
- Method: validateOrderQuantity(List<HandsMen\_Order\_\_c> orderList)
  - Checks rules:
    - Confirmed - Quantity > 500
    - Pending - Quantity > 200
    - Rejection - Quantity = 0
- **Update Order Total**
  - Automatically calculate Total Amount as Quantity × Product Price.
  - **OrderTotalTrigger Trigger**
    - Object: HandsMen\_Order\_\_c
    - Fires: before insert, before update
  - **OrderTotalHandler Class**
    - Method: updateOrderTotal(List<HandsMen\_Order\_\_c> orders)
    - Queries HandsMen\_Product\_\_c to get Price\_\_c
    - Updates Total\_Amount\_\_c for each order.
- **Stock Deduction**
  - Reduce stock quantity when order is confirmed.
  - **StockDeductionTrigger Trigger**
    - Object: HandsMen\_Order\_\_c
    - Fires: after insert, after update
  - **StockDeductionHandler Class**
    - Method: deductStock(List<HandsMen\_Order\_\_c> orders)
    - Queries inventory for product(s) in the orders.
    - Deducts quantity from stock.
- **Loyalty Status Update**
  - Automatically update customer's loyalty status based on their total purchases.
  - **LoyaltyStatusUpdateTrigger Trigger**
    - Object: HandsMen\_Customer\_\_c
    - Fires: after update
  - **LoyaltyStatusHandler Class**
    - Method: updateLoyaltyStatus(Set<Id> customerIds)
    - Queries customers whose total purchases changed.
    - Updates Loyalty\_Status\_\_c:
      - Gold – Total Purchases > 1000
      - Silver – Total Purchases > 500
      - Bronze – Total Purchases < 500

- **Inventory Batch Job / Scheduler**
  - Automatically restock products with low inventory every midnight.

## Phase 3: UI/UX Development & Customization

### Lightning App Setup

The Salesforce Lightning App was configured to provide users with a tailored interface that organizes all CRM functionality for HandsMen Threads. Through the App Manager, the app was set up to include tabs involving all key objects: HandsMen Customer, HandsMen Order, HandsMen Product, Inventory, and Marketing Campaign, allowing users to easily access records within a single workspace.



### Page Layouts

Page layouts were customized across all key objects to improve clarity and ease of use when viewing or editing records. Fields were displayed in a two-column format to make information

easier to scan. This structured layout ensures that users can quickly locate critical information and navigate records more efficiently within the app.

- **HandsMen Customers**

The screenshot shows the 'HandsMen Customer' page layout being edited. The left sidebar lists various configuration options under 'Page Layouts'. The main area displays the 'HandsMen Customer Detail' layout. It includes sections for 'Information' (Customer Name, FirstName, LastName, Total Purchases), 'System Information' (Created By, Last Modified By), and 'Custom Links'. A 'Fields' sidebar on the left lists fields like Buttons, Quick Actions, Mobile & Lightning Actions, etc., with 'FirstName' and 'LastName' highlighted in orange.

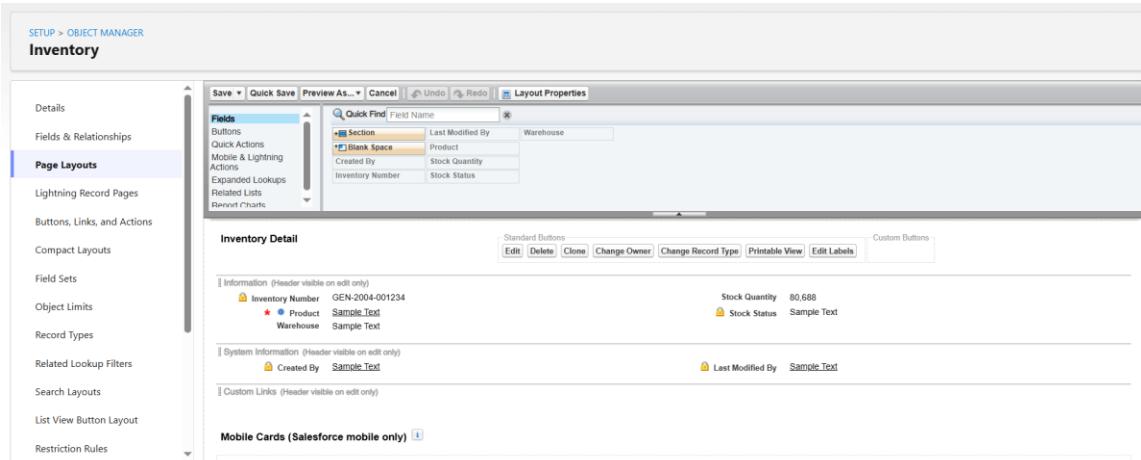
- **HandsMen Orders**

The screenshot shows the 'HandsMen Order' page layout being edited. The left sidebar lists configuration options. The main area displays the 'HandsMen Order Detail' layout. It includes sections for 'Information' (OrderNumber, HandsMen Product, Customer Email), 'System Information' (Created By, Last Modified By), and 'Custom Links'. A 'Fields' sidebar on the left lists fields like Buttons, Quick Actions, Mobile & Lightning Actions, etc., with 'Customer Email' highlighted in orange.

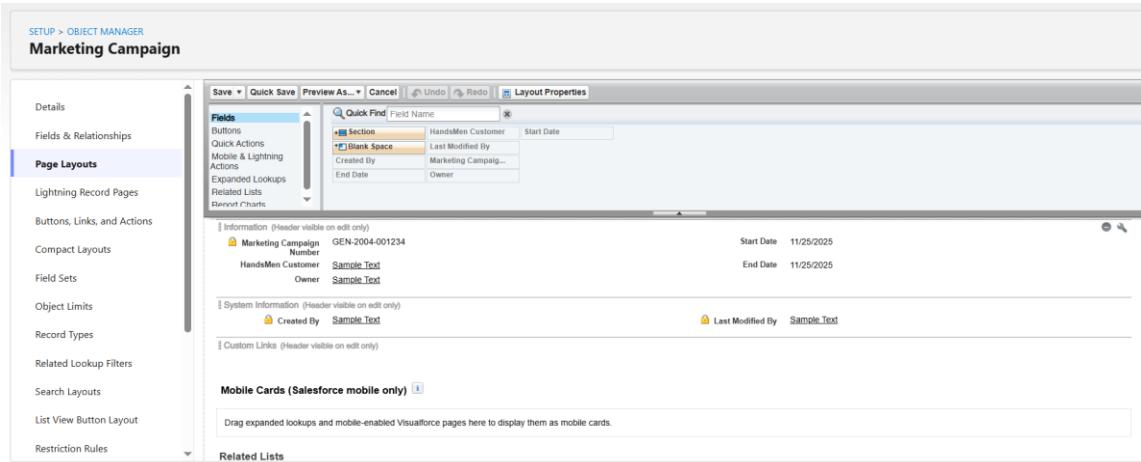
- **HandsMen Products**

The screenshot shows the 'HandsMen Product' page layout being edited. The left sidebar lists configuration options. The main area displays the 'HandsMen Product Detail' layout. It includes sections for 'Information' (HandsMen Product Name, SKU, Owner), 'System Information' (Created By, Last Modified By), and 'Custom Links'. A 'Fields' sidebar on the left lists fields like Buttons, Quick Actions, Mobile & Lightning Actions, etc., with 'Owner' highlighted in orange.

- **Inventory**



- **Marketing Campaigns**



## User Management

User management was configured to ensure that system access aligns with business roles and responsibilities. Three users were created, each assigned to a specific role: Sales Manager, Inventory Manager, and Marketing Team. Profiles and permission sets were used to control which users can view, edit, or manage customer, order, product, inventory, and marketing data. Basic security measures such as object-level permissions and field-level access were applied to maintain data protection and prevent unauthorized modifications. This setup ensures that users have the appropriate level of access needed to perform their tasks while safeguarding the integrity of the CRM data.

Roles	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

## **Reports and Dashboards**

While no reports or dashboards were configured in this implementation, the HandsMen Threads Salesforce CRM supports generating custom reports and dashboards to monitor key business metrics. Reports could include summaries of orders, inventory levels, and customer loyalty status, while dashboards could visually display trends and highlight critical data for management. These features would enable HandsMen Threads to make informed business decisions and track operational performance effectively.

## **Lightning Pages**

The Lightning Pages for each object were customized using the Lightning App Builder, ensuring that users can efficiently navigate customer, order, product, inventory, and campaign records. A simple two-column layout was used to balance visual structure and readability of the record details.

- **HandsMen Customers**

This screenshot shows the HandsMen Customer Lightning Page. The top navigation bar includes the HandsMen Threads logo, a search bar, and various navigation links: HandsMen Orders, HandsMen Products, Inventories, Marketing Campaigns, Reports, and Dashboards. Below the navigation is a header section with a profile picture, the name "John Doe", and buttons for "New Contact", "Edit", and "New Opportunity". The main content area has tabs for "Related" and "Details". Under the "Details" tab, there are two columns of data:

HandsMen Customer Name	Email
John Doe	chrewawi@gmail.com
FullName	Phone
John Doe	0999999999
FirstName	Total Purchases
John	800
LastName	Loyalty Status
Doe	Silver
Created By	Owner
<a href="#">Najila Joanne Batistil</a> , 11/21/2025, 6:55 AM	<a href="#">Najila Joanne Batistil</a>
Last Modified By	Last Modified
<a href="#">Najila Joanne Batistil</a> , 11/21/2025, 6:55 AM	<a href="#">Najila Joanne Batistil</a> , 11/24/2025, 4:08 PM

- **HandsMen Orders**

This screenshot shows the HandsMen Order Lightning Page. The top navigation bar is identical to the Customer page, including the HandsMen Threads logo, search bar, and various navigation links. Below the navigation is a header section with a profile picture, the order number "O-0006", and buttons for "New Contact", "Edit", and "New Opportunity". The main content area has tabs for "Related" and "Details". Under the "Details" tab, there are two columns of data:

HandsMen OrderNumber	Quantity
O-0006	600
HandsMen Product	Total Amount
<a href="#">Leather Jacket</a>	120.000
Customer	Status
<a href="#">John Doe</a>	Confirmed
Customer Email	Owner
chrewawi@gmail.com	<a href="#">Najila Joanne Batistil</a>
Created By	Last Modified
<a href="#">Najila Joanne Batistil</a> , 11/21/2025, 9:43 AM	<a href="#">Najila Joanne Batistil</a> , 11/21/2025, 9:43 AM

- **HandsMen Products**

The screenshot shows the product detail view for a 'Leather Jacket'. The top navigation bar includes 'HandsMen Threads', 'HandsMen Customer', 'HandsMen Orders', 'HandsMen Products' (selected), 'Inventory', 'Marketing Campaigns', 'Reports', and 'Dashboards'. The main content area displays the product name 'Leather Jacket' and its details: Price (\$200), Stock Quantity (10), and Owner (Najila Joanne Batistil). It also shows the creation and last modification dates and times.

HandsMen Product Name	Price
Leather Jacket	\$200

SKU	Stock Quantity
L-001	10

Owner	Last Modified By
Najila Joanne Batistil	Najila Joanne Batistil, 11/24/2025, 10:56 PM

- **Inventory**

The screenshot shows the inventory detail view for item 'I-0002'. The top navigation bar includes 'HandsMen Threads', 'HandsMen Customer', 'HandsMen Orders', 'HandsMen Products', 'Inventory' (selected), 'Marketing Campaigns', 'Reports', and 'Dashboards'. The main content area displays the inventory number 'I-0002', product 'Leather Jacket', warehouse 'Warehouse 123', stock quantity (400), and stock status (Available). It also shows the creation and last modification dates and times.

Inventory Number	Stock Quantity
I-0002	400

Product	Stock Status
Leather Jacket	Available

Warehouse	Last Modified By
Warehouse 123	Najila Joanne Batistil, 11/24/2025, 10:48 PM

- **Marketing Campaigns**

The screenshot shows the marketing campaign detail view for 'MC-0001'. The top navigation bar includes 'HandsMen Threads', 'HandsMen Customer', 'HandsMen Orders', 'HandsMen Products', 'Inventory', 'Marketing Campaigns' (selected), 'Reports', and 'Dashboards'. The main content area displays the campaign number 'MC-0001', customer 'John Doe', owner (Najila Joanne Batistil), start date (11/21/2025), and end date (11/28/2025). It also shows the creation and last modification dates and times.

Marketing Campaign Number	Start Date
MC-0001	11/21/2025

HandsMen Customer	End Date
John Doe	11/28/2025

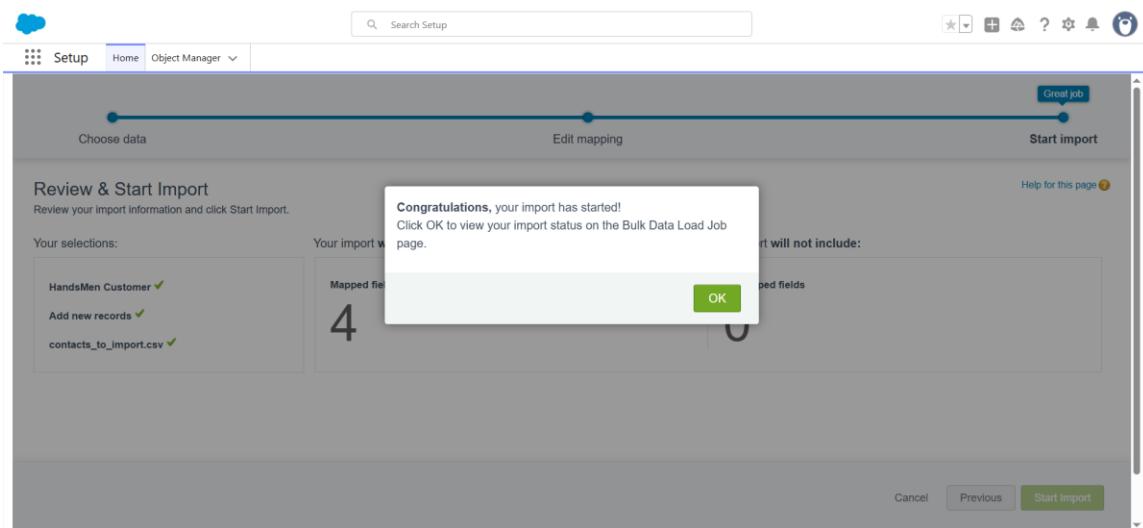
Owner	Last Modified By
Najila Joanne Batistil	Najila Joanne Batistil, 11/24/2025, 10:58 PM

## Phase 4: Data Migration, Testing & Security

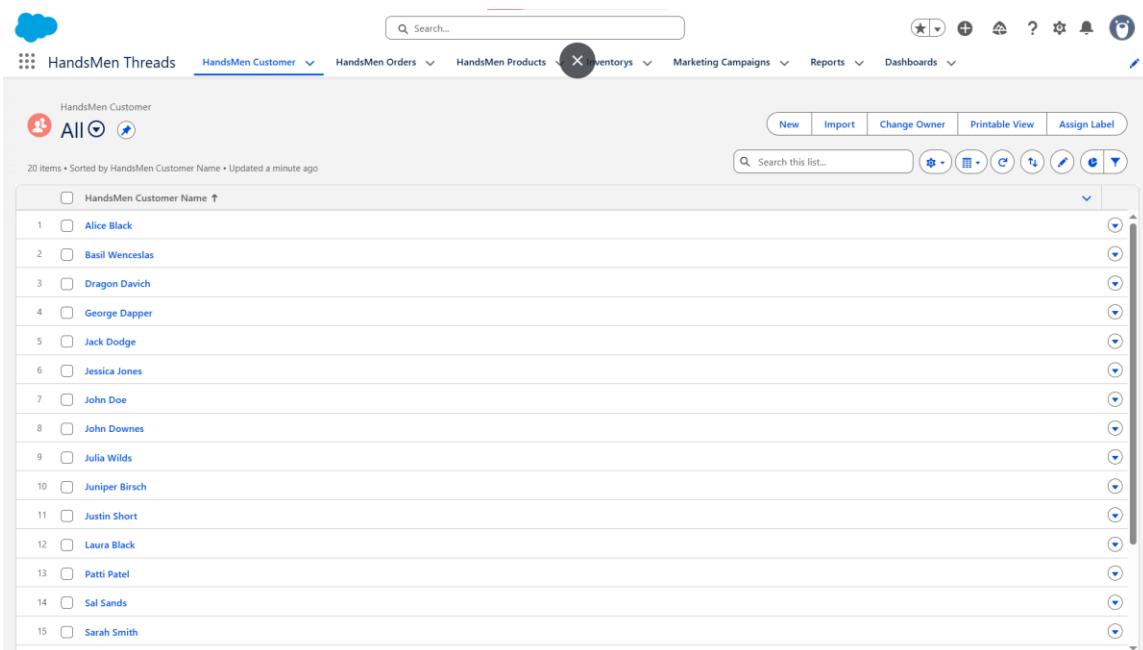
### Data Loading Process

Data migration was performed to populate the Salesforce CRM with relevant business data for HandsMen Threads. The Data Import Wizard was used to import records for the HandsMen Customers object. Field mappings were carefully configured to ensure data integrity and consistency during the migration process.

- **HandsMen Customers Data Import**



The screenshot shows the 'Review & Start Import' step of the Data Import Wizard. A modal window displays a success message: 'Congratulations, your import has started! Click OK to view your import status on the Bulk Data Load Job page.' An 'OK' button is visible. The main interface shows 'Your selections:' including 'HandsMen Customer' and 'contacts\_to\_import.csv'. A progress bar at the top indicates the process is 'Great job'.

The screenshot shows the 'HandsMen Customer' list view in the HandsMen Threads Salesforce instance. The list displays 20 items, sorted by HandsMen Customer Name. The names listed are: Alice Black, Basil Wenceslas, Dragon Davich, George Dapper, Jack Dodge, Jessica Jones, John Doe, John Downes, Julia Wilds, Juniper Birsch, Justin Short, Laura Black, Patti Patel, Sal Sands, and Sarah Smith. The interface includes standard Salesforce navigation and search tools.

### Field History Tracking, Duplicate Rules, Matching Rules

In this project, Field History Tracking, Duplicate Rules, and Matching Rules were not implemented. These features are typically used to monitor changes to important fields, prevent

duplicate records, and define criteria for identifying matching data. Although they were not configured in this version of the system, they can be added in future enhancements to further improve data accuracy, security, and auditability.

### **Profiles, Roles and Role Hierarchy, Permission sets, Sharing Rules**

The security model of the Salesforce CRM was configured to ensure that each user has appropriate access to data based on their function within HandsMen Threads. Multiple layers of Salesforce security were used to balance usability with data protection.

- **Profiles**

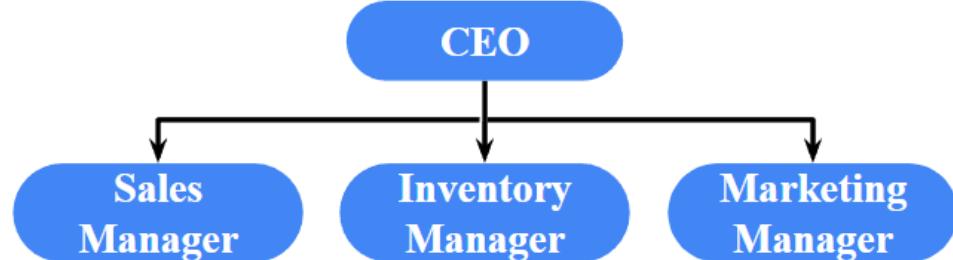
A custom profile called Platform 1 was created by cloning the Standard User profile. This profile was adjusted to fit the needs of HandsMen Threads by granting additional object permissions.

Key configurations include:

- Read and Create access for HandsMen Products
- Read, Create, and Edit access for Inventory

- **Roles and Role Hierarchy**

Three roles were added to the system: Sales, Inventory, and Marketing. All three roles report directly to the CEO, establishing a simple role hierarchy.



- **Permission Sets**

Permission Sets were used to provide additional access without modifying the user's assigned profile. These were helpful for granting specific privileges selectively. The following Permission Sets were implemented for HandsMen Threads:

Roles	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

### **Creation of Test Classes**

A test class was created to validate the functionality of the Loyalty Status trigger. The test inserts a sample HandsMen Customer record with a defined Total\_Purchases\_\_c value and verifies that the trigger correctly updates the Loyalty\_Status\_\_c field based on the purchase amount. This

minimal test class demonstrates the application of automated testing in the CRM to maintain data integrity and verify business rules.

The screenshot shows the Salesforce IDE interface. The top navigation bar includes File, Edit, Debug, Test, Workspace, Help, and tabs for Code Coverage, API Version (set to 65), Run Test, and Go To. The main area displays the Apex code for 'LoyaltyStatusTest.apex'. The code defines a class 'LoyaltyStatusTest' with a static void method 'testLoyaltyStatusTrigger'. This method creates a new customer record ('HandsMen\_Customer\_\_c') with name 'Test Customer', total purchases of 1200, and email 'test@gmail.com'. It then updates the customer record to have total purchases of 1201 and asserts that the loyalty status is 'Gold'. Below the code editor is the 'Logs' tab, which shows a table of log entries. The table has columns for User, Application, Operation, Time, Status, Read, and Size. There are four log entries from the user 'Najla Joanne Battistil' showing various API calls and their results. At the bottom of the logs section is a filter input field with the placeholder 'Click here to filter the log list'.

```
1 @isTest
2 public class LoyaltyStatusTest {
3     @isTest
4     static void testLoyaltyStatusTrigger() {
5         HandsMen_Customer__c cust = new HandsMen_Customer__c(
6             Name = 'Test Customer',
7             Total_Purchases__c = 1200,
8             Email__c = 'test@gmail.com'
9         );
10        insert cust;
11
12        cust.Total_Purchases__c = 1201;
13        update cust;
14
15        cust = [SELECT Loyalty_Status__c FROM HandsMen_Customer__c WHERE Id = :cust.Id];
16        System.assertEquals('Gold', cust.Loyalty_Status__c);
17    }
18 }
```

User	Application	Operation	Time	Status	Read	Size
Najla Joanne Battistil	Unknown	ApexTestHandler	11/25/2025, 7:43:15 PM	Success	Unread	524 bytes
Najla Joanne Battistil	Unknown	ApexTestHandler	11/25/2025, 7:43:15 PM	Success	Unread	2.19 KB
Najla Joanne Battistil	Unknown	ApexTestHandler	11/25/2025, 7:43:15 PM	Success	Unread	16.31 KB
Najla Joanne Battistil	Unknown	/services/data/v65.0/tooling/runTestsSynchronous/	11/25/2025, 7:43:06 PM	Success	Unread	16.19 KB

Filter Click here to filter the log list

## Result:

The screenshot shows the Salesforce IDE interface, specifically the 'Logs' tab. The table displays log entries from the user 'Najla Joanne Battistil'. The columns are User, Application, Operation, Time, Status, Read, and Size. The log entries show various API calls and their results, including successful assertions and file operations. A filter input field at the bottom of the table is set to 'Click here to filter the log list'.

User	Application	Operation	Time	Status	Read	Size
Najla Joanne Battistil	Unknown	ApexTestHandler	11/25/2025, 7:43:15 PM	Success	Unread	524 bytes
Najla Joanne Battistil	Unknown	ApexTestHandler	11/25/2025, 7:43:15 PM	Success	Unread	2.19 KB
Najla Joanne Battistil	Unknown	ApexTestHandler	11/25/2025, 7:43:15 PM	Success	Unread	16.31 KB
Najla Joanne Battistil	Unknown	/services/data/v65.0/tooling/runTestsSynchronous/	11/25/2025, 7:43:06 PM	Success	Unread	16.19 KB

Filter Click here to filter the log list

In addition to running an Apex test class, the functionality of triggers and handlers was manually verified by creating test records in Salesforce and observing the expected updates to fields such as Order Status, Total Amount, and Inventory stock quantities.

## **Phase 5:Deployment, Documentation & Maintenance**

### **Deployment Strategy**

The CRM solution for HandsMen Threads was developed and tested in a Salesforce Developer Org. In a real scenario, Salesforce allows you to move the system from the developer environment to a live environment so it can be used by actual users.

### **System Maintenance and Monitoring**

The system will be maintained by periodically reviewing workflows, flows, and Apex jobs to ensure they operate correctly. Regular monitoring of debug logs, scheduled jobs, and user feedback will help identify any issues or bottlenecks. Updates to business logic, objects, or automation can be applied incrementally and tested in a sandbox before deployment.

### **Troubleshooting Approach**

Any errors or unexpected behavior will be addressed through a structured approach:

1. Review error messages and debug logs in Salesforce.
2. Check validation rules, flows, and Apex triggers for conflicts or logic issues.
3. Test changes in a sandbox or developer environment before applying to production.
4. Document each troubleshooting step and resolution to maintain a knowledge base for future reference.

## Conclusion

The Salesforce CRM developed for HandsMen Threads demonstrates how customer, order, product, and inventory data can be efficiently managed in an integrated and automated system. Key features such as automated order confirmations, loyalty status updates, inventory alerts, and role-based access control provide a reliable foundation for improved operational efficiency and enhanced customer engagement.

While certain advanced features were not implemented in this version, the CRM offers a robust framework that can be expanded in the future.

## Future Enhancements

- **Field History Tracking** – Track changes to important fields for auditing and accountability.
- **Duplicate Rules & Matching Rules** – Maintain clean and accurate data by preventing duplicate records.
- **Reports and Dashboards** – Visualize key metrics such as orders, inventory levels, and customer loyalty trends for informed decision-making.
- **AI-Powered Suggestions** – Provide automated recommendations for promotions or stock replenishment based on historical data.
- **Chatbot Integration** – Enable customers to receive instant updates and support via automated messaging.

Overall, the project illustrates how Salesforce can streamline workflows, enforce business rules consistently, and provide actionable insights, while also allowing for future growth and enhancements to further support HandsMen Threads' business objectives.