



POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

PROJECT OVERVIEW

This capstone project introduces a tailored Salesforce CRM solution developed for HandsMen Threads to enhance the management of customer, product, and order information across the company. The system establishes a centralized and organized data framework that keeps vital business records—such as customer profiles, product catalogs, inventory tracking, and order histories—accurate, easily accessible, and consistently updated. To meet the organization's core operational needs, the CRM incorporates automated workflows including order confirmation emails, loyalty program notifications, low-stock alerts, and scheduled synchronization for bulk orders. These automations streamline business processes, reduce manual errors, sustain optimal inventory levels, and foster stronger customer relationships. By leveraging Salesforce components such as Lightning App Builder, Flow, Apex, and data validation rules, this project delivers a scalable, efficient, and user-friendly CRM platform that supports both everyday operations and long-term business expansion.

OBJECTIVES

The main objective of this CRM project is to develop a well-structured, automated, and dependable system that strengthens both customer management and internal operations for HandsMen Threads. By emphasizing accurate data entry, smooth process automation, and role-based user access, the system aims to enhance customer interactions, simplify order processing, and improve inventory monitoring. These goals contribute to greater business efficiency by enabling faster service, more personalized customer experiences, reduced manual workload, and better coordination between departments. In addition, the CRM provides a strong foundation for scalability, consistent operations, and continuous process improvement over time.

SPECIFIC OBJECTIVES

HandsMen Threads Project Documentation



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- Develop a centralized Salesforce data model to efficiently organize and store essential business information.
- Ensure data accuracy and consistency by implementing validation rules and data quality controls within the interface.
- Automate customer communications, such as sending order confirmation emails and loyalty program notifications.
- Set up internal workflow automations, including inventory stock alerts and scheduled bulk order processing.
- Enhance technical skills in Salesforce development tools like Apex, Flows, and Lightning App Builder.
- Develop a scalable and flexible system that can adapt to future business needs and system upgrades.

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 core environment for developing custom applications, managing business data, and automating workflows.

Custom Objects

Custom objects are designed to store company-specific records such as customer profiles, products, orders, and loyalty program details.

Tabs



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Tabs provide users with easy access to custom objects, allowing them to view, add, and manage records conveniently.

Custom App

A dedicated Salesforce app is created to organize essential tabs, dashboards, and tools in one workspace, ensuring a user-friendly interface aligned with business needs.

Profiles

Profiles define user permissions, determining which data and functionalities each user can access within the system.

Roles

Roles establish a user hierarchy that manages data visibility and reporting according to each employee's position in the organization.

Permission Sets

Permission sets offer additional access rights without modifying a user's main profile, providing flexibility in permission management.

Validation Rules

Validation rules maintain data integrity by ensuring that required information is correct and complete before saving a record.

Email Templates

Standardized email templates are created for consistent communication, including order confirmations, loyalty updates, and stock notifications.

Email Alerts



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Email alerts automatically send predefined emails when specific triggers or conditions are met within the system.

Flows

Flows automate routine tasks such as loyalty status updates, notifications, and record modifications—reducing the need for manual input.

Apex

Apex handles complex business logic and advanced automations that go beyond standard Salesforce configurations, including scheduled bulk order processing.

DETAILED EXECUTION OF PROJECT PHASES

This section describes the step-by-step process followed in developing the Salesforce CRM solution for HandsMen Threads, ensuring an organized and efficient 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.



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. The right screenshot shows a Salesforce sign-up page with fields for First Name, Last Name, Email, Role, and Company.

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 the Salesforce Object Manager interface. The left sidebar shows a list of tabs: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules, Object Access, Triggers, Flow Triggers, Validation Rules, and Conditional Field Formatting. The main pane displays the 'Details' tab for the 'HandsMen Customer' object. It includes fields for Description, API Name (HandsMen_Customer__c), Singular Label (HandsMen Customer), Plural Label (HandsMen Customers), and various settings like Enable Reports, Track Activities, Track Field History, Deployment Status (Deployed), Help Settings, and Standard salesforce.com Help Window. There are 'Edit' and 'Delete' buttons at the top right.

3. Lightning App Setup

- Developed a custom Lightning App named HandsMen Operations App.
- Added custom objects, reports, dashboards, and utilities to the navigation bar.
- Customized record pages with Lightning App Builder for better user experience.

4. Validation Rules Implementation

- Set up validation rules to prevent incorrect or missing data (e.g., no negative quantities or empty product fields).
- Added clear error messages to guide users.
- Tested rules to ensure they accurately enforce data quality.



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Edit Jane

* = Required Information

| | | |
|------------------------------------|--|--------------------|
| * HandsMen Customer Name | <input type="text" value=""/> | Owner |
| Complete this field. | | Nathaniel Matriano |
| Email | <input type="text"/> | |
| Phone | <input type="text"/> | |
| Loyalty Status | <input type="text" value="--None--"/> | |
| FirstName | <input type="text"/> | ↳ |
| LastName | <input type="text"/> | ↳ |
| FullName | Jane Smith | |
| This field is calculated upon save | | |
| Total Purchases | <input type="text"/> | |
| Created By | Nathaniel Matriano, 11/27/2025, 10:06 AM | |

We hit a snag.

Review the following fields

- HandsMen Customer Name

Cancel Save & New Save

5. User Roles & Profiles Setup

- Created a role hierarchy reflecting the company structure (Admin → Manager → Staff).
- Set up profiles like System Administrator, Operations User, and Sales User.
- Defined field-level security, object permissions, and tab visibility for 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 the Salesforce Setup interface. The left sidebar shows the navigation menu under 'User Management Settings' with 'Users' selected. The main area is titled 'New User' and shows the 'General Information' tab. It includes fields for First Name, Last Name, Alias, Email, Username, Nickname, Title, Company, Department, and Division. On the right, there are sections for 'Role' (set to '<None Specified>'), 'User License' (set to 'Salesforce Platform'), 'Profile' (set to 'Standard Platform User'), and various checkboxes for user types like Marketing User, Offline User, Knowledge User, etc. Other settings include Data.com User Type, Accessibility Mode, High-Contrast Palette on Charts, Load Lightning Pages While Scrolling, Debug Mode, Quiet Access Menu, Salesforce CRM Content User, Receive Salesforce CRM Content Email Alerts, Receive Salesforce CRM Content Alerts as Daily Digest, Allow Forecasting, No MRU Updates, and Call Center.

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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The screenshot shows the Salesforce Setup interface for creating a new email template. The search bar at the top has "email temp" entered. The left sidebar shows "Classic Email Templates" selected under "Email". The main area is titled "SETUP Classic Email Templates" and displays the "Order_Confirmation_Email" template. The "Email Template Detail" section shows the template was created by "Nathaniel Matlano" on "11/27/2025, 12:12 AM". The "HTML Email Template" section contains the template code:

```
HTML Email Template
Order_Confirmation_Email
Preview your email template below.

Email Template Detail
Available For Use ✓
Last Used Date
Times Used

Email Templates from Salesforce
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 Nathaniel Matlano [Change]
Description
Created By Nathaniel Matlano, 11/27/2025, 12:12 AM
Modified By Nathaniel Matlano, 11/27/2025, 12:12 AM

Edit Properties | Edit HTML Version | Edit Text Version | Delete | Clone |
```

The "Email Template" preview shows the subject "Your Order has been Confirmed!" and the body content:

Subject : Your Order has been Confirmed!

HTML Preview

Dear {!HandsMen_Order_c.HandsMen_Customer_c},
Your order # {!HandsMen_Order_c.Name} has been confirmed!
Thank you for shopping with us.
Best Regards,
Sales Team

The screenshot shows the Salesforce Setup interface for creating a new email template. The search bar at the top has "email temp" entered. The left sidebar shows "Classic Email Templates" selected under "Email". The main area is titled "SETUP Classic Email Templates" and displays the "Low Stock Alert" template. The "Email Template Detail" section shows the template was created by "Nathaniel Matlano" on "11/27/2025, 12:14 AM". The "Text Email Template" section contains the template code:

```
Text Email Template
Low Stock Alert
Preview your email template below.

Email Template Detail
Available For Use ✓
Last Used Date
Times Used

Email Templates from Salesforce
Email Template Name Low Stock Alert
Template Unique Name Low_Stock_Alert
Encoding Unicode (UTF-8)
Author Nathaniel Matlano [Change]
Description
Created By Nathaniel Matlano, 11/27/2025, 12:14 AM
Modified By Nathaniel Matlano, 11/27/2025, 12:14 AM

Edit | Delete | Clone |
```

The "Email Template" preview shows the subject "Low Stock Alert Email" and the body content:

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_ProdID_c}
Category: {!Inventory__c.Category__c}
Status: {!Inventory__c.Status__c}
Please take the necessary steps to restock this item immediately.
Best Regards,
Inventory Monitoring System

Attachments

No records to display



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A screenshot of the Salesforce Setup interface, specifically the "Classic Email Templates" section. The page shows a template named "Loyalty Program Email" with the subject "Loyalty Program Email". The template content area contains a red placeholder box with the message: "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." Below the template content, there are "Edit Properties", "Edit HTML Version", "Edit Text Version", "Delete", and "Clone" buttons.

8. Flow Implementation

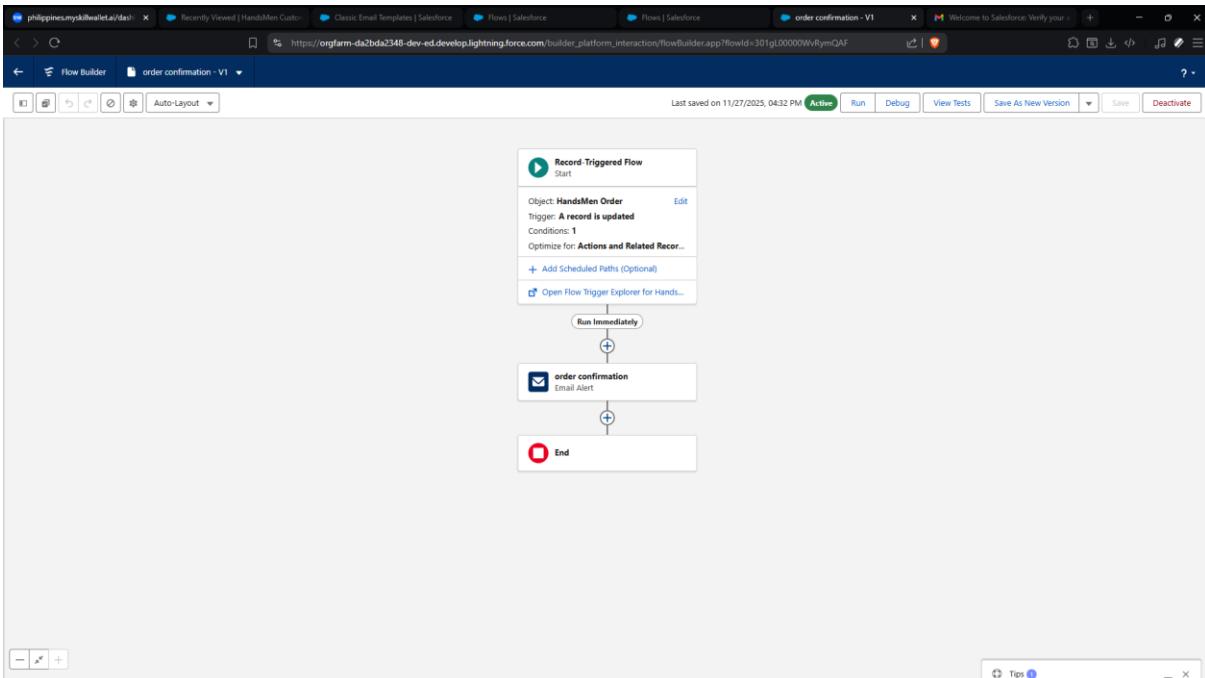
Built Record-Triggered Flows for:

- 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.

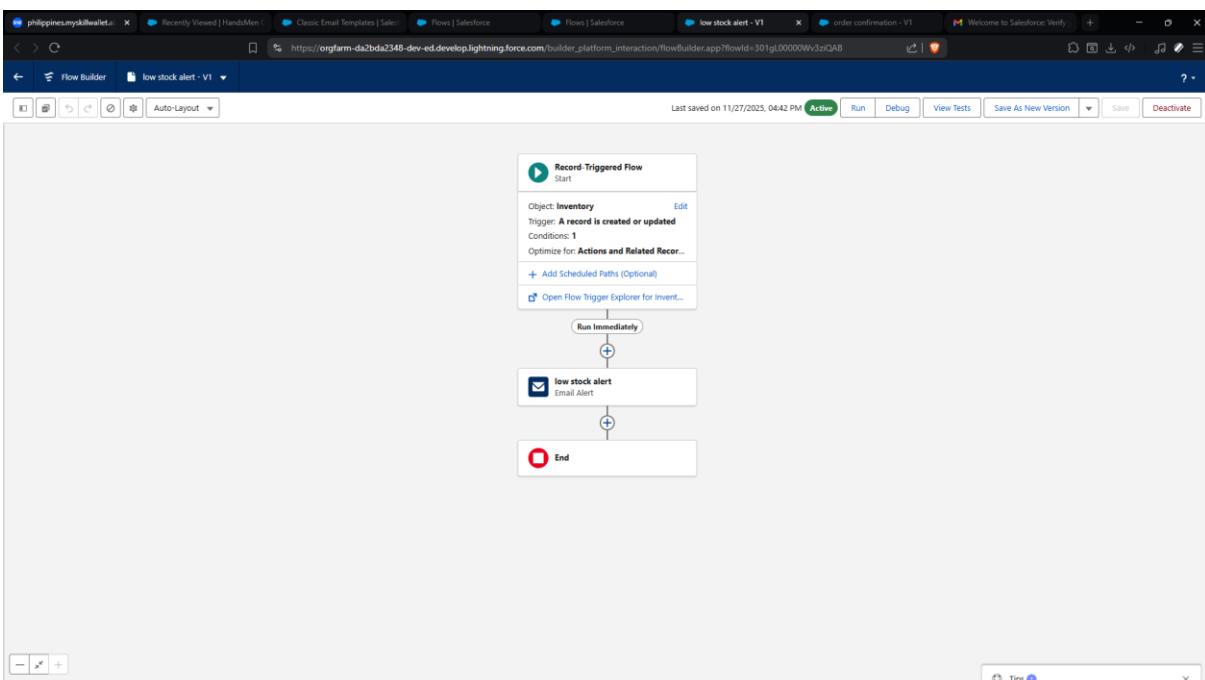
A. Order Confirmation Flow



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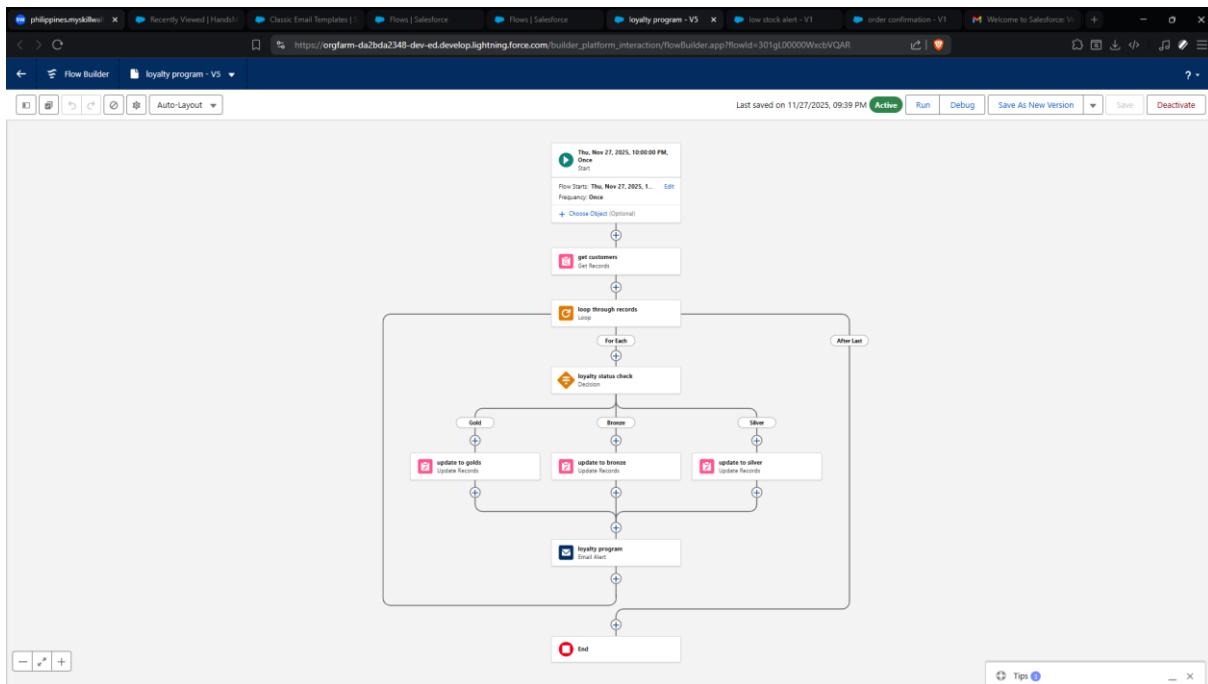
B. Stock Alert Flow



C. Scheduled Flow: Loyalty Update



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9. Apex Development

- Built Apex triggers for advanced tasks like complex inventory updates.
- Created asynchronous Apex classes for daily financial and inventory processing.
- Developed test classes to comply with Salesforce deployment requirements.

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 new customer, Mark Reyes, visits to purchase clothing online.
- Sales representative registers him:
- Name: Mark Reyes
- Email: mark.reyes@example.com
- Loyalty Status: New Customer

Validation rules ensure all required information is correctly entered.

2. Product Setup

- Warehouse staff enters new products:
- Product Name: Denim Jacket
- Stock: 12
- Price: 1,500 PHP
- Category: Outerwear
- Product fields support reporting, automation, and inventory tracking.

3. Order Placement

- Mark purchases 1 Denim Jacket.
- The Sales Representative creates an order:
- Customer: Mark Reyes



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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 Mark
- 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:

- Mark earns 10 points for this purchase.
- Once she reaches a threshold (e.g., 50 points), the system updates his 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 Mark 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 main menu includes "HandsMen Threads", "HandsMen Customers", "HandsMen Orders", "HandsMen Products", "Inventory", "Marketing Campaigns", "Reports", "Dashboards", "Accounts", and "Contacts". The "HandsMen Customers" tab is selected. Below it, a "Recently Viewed" section shows two items: "Thanz" and "john". A search bar and various navigation icons are visible at the top right.

Fig: Custom App HandsMen Threads

A screenshot of a web browser displaying the "New HandsMen Customer" creation form. The form has a header "New HandsMen Customer" with a note "* = Required information". It contains fields for "HandsMen Customer Name" (with "Thanz" entered), "Email", "Phone", "Loyalty Status" (set to "--None--"), "FirstName", "LastName", and "Total Purchases". The "Owner" field is set to "Nathaniel Matiiano". At the bottom are "Cancel", "Save & New", and "Save" buttons.

Fig: Customer Creation in HandsMen Threads



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A screenshot of the Salesforce Lightning interface. The top navigation bar shows various tabs like "Recently Viewed", "Classic Email Templates", "Flows", "Inventory", "Marketing Campaigns", etc. The main content area is titled "HandsMen Products" and "Recently Viewed". It lists three items: "Shirt", "shorts", and "T-shirt cloth".

| Item | Description |
|------|---------------|
| 1 | Shirt |
| 2 | shorts |
| 3 | T-shirt cloth |

Fig: HandsMen Threads Products

A screenshot of the Salesforce Lightning interface. The top navigation bar shows various tabs like "Recently Viewed", "Classic Email Templates", "Flows", "Inventory", "Marketing Campaigns", etc. The main content area is titled "HandsMen Orders" and "Recently Viewed". It lists six items: "O-0006", "O-0005", "O-0004", "O-0002", "O-0003", and "O-0001".

| Item | Description |
|------|-------------|
| 1 | O-0006 |
| 2 | O-0005 |
| 3 | O-0004 |
| 4 | O-0002 |
| 5 | O-0003 |
| 6 | O-0001 |

Fig: HandsMen Threads Orders



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A screenshot of a Salesforce interface showing the 'Inventory' list for the 'HandsMen Threads' account. The page title is 'Inventory'. At the top, there are tabs for 'Inventory' (which is selected), 'New', 'Import', and 'Assign Label'. A search bar says 'Search this list...'. Below the header, it says '2 items • Updated a few seconds ago'. There is a column header 'Inventory Number'. Two items are listed: 'I-0001' and 'I-0002'.

| Inventory Number |
|------------------|
| I-0001 |
| I-0002 |

Fig: HandsMen Threads Inventories

CONCLUSION

This project successfully delivered a structured and automated Salesforce CRM tailored for HandsMen Threads. By leveraging custom objects, validation rules, automation tools, and Apex logic, the system enhances data accuracy, streamlines business operations, and improves customer engagement. It effectively supports current workflows while increasing operational reliability and overall efficiency. The implementation highlights the benefits of well-designed digital solutions in modern business environments.

Future Scope:

While the system meets the company's current needs, several enhancements can be considered for future growth:



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- **Mobile App Integration:** Enable warehouse staff and sales agents to update records directly from mobile devices.
- **AI-Powered Recommendations:** Einstein AI to suggest products and forecast inventory needs.
- **Advanced Reporting Dashboard:** Provide visual insights into sales trends, customer retention, and inventory movement.
- **Customer Self-Service Portal:** Allow customers to track orders, update personal information, and view loyalty points online.
- **Payment Gateway Integration:** payment updates and streamline financial reconciliation.
- **Multi-Warehouse Management:** Expand support for operations across multiple storage locations.

These improvements can further boost efficiency, enhance customer satisfaction, and support long-term digital growth for the organization.