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

John Emmanuel Piala

Asia Pacific College

Project Overview

This Project is a salesforce based system that is developed to streamline customer management, order processing, and inventory tracking. It automates tasks such as order total calculation and stock deduction to reduce errors and improve efficiency. The system addresses the business need for organized data handling, faster workflows, and stronger customer engagement.

Objectives

The goal of HandsMen Threads is to connect sales, inventory, and marketing into a single environment where teams can work with accurate and updated information. The system cuts down on manual steps through automation, improves team coordination, and helps the business respond faster and make better decisions.

Phase 1: Requirement Analysis & Planning

- *Business Requirements:*
  HandsMen Threads needed a unified platform to handle and manage customer information, orders, inventory, and marketing. The goal was to automate manual processes, reduce errors, and improve coordination across teams.

- *Project Scope and Objectives:*
  The project covers custom objects for Customers, Orders, Products, Inventory, and Marketing Campaigns, along with automations for computing order totals, updating inventory when an order is confirmed, and tracking loyalty points to support daily business tasks.

- *Data Model and Security Model:*
  The data model connects "Customers", "Orders", and "Products" through lookup and master-detail relationships to ensure accurate record tracking. "Inventory" updates automatically when orders are confirmed. The security model applies roles, profiles, and permission sets to manage user access and protect sensitive data.

- *Stakeholders Mapping:*

  The system involves the admin for configuration and security, the Sales Team for managing customers and orders, the Inventory Team for stock monitoring, the Marketing Team for campaigns, and Management for reviewing dashboards and making decisions.

- *Execution Roadmap:*

  The project moved from requirement gathering and system design to configuration and automation setup, followed by testing, user training, and final deployment with ongoing monitoring.
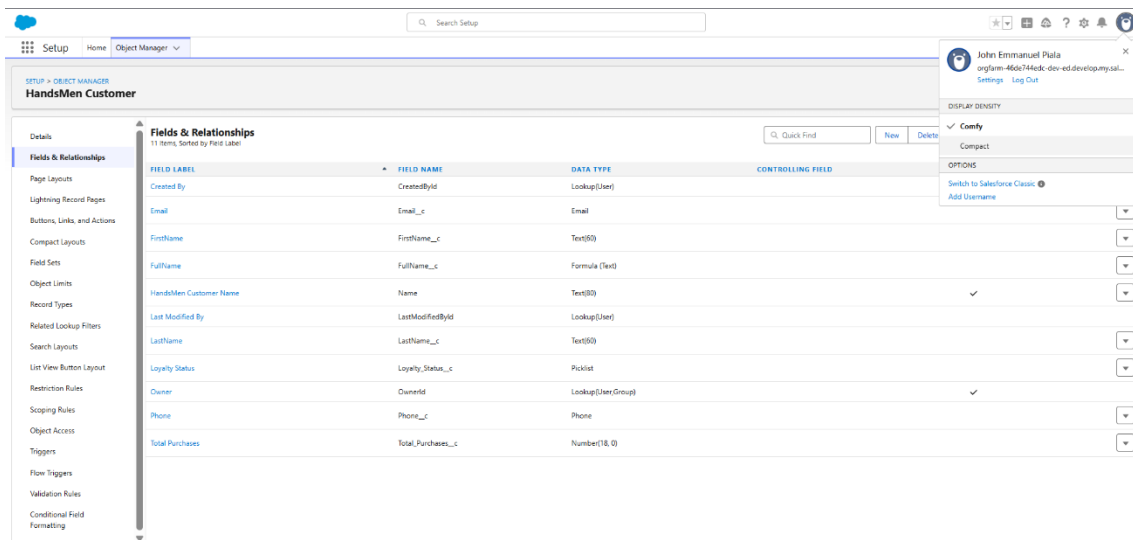
Phase 2: Salesforce Development – Backend & Configuration

Setup environment & DevOps workflow:

A Salesforce developer sandbox was used for configuring and testing the system.
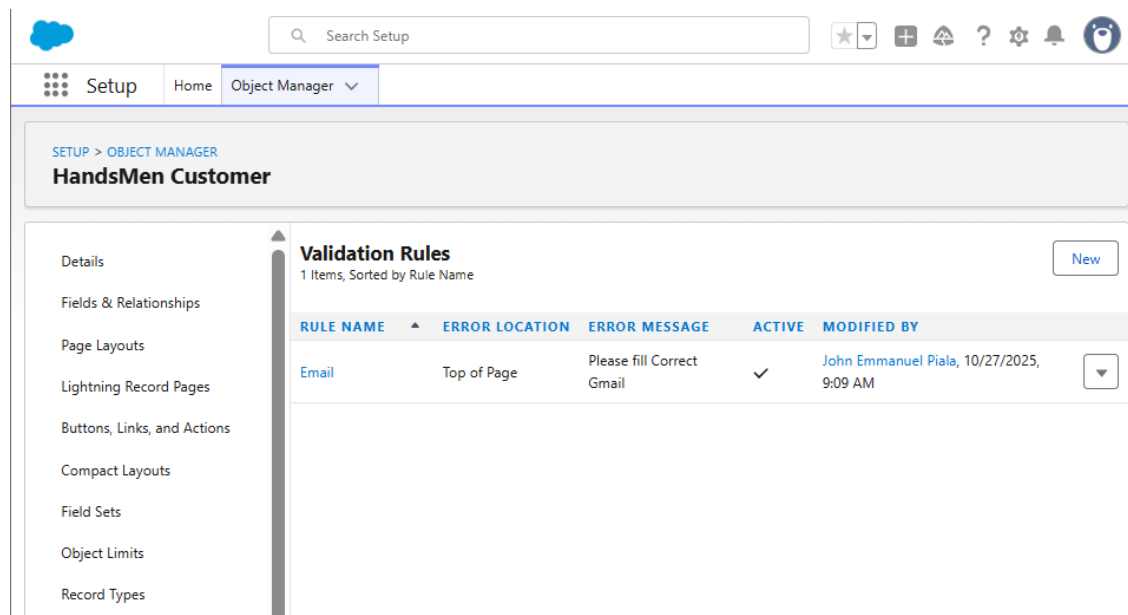
Customization of Objects, Fields, Validation Rules, Automation:

HandsMen Customer

Needs to be a valid gmail account only and nothing else

HandsMen Product

Setup | Home | Object Manager ▼

John Emmanuel Piala
orgfarm-46de744edc-dev-ed.develop.my.sal...
Settings | Log Out

DISPLAY DENSITY
✓ Comfy
Compact

OPTIONS
Switch to Salesforce Classic
Add Username

Fields & Relationships
7 Items, Sorted by Field Label

Quick Find | New | Delete

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD
Created By	CreatedById	Lookup(User)	
HandsMen Product Name	Name	Text(80)	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	✓
Price	Price__c	Currency(18, 0)	
SKU	SKU__c	Text(60)	
Stock Quantity	Stock_Quantity__c	Number(18, 0)	

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
Conditional Field Formatting

HandsMen Order

If the formula returns 0 the save is blocked until the user fixes the Quantity in their order

Inventory

Cannot order a product if stock quantity is 0 to avoid overselling and displays an error message as seen in this screenshot

Marketing Campaign

Order Confirmation Flow

Automatically sends an email notification whenever an order status is changed from pending to confirmed since the trigger is "A record is updated"

Low Stock Alert Flow
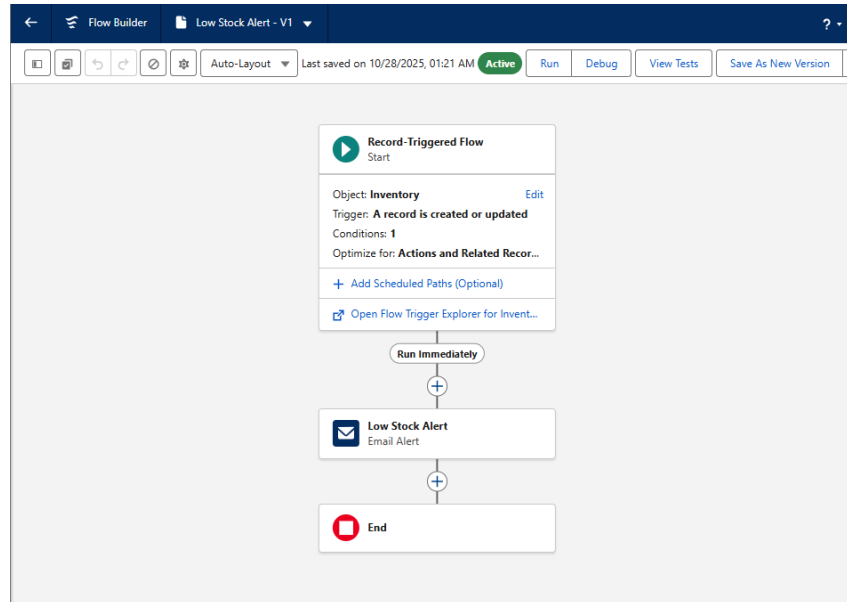
Automatically sends an email notification whenever the stock quantity is below 5.

Loyalty Program Flow
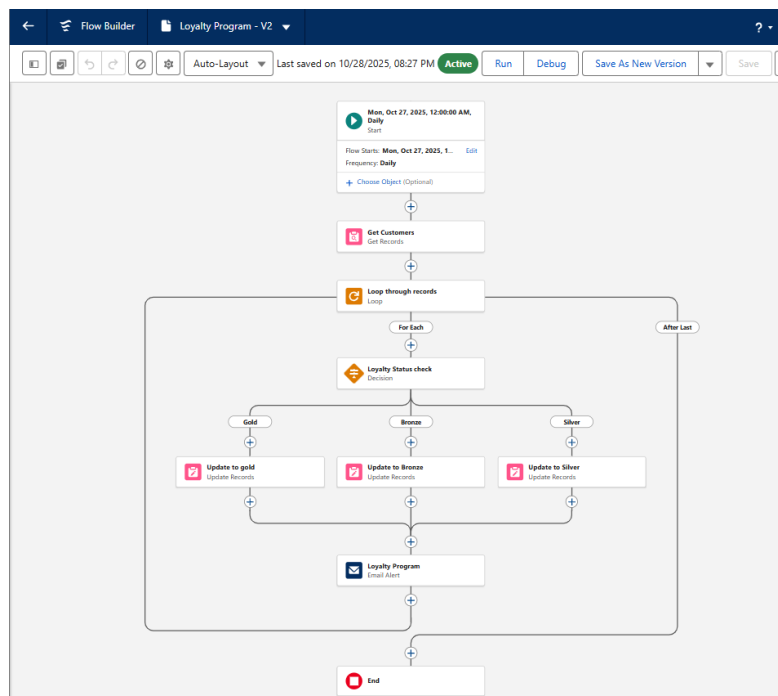
Daily loops through customer records to check their total purchases and updates the loyalty status depending on the count (Gold if +1000, Bronze if 0-500, else Silver)

Apex Classes and/or Triggers:

OrderTotalTrigger
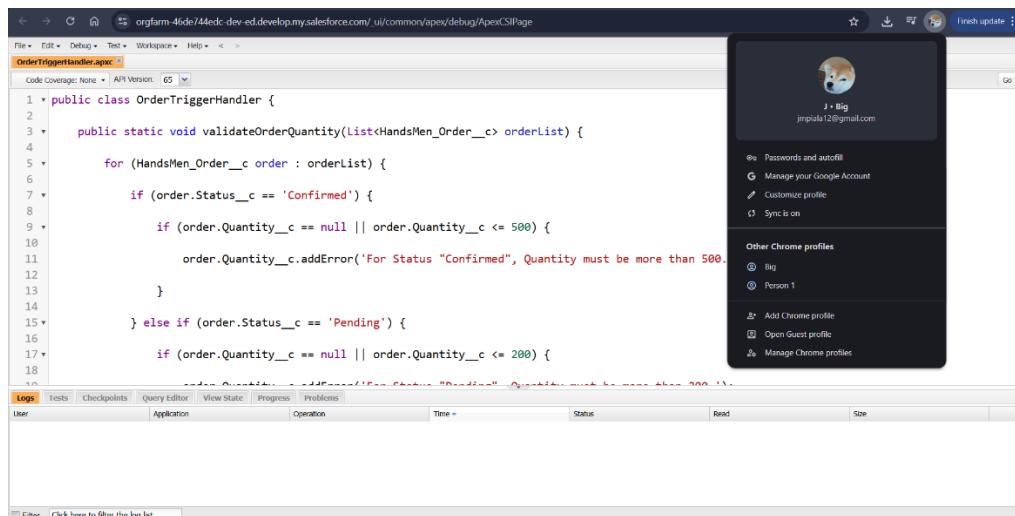
This apex trigger automatically calculates the total order amount by multiplying product price by quantity.

StockDeductionTrigger

This apex trigger happens once the order is confirmed, it deducts the ordered quantity from the product's stock.

InventoryBatchJob

```
global class InventoryBatchJob implements Database.Batchable<SObject>, Schedulable {

    global Database.QueryLocator start(Database.BatchableContext BC) {

        return Database.getQueryLocator(

            'SELECT Id, Stock_Quantity__c FROM Product__c WHERE Stock_Quantity__c < 10'

        );

    }

    global void execute(Database.BatchableContext BC, List<SObject> records) {

        List<HandsMen_Product__c> productsToUpdate = new List<HandsMen_Product__c>();

        // Cast SObject list to Product__c list

        for (SObject record : records) {

            HandsMen_Product__c product = (HandsMen_Product__c) record;

            product.Stock_Quantity__c += 50; // Restock logic

            productsToUpdate.add(product);

        }

        if (!productsToUpdate.isEmpty()) {

            try {

                update productsToUpdate;

            } catch (DmlException e) {

                System.debug('Error updating inventory: ' + e.getMessage());
            }
        }

    }

    global void finish(Database.BatchableContext BC) {

        System.debug('Inventory Sync Completed');

    }
}
```

This apex class finds products with low stock, adds more quantity to restock them, and updates the records automatically on a scheduled basis.

Phase 3: UI/UX Development & Customization

Lightning App setup:

A custom lightning app was built via App Manager to group Customers, Orders, Products, Inventory, and Campaigns in one workspace.

Page Layouts, Dynamic Forms:

Page layouts and dynamic forms were configured per role so that users can only view fields and sections relevant or related to their work.
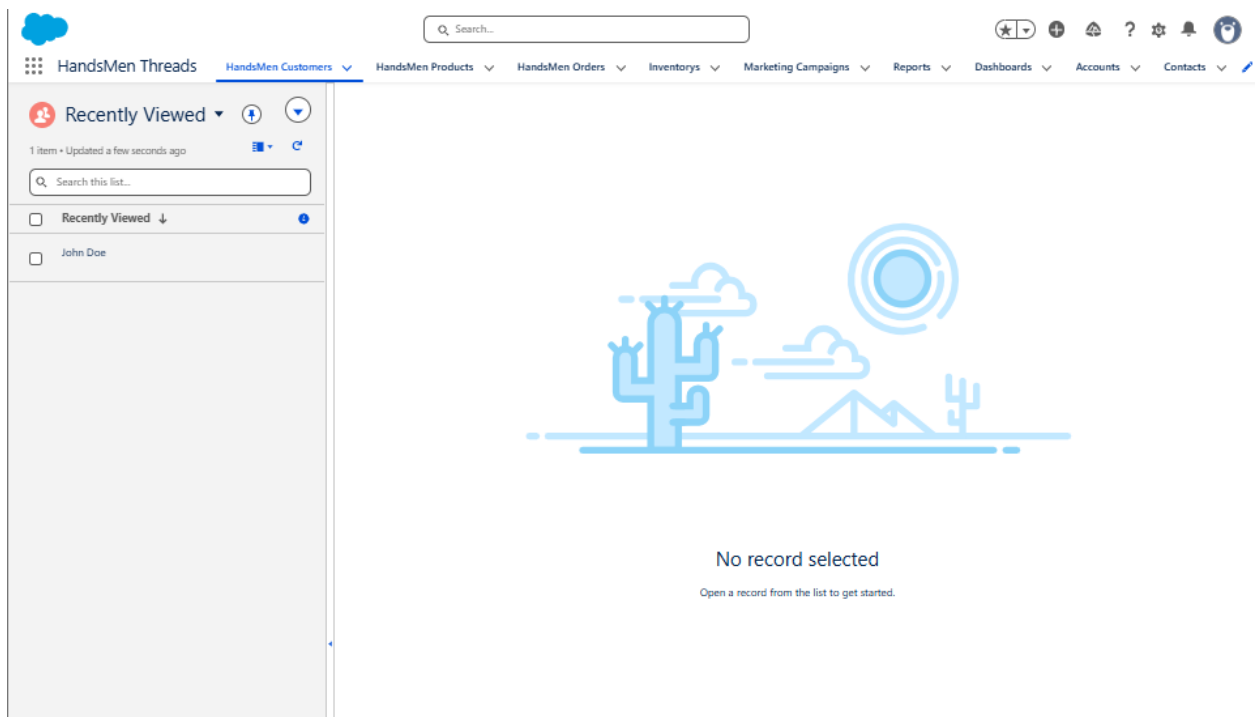
User Management:

Users were created and assigned roles and profiles to control access and permissions inside the system.

HandsMen Threads

Phase 4: Data Migration, Testing & Security

Data Migration:

Sample customer, product, and order records were imported using the Data Import Wizard to prepare the system for testing.

Security:

- Field history tracking was enabled on key objects to monitor changes.
- Duplicate and matching rules were configured to prevent repeated entries.
- Profiles, roles with hierarchy, permission sets, and sharing rules were set up to control access and visibility for different users.

Testing:

Triggers and batch jobs are tested with Apex classes while functional tests check inventory updates, total amount validation, batch restocking, and duplicate customer prevention with screenshots documenting the results

Phase 5: Deployment, Documentation & Maintenance

Deployment strategy:

The system is moved from the developer sandbox to the live environment manually by recreating configurations and updates directly in the production org, with careful testing in the sandbox to ensure changes work correctly before going live.

Maintenance and troubleshooting approach:

The system is maintained by regularly monitoring user activity, data accuracy, and automation processes, while common issues are resolved using documented troubleshooting steps, including checking validation rules, flows, and trigger logic.

Conclusion:

The HandsMen Threads Salesforce integrates customer management, orders, inventory, and marketing into one platform, giving teams the information they need without having to chase data across different systems. The automation handles the repetitive tasks, while validation rules makes sure that the important information is correct and accurate. The system also manages stock updates, order confirmations, and loyalty tracking automatically, reducing errors and saving time for the team and by organizing daily operations and keeping information flowing smoothly, the system supports both everyday tasks and long-term growth, making workflows more efficient and helping teams work together more effectively.

Future Enhancements:

- *Integrate a customer support chatbot to handle inquiries efficiently.*
- *Add AI based product recommendations to boost sales.*
- *Expand automation to further reduce manual tasks and speed up workflows.*
- *Integrate simple analytics to track the top selling products and customer trends.*