

Salesforce Capstone Project Documentation

Project Title:

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

Overview:

HandsMen Threads, a modern fashion enterprise, has initiated a Salesforce-based transformation to optimize customer engagement and internal operations. This capstone project focuses on building a robust, scalable data model and automating key processes like order confirmations, stock management, loyalty programs, and bulk record updates using Salesforce CRM tools. The solution ensures data quality, customer satisfaction, and operational efficiency through real-time automation and secure access control.

Objectives:

- Build a centralized platform for managing orders, stock, and loyalty data.
- Automate order confirmation and customer engagement emails.

- Update loyalty status based on customer purchase behavior.
 - Notify warehouse teams about low inventory levels.
 - Automate bulk processing of orders during non-working hours.
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Business Use Case:

Fashion companies like HandsMen Threads face challenges in managing dynamic stock levels, tracking customer loyalty, and ensuring timely order processing. This Salesforce solution addresses these needs by creating an integrated CRM system that automates repetitive workflows and provides real-time insights into stock, loyalty, and customer data. The system sends alerts and performs scheduled batch updates to keep data up to date without manual effort.

Tools & Technologies:

- **Salesforce CRM**
- **Salesforce Lightning App Builder**
- **Apex & Apex Triggers**
- **Batch Apex & Scheduled Apex**
- **Record-Triggered Flows**
- **Email Templates**

- **Custom Objects and Tabs**
 - **Validation Rules**
 - **Profiles, Roles, Permission Sets**
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Data Model:

Custom Objects:

- **Product__c:** Stores product information including stock and category.
- **Customer__c:** Stores personal and loyalty-related data.
- **Order__c:** Manages order records and payment status.
- **LoyaltyProgram__c:** Tracks customer points and membership status.

Key Fields:

- **Product__c:** Name, Category__c, Stock_Quantity__c, Price__c
- **Order__c:** Order_Date__c, Order_Status__c, Total_Amount__c, Customer__c (Lookup)
- **Customer__c:** Name, Email, Loyalty_Status__c, Total_Purchase__c

- **LoyaltyProgram__c:** Points__c, Tier__c, Customer__c (Lookup)

Relationships:

- **Order__c → Customer__c (Lookup)**
 - **LoyaltyProgram__c → Customer__c (Lookup)**
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Automation Implemented:

Flows:

1. **Order Confirmation Flow (Record-Triggered):** Sends an email to the customer after an order is confirmed.
2. **Loyalty Update Flow:** Updates the customer's loyalty tier after every successful purchase.
3. **Stock Alert Flow:** Sends a warning email to the warehouse team when stock is less than 5 units.
4. **Bulk Order Update Flow (Scheduled):** Automatically updates inventory and order statuses every night at 12 AM.

Email Templates:

- Order Confirmation Email
- Stock Alert Notification
- Loyalty Program Status Update

Apex and Triggers:

- **Order__c Trigger:**
 - Updates total purchase value of the customer after each order.
 - Calls loyalty logic to update membership tier.
- **LoyaltyHandler Class:**
 - Encapsulates logic for loyalty point calculation and tier updates.
 - Follows best practices by keeping triggers modular and reusable.

Batch & Scheduled Apex:

- **Batch Class:**
 - Iterates through all customer records to refresh loyalty data and process delayed orders.
 - **Scheduled Apex:**
 - Triggers the batch job nightly at 12 AM.
 - Ensures daily stock sync and financial data alignment.
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Lightning App Features:

A custom Lightning app titled "**HandsMen CRM**" includes the following:

- **Dashboard:** Visualizes loyalty stats, stock health, and orders.
- **Orders Tab:** View and manage all orders with inline editing.
- **Products Tab:** Manage stock and categories.
- **Customers Tab:** Access loyalty history and profiles.

Custom Lightning Pages created for:

- **Order Summary View**
- **Customer Loyalty Tracker**
- **Stock Alert Console**

Security Model:

Profiles:

- Admin
- Warehouse Manager
- Sales Executive

Roles:

- Hierarchical structure with region-based access control.

Permission Sets:

- Fine-grained control for access to stock, loyalty, and financial records.

Field-Level Security:

- Hides sensitive financial and loyalty fields from Sales role.

Validation Rules:

- Prevents order creation with zero stock.
- Ensures mandatory fields like Email and Stock_Quantity__c are filled.

Reports & Dashboards:

- **Order Fulfillment Dashboard:** Tracks completed vs pending orders.
- **Loyalty Tier Distribution:** Pie chart showing Gold, Silver, and Bronze members.
- **Low Stock Items Report:** Real-time list of products with stock < 5 units.
- **Customer Engagement Tracker:** Number of automated emails sent per day.

Learning Outcomes:

- Building relational data models using custom objects.
- Creating Lightning Apps and enhancing UI with tabs and pages.
- Automating workflows with Flows and Email Templates.
- Writing Apex Triggers and Batch Classes for real-time and scheduled logic.
- Securing data using profiles, roles, and permission sets.

Epics and Stories Included:

1. Salesforce Credentials Setup
2. Object Creation – Product, Customer, Order
3. Tab Creation for Custom Objects
4. Field Creation – Lookup, Formula, Roll-Up
5. App Setup using Lightning App Builder
6. Record-Triggered Flows for automation
7. Email Templates Setup
8. Apex Trigger for Loyalty Update

9. Batch Job for Daily Processing
10. Validation Rules for Data Quality
11. Role & Profile Management
12. Report & Dashboard Creation
13. Permission Set Assignments
14. Deployment & Testing
15. Use Case Documentation
16. Demo and GitHub Link Addition

Challenges Faced:

- Implementing loyalty logic dynamically across multiple tiers.
- Managing governor limits during batch processing.
- Ensuring flow bulkification and fail-safe exit conditions.
- Setting up secure yet accessible permission models for varied users.

Future Scope:

- Add feedback collection post-order via email or chat.

- Integrate payment gateways (like Razorpay or Stripe).
 - Loyalty badge integration into customer profile.
 - WhatsApp or SMS alert integration for order and loyalty updates.
 - External ERP system integration for live stock management.
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Conclusion:

The **HandsMen Threads** Salesforce Capstone successfully demonstrates how an apparel-based business can scale operations, automate repetitive tasks, and build better customer relations using Salesforce CRM. The solution not only simulates core CRM functions but also implements advanced Salesforce capabilities such as batch processing, automated workflows, and personalized customer communication. This project serves as a strong foundation for future enterprise integrations.

Project Demo:

<https://drive.google.com/file/d/1WWX62I-GqsHmQ6CsaeqdB3g7UyVjXwck/view?usp=sharing>

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