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HANDSMEN THREADS: ELEVATING THE ART OF SOPHISTICATION IN MEN'S FASHION

ABSTRACT

This project was developed to implement a Salesforce CRM solution at HandsMen Threads, a premium menswear brand. The goal of this project was to improve customer data management, ordering, product management, and inventory monitoring to make them more structured and efficient. During the development process, this project included the creation of custom objects, the application of validation rules to maintain data quality and consistency, the development of automation flows using Flow Builder, the delivery of notifications via email, and the implementation of Apex code. With this system in place, business processes can be more integrated, operational efficiency can be improved, and the quality of the customer experience and inventory management can be optimized more efficiently.

OBJECTIVE

The objective of this project is to develop and implement a Salesforce CRM solution for HandsMen Threads. The objectives of this project are as follows.

- Manage customer data, orders, product management, and optimize inventory.
- Implement business process automation, including adjusting customer loyalty status.
- Maintain data quality and consistency by applying validation rules to the system.
- Improve the quality of the customer experience through an automated, real-time notification system.

TECHNOLOGY DESCRIPTION

- **Salesforce Platform**

  The Salesforce Platform is used as the development environment for the HandsMen Threads system. This cloud-based platform supports the management of customer data,

products, orders, and inventory, while also providing automation to support business processes.

- **Custom Objects**

  Custom Objects are used as data storage media in the HandsMen Threads system. All data management processes, such as customer data, products, orders, inventory, and marketing campaign activities, are stored in custom objects so that the system can run in a structured and effective manner.

- **Lightning App**

  The Lightning App serves as the main interface of the HandsMen Threads system. This application integrates various custom objects such as HandsMen Customer, HandsMen Order, HandsMen Product, Inventory, and Marketing Campaign, thereby facilitating data management processes.

- **Validation Rules**

  Validation rules are used to maintain data quality and consistency within the system. These rules are applied to prevent data input errors, such as ensuring that email addresses are formatted according to applicable requirements.

- **Flows**

  Flow is used to manage process automation in the HandsMen Threads system. Flow is used to send automatic, real-time email notifications, such as order confirmations and inventory stock, as well as to update customer loyalty status based on predetermined rules.

- **Apex**

  Apex is used to implement business logic in the HandsMen Threads system. In its application, Apex is used to calculate the Total Amount based on product price and quantity, as well as to reduce inventory stock when an order has been confirmed. The entire process runs automatically to maintain data consistency efficiently.

PROJECT IMPLEMENTATION

1. **Salesforce Developer Org Setup**

   In the initial stage, a Salesforce Developer Org was created via the link https://developer.salesforce.com/signup as a development environment for the HandsMen Threads project.

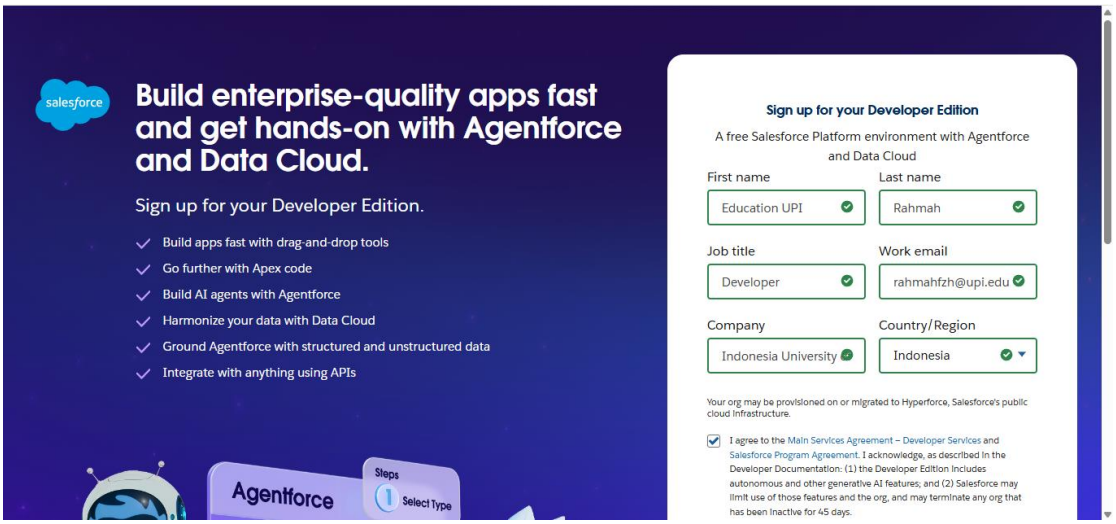

Figure 1. Creating a Salesforce Developer Org

2. **Custom Object**

   This step is carried out by creating Custom Objects according to HandsMen Threads' business needs, namely:

   a. HandsMen Customer (HandsMen_Customer__c): For customer data, including HandsMen Customer Name, Email, Phone, Loyalty Status, First Name, Last Name, and Total Purchases.

   b. HandsMen Order (HandsMen_Order__c): For customer order data, including Status, Quantity, Total Amount, Customer Email, and connected to HandsMen Customer and HandsMen Product.

   c. HandsMen Product (HandsMen_Product__c): For product information, including HandsMen Product Name, Price, Stock Quantity, and SKU.

   d. Inventory (Inventory__c): For stock availability information, including Stock Quantity, Stock Status, Warehouse, and linked to HandsMen Product.

   e. Marketing Campaign (Marketing_Campaign__c): To store marketing activity data connected to HandsMen Customers, including period information such as Start Date and End Date.

3. **Custom Lightning App**

   Creating a Lightning App called HandsMen Threads. This application integrates several custom objects such as HandsMen Customer, HandsMen Order, HandsMen Product, Inventory, and Marketing Campaign, making it easier for users to manage data.

4. **Validation Rules**

Implement validation rules to ensure data quality and consistency. The validation rules applied are as follows:

a. HandsMen Order: Prevents *Total_Amount__c* values from being less than or equal to 0.

b. Stock Quantity: Prevents *Stock_Quantity__c* values from being less than or equal to 0.

c. Email: Ensures customer email addresses use the @gmail.com domain.

5. **Data Security (Profiles, Roles, and Users)**

Configuring Profiles and Roles to manage user access rights and organizational structure in the HandsMen Threads system, as follows:

a. Profiles: Clone the Standard User Profile, then adjust the access permissions for HandsMen Product and Inventory objects so that each user can only access features that are appropriate for their role.

b. Roles: Establish a hierarchical structure of user roles covering Sales, Inventory, and Marketing. This structure aims to support data visibility settings in accordance with the organizational structure.

In addition, user accounts are created by adjusting the respective Profiles and Roles. At this stage, three user accounts are created, namely Niklaus Mikaelson, Kol Mikaelson, and Daniel Mikaelson, each representing a different role in the system.

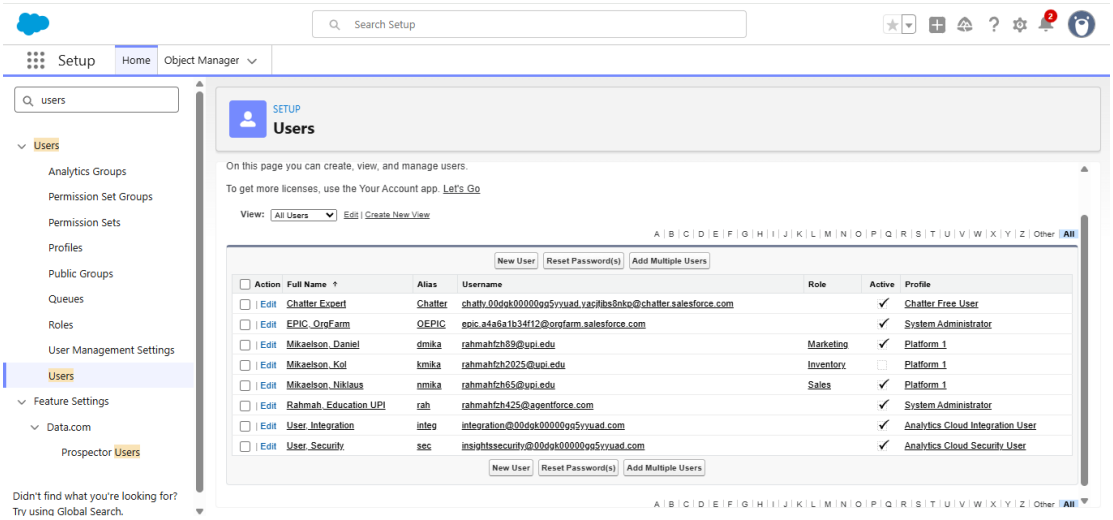

Figure 2. User List

6. **Email Template**

   Creating email templates to support the process of sending notifications to customers and internal parties. Three email templates were created, namely Order Confirmation Email, Low Stock Alert Email, and Loyalty Program Email.

7. **Flow Implementations**

   Create three types of automated flows, as follows:

   a. Order Confirmation Flow (Record-Triggered Flow): Create an automated flow that sends an email notification to customers confirming that their order has been successfully placed.

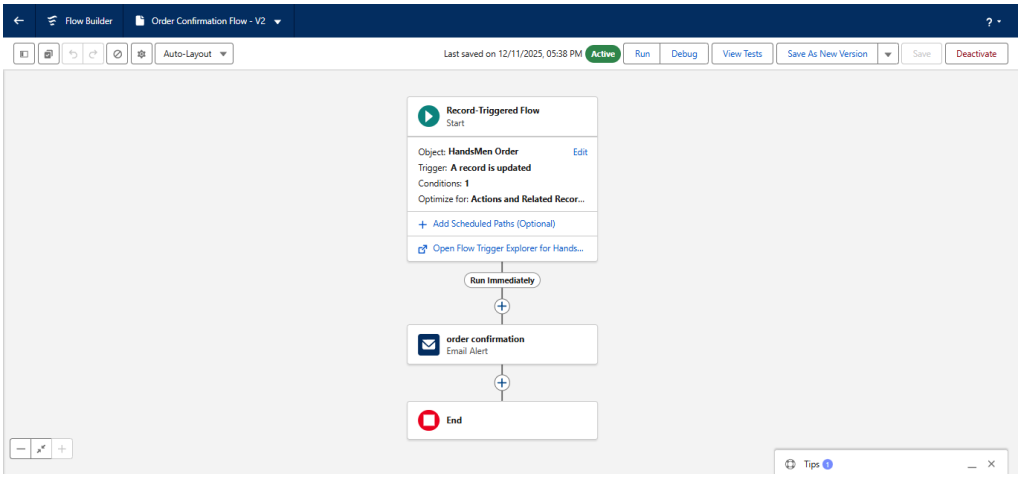

Figure 3. Order Confirmation Flow

   b. Stock Alert Flow (Record-Triggered Flow): Create an automated flow that monitors product stock availability and sends email notifications when stock falls below the specified limit.

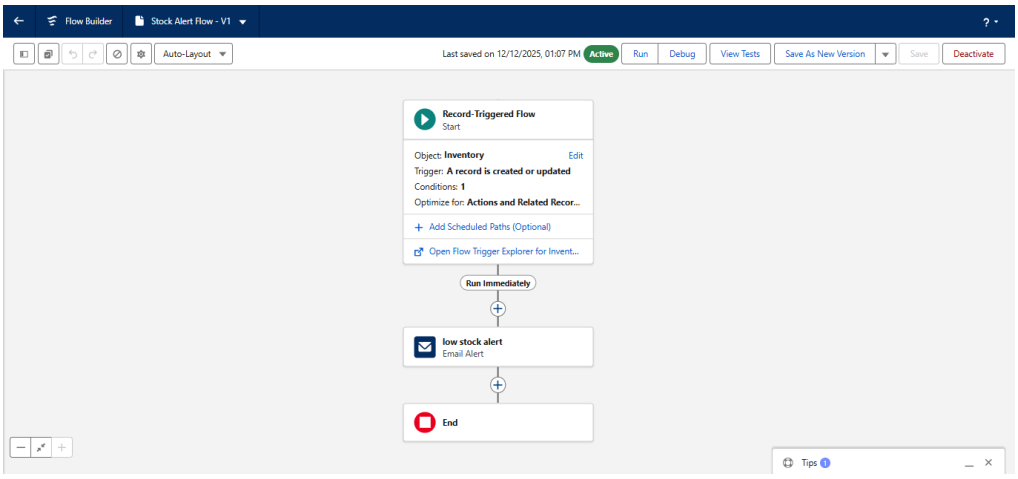

Figure 4. Stock Alert Flow

c. Loyalty Status Update Flow (Scheduled-Triggered Flow): Create a scheduled flow to update customer loyalty status based on total purchases made.

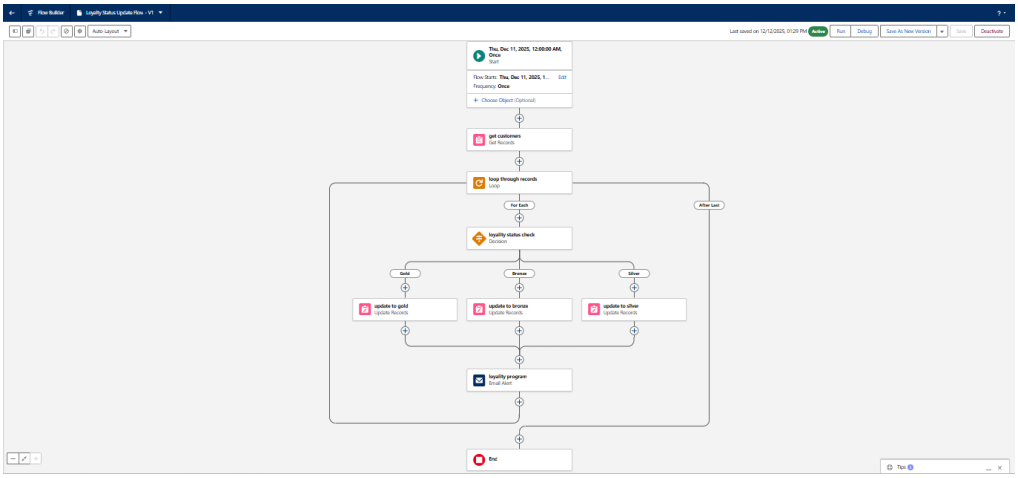

Figure 5. Loyalty Status Update Flow

8. Apex Automation

Creating Apex Triggers and Batch Jobs to ensure data consistency in the HandsMen Threads system.

a. Order Trigger: To automatically calculate the Total Amount value in HandsMen Orders based on the Quantity and Price in HandsMen Products.

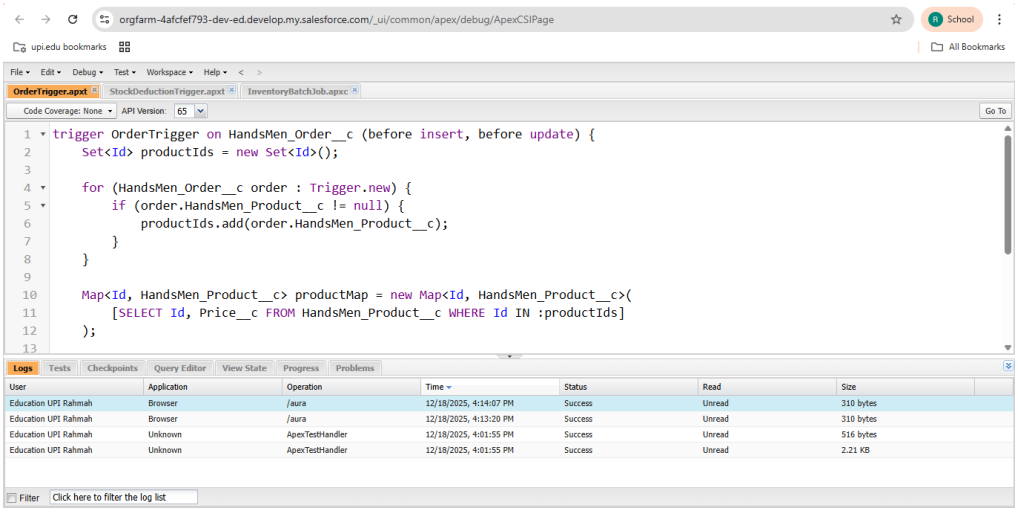

Figure 6. Order Trigger

b. Stock Deduction Trigger: To automatically reduce the Stock Quantity in Inventory based on the “Confirmed” order status.

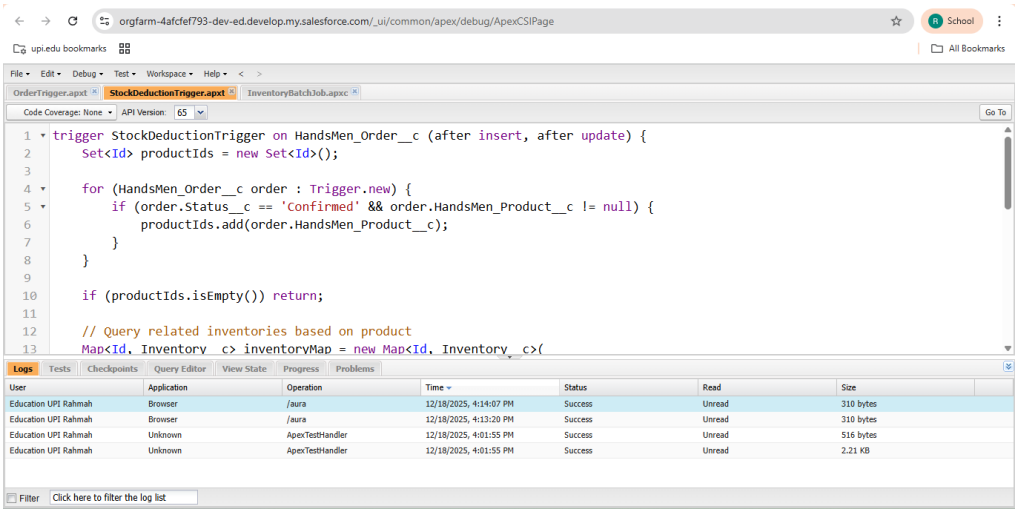

Figure 7. Stock Deduction Trigger

c. Inventory Batch Job: Used to run scheduled processes in inventory data processing and monitoring.

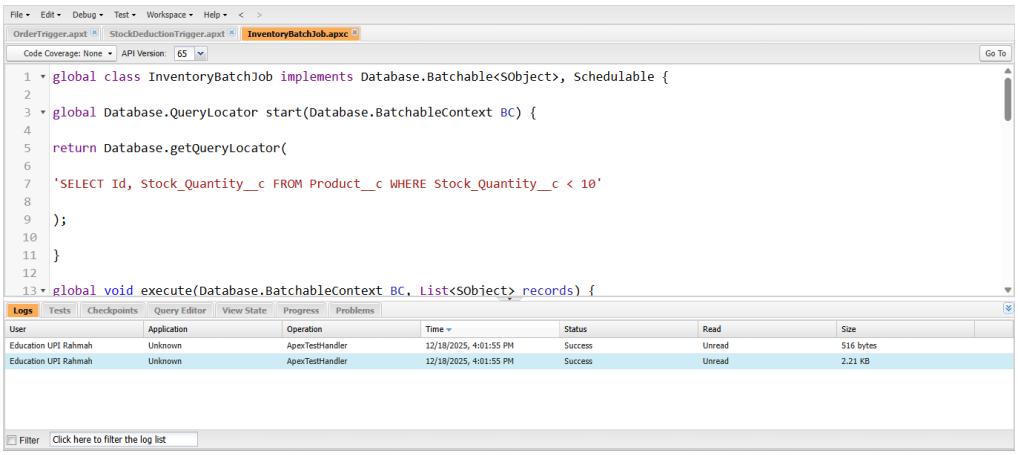

Figure 8. Inventory Batch Job

PROJECT DEMONSTRATION & DOCUMENTATION

This section demonstrates how the HandsMen Threads system works.

1. **Customer Registration**

   A new customer named Leo S registered as a customer in the HandsMen Threads system. Customer data such as HandsMen Customer Name, First Name, and Last Name were recorded in HandsMen Customer. After all the data was entered, Leo S successfully registered as a HandsMen Threads customer.

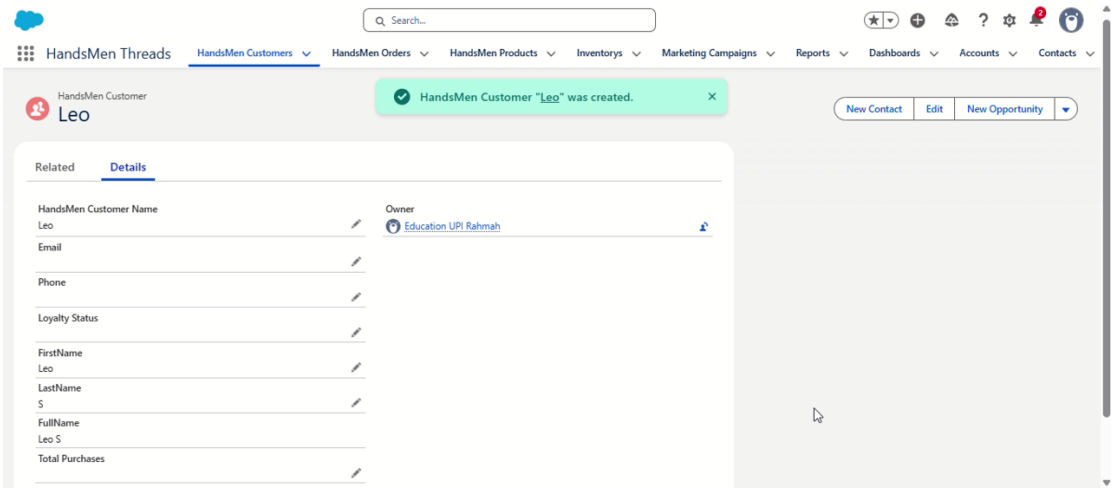

Figure 9. HandsMen Customer Registration

2. Product Setup

Add new products to HandsMen Product by entering data such as product name, price, and stock quantity. In this example, a Coat product is added with a price of $5 and a stock quantity of 4 units.

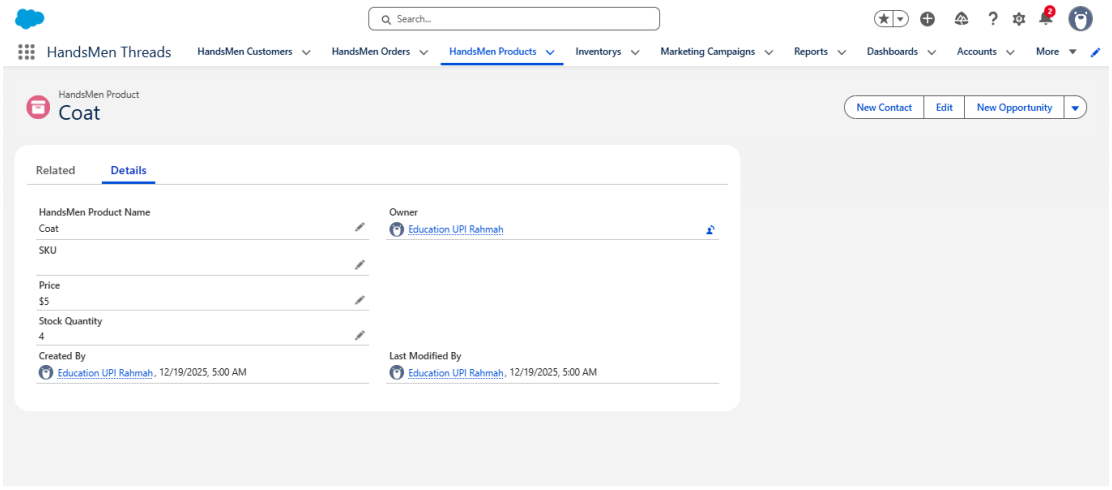

Figure 10. Detail HandsMen Products

3. Inventory Setup

Creating inventory data linked to HandsMen Product. In the initial stage, Stock Quantity is set to 3 units so that the system detects low stock status.

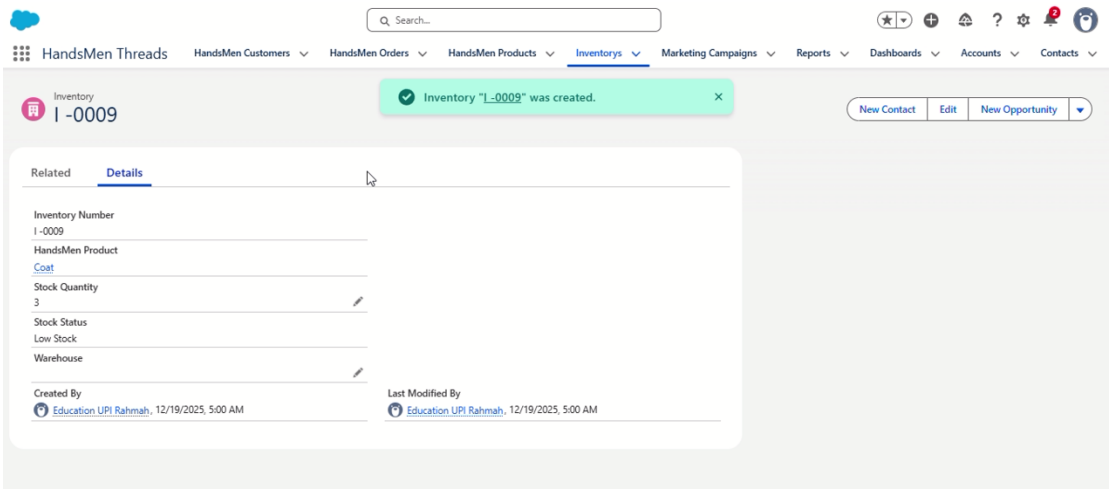

Figure 11. Inventory Creation

The system then automatically sends a Low Stock Alert email notification to the Inventory Manager to notify them of product availability.

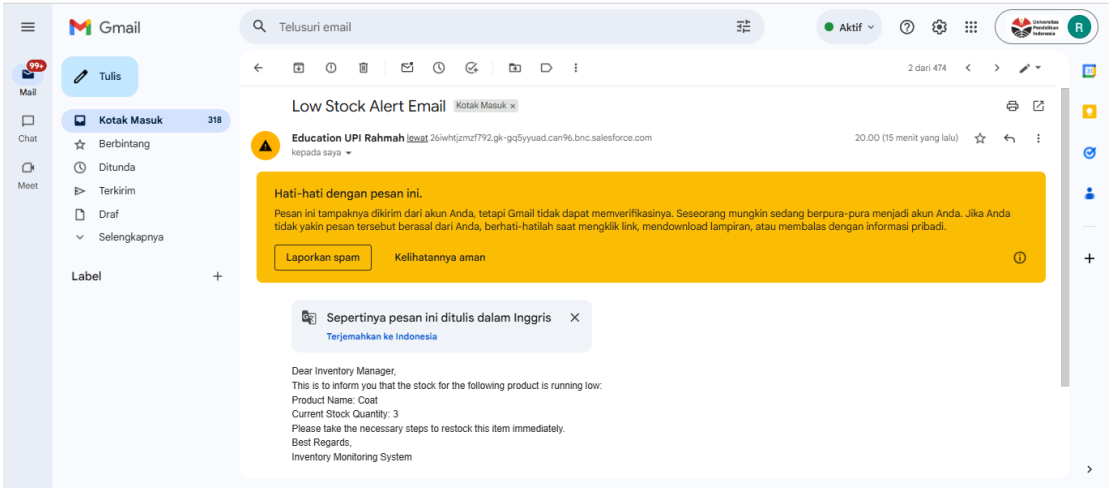

Figure 12. Low Stock Alert Email Notification

Then, the Stock Quantity is updated to 300 units. After the update, the Stock Status automatically changes to “Available,” indicating that the product is back in stock.

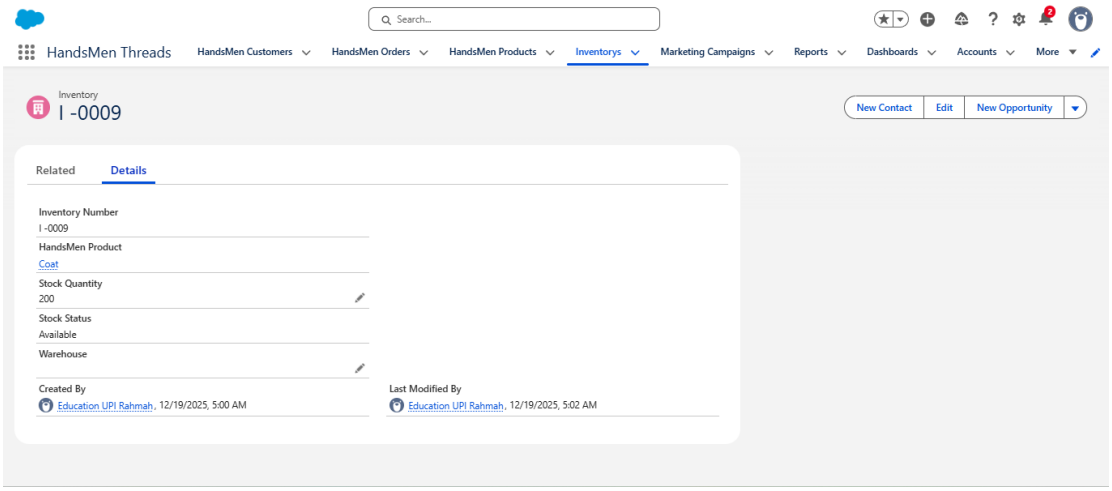

Figure 13. Detail Inventorys

4. Order Setup

Creating order data that connects HandsMen Product and HandsMen Customer. In this stage, Leo places an order for Coat products with an initial status of Pending and an order quantity of 100, and fills in the Customer Email.

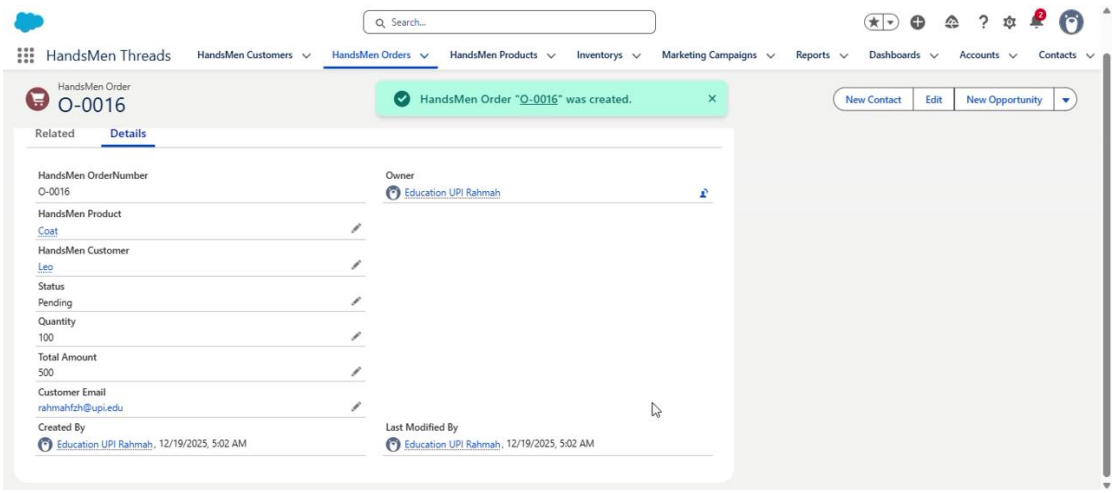

Figure 14. Order Setup

Once the order data has been created, the order status will be changed to Confirmed. This change will trigger the system to automatically send an Order Confirmation email notification to the customer.

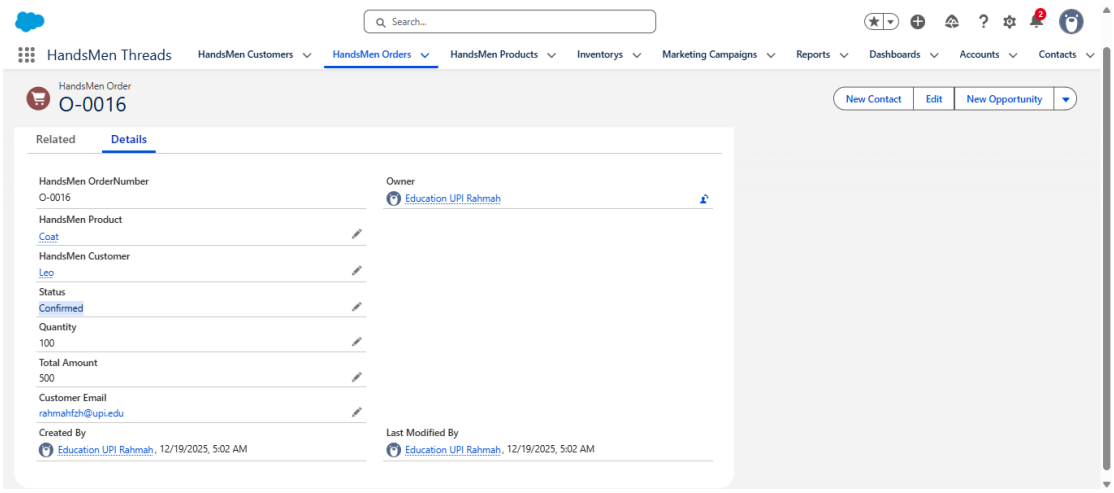

Figure 15. Update Order Status to Confirmed

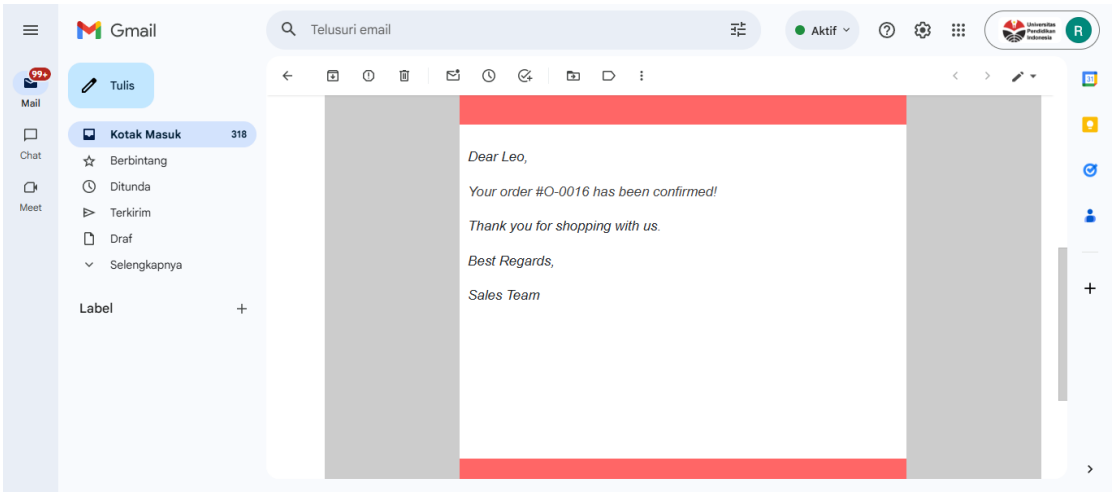

Figure 16. Order Confirmation Email Notification

5. Loyalty Status Update

Update HandsMen Customer in the Customer Email and Total Purchases sections. Followed by debugging the Loyalty Status Update Flow.

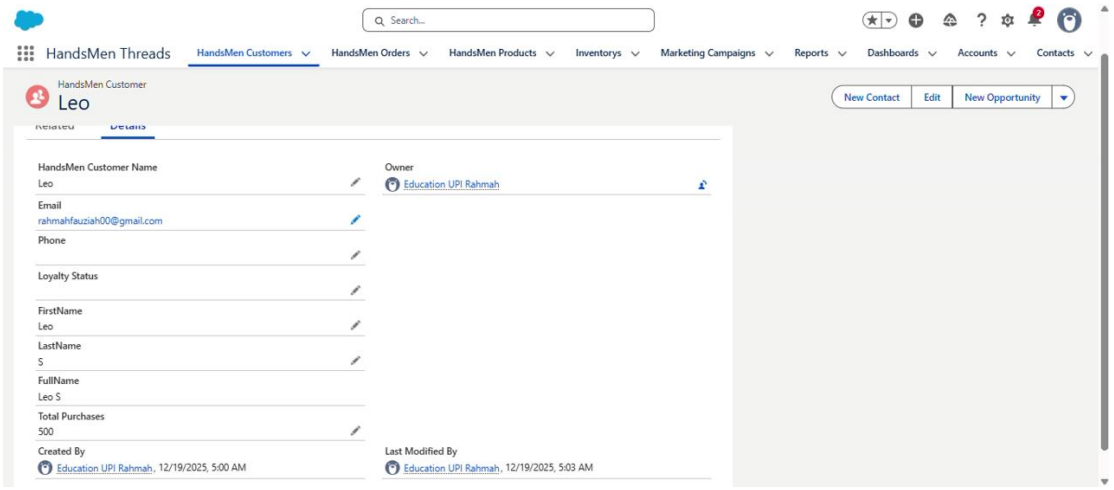

Figure 17. Update HandsMen Customer Data

The system will automatically update the Loyalty Status in customer data based on the total purchases in HandsMen Customer data.

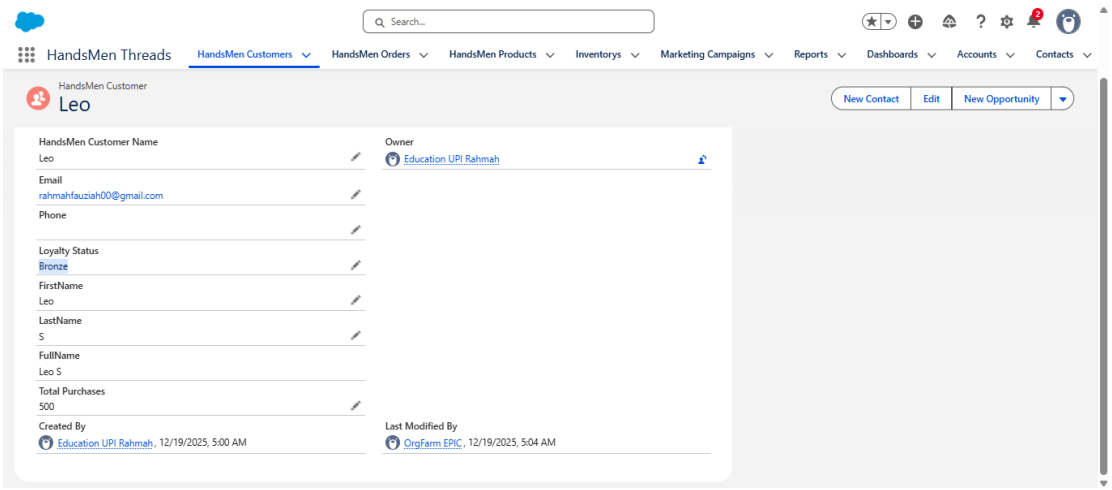

Figure 18. Update Loyalty Status

6. Apex Trigger Execution

After the order has been confirmed, the system will automatically calculate the Total Amount based on the running Apex Trigger. A quantity of 100 with a product price of $5 will cause the system to automatically update the Total Amount to 500.

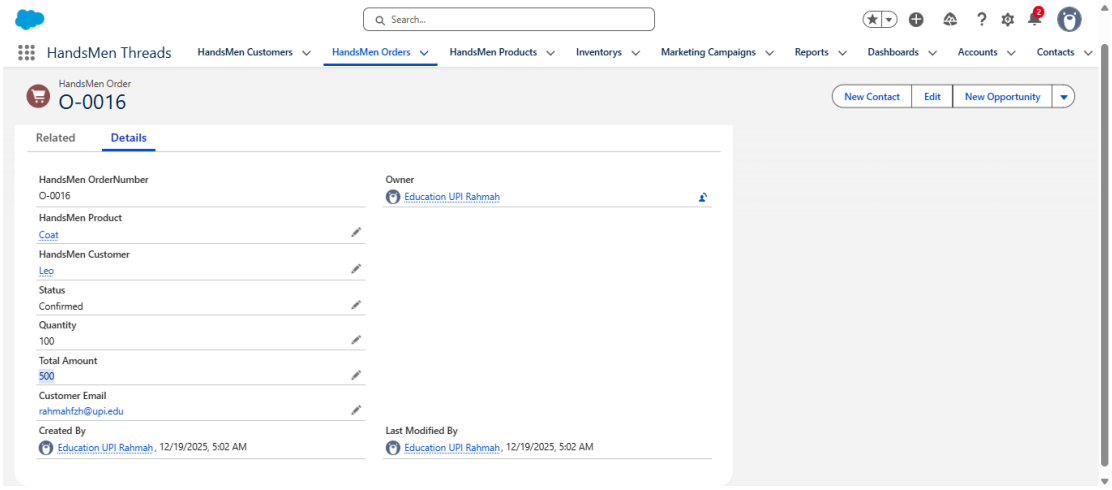

Figure 19. Total Amount in HandsMen Order

In addition, the Stock Quantity value in Inventory will be automatically updated through the execution of the Stock Deduction Trigger. Adjusting to the number of orders placed, the stock, which was previously 300, will be reduced to 200. This will ensure that order data and inventory availability remain accurate.

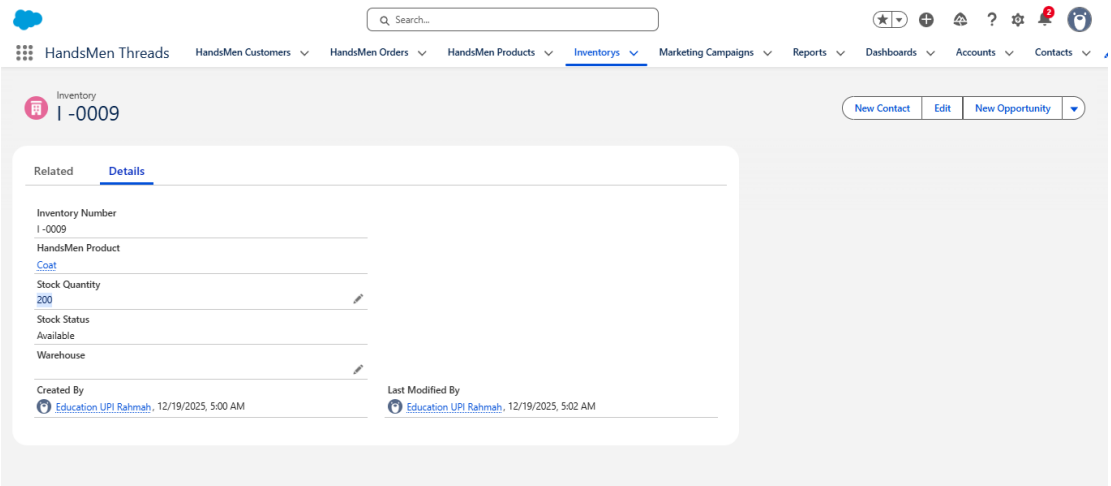

Figure 20. Stock Quantity in Inventory

CONCLUSION

This project successfully implemented a Salesforce CRM solution at HandsMen Threads to manage customer data, orders, products, and inventory monitoring in a structured manner. The use of custom objects, validation rules, automation flows, and Apex Triggers helped support business process stages to run more efficiently. The system built is capable of supporting data management processes and generating automatic email notifications. With this system in place, operational processes have become more efficient by minimizing the risk of data entry errors and supporting real-time communication with customers and internal parties.