

InventoSync

Salesforce Project: Real-Time Inventory and Order Management System

Real-Time Inventory and Order Management: For a small e-commerce or retail business, build a system to manage products, orders and inventory. When a customer places an order, the system should update the available stock count instantly to prevent overselling. This can be achieved with a combination of Flows and Apex Triggers that run on order creation. You could also have a dashboard for the business owner that reflects sales and inventory levels in real-time.

Phase 5: Apex Programming

- **Apex Trigger: On Sales_Order_Item__c**
 - Before Insert/Update: Check if requested Quantity <= Product.Available_Quantity.
 - Throw error if insufficient stock.

The screenshot shows the Salesforce Developer Console with the Apex class `SalesOrderItemHandler` open. The class contains a `reserveInventory` method that checks for product availability and updates the stock count. The console also displays the **Overall Code Coverage** table, which shows the percentage of code covered by tests for various classes.

```
1 public class SalesOrderItemHandler {
2     public static void reserveInventory(List<Sales_Order_Item__c> newOrderItems) {
3         Set<Id> productIds = new Set<Id>();
4         for (Sales_Order_Item__c soi : newOrderItems) {
5             if (soi.Product__c != null && soi.Quantity__c != null && soi.Quantity__c > 0) {
6                 productIds.add(soi.Product__c);
7             }
8         }
9     }
10    if (productIds.isEmpty()) {
11        return;
12    }
13
14    Map<Id, Product__c> productMap = new Map<Id, Product__c>()
```

Class	Percent	Lines
ChangePasswordController	100%	6/6
CommunitiesLandingController	100%	3/3
CommunitiesLoginController	100%	5/5
CommunitiesSelfRegConfirmController	100%	1/1
CommunitiesSelfRegController	76%	32/42
ForgotPasswordController	88%	8/9

- **Test Classes:** Ensure at least 75% code coverage.