

## CRC Cards for Supermarket Inventory Management System (SIMS)

### 1.PRODUCT

RESPONSIBILITIES	COLLABORATIONS
Maintain core product data (Name, Barcode, Price, Category).	Category: To manage hierarchical classification.
Track current stock levels and storage location.	Supplier: To link product to its source.
Monitor expiry dates for perishable items.	InventoryTracker: To update quantities based on movements
Enforce data integrity and prevent duplicates	

### 2.INVENTORY TRACKER

RESPONSIBILITIES	COLLABORATIONS
Monitor real-time stock levels across various locations.	Product: To identify which item is moving
Record stock movements (sales, returns, adjustments, transfers).	POS_Interface: To receive sales data for deduction.
Implement FIFO/FEFO logic for stock deduction.	StockAlertSystem: To trigger notifications when levels are low
Maintain audit trails for all manual adjustments.	

### 3.PURCHASE ORDER

RESPONSIBILITIES	COLLABORATIONS
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Automatically generate purchase orders at reorder points.	Supplier: To identify where to send orders.
Calculate suggested quantities based on sales velocity and lead time.	StockClerk: To facilitate the receiving process against the PO.
Track order status (Pending, Ordered, Received).	StockAlertSystem: To receive triggers for low stock.
Maintain a history of all purchase orders.	

#### 4.USER

RESPONSIBILITIES	COLLABORATIONS
Manage secure login and session management.	SystemAdministrator: To manage account creation and role assignment.
Enforce Role-Based Access Control (RBAC).	AuditLog: To record system interactions for accountability.
Maintain comprehensive audit logs of all user actions.	
Allow profile updates (password, contact info).	

#### 5.STOCK ALERT

RESPONSIBILITIES	COLLABORATIONS
Monitor thresholds for reorder points and maximum capacity.	Product: To check individual stock/expiry data. .
Identify products approaching expiry or already expired.	PurchaseOrderManager: To initiate automated restocking.

Send notifications via In-system alerts, Email, or SMS.	User: To deliver notifications to specific roles.
Detect unusual inventory movements.	

## 6.REPORT GENERATOR

RESPONSIBILITIES	COLLABORATIONS
Compile stock valuation and movement history reports.	InventoryTracker: To pull historical movement data. Pr
Analyze fast/slow-moving items and profit margins.	Product: To aggregate data by category or location.
Export data into PDF, CSV, and Excel formats.	
Generate visual analytics (charts/graphs).	

## 7.SUPPLIER

RESPONSIBILITIES	COLLABORATIONS
Store contact details, payment terms, and catalogs.	PurchaseOrderManager: To receive and fulfill orders.
Track performance metrics (on-time delivery, accuracy).	Product: To associate items with specific vendors.
Manage pricing agreements and lead times	