

Project #4:

Inventory Management System:

1. The system shall allow users to add new products with details (name, SKU, category, price, supplier, etc.).
2. The system shall allow users to update product details.
3. The system shall allow users to delete or deactivate products.
4. The system shall maintain stock levels for each product.
5. The system shall automatically update stock levels after sales or purchases.
6. The system shall provide search functionality by product name, SKU, or category.
7. The system shall allow users to categorize products (e.g., electronics, groceries, clothing).
8. The system shall generate unique IDs or SKUs for each product.

2. Inventory Control & Tracking

9. The system shall notify users when stock levels fall below minimum thresholds.
10. The system shall support batch and lot tracking.
11. The system shall record product expiry dates (where applicable).
12. The system shall provide audit logs for inventory changes (who updated, what changed, when).
13. The system shall support warehouse-based stock tracking.

3. Transactions (Sales, Purchase, Returns)

14. The system shall allow recording of purchase orders with suppliers.
15. The system shall allow recording of sales orders with customers.
16. The system shall update inventory automatically after purchase or sales orders.
17. The system shall support product returns (customer returns or supplier returns).

4. Reporting & Analytics

18. The system shall generate stock availability reports.

- 19. The system shall generate sales vs. stock reports.
- 20. The system shall provide reports for slow-moving and fast-moving items.
- 21. The system shall generate supplier performance reports.

5. User & Security Requirements

- 22. The system shall provide role-based access control (Admin, Manager, Staff).
- 23. The system shall require authentication for all users.
- 24. The system shall encrypt sensitive data (passwords, financial info).
- 25. The system shall log all user activities for security purposes.
- 26. The system shall provide data backup and recovery functionality.