Project Title: Healthcare Inventory Management System

Overview:
The application is a specialized web-based platform for managing medical supplies and equipment in a healthcare facility.

Features:
1. Inventory Item Addition
2. Inventory Viewing
3. Inventory Item Updating
4. Inventory Item Deletion
5. Low Stock Alerts

User Roles:
1. Inventory Manager - Manages the stock of medical supplies and equipment.
2. Healthcare Staff - Views available inventory and requests items.

Functional Requirements:
- Allow Inventory Managers to add new inventory items with details like Item Name, Category, Quantity, Supplier Information, and Expiry Date.
- Display a comprehensive list of all inventory items, with filtering options by category and supplier.
- Enable updates to existing inventory items, including adjusting quantities and updating supplier information.
- Allow deletion of outdated inventory items or those no longer in use.
- Implement automatic low stock alerts for Inventory Managers when item quantities fall below a specified threshold.
- Enable Healthcare Staff to view available inventory and request items, with request notifications sent to Inventory Managers.

Non-Functional Requirements:
- Ensure the application is secure to protect sensitive inventory data.
- Provide a responsive interface compatible with various devices including tablets and smartphones for on-the-go access.
- Optimize database queries for efficient handling of large data sets, with capabilities to scale up to manage 10,000 inventory items.