

Use Case: Inventory Management System

Problem Statement:

Develop an inventory management system where users can register, log in, manage inventory (CRUD), track stock levels, receive reorder alerts, and generate reports.

Expected Output:

A fully functional inventory management system with the following features:

User Registration and Login: Users should be able to register with their email and password and log in to their account.

Inventory CRUD Operations: Users should be able to create, read, update, and delete inventory items.

Stock Levels: Users should be able to view and manage stock levels of inventory items.

Reorder Alerts: Users should receive alerts when stock levels are low and items need to be reordered.

Reports: Users should be able to generate reports on inventory status and activity.

Responsive Design: The system should be responsive and user-friendly across different devices.

Detailed Features and Expectations:

User Registration and Login:

Feature: Users can register with email and password.

Expectation: Validate email format and password strength. Ensure secure password storage using hashing.

Inventory CRUD Operations:

Feature: Users can create, read, update, and delete inventory items.

Expectation: Implement inventory details including item name, description, quantity, price, and category. Ensure proper authorization for managing inventory.

Stock Levels:

Feature: Users can view and manage stock levels of inventory items.

Expectation: Implement functionality to track and display current stock levels. Allow users to update stock quantities.

Reorder Alerts:

Feature: Users receive alerts when stock levels are low.

Expectation: Implement functionality to set reorder thresholds and send notifications when stock falls below these levels.

Reports:

Feature: Users can generate reports on inventory status and activity.

Expectation: Implement functionality to generate and export reports in PDF or Excel format. Reports should include inventory levels, reorder status, and transaction history.

Responsive Design:

Feature: The system should be responsive and work well on various devices.

Expectation: Use responsive design principles, test on different screen sizes.