

A Project Memo



Inventory Management System

Database Term Project

Batch 2023 – Section C

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1.1 Project Description:

The **Inventory Management System (IMS)** is a web-based solution designed to efficiently manage the stock. It automates **inventory tracking**, monitors **stock levels**, and generates **low-stock and expiry alerts**. This system ensures that products are adequately stocked, prevents shortages, and maintains secure records.

1.2 Main Modules:

1.2.1 Inventory Management Module

This module manages the stocking, categorization.

1.2.2 Stock Alerts & Tracking Module

This module monitors stock levels, generates expiry alerts, and keeps track of stock movement.

1.3 Tables & Views in MySQL:

1.3.1 Tables:

1. **Products:** Stores individual product details (ID, Name, Category, Quantity, ExpiryDate, Price).
2. **Categories:** Classifies medicines (CategoryID, Name, Description).
3. **Stock_Tracking:** Logs stock updates (StockID, ProductID, QuantityReceived, DateUpdated, SupplierID).
4. **Damaged_Stock:** Logs damaged or expired medicines (DamageID, ProductID, Quantity, Reason, DateReported).
5. **Notifications:** Tracks medicines nearing expiry (NotificationID, ProductID, ExpiryDate, Status, DateGenerated).
6. **Supplier:** Stores Supplier data (SupplierID, Name, Address, Phone, Email, SpecCategory).

1.4.2 Views:

1. **Available_Stock_View** → Displays products currently in stock.
2. **Low_Stock_View** → Highlights products needing restocking.
3. **Expired_Stock_View** → Lists expired stock for removal.

1.4 UI Description

1.4.1 Technology Stack

- Frontend: HTML (structure), CSS (styling), JavaScript (dynamic functionalities).
- Backend: Node.js.
- Database: MySQL.

1.4.2 Interfaces (Only 2 Pages)

1. **Login Page**
 - Secure login for Admin.
2. **Dashboard Page (Dynamic Content)**
 - A single page where content changes dynamically based on user actions.
 - Sections:
 - **Stock Management:** Add, update, delete products.
 - **Stock Tracking:** Monitor products' quantities and updates.
 - **Alerts & Notifications:** Show low-stock and expiry alerts.

1.4 EER Diagram

