**Inventory Management System (IMS)**

**Introduction**

**Purpose:**

Inventory Management System Track How Much Physical Inventory You have in your organization This system aims to streamline the inventory control process, enhance efficiency, and ensure accurate tracking of stock levels.

**Scope:**

* Product management
* Category Management
* Order management
* User Management
* Supplier Management

**PROBLEM STATEMENT:**

Businesses face many difficulties as a result of the old version and manual inventory management procedures, which result in errors, inefficiencies, and a lack of real-time visibility. Order fulfillment delays, higher operating costs, and difficulty accurately tracking stock levels are the outcomes of not having automated processes. These problems are made worse by human error in data entry, which affects customer happiness and overall business effectiveness. To meet these issues, an updated inventory management system is necessary as it offers automation, real-time visibility, and enhanced accuracy in order management and inventory control.

**PROBLEM SOLUTION:**

Businesses confronting difficulties with manual inventory control might find a comprehensive answer with the installation of an advanced inventory management system. By automating crucial procedures like stock tracking and order management, this solution lowers human error and boosts productivity. Making educated decisions is made possible by having real-time visibility into product movements and inventory levels, which helps businesses avoid overstocking and stock outs. Enhancing operational performance and customer satisfaction, the Inventory Management System guarantees accurate and efficient inventory management with its user-friendly interface, smooth connection with other systems, and strong security measures.

to monitor the progress of each order.

**Functional Requirements:**

**Manage product:**

The system should allow users to add, update, and delete product information.

Products should be categorized on relevant attributes.

**Manage category:**

Real-time tracking of inventory levels for each product.

**Manage Order:**

Ability to place, modify, and calculate bill

Generation of invoices and packing slips for each order.

Order status tracking

**Manage User:**

Secure user authentication with roles such as admin, manager, and staff.

Role-based access control to restrict system access based on user roles.

**Non-Functional Requirements:**

**Performance:**

The system should handle a large number of simultaneous users.

Response time for critical functions should be within acceptable limits (e.g., < 2 seconds).

**Security:**

Implement secure user authentication using industry-standard protocols.

Data encryption in transit and at rest to protect sensitive information.

Regular security audits and vulnerability assessments.

**Scalability:**

The system should be scalable to accommodate an increase in the number of products, users, and transactions.

Performance should not significantly degrade as the system scales.

**Constraints:**

The successful deployment and integration of an Inventory Management System (IMS) within an organization can be impacted by a number of implementation-related restrictions. Budgetary restrictions can prevent people from adopting cutting-edge technologies or from choosing an expensive IMS solution. Technical limitations, such out-of-date software or hardware, could make it difficult for the IMS to integrate seamlessly with current systems. Human resource limitations, such as inadequate training or knowledge among employees, may make it more difficult to effectively use the IMS's functionalities.