

# Stock Management System

## Background

The necessity for businesses and organizations to properly and effectively manage their inventory is the foundation of a stock management system (SMS). The complexity of managing inventory rises with the size and expansion of firms, creating problems including overstocking, stockouts, inefficient storage use, and inaccurate stock records. These issues are intended to be addressed by stock management systems, which offer an organized method of managing inventories.

## Purpose

Managing an organization's or business's inventory properly and efficiently is the aim of a stock management system (SMS). The following are some major goals of putting in place a stock management system:

- 1)Optimizing Inventory Levels: Ensuring that inventory levels are optimized to satisfy demand while avoiding the expenses associated with retaining surplus stock is one of the main goals of a stock management system. Businesses can increase efficiency and reduce costs by preventing overstocking and stockouts by keeping a close eye on inventory levels and demand trends.
- 2)Increasing Inventory Accuracy: By giving real-time visibility into stock levels, locations, and movements, stock management systems contribute to increased inventory accuracy. This lessens the possibility of mistakes like missing inventories, duplicate orders, or disparities in stock.
- 3) Improving Order Fulfillment: By helping companies to rapidly find and obtain the needed items from their inventory, a stock management system simplifies the order fulfillment process. This results in shorter lead times, quicker order processing, and more customer satisfaction.
- 4)Enabling Demand Forecasting: Stock management systems enable demand forecasting by evaluating past sales data and patterns, which helps companies more precisely project future product demand. This supports the strategic decision-making process for marketing initiatives, production scheduling, and inventory replenishment.

## Scope

The features and functionalities that a stock management system includes to effectively manage inventory within a company or organization make up its scope. The scope is broken down as follows:

- 1) Inventory tracking: Users should be able to monitor the flow of inventory items through the system, including the receipt of new stock, the updating of stock levels, and the recording of stock transfers across departments or locations.
- 2) Product Information Management: This should offer a single location to store comprehensive product details, such as SKUs (Stock Keeping Units), costs, suppliers, and any other pertinent data.
- 3) Stock replenishment: Purchase orders should be generated by the system based on predetermined reorder points, stock levels, or sales projections. The system should also support manual or automatic stock replenishment procedures.
- 4) Stock Valuation: To precisely determine the financial worth of the stock on hand, it should support many inventory valuation techniques, including weighted average cost, last-in-first-out, and FIFO (First-In-First-Out).
- 5) User Roles and Permissions: Based on user roles and permissions, the system should have role-based access control to limit access to functionality and sensitive inventory data.