INVENTORY MANAGEMENT SYSTEM

Submitted by

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PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE SECOND SEMESTER

DEPARTMENT OF BASIC SCIENCE AND HUMANITITES
INSTITUTE OF ENGINEERING AND MANAGEMENT, KOLKATA

CERTIFICATE OF RECOMMENDATION

We hereby recommend that the project prepared under our supervision by **SAHIL GHOSH,** entitled INVENTORY MANAGEMENT SYSTEM be accepted in partial fulfillment of the requirements for the degree of partial fulfillment of the first semester.

Head of the Department Basic Sciences and Humanities IEM, Kolkata	Project Supervisor

Introduction

An inventory management system is a software application or set of tools designed to track, manage, and optimize an organization's inventory. It provides businesses with a comprehensive view of their stock levels, locations, and movement throughout the supply chain. The primary goal of an inventory management system is to ensure efficient inventory control, minimize stockouts and overstocking, and improve overall operational efficiency.

Inventory management systems play a crucial role in various industries, including retail, manufacturing, e-commerce, and logistics. They help businesses streamline their inventory processes, reduce costs, and enhance customer satisfaction by ensuring products are available when needed.

Objective

1. Improved inventory accuracy: Automated tracking and real-time updates reduce manual errors and inaccuracies, ensuring inventory records are up to date.
2. Increased efficiency: Streamlined processes and automation save time and effort spent on manual inventory management tasks, allowing employees to focus on more value-added activities.
3. Cost reduction: Optimized inventory levels prevent overstocking and stockouts, reducing carrying costs and lost sales opportunities.
4. Enhanced customer service: Accurate inventory information enables businesses to fulfill customer orders promptly, resulting in improved customer satisfaction and loyalty.
5. Better decision-making: Access to real-time inventory data and comprehensive analytics helps organizations make informed decisions about purchasing, production, and overall supply chain management.

Components used

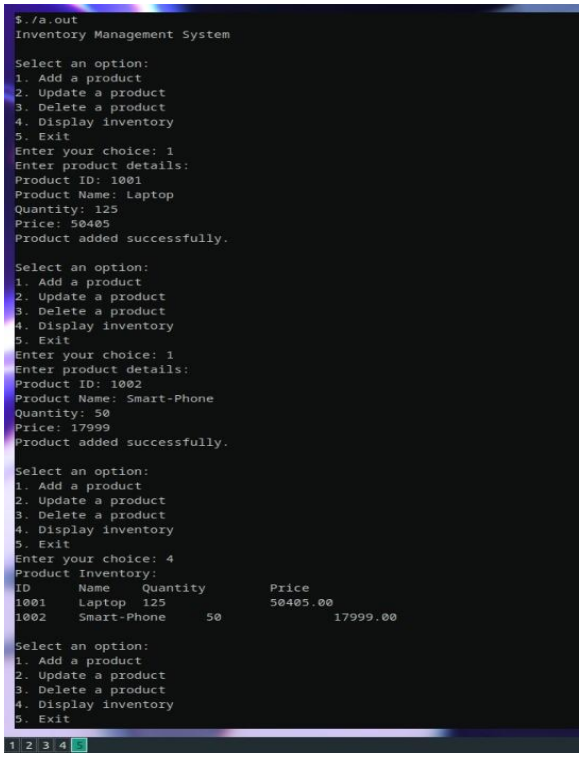
Variables: **A global variable “p” is used to store the pin. The local variables “m” is used to store the current balance, “w” is used to store the withdrawal amount, “d” is used to store the deposit amount, “pin” is used to receive a pin from the user, “c” is the choice chosen by the user from the interaction menu.**

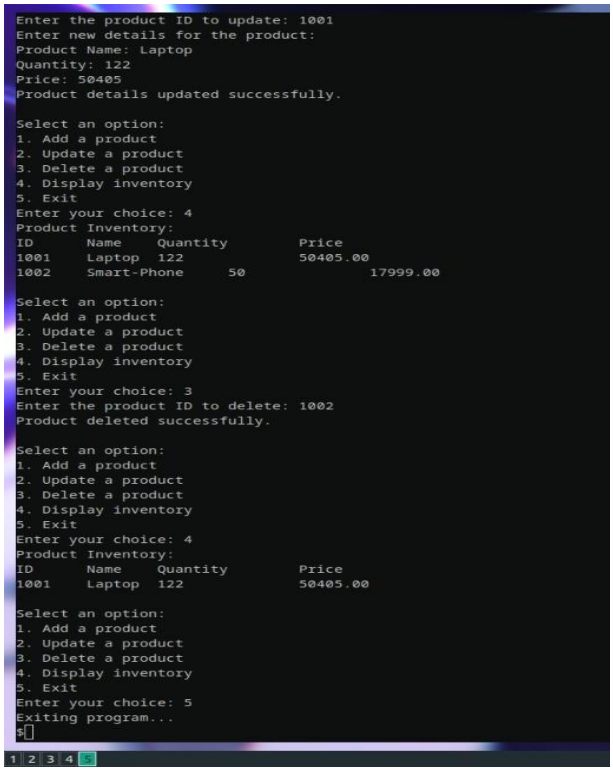
Function: **A function named “checkPin()” is used to verify the pin entered by the user, if it is correct the function throws 1, else it throws 0.**

Features: **This simulator provides the features to**

1. **Inventory tracking: The system monitors and records all inventory-related data, such as item descriptions, quantities, locations, and transaction history.**
2. **Stock control: It allows businesses to set optimal stock levels, reorder points, and safety stock levels to prevent stockouts or excess inventory.**
3. **Purchasing and procurement: The system facilitates the procurement process by automating purchase orders, supplier management, and supplier performance tracking.**
4. **Warehouse management: It provides functionality to manage the physical storage and movement of inventory within warehouses, including bin location management and pick-pack-ship operations.**
5. **Demand forecasting: Advanced inventory management systems may incorporate demand forecasting algorithms to predict future inventory needs based on historical data, sales trends, and other relevant factors.**

SCREENSHOTS.





CONCLUSION:-

In conclusion, implementing an inventory management system is crucial for businesses of all sizes and across various industries. It offers a range of benefits that contribute to improved operational efficiency, cost reduction, and enhanced customer satisfaction. By automating and streamlining inventory processes, businesses can optimize their stock levels, minimize stockouts and overstocking, and make data-driven decisions to improve their overall supply chain management.

An inventory management system provides real-time visibility into inventory levels, locations, and movement, ensuring accurate and up-to-date information. This accuracy leads to better decision-making, as businesses can precisely track stock levels, analyze sales patterns, and forecast future demand. With the ability to set optimal stock levels and reorder points, businesses can minimize carrying costs and prevent lost sales opportunities.

Furthermore, an inventory management system facilitates effective purchasing and procurement by automating purchase orders, managing supplier relationships, and tracking supplier performance. This streamlines the procurement process, reduces manual errors, and ensures timely delivery of goods.

Another advantage is the efficient management of warehouses and fulfillment centers. The system enables businesses to organize and track inventory within their physical locations, improving pick-pack-ship operations and reducing errors in order fulfillment.

Additionally, the reporting and analytics capabilities of an inventory management system provide valuable insights into inventory turnover, stock value, and other key performance indicators. These insights enable businesses to identify trends, optimize inventory planning, and make informed decisions regarding purchasing, production, and overall supply chain management.

Overall, an inventory management system is an essential tool for businesses to maintain control over their inventory, reduce costs, and improve operational efficiency. By implementing such a system, businesses can enhance customer satisfaction, reduce stock-related risks, and gain a competitive edge in the marketplace.