Inventory Management System

for a Departmental Store

Introduction

→ Digital system for managing stock, sales, and suppliers
→ Replacement of error-prone manual record-keeping
→ Real-time inventory status and automated reports
→ Accuracy, speed, and decision-making

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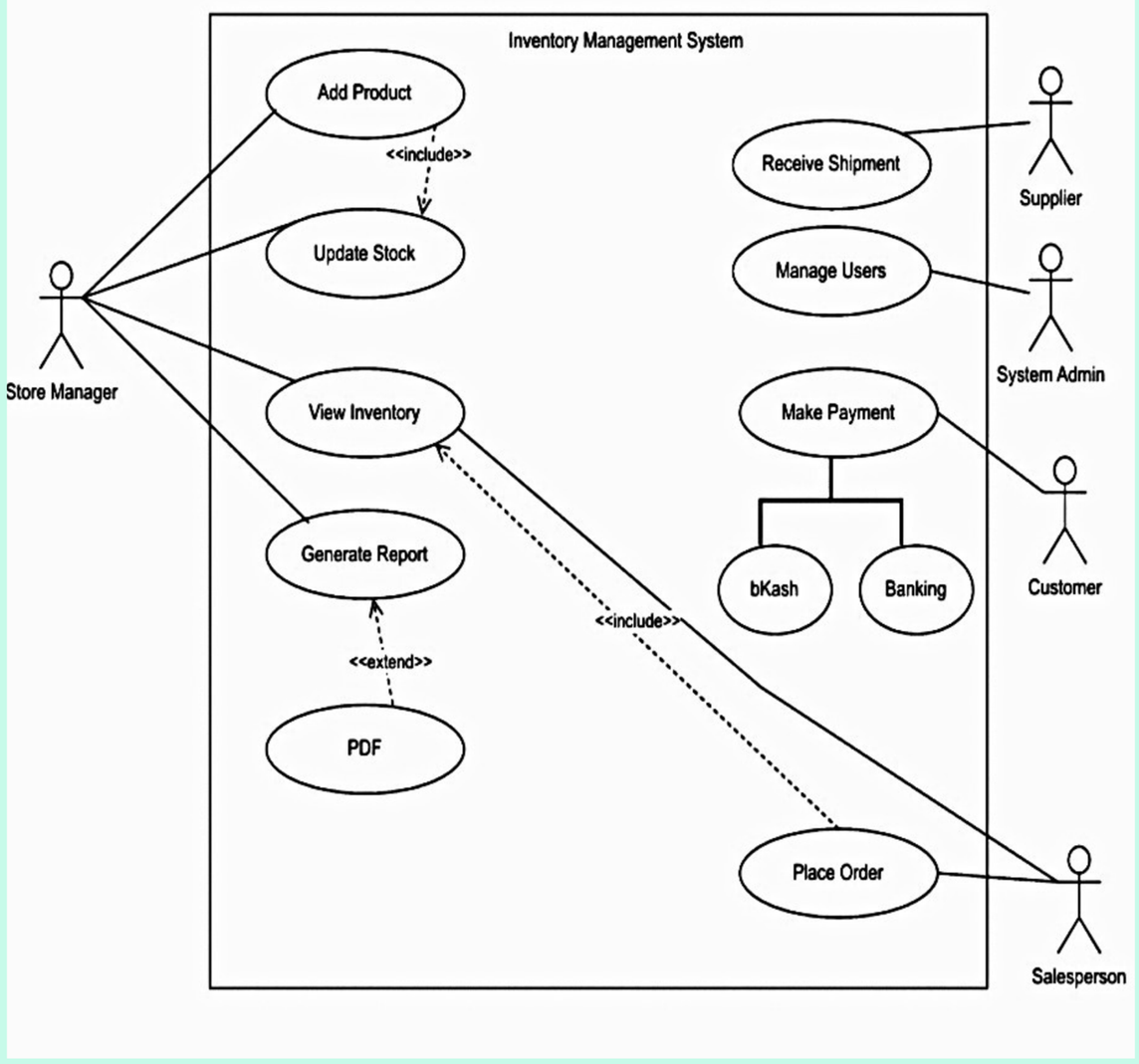
Analysis

The system improves speed, accuracy, and efficiency in store management. It recovers costs within two years and starts generating profit after 78 units of operation, proving to be cost-effective and sustainable.

Use case diagram



Objectives

→ To maintain accurate product and stock data
→ To automate sales, purchase, and report generation
→ To provide real-time alerts for low stock
→ To support multi-user login and secure access

Methodology

→ Analyze store workflow and design ER-based relational database
→ Implement using Java, MySQL/Firebase, HTML & CSS and test with sample data
→ Evaluate system performance and fix errors for optimization

Feasibility

→ **Technically feasible:**
Uses widely available tools
→ **Economically feasible:**
Reduces long-term cost
→ **Operationally feasible:**
Easy to use, minimal training
→ **Scalable for future online expansion**

Advantages

→ Fast and accurate stock updates
→ Automated billing and report generation
→ Reduces manpower and paperwork
→ Improves customer service and decision-making

Limitations

→ Requires internet and computer system
→ Initial setup cost is moderate
→ Users need basic computer training
→ Advanced features depend on stable network