

Inventory and Warehouse Management System - Project Report

Introduction

The Inventory and Warehouse Management System is developed to efficiently manage stock, suppliers, warehouses, purchase orders, and sales orders. It provides real-time tracking of goods, maintains accurate stock levels, and supports decision-making through automated alerts and reports.

Abstract

This project implements a SQL-based backend to handle core warehouse operations such as receiving goods, shipping orders, stock transfers, and adjustments. Triggers and stored procedures ensure data integrity and automate repetitive tasks, while queries and views generate reports for monitoring stock, low inventory, and valuation.

Tools Used

- MySQL 8
- MySQL Workbench
- SQL (DDL, DML, Views, Triggers, Stored Procedures)

Steps Involved in Building the Project

1. Requirement analysis and system design.
2. Creation of ER diagram to identify entities and relationships.
3. Implementation of database schema with tables and constraints.
4. Insertion of sample data for testing.
5. Development of stored procedures and triggers for automation.
6. Creation of views and queries for inventory reporting.
7. Testing workflows such as purchase orders, receipts, sales orders, and transfers.
8. Preparation of final documentation and project report.

Conclusion

The project provides a robust backend solution for managing inventory and warehouse operations. With automation through triggers and stored procedures, it reduces errors and improves efficiency. The system is scalable and can be integrated with a web-based frontend for real-world use.