Internship Project Report

Inventory Management System

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Abstract

This project is a console-based Inventory Management System developed using C++. It incorporates object-oriented programming principles and file handling to manage products in a retail system. The system offers functions like adding, viewing, updating, and searching products, and ensures persistent storage using text files.

Objective

To design a functional Inventory Management System that allows users to efficiently manage product data and persist it across sessions using file operations.

Technologies Used

- C++

- File Handling (fstream)

- STL (map, vector)

- Console Input/Output

Working of the Project

1. On startup, the application loads all saved products from inventory.txt.

2. Users can choose from a menu to perform actions:

   - Add Product: Enter details to add new item.

   - View Products: Display all stored items.

   - Update Stock: Change quantity of existing item.

   - Search Product: Search by product ID.

   - Low Stock Alert: View items with quantity below threshold.

3. Changes are automatically saved to file.

4. Data is persistent across program runs.

Conclusion

This project helped reinforce core concepts of C++ such as classes, file handling, and use of STL containers. It is a practical demonstration of building real-world applications with persistent storage and structured programming.

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Appendix: Source Code

Refer to the submitted file main.cpp for complete commented source code.