Inventory Management System - Project Report Inventory Management System Project Report 1. Abstract This project implements a simple Inventory Management System in the C programming language. It allows users to add, update, search, delete, and list items. The project follows modular programming principles and stores data persistently in a binary file. 2. Problem Definition Shops require a basic system to track items, quantities, and prices. Manual records are slow, error-prone, and difficult to update. This project solves the issue by providing a computerized inventory system. 3. System Design Flowchart START → Load items → Show Menu → User Selection → (Add / Update / Delete / Search / List Items) → Save Changes → Loop Until Exit → END Algorithms **Add Item Algorithm:**
1. Accept ID, name, quantity, price.
2. Insert into items array.
3. Increment count.
4. Save to file.

Delete Item Algorithm:
1. Accept ID.
2. Search array for ID.
3. Shift remaining elements.
4. Decrement count.
5. Save to file.

4. Implementation Details The project follows a modular structure with separate .c and .h files. The use of binary files ensures fast storage and retrieval. 5. Testing and Results All functions were executed and tested: Add, Update, Delete, Search, List. The program behaved correctly under all normal inputs. 6. Conclusion The project successfully demonstrates file handling, modular programming, and user interaction in C. It provides an effective solution for managing small shop inventory. 7. Future Enhancements - Add sorting options
- Add category-wise inventory
- Add user authentication

8. References C Programming by Dennis Ritchie
Online C documentation