DEPARTMENT STORE ITEMS MANAGMENT SYSTEM

TEAM MEMBERS

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OVERVIEW

- Introduction
- Objective
- Why Cand DSA (data structure and algorithms)
- Algorithm
- Lesson learnt
- Code
- Output

1. INTRODUCTION

- The department store item management system Is design to Manage the details of the product Available in department store .
- It uses linked list for Dynamic data handling and file handling to store the product information permanently .
- This system allows adding , displaying and Saving products , ensuring easy Access and organisation.

OBJECTIVE

- To create a simple and effective System For managing store product.
- To apply linked list data structure to store Product data in memory.
- To use file handling in C++ for a permenent data storage and retrieval.
- To practice a data structureS and algorithms (DSA) Concepts practically.

WHY C AND DSA ?

- C language is losmination dware ,highly efficient and provide excellent Control over system resources like Memory management.
- Data structure and algorithms (DSA) are essential because they optimize the storage retrieval of data efficiently
- Linked list allow dynamic memory allocation which is deal for applicationS where the size of data is not fixed
- Using file handling Makes the system Practical as it allows Saving data even after program terimanation

ALGORITHM

- STEP 1: start the program.
- STEP 2: initialize an empty linked list for product.
- STEP 3:load existing products from the file (if available).
- STEP 4:Display nenu -Add new product
- *Display product
- * Save and exit
- STEP 5:Add product - Take input for id , name , prize , quantity.
- *Create a new node and insert it at the end of the linked list.
- STEP 6: Display product - traverse the linked list and display each product’s details.
- STEP 7: save and exit – take input for id , name ,price , quantity.
- * Create a new node and insert it at the end of the linked list.
- STEP 8 : free the linked list memory before exiting.
- STEP 9: End the program.

LESSON LEARNT

- Understood the use of linked list to manage dynamic data efficiently.
- Gained hands – on experience with file operation (reading and writing files).
- Realized the important of persistent storage in real world applications.
- Improved understanding of memory management in C++ (using new and delete).
- Devloped skills to break down a real world problem into a solvable algorithm.

SUMMARY

- *This project shows the concepts of c programming , structure , arrays and simple algorithms can be combined to build a Department Store items managment System*

Thank you