

Object oriented programming

SUPER MARKET

Project explanation

Project outline :

A C++ program has been written for super market which allows anyone to purchase things and allows the user to add and edit the products available .

Features used :

- => file handling
- => standard template library (vector)
- => object oriented program

Logical approaches :

- => singleton class
- => object orientation
- => file management to restore data

Source code explanation

Source code outline :

Main.cpp contains the code to manage every other codes written in other files, there are 7 separate files(.cpp) are there to approach the problem.

Data structure used : -- nil --

Files information :

I - CPP files

- 1) main.cpp
- 2) things.cpp
- 3) design.cpp
- 4) usercart.cpp

- 5) admininfo.cpp
- 6) collection.cpp
- 7) purchase.cpp

II - text files 📄

- 1) admininfo.txt
- 2) lastidfile.txt
- 3) productdetails.txt

III - exe files ⚙️

- 1) main.exe

Role of each files

Cpp files =>

(*) Cpp files contain source code for the project which was written in C++ programming language.

(*) Text files are used by cpp files in order to store every required data that have to be stored for future reference.

Text files =>

1-admininfo.txt

(*) It contains the details of admin and password and it is used by admininfo.cpp which writes the values when the program runs for the very first time.

2-lastidfile.txt

(*) It contains the unique id of the last product which was created by the things.cpp

(*) The id of the product which was created at the last was used to decide the id of next product in order to avoid collision.

3-productdetails.txt

(*) It was used by the collection.cpp to store the new product, in order to future reference.

Time Complexity for Each Search : $O(n)$ [vector iteration]

Time Complexity for Add Products : $O(1)$ [vector]