

Programming Project / C++ – Store Management & Interaction System –

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I. Task Description

Student 1 is responsible for managing the store:

- Adding, deleting, modifying products (price, quantity)
- Viewing orders

Student 2 is responsible for interacting with the store:

- Adding, modifying, deleting products in/from a shopping cart
- Creating an order when purchasing the cart

II. Data Structures Used by the Team

- Store: vector stock, vector orders

- Cart: vector cart_products

- Product:

```
std::string barcode;  
std::string name;  
int quantity;  
double price;
```

-Order:

```
std::vector products;  
Date order_date;
```

III. File Structure

The following files will be used:

Stock.txt

A file where details about the stock products will be stored in the form: <number of products>

<product1 barcode> <product1 name> <product1 quantity> <product1

price>

<product2 barcode> <product2 name> <product2 quantity> <product2 price> ...

Orders.txt

A file where details about placed orders will be stored:

<order1 date>
<order1 product barcode list>
<order2 date>
<order2 product barcode list>

...

Shopping_Cart.txt

A file where Student 2 will store the shopping cart details:

<product1 barcode> <product1 quantity>
<product2 barcode> <product2 quantity>

...

IV. Interacting with Executables

Application 1 will offer the following options:

./app_1.exe view_stock_products

To view all available products in stock

./app_1.exe add_product <barcode> <name> <quantity>
<price> To add a product to stock

./app_1.exe delete_product <barcode>
To delete a product from stock

./app_1.exe modify_product <price | quantity> <barcode>
<new_value> To modify either the quantity or price of a product

./app_1.exe view_orders
To view placed orders

Application 2 will offer the following options:

./app_2.exe view_cart

To view the shopping cart

`./app_2.exe add_product <barcode> <quantity>`

To add a product to the shopping cart

`./app_2.exe modify_product <barcode> <new_quantity>`

To modify the quantity of an existing product in the cart

`./app_2.exe delete_product <barcode>`

To remove a product from the cart

`./app_2.exe purchase`

To place an order based on the shopping cart