Create a program that simulates a shopping cart. The program should allow the user to add items to the cart, remove items from the cart, and view the contents of the cart, etc.

Item should be a class in your code that contains item name, and price as data members.

Make a menu driven program in which firstly display

The following choices:

1). Add items.

2). Remove items.

2). Clear cart.

3). Exchange product (by updating the cart).

From the menu the user will selects Add products, the user should be able to select among the displayed products (hard code some items in code). and add them to the cart.

If the user chooses delete product, first display the cart and ask the user to choose the product number he wants to delete, and proceed.

If the user chooses clear cart, remove all the items from the cart.

If the user chooses to exchange items. Ask the product number with which to exchange the item, after that, display the lists of products again and from that user will select a new product which will be replaced by the previous ones.

Note: In all the places check whether the cart is empty or not where this condition is required before proceeding.

#include <iostream>

#include <vector>

using namespace std;

class Item {

public:

string name;

double price;

Item(string name, double price) {

this->name = name;

this->price = price;

}

};

class ShoppingCart {

private:

vector<Item> items;

public:

void addItem(Item item) {

items.push\_back(item);

cout << "Added " << item.name << " to the cart." << endl;

}

void removeItem(int index) {

if (index >= 0 && index < items.size()) {

Item removedItem = items[index];

items.erase(items.begin() + index);

cout << "Removed " << removedItem.name << " from the cart." << endl;

} else {

cout << "Invalid item index." << endl;

}

}

void clearCart() {

items.clear();

cout << "Cleared the cart." << endl;

}

void exchangeItem(int index, Item newItem) {

if (index >= 0 && index < items.size()) {

Item replacedItem = items[index];

items[index] = newItem;

cout << "Exchanged " << replacedItem.name << " with " << newItem.name << " in the cart." << endl;

} else {

cout << "Invalid item index." << endl;

}

}

void viewCart() {

if (items.empty()) {

cout << "The cart is empty." << endl;

} else {

cout << "Cart Contents:" << endl;

for (int i = 0; i < items.size(); i++) {

cout << i + 1 << ". " << items[i].name << " - $" << items[i].price << endl;

}

}

}

};

int main() {

// Creating sample items

Item item1("Shirt", 15.99);

Item item2("Jeans", 29.99);

Item item3("Shoes", 39.99);

// Creating a shopping cart instance

ShoppingCart cart;

// Menu-driven program

int choice;

while (true) {

cout << "\nMenu:" << endl;

cout << "1. Add items" << endl;

cout << "2. Remove items" << endl;

cout << "3. Clear cart" << endl;

cout << "4. Exchange product" << endl;

cout << "5. View cart" << endl;

cout << "6. Exit" << endl;

cout << "Enter your choice (1-6): ";

cin >> choice;

if (choice == 1) {

cout << "\nAvailable Items:" << endl;

cout << "1. Shirt - $15.99" << endl;

cout << "2. Jeans - $29.99" << endl;

cout << "3. Shoes - $39.99" << endl;

int itemChoice;

cout << "Enter the item number to add: ";

cin >> itemChoice;

if (itemChoice == 1) {

cart.addItem(item1);

} else if (itemChoice == 2) {

cart.addItem(item2);

} else if (itemChoice == 3) {

cart.addItem(item3);

} else {

cout << "Invalid item number." << endl;

}

} else if (choice == 2) {

cart.viewCart();

if (!cart.isEmpty()) {

int itemIndex;

cout << "Enter the item number to remove: ";

cin