C++: Online Book Store

#include <iostream>

#include <string>

#include <sstream>

using namespace std;

//Function Prototype

void displayBooks(string books[][15], int size);

void searchBooks(string books[][15], int size, string search\_term);

void displayShoppingCart(string cart[][3], int size);

int main()

{

system("color F5");

const int MAX\_BOOKS = 15;

string books[MAX\_BOOKS][15] =

{

{"Harry Potter and the Philosopher's Stone", "J. K. Rowling", "359.90"},

{"The Ink Black Heart ", "J. K. Rowling", "139.90"},

{"Fantastic Beasts and Where to Find Them ", "J. K. Rowling", "179.90"},

{"Harry Potter and the Deathly Hallows ", "J. K. Rowling", "355.50"},

{"The Christmas Pig ", "J. K. Rowling", "59.90"},

{"All the Light We Cannot See ", "Anthony Doerr", "79.90"},

{"Cloud Cuckoo Land ", "Anthony Doerr", "89.90"},

{"About Grace ", "Anthony Doerr", "100"},

{"The Shell Collector ", "Anthony Doerr", "49.90"},

{"Memory Wall ", "Anthony Doerr", "119.80"},

{"John Adams ", "David McCullough", "29.90"},

{"Truman", " David McCullough", "39.50"},

{"The Wright Brothers ", "David McCullough", "116.60"},

{"The Great Bridge ", "David McCullough", "99.90"},

{"The Troubles Begin ", "David McCullough", "229.20"},

};

string cart[MAX\_BOOKS][3]; //Title, Author, Price

int cartSize = 0;

int feedback;

while (true)

{

cout << "\nMenu:\n";

cout << "a. View available books\n";

cout << "b. Search for books by title or author\n";

cout << "c. Add books to shopping cart\n";

cout << "d. View shopping cart\n";

cout << "e. Complete purchase\n";

cout << "q. Quit\n";

char choice;

cout << "Enter your choice: ";

cin >> choice;

switch (choice)

{

case 'A': //For display available books

case 'a':

{

displayBooks(books, MAX\_BOOKS); //Funtion call

break;

}

case 'B': //Allowed user to search book

case 'b':

{

string search\_term;

cout << "Enter title or author to search: ";

cin.ignore(); //save data to system & ignore remaining characters in the input

getline(cin, search\_term);//Funtion call & read text from input

searchBooks(books, MAX\_BOOKS, search\_term);//Funtion call

break;

}

case 'C': //For add book to cart

case 'c':

{

displayBooks(books, MAX\_BOOKS);//Funtion call

int bookIndex;

cout << "Enter the book code of the book to add to the cart: ";

cin >> bookIndex;

if (bookIndex >= 0 && bookIndex < MAX\_BOOKS)

{

cart[cartSize][0] = books[bookIndex][0];

cart[cartSize][1] = books[bookIndex][1];

cart[cartSize][2] = books[bookIndex][2];

cartSize++;

cout << "Book added to the shopping cart.\n";

}

else

{

cout << "Invalid book c.\n";

}

break;

}

case 'D': //Display shopping cart

case 'd':

{

if (cartSize == 0)

{

cout << "Shopping cart is empty.\n";

}

else

{

displayShoppingCart(cart, cartSize);//Funtion call

}

break;

}

case 'E': //For complete purchase

case 'e':

{

if (cartSize == 0)

{

cout << "Shopping cart is empty. Cannot complete purchase.\n";

}

else

{

displayShoppingCart(cart, cartSize);//Funtion call

{

string name,account\_num,address,phone\_num;

cout << "Enter your Name : ";

cin >> name;

cout << "Enter your Account number : ";

cin >> account\_num;

cout << "Enter your Address : ";

cin >> address;

cout << "Enter your Phone number : ";

cin >> phone\_num;

}

cout << "Purchase completed. Thank you!\n";

cout << "May I know your feedback for our sistem? :";

cin >> feedback;

cout << "We have received your feedback. Thank you!!!!";

return 0;

}

break;

}

case 'Q': //For quit the program

case 'q':

{

cout << "Quitting the program. Goodbye!\n";

return 0;

}

default:

{

cout << "Invalid choice. Please try again.\n";

break;

}

}

}

return 0;

}

//Function Defination for searching books

void searchBooks(string books[][15], int size, string search\_term)

{

bool found = false;

cout << "\nSearch Results:\n";

cout << "----------------\n";

//compare book with the available books

for (int i = 0; i < size; ++i)

{

if (books[i][0].find(search\_term) != string::npos || books[i][1].find(search\_term) != string::npos)

{

found = true;//book found and display book info

cout << "Title: " << books[i][0] << "\tAuthor: " << books[i][1] << "\tPrice: $" << books[i][2] << endl;

}

}

if (!found) //book not found

{

cout << "No matching books found.\n";

}

}

//Function Defination for displaying books

void displayBooks(string books[][15], int size)

{

cout << " \_\_\_\_\_\n";

cout << " / \\ \_\_\_\_ \_\_\_\_ \_\_ \_\_\n";

cout << " / \\ / \\\_/ \_\_ \\ / \\ | | |\n";

cout << " / Y \\ \_\_\_/| | \\| | |\n";

cout << " \\\_\_\_\_|\_\_\_\_/\\\_\_\_\_>\_\_\_\_|\_\_\_|\_\_\_\_\_|\n\n";

cout << "\nAvailable Books:\n";

cout << "----------------\n";

for (int i = 0; i < size; ++i)

{

cout << "\nTitle: " << books[i][0] << "\nAuthor: " << books[i][1] << "\nPrice: $ " << books[i][2] <<" \nbook code : "<<i <<endl;

}

}

//For converts a string to a double using an istringstream.

double stringToDouble(const string & str)

{

istringstream iss(str); //To creates an input string stream (iss) and initializes it with the input string str.

double result;

iss >> result; //To extract a double from the input stream (iss) and stores it in the result variable.

return result; //To returns the converted double value.

}

//Function Defination for display the shopping cart

void displayShoppingCart(string cart[][3], int size)

{

double totalCost = 0;

cout << "\nShopping Cart:\n";

cout << "--------------\n";

for (int i = 0; i < size; ++i)

{

cout << "Title: " << cart[i][0] << ", Author: " << cart[i][1] << ", Price: $" << cart[i][2] << endl;

totalCost += stringToDouble (cart[i][2]);

}

cout << "Total Cost: $" << totalCost << endl;

}