

Challenge: Bookstore Inventory Management Program

Details:

Create a C# program to manage the inventory of a bookstore. The program should provide the following functionalities:

1. Add Books: Allow users to add new books to the inventory with details including:
 - Title
 - ISBN
 - Page Count
 - Published Date
 - Thumbnail URL
 - Status
 - Authors (as a list)
 - Categories (as a list)
 - Short Description
 - Long Description
 - Quantity (generated randomly)
 - Cost (generated randomly)
 - Price (generated randomly)
 - Quantity Sold (generated randomly)
2. Display Inventory: Display the current inventory, showing the details of all books in stock. The information to be displayed for each book includes:
 - Title
 - ISBN
 - Quantity
3. Search for Books: Implement the ability to search for books by title, ISBN, author, or category, enabling users to find specific books quickly.
4. Update Book Quantity: Allow users to update the quantity of a book when it's sold or restocked, ensuring accurate inventory management.
5. Calculate Benefit per Book: Calculate and display the benefit per book, considering the benefit provided for each book.
6. Calculate Benefit per Book Sold: Calculate and display the benefit per book sold, taking into account the quantity sold and the benefit provided for each book.
7. Calculate Total Value: Calculate and display the total value of the inventory. The total value should be based on the quantity and price of each book.
8. Calculate Total Cost: Calculate and display the total cost of all books in the inventory. The total cost should be based on the cost of each book and its quantity.
9. Calculate Total Benefit: Calculate and display the total benefit of all books in the inventory. The total benefit should be based on the benefit of each book and its quantity.

Your challenge is to design and implement a C# program that incorporates these functionalities to create a functional inventory management system for a bookstore, with the specified properties generated randomly for each book.