

LAB 211 Assignment

Type:
Code:
LOC:
Slot(s):

Long Assignment
J1.L.P0009
300
N/A

Title

HKT Book Store Management upgrade

Background

You were asked to build a book management application for the HKT store.

The program must have the basic functions of adding, deleting and editing book information.

The **book.dat file** is used to store information of all books in the store.

The **author.dat file** has stored author information including authorID and name. **(The lecturer provides an author.dat file that contains information about 10 authors.)**

The relational model is shown as follows: one book can be written by only 1 author; one author can write many books.

Upgrade version.2, support more functions: delete author, search by author name, real-time update processing.

Program Specifications

Build a management program. With the following basic functions

0. Build your data structure
1. Show the book list
2. Add new book
3. Update book
4. Delete book
5. Search book
 - 5.1 Search by book name
 - 5.2 Search by author name**
6. Store data to file
7. **Delete author**
8. **Real time update processing**

Others- Quit

Each menu choice should invoke an appropriate function to perform the selected menu item.

Your program must display the menu after each task and wait for the user to select another option until the user chooses to quit the program.

Each book has the properties such that ISBN, title, price and authorID. Each author has the following information: authorID, name.

Features:

This system contains the following functions:

Display a menu and ask users to select an option.

▪ **Function 1: Search by author name – 150LOC**

The developer (**you**) creates a submenu that allows the user to select way to search: search by author name or by book name.


- User inputs author name want to search.
- The system will search in the store, and return all book that has author name is the search string.
 - All information of book is shown
 - If no book is existed, the screen shows message “No book is matched”.


- **Function 2: Delete Author- 100LOC**

- This function allows user delete the author of book.
- Following business rule of function is applied
 - If any book of deleted author is not existed, that author will be deleted in author.dat file.
 - Otherwise, the program displays the message "This author has a book in the store, you cannot delete this author".
- Process of this function should be shown success or fail status.
- The program should be allowed user selecting option to returning to the menu

- **Function 8: Real-time update processing- 50LOC**

- The student modifies the above functions so that when delete action had completed, the system must immediately update information to file.

 The above specifications are only basic information; you must perform a requirements analysis step and build the application according to real requirements.

 The lecturer will explain the requirement only once on the first slot of the assignment.