COM2044 LAB8 G1

Java Exam Question: "Library Book Tracker with ArrayList"

You are asked to develop a simple library system that keeps track of books using ArrayList. Each book has basic information, and the system must allow searching, filtering, and displaying book details.

Implement the following:

1. Class: Book

- Attributes:
    - String title
    - String author
    - int yearPublished
    - boolean isBorrowed
- Constructor: Initialize all attributes.
- Methods:
    - void displayInfo(): Prints the book's details.
    - boolean isAvailable(): Returns true if the book is not borrowed.

2. In the main method:

- Create an ArrayList<Book> and add **at least 6 books** with varying values.
- Implement and perform the following tasks:

a. Display all books published after the year 2010.

b. Display all available books (i.e., not currently borrowed).

c. Ask the user for a book title to search. If the book is found, display its info. If not, print "Book not found".

d. Allow the user to borrow a book (by title). If the book is available, mark it as borrowed. If already borrowed, inform the user.

İnput=

Book("The Hobbit", "J.R.R. Tolkien", 1937, false)

Book("Clean Code", "Robert C. Martin", 2008, true)

Book("Atomic Habits", "James Clear", 2018, false)

Book("Thinking Fast and Slow", "Daniel Kahneman", 2011, true)

Book("Dune", "Frank Herbert", 1965, false)

Book("Deep Work", "Cal Newport", 2016, false)

Output=

Books published after 2010:

- Atomic Habits (2018)

- Thinking Fast and Slow (2011)

- Deep Work (2016)

Available books:

- The Hobbit

- Atomic Habits

- Dune

- Deep Work

Enter book title to search: Dune

Book found:

Title: Dune, Author: Frank Herbert, Year: 1965, Status: Available

Do you want to borrow it? yes

- Book successfully borrowed.