public class Book {

private String title;

private String author;

private String bookId;

private boolean isIssued;

public Book(String title, String author, String bookId) {

this.title = title;

this.author = author;

this.bookId = bookId;

this.isIssued = false;

}

public String getBookId() {

return bookId;

}

public boolean isIssued() {

return isIssued;

}

public void issueBook() {

isIssued = true;

}

public void returnBook() {

isIssued = false;

}

@Override

public String toString() {

return "Book: " + title + " by " + author + " [ID: " + bookId + "] " + (isIssued ? "(Issued)" : "(Available)");

}

}

public class User {

private String name;

private String userId;

public User(String name, String userId) {

this.name = name;

this.userId = userId;

}

public String getUserId() {

return userId;

}

@Override

public String toString() {

return "User: " + name + " [ID: " + userId + "]";

}

}

import java.util.\*;

public class Library {

private List<Book> books = new ArrayList<>();

private List<User> users = new ArrayList<>();

public void addBook(Book book) {

books.add(book);

}

public void addUser(User user) {

users.add(user);

}

public void issueBook(String bookId, String userId) {

Book book = findBook(bookId);

User user = findUser(userId);

if (book == null || user == null) {

System.out.println("Book or User not found!");

} else if (book.isIssued()) {

System.out.println("Book is already issued.");

} else {

book.issueBook();

System.out.println(user + " issued " + book);

}

}

public void returnBook(St…

public class Main {

public static void main(String[] args) {

Library library = new Library();

// Sample books and users

library.addBook(new Book("The Alchemist", "Paulo Coelho", "B001"));

library.addBook(new Book("1984", "George Orwell", "B002"));

library.addUser(new User("Alice", "U001"));

library.addUser(new User("Bob", "U002"));

Scanner sc = new Scanner(System.in);

int choice;

do {

System.out.println("\nLibrary Menu:");

System.out.println("1. Show All Books");

System.out.println("2. Issue Book");

System.out.println("3. Return Book");

System.out.println("4. Exit");

System.out.print("Enter choice: ");

choice = sc.nextInt();

sc.nextLine(); // consume newline

switch (choice) {

case 1:

library.showAllBooks();

break;

case 2:

System.out.print("Enter Book ID: ");

String bookId = sc.nextLine();

System.out.print("Enter User ID: ");

String userId = sc.nextLine();

library.issueBook(bookId, userId);

break;

case 3:

System.out.print("Enter Book ID to return: ");

String returnId = sc.nextLine();

library.returnBook(returnId);

break;

case 4:

System.out.println("Exiting Library System.");

break;

default:

System.out.println("Invalid option.");

}

} while (choice != 4);

sc.close();

}

}