import java.util.ArrayList;

import java.util.List;

class Book {

private String title;

private String author;

private boolean isAvailable;

public Book(String title, String author) {

this.title = title;

this.author = author;

this.isAvailable = true;

}

public String getTitle() {

return title;

}

public String getAuthor() {

return author;

}

public boolean isAvailable() {

return isAvailable;

}

public void setAvailable(boolean available) {

isAvailable = available;

}

}

class Library {

private List<Book> books;

public Library() {

this.books = new ArrayList<>();

}

public void addBook(Book book) {

books.add(book);

}

public void displayAvailableBooks() {

System.out.println("Available Books:");

for (Book book : books) {

if (book.isAvailable()) {

System.out.println(book.getTitle() + " by " + book.getAuthor());

}

}

}

public void borrowBook(Book book) {

if (book.isAvailable()) {

book.setAvailable(false);

System.out.println("You have borrowed the book: " + book.getTitle());

} else {

System.out.println("Sorry, the book is not available for borrowing.");

}

}

public void returnBook(Book book) {

book.setAvailable(true);

System.out.println("You have returned the book: " + book.getTitle());

}

}

public class usman {

public static void main(String[] args) {

// Creating books

Book book1 = new Book("The Great Gatsby", "F. Scott Fitzgerald");

Book book2 = new Book("To Kill a Mockingbird", "Harper Lee");

// Creating a library

Library library = new Library();

library.addBook(book1);

library.addBook(book2);

// Display available books

library.displayAvailableBooks();

// Borrow a book

library.borrowBook(book1);

library.displayAvailableBooks();

// Return the book

library.returnBook(book1);

library.displayAvailableBooks();

}

}