

Use an ArrayList to store the list of books. Each book should have attributes such as title, author, ISBN, and price. Implement functionalities to add new books, remove existing books, and display all books in the library.

```
J Library.java > Library > main(String[])
1  import java.util.ArrayList;
2  import java.util.Scanner;
3
4  class Book {
5      private String title;
6      private String author;
7      private String isbn;
8      private double price;
9
10     public Book(String title, String author, String isbn, double price) {
11         this.title = title;
12         this.author = author;
13         this.isbn = isbn;
14         this.price = price;
15     }
16
17     public String getTitle() {
18         return title;
19     }
20
21     public String getAuthor() {
22         return author;
23     }
24
25     public String getIsbn() {
26         return isbn;
27     }
28
29     public double getPrice() {
30         return price;
31     }
32
33     @Override
34     public String toString() {
35         return "Title: " + title + ", Author: " + author + ", ISBN: " + isbn + ", Price: $" + price;
36     }
37 }
38
39 public class Library {
```

```
40 private ArrayList<Book> books;
41
42 public Library() {
43     books = new ArrayList<>();
44 }
45
46 public void addBook(Book book) {
47     books.add(book);
48     System.out.println("Book added: " + book);
49 }
50
51 public void removeBook(String isbn) {
52     Book bookToRemove = null;
53     for (Book book : books) {
54         if (book.getIsbn().equals(isbn)) {
55             bookToRemove = book;
56             break;
57         }
58     }
59     if (bookToRemove != null) {
60         books.remove(bookToRemove);
61         System.out.println("Book removed: " + bookToRemove);
62     } else {
63         System.out.println("Book with ISBN " + isbn + " not found.");
64     }
65 }
66
67 public void displayBooks() {
68     if (books.isEmpty()) {
69         System.out.println(x:"No books in the library.");
70     } else {
71         System.out.println(x:"Books in the library:");
72         for (Book book : books) {
73             System.out.println(book);
74         }
75     }
76 }
```

```
78 public static void main(String[] args) {
79     Library library = new Library();
80     Scanner scanner = new Scanner(System.in);
81
82     while (true) {
83         System.out.println(x:"Library Menu:");
84         System.out.println(x:"1. Add Book");
85         System.out.println(x:"2. Remove Book");
86         System.out.println(x:"3. Display Books");
87         System.out.println(x:"4. Exit");
88         System.out.print(s:"Choose an option: ");
89         int choice = scanner.nextInt();
90         scanner.nextLine(); // Consume newline
91
92         switch (choice) {
93             case 1:
94                 System.out.print(s:"Enter title: ");
95                 String title = scanner.nextLine();
96                 System.out.print(s:"Enter author: ");
97                 String author = scanner.nextLine();
98                 System.out.print(s:"Enter ISBN: ");
99                 String isbn = scanner.nextLine();
100                System.out.print(s:"Enter price: ");
101                double price = scanner.nextDouble();
102                scanner.nextLine(); // Consume newline
103                Book book = new Book(title, author, isbn, price);
104                library.addBook(book);
105                break;
106            case 2:
107                System.out.print(s:"Enter ISBN of the book to remove: ");
108                String isbnToRemove = scanner.nextLine();
109                library.removeBook(isbnToRemove);
110                break;
111            case 3:
112                library.displayBooks();
113                break;
114            case 4:
115                System.out.println(x:"Exiting...");
116                scanner.close();
```

```
117         return;
118     default:
119         System.out.println(x:"Invalid choice. Please try again.");
120     }
121 }
122 }
123 }
```

PROBLEMS ① OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\SWETHA BENNY\Documents\javaProject> javac Library.java
>> java Library
>>
Library Menu:
1. Add Book
2. Remove Book
3. Display Books
4. Exit
Choose an option: 1
Enter title: light in the dark
Enter author: ravi
Enter ISBN: 6579
Enter price: 356
Book added: Title: light in the dark, Author: ravi, ISBN: 6579, Price: $356.0
Library Menu:
1. Add Book
2. Remove Book
3. Display Books
4. Exit
Choose an option: 4
Exiting...
```