

```
import java.util.*;
```

```
class Book {
```

```
    private String title;
```

```
    private String author;
```

```
    private int bookId;
```

```
    private boolean isIssued;
```

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

```
        this.bookId = bookId;
```

```
        this.title = title;
```

```
        this.author = author;
```

```
        this.isIssued = false;
```

```
    }
```

```
    public int getBookId() {
```

```
        return bookId;
```

```
    }
```

```
    public String getTitle() {
```

```
        return title;
```

```
    }
```

```
    public String getAuthor() {
```

```
        return author;
```

```
    }
```

```
    public boolean isIssued() {
```

```
        return isIssued;
```

```
    }
```

```
    public void issueBook() {
```

```

        this.isIssued = true;
    }

    public void returnBook() {
        this.isIssued = false;
    }

    @Override
    public String toString() {
        return "Book ID: " + bookId + ", Title: " + title + ", Author: " + author + ", Issued: " + (isIssued ?
        "Yes" : "No");
    }
}

public class LibraryManagementSystem {
    private static List<Book> books = new ArrayList<>();
    private static Scanner scanner = new Scanner(System.in);

    public static void main(String[] args) {
        while (true) {
            System.out.println("\n--- Library Management System ---");
            System.out.println("1. Add Book");
            System.out.println("2. View All Books");
            System.out.println("3. Issue Book");
            System.out.println("4. Return Book");
            System.out.println("5. Exit");
            System.out.print("Choose an option: ");
            int choice = scanner.nextInt();

            switch (choice) {
                case 1:
                    addBook();
                    break;
            }
        }
    }
}

```

```

        case 2:
            viewAllBooks();
            break;
        case 3:
            issueBook();
            break;
        case 4:
            returnBook();
            break;
        case 5:
            System.out.println("Exiting... Thank you!");
            return;
        default:
            System.out.println("Invalid choice. Try again!");
    }
}
}

```

```

private static void addBook() {
    System.out.print("Enter Book ID: ");
    int bookId = scanner.nextInt();
    scanner.nextLine(); // Consume newline
    System.out.print("Enter Book Title: ");
    String title = scanner.nextLine();
    System.out.print("Enter Book Author: ");
    String author = scanner.nextLine();

    books.add(new Book(bookId, title, author));
    System.out.println("Book added successfully!");
}

```

```

private static void viewAllBooks() {

```

```

if (books.isEmpty()) {
    System.out.println("No books available!");
} else {
    for (Book book : books) {
        System.out.println(book);
    }
}
}

private static void issueBook() {
    System.out.print("Enter Book ID to issue: ");
    int bookId = scanner.nextInt();

    for (Book book : books) {
        if (book.getBookId() == bookId) {
            if (book.isIssued()) {
                System.out.println("Book is already issued!");
            } else {
                book.issueBook();
                System.out.println("Book issued successfully!");
            }
        }
        return;
    }
}

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

```

```

private static void returnBook() {
    System.out.print("Enter Book ID to return: ");
    int bookId = scanner.nextInt();

    for (Book book : books) {

```

```
        if (book.getBookId() == bookId) {  
            if (!book.isIssued()) {  
                System.out.println("Book was not issued!");  
            } else {  
                book.returnBook();  
                System.out.println("Book returned successfully!");  
            }  
            return;  
        }  
    }  
    System.out.println("Book not found!");  
}  
}
```

## **OUTPUT :**

### **--- Library Management System ---**

1. Add Book
2. View All Books
3. Issue Book
4. Return Book
5. Exit

Choose an option: