

# LIBRARY MANAGEMENT SYSTEM

```
import java.util.*;  
  
class LibraryBook{  
    int bookID ;           //declare the variables  
    String title;  
    String author;  
    boolean isIssued=false; //before issue the value is false  
    static int totalissued=0;  
  
    void issueBook() {      //method to issue book  
        this.isIssued=true;  
        System.out.println("Book issued successfully.");  
        this.totalissued+=1; //when the book is issued it becomes true and the number of  
        issues are increased  
    }  
    void returnBook(){       //method to take book or make issue as false  
        this.isIssued=false;  
        System.out.println("Book returned successfully.");  
    }  
    void displayBookInfo(){  
        System.out.println("-----BOOK DETAILS-----");  
        System.out.println("Book ID :"+this.bookID);//gives the book id  
        System.out.println("Title :"+this.title); //gives title of book
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        System.out.println("Author :" +this.author); //gives name of author
        if(this.isIssued)
            System.out.println("Status :Issued");    //if the book is issue it prints issued els it prints
available
            else System.out.println("Status :Available");
            System.out.println("-----");
    }

static void displayTotalIssued() {           //to give how many times the book is issued
    System.out.println("Total number of issues for book "+ "=" +totalIssued);
}

}

```

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class Main{                      //main class
    public static void main(String[] args){   //main method
        Scanner s=new Scanner(System.in);
        int c,id;
        LibraryBook book1=new LibraryBook();    //create object of 1st book
        LibraryBook book2=new LibraryBook();    //create object of 2nd book
        book1.bookID=101;                     //give book id of two books
        book2.bookID=1034;
        book1.title="Adventures of Huckleberry Finn"; //give title of two books
        book2.title="Alice's Adventures in Wonderland";
        book1.author="Mark Twain";           //give author name of two books
    }
}

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book2.author="Lewis Carroll";  
  
System.out.println("LIBRARY MENU");  
  
do{ //loop to acces the menu  
  
    System.out.println("1.Issue a book\n2.Return a book\n3.Display book details\n4.View the  
total number of issued books\n5.Exit the program");  
  
    System.out.print("Enter your choice: "); //ask the choice they want  
  
    c=s.nextInt();  
  
    switch(c){ //switch to check the input given by user  
  
        case 1:  
  
            System.out.print("Enter book ID to issue: ");  
  
            id=s.nextInt();  
  
            if(book1.bookID==id){  
  
                book1.issueBook(); //first checks which book and then issues  
  
            } //if book is not in the library it says not available  
  
            else if(book2.bookID==id){  
  
                book2.issueBook();  
  
            }  
  
            else{  
  
                System.out.println("No book available with book ID: "+id+"in the library." );  
  
                System.out.println("So cannot be issued.");  
  
            }  
  
            break;  
  
        case 2:  
  
            System.out.print("Enter book ID to return: ");  
  
            id=s.nextInt();  
  
            if(book1.bookID==id){
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        book1.returnBook();      //first checks which book then takes the return
    }
}
else if(book2.bookID==id){
    book2.returnBook();
}
else{
    System.out.println("No book available with book ID: "+id+"in the library." );
    System.out.println("So cannot be returned.");
}
break;

case 3:
System.out.print("Enter book ID to get details: ");
id=s.nextInt();
if(book1.bookID==id){
    book1.displayBookInfo();      //first checks which book then takes the gives the
details
}
//else it says not in the library
else if(book2.bookID==id){
    book2.displayBookInfo();
}
else{
    System.out.println("No book available with book ID: "+id+"in the library." );
    System.out.println("So cannot be displayed.");
}
break;

case 4:

```

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book1.displayTotalIssued();      //gives total issues by the library  
break;  
  
case 5:  
    break;  
  
default:  
    System.out.println("Invalid choice");  
}  
  
}while(c!=5);                  //breaks if the value is 5 because the user wants to exit  
System.out.println("Thank you for visiting!");  
}  
}
```