JAVA ASSIGNMENT - 4

Manya Yadav Sem-3.

2401420012

Btech. CSE. [DS]

BOOK

code.

```
import java.io.*;
import java.util.*;
public class book implements Comparable<books> {
    int bookid;
    string title;
    String author;
    book(int id, string t, string a){
        bookid = id;
        title = t;
        author = a;
    }
    public int compareto(book b){
        return this.title.compareto(b.title);
    }
}
class LibraryManger {
    Scanner input = new Scanner(System.in);
    Arraylist<books> books = new Arraylist<>();
    HashMap<Integer, Integer> issued = new
                                    Hashmap<>();
```

```
void addBook(){
    try{
        System.out.println("Enter Book id:");
        int id = input.nextInt();
        input.nextLine();
        System.out.println("Enter Title");
        String t = input.nextLine();
        String a = input.nextLine();
        books.add(new book(id, t, a));
        System.out.println("BOOK Added");
    }
    catch(Exception e){
        System.out.println("Invalid Input");
        input.nextLine();
    }
}

void searchBook(){
    try{
        System.out.println("Enter BOOK to search");
        int id = input.nextInt();
        int i=0;
        while(i< book.size()){
            Book b = books.get(i);
            if(b.bookid == id){
                System.out.println("Id:" b.bookid);
                System.out.println("Title:"b.title);
                System.out.println("Author:" +
                                   b.author);
```

```
        i++;
    }
}
System.out.println("Book not found");
}
catch (exception e){
    system.out.println("Invalid Input");
    input.nextline();
}
}
public void issuebooks(){
    try{
    system.out.println("enter Book Id to issue");
    int id = input.nextInt();
    System.out.print("enter Member Id: ");
    int m = input.nextInt();
    int i=0;
    while (i< books.size()){
        book b = books.get(i);
        if (b.bookid ==id){
            if (issued.containskey(Id)){
                system.out.println("AlreadyIssued");
                return;
            }
        issued.put(id,m);
        System.out.println("Book Issued");
    return;
```

```
        i++;
    }
}
void returnBook (){
    try{
        System.out.println("Enter Book Id to return:");
        int id = input.nextInt();
        if (issued.containsKey(id)) {
            issued.remove(id);
            System.out.println("Book returned");
        }
        else{
            system.out.println("Book is not issued");
        }
    }
    catch (exception e) {
        system.out.println("Invalid input");
        input.nextInt();
    }
}
void menu(){
    int ch=0;
    while (ch!=6){
        System.out.println("Add Books");
        System.out.println("Search Books");
        System.out.println("Sort Books");
        system.out.println("Issue Book");
```

```
System.out.println("Return Book");
System.out.println("exit");

try{
    ch = input.nextInt();
}
catch(Exception e){
    System.out.println("Invalid Input");
    input.nextInt();
    continue;
}
if(ch==1) addbook();
else if(ch==2) searchbook();
else if(ch==3) sortbooks();
else if(ch==4) issuebook();
else if(ch==5) returnbook();
else if(ch==6) system.out.println("exiting");
else{
    system.out.println("Invalid choice");
}
}
public static void main(String[] args){
    libraryManager obj = new libraryManager();
    obj.menu();
}
}
```