

Library Simple System

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Using

I used some Classes and functions as :

*Class : Object , Book , Library

*Serializable interface

*toString Method , Reading file

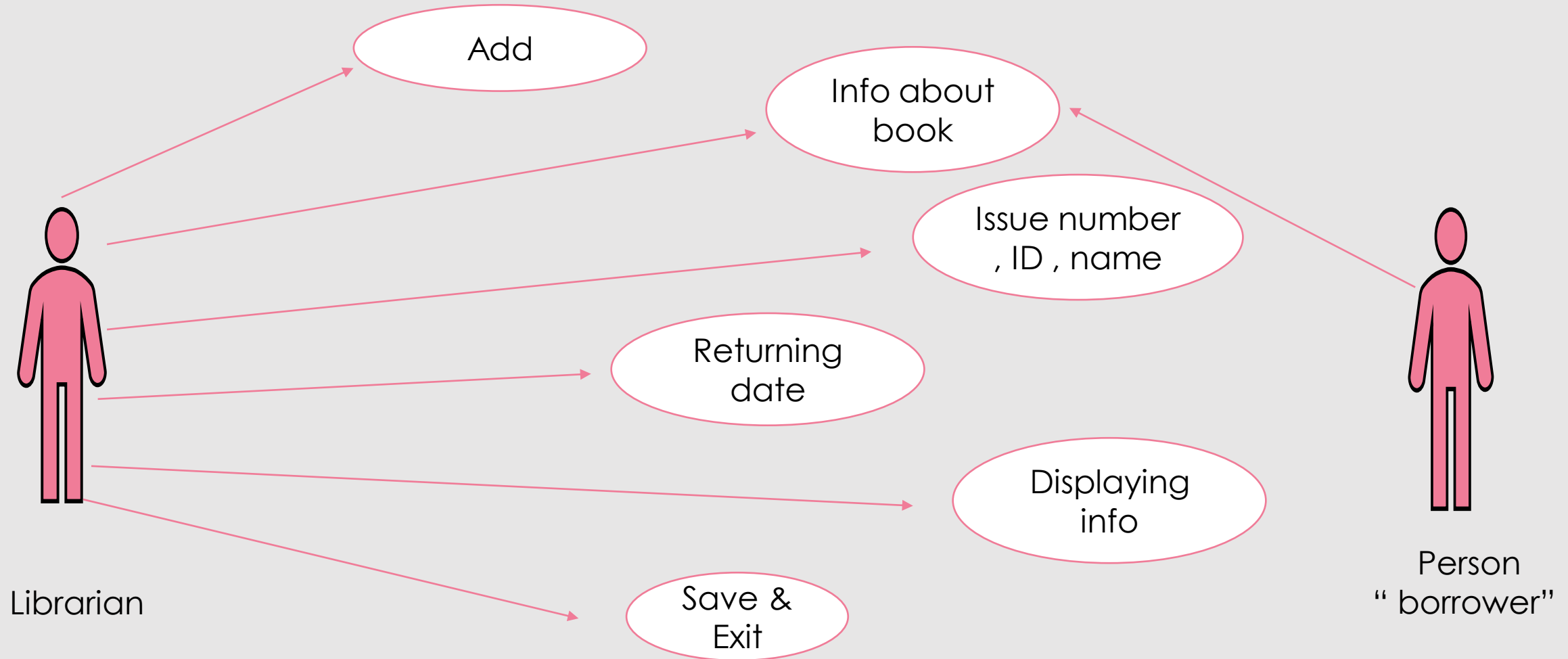
*Function add book info : title , author , iss , price, date

*Function about Save and Exit

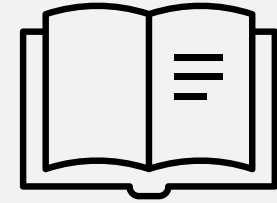
*Function about Exit



Explaining



Parts from code :))



eclipse-workspace - SystemLibrary/src/Book.java - Eclipse IDE

```
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer x
Library
slib
SystemLibrary
Book.java x Library.java Mainsystem.java
1 // Name : Lujain Mohamed El-said
2 import java.io.Serializable; // class that implements the Serializable interface.
3 public class Book implements Serializable{
4     // three fields : iss, title, and author.
5     private int iss; // instance variable
6     private String date;
7     private String title, author;
8     private double price;
9 public Book() {
10     iss=0;
11     title= null;
12     author =null;
13     date=null;
14     price = 0;
15 }
16 public Book (int iss, String title,
17 //this : refers to the current obj
18 this.iss= iss;
19 this.title =title;
20 this.author= author;
21 this.price=price;
22 this.date=date;
23 }
24 public String toString(){ // metho
25     return "\nTitle:" + title+ "\n
26     |\"+\"\\nDate\"+date+\"\\n
27 }
28 }
```

Outline x

- Book
 - iss : int
 - date : String
 - title : String
 - author : String
 - price : double
 - Book()
 - Book(int, String, String, double, String)
 - toString() : String

Problems @ Javadoc Declaration Console x

No consoles to display at this time.

eclipse-workspace - SystemLibrary/src/Library.java - Eclipse IDE

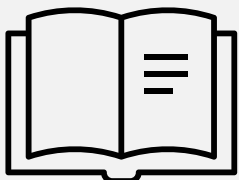
```
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer x
Library
slib
SystemLibrary
Book.java Library.java x Mainsystem.java
1 import java.io.Serializable;
2
3 public class Library extends Object implements Serializable {
4     private List<Book> collection;
5     public Library() {
6         collection= new ArrayList<Book>();
7     }
8     public void addBook( Book book) { // addBook method adds a book to this list.
9         collection.add(book);
10     }
11     public String toString() {
12         String total= "\\n";
13         /*for (int i=0; i<collection.size(); i++){
14             Book bo= collection.get(i);
15             total = total +bo.toString(); }
16         */
17         Iterator<Book> i = collection.iterator(); // iterates through the collection
18         while (i.hasNext()) {
19             Book bo= (Book)i.next();
20             total = total +bo.toString();
21         }
22         return total;
23     }
24 }
```

Outline x

- Library
 - collection : List<Book>
 - Library()
 - addBook(Book) : void
 - toString() : String

Problems @ Javadoc Declaration Console x

No consoles to display at this time.





Package Explorer × Bookjava Library.java Mainsystem.java ×

```
> Library
> slib
> SystemLibrary

46 title=in.next();
47 System.out.println("\nEnter author name :");
48 author=in.next();
49 System.out.println("\nEnter the iss :");
50 iss=in.nextInt();
51 System.out.println("\nEnter the price :");
52 price=in.nextDouble();
53 System.out.println("\nEnter the return date :");
54 date=in.next();
55
56 Book bo = new Book(iss,title ,author,price,date);
57 lib.addBook(bo);
58 }
59 private static void SaveandExit() {
60     System.out.println("Enter the file name : ");
61     fileName=in.next()+"_ser" ;
62     running = false;
63     FileOutputStream fo =null;
64     ObjectOutputStream out =null;
65     try {
66         fo= new FileOutputStream(fileName);
```

eclipse-workspace - SystemLibrary/src/Mainssystem.java - Eclipse IDE



Package Explorer × Bookjava Library.java Mainsystem.java ×

```
> Library
> slib
> SystemLibrary

10 import java.io.File;
11
12 public class Mainsystem {
13     static String fileName = null;
14     static Library lib = new Library();
15     static Scanner in = new Scanner(System.in);
16     static Boolean running = true ;
17
18     public static void main(String[] args) {
19         while(running){
20             System.out.println("\nChoose 0 for loading a library."
21             + "\nChoose 1 for Saving and Exit."
22             + "\nChoose 2 for list all books in library."
23             + "\nChoose 3 for adding a book to library.");
24             int ans= in.nextInt();
25             switch(ans) {
26                 case 0:
27                     System.out.println("Please , Input the file name to load");
28                     loadScript(in.next());
29                     break;
30                 case 1:
31                     SaveandExit();
32                     break;
33                 case 2:
34                     System.out.println(lib.toString());
35                     break;
36                 case 3:
37                     addBook();
38                     break;
39             }
40         }
41     }
42 }
```

Outline ×

```
✓ Mainsystem
  $ fileName : String
  $ lib : Library
  $ in : Scanner
  $ running : Boolean
  $ main(String[]): void
  $ addBook() : void
  $ SaveandExit() : void
  $ loadScript(String) : void
```



Problems Javadoc Declaration Console ×

Mainsystem [Java Application] C:\Program Files\Java\jdk-18\bin\javaw.exe (Apr 16, 2022, 10:12:54 PM) [pid: 13388]

```
Choose 0 for loading a library.
Choose 1 for Saving and Exit.
Choose 2 for list all books in library.
Choose 3 for adding a book to library.
```

Have a nice Day Eng. Lamiaa:))

THANK
YOU

