JAVA PROJECT

Book.java

```java
import java.io.Serializable;

public class Book implements Serializable{

    private int isbn;

    private String title,author;

    private double price;

    public Book(){

        isbn = 0;

        title = null;

        author = null;

        price = 0;

    }

    public Book(int isbn, String title, String author, double price) {

        this.isbn = isbn;

        this.title = title;

        this.author = author;

        this.price = price;

    }

@Override

    public String toString() {

        return "\nTitle: " + title + "\nAuthor: "+ author +

            "\nISBN:" + isbn + "\nPrice:" + price + "\n";

    }

    }
```

Library.java

```java
import java.io.Serializable;

import java.util.ArrayList;

import java.util.Iterator;

import java.util.List;

public class Library extends Object implements Serializable{

 private List<Book> collection;

 public Library(){

     collection = new ArrayList<Book>();

  }

  public void addBook(Book Book){

    collection.add(Book);

  }

  @Override
  public String toString() {

    String total = "\n";

    /*

    for(int i=0; i<collection.size(); i++){

      Book b = collection.get(i);

      total = total + b.toString();

    }

    */

    Iterator<Book> i = collection.iterator();

    while(i.hasNext()){

      Book b =(Book)  i.next();

      total = total + b.toString();

     }

    return total;

  } }
```

MainSystem.java

```java
import java.io.File;

import java.io.FileInputStream;

import java.io.FileNotFoundException;

import java.io.FileOutputStream;

import java.io.IOException;

import java.io.ObjectInputStream;

import java.io.ObjectOutputStream;

import java.util.Scanner;

import java.util.logging.Level;

import java.util.logging.Logger;

public class MainSystem {

    static String fileName = null;

    static Library Lib = new Library();

    static Scanner in = new Scanner(System.in);

    static Boolean running = true;

    public static void main(String[] args) throws IOException, ClassNotFoundException{

        while(running){

            System.out.println("\n Enter 0 for load a library"

                    + "\nEnter 1 for save and quit"

                    + "\nEnter 2 for list all books in library"

                    + "\nEnter 3 for add book to library");

            int answer = in.nextInt();

            switch(answer){

                case 0:

                    System.out.println("Enter the file name to load");

                    LoadScript(in.next());

                    break;

                case 1 :
```

```java
                    saveAndQuit();

                    break;

                case 2:

                    System.out.println(Lib.toString());

                    break;

                case 3 :

                    addBook();

                    break;

            }

        }

        System.exit(0);

    }

    private static void addBook() {

        int isbn;

        String title,author;

        double price;

        System.out.println("\nEnter Title:");

        title = in.next();

        System.out.println("\nEnter Author:");

        author = in.next();

        System.out.println("\nEnter ISBN:");

        isbn = in.nextInt();

        System.out.println("\nEnter Price:");

        price = in.nextDouble();

        Book b = new Book(isbn, title, author, price);

        Lib.addBook(b);

    }

    private static void saveAndQuit() {

        System.out.println("Enter file name:");
```

```java
            fileName = in.next();

            running  = false;

            FileOutputStream fos = null;

            ObjectOutputStream out = null;

            try {

                fos = new FileOutputStream(fileName);

                out = new ObjectOutputStream(fos);

                out.writeObject(Lib);

                fos.close();

                out.close();

            } catch (FileNotFoundException e) {

            } catch (IOException e) {

            }

        }

        private static void LoadScript(String name) {

            FileInputStream fis = null;

            ObjectInputStream in = null;

            File file = new File(name + ".ser");

            {

                if(file.exists()){

                    try {

                        fis = new FileInputStream(fileName);

                        in = new ObjectInputStream(fis);

                        Lib =(Library)in.readObject();

                        fis.close();

                        in.close();

                    }

                    catch (IOException e) {

                        e.printStackTrace();
```

```
        }
        catch(ClassNotFoundException e){
           e.printStackTrace();
        }
        }else{
           System.out.println("\nThe file does not exist");
        }
    }
}
}
```

Output : -

```
 Enter 0 for load a library
Enter 1 for save and quit
Enter 2 for list all books in library
Enter 3 for add book to library
3

Enter Title:
JAVA

Enter Author:
Shruti

Enter ISBN:
12
```

```
 Enter 0 for load a library
Enter 1 for save and quit
Enter 2 for list all books in library
Enter 3 for add book to library
3

Enter Title:
MAD

Enter Author:
Rashmi

Enter ISBN:
13

Enter Price:
145


 Enter 0 for load a library
Enter 1 for save and quit
Enter 2 for list all books in library
Enter 3 for add book to library
2


Title: JAVA
Author: Shruti
ISBN:12
Price:100.0

Title: MAD
Author: Rashmi
ISBN:13
Price:145.0


 Enter 0 for load a library
Enter 1 for save and quit
Enter 2 for list all books in library
Enter 3 for add book to library
1
Enter file name:
Sujal
BUILD SUCCESSFUL (total time: 1 minute 2 seconds)
```

```
 Enter 0 for load a library
Enter 1 for save and quit
Enter 2 for list all books in library
Enter 3 for add book to library

0
Enter the file name to load
abc

The file does not exist
```