

```

1 //note: this system is only for one user
2 import java.io.*;
3
4 public class question53
5 {
6     public static void main(String args[])throws IOException
7     {
8         InputStreamReader read=new InputStreamReader(System.in);
9         BufferedReader in=new BufferedReader(read);
10
11         String books[]={"Taiko", "Rich Dad Poor Dad", "Kafka on the Shore", "",
12             ""}; //creating a library of 3 books and a capacity of maximum 5 books
13         String authors[]={"Eiji Yoshikawa", "Robert Kiyosaki", "Haruki Murakami", "",
14             ""}; //corresponding author list
15
16         int issuedbooks[]=new int[5]; //here we are creating an array where the array
17         index corresponds to the array index of the books array. So if here, the value
18         on index 0 is 1, then that would mean the book at the 0 index in the books array
19         has been issued
20         for(int i=0;i<5;i++)
21             issuedbooks[i]=0; //0 means not issued, 1 means issued
22
23         int noofbooksissued=0;
24
25         String password="needsoup2020";
26
27         int n;
28         do
29         {
30             System.out.print("Enter \n1. Display all books \n2. Issue a book \n3. Return
31             a book \n4. Add a book to the library \n5. Remove a book from the library
32             \n0. Exit \nEnter ->");
33             n=Integer.parseInt(in.readLine());
34             //using switch case
35             switch(n)
36             {
37                 case 1:
38                     System.out.println("BOOK NAME\t\tAUTHOR NAME\t\tISSUING STATUS");
39                     for(int i=0;i<5;i++)
40                     {
41                         if(!books[i].equals("")) //! signifies a negative condition..so this
42                         means that if books[i] is not equal to ""
43                         System.out.println(books[i]+"~\t"+authors[i]+"~\t"+issuedbooks[i]);
44                     }
45                     break;
46
47                 case 2:
48                     if(noofbooksissued>3)
49                         System.out.println("Maximum number of books issued");
50                     else
51                     {
52                         System.out.println("Enter the name of the book to issue:");
53                         String book=in.readLine();
54
55                         for(int i=0;i<5;i++)
56                         {
57                             if(book.equalsIgnoreCase(books[i]) && issuedbooks[i]==0) //if the
58                             book is found and isnt already issued
59                             {
60                                 issuedbooks[i]=1;
61                                 noofbooksissued++;
62                                 System.out.println("Book issued");
63                                 break;
64                             }
65                         }
66                     }
67                 }
68             }
69         }
70     }
71 }

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56     }
57 }
58 break;
59
60 case 3:
61 if(noofbooksissued==0)
62     System.out.println("No books issued yet");
63 else
64 {
65     System.out.println("Enter the name of the book to return:");
66     String book=in.readLine();
67
68     for(int i=0;i<5;i++)
69     {
70         if(book.equalsIgnoreCase(books[i]) && issuedbooks[i]==1)//if the
71         book is found and is issued
72         {
73             issuedbooks[i]=0;
74             noofbooksissued--;
75             System.out.println("Book returned");
76             break;
77         }
78     }
79 break;
80
81 case 4:
82 System.out.println("Enter the password:");
83 String pwd=in.readLine();
84 if(pwd.equals(password))
85 {
86     System.out.println("Enter the name of the book to add:");
87     String book=in.readLine();
88     System.out.println("Enter the name of the author to add:");
89     String author=in.readLine();
90     for(int i=0;i<5;i++)
91     {
92         if(books[i].equals(""))
93         {
94             books[i]=book;
95             authors[i]=author;
96             System.out.println("Book added");
97             break;
98         }
99     }
100 }
101 else
102 {
103     System.out.println("Access Denied");
104 }
105 break;
106
107 case 5:
108 System.out.println("Enter the password:");
109 String pwd1=in.readLine();
110 if(pwd1.equals(password))
111 {
112     System.out.println("Enter the name of the book to remove:");
113     String book=in.readLine();
114     for(int i=0;i<5;i++)
115     {
116         if(book.equalsIgnoreCase(books[i]))
117         {
118             books[i]="";
119             authors[i]="";

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```
120         System.out.println("Book removed");
121         break;
122     }
123 }
124 }
125 else
126 {
127     System.out.println("Access Denied");
128 }
129 break;
130 }
131
132
133
134 }while(n!=0);
135
136 }
137 }
```