Midterm_spec

Input:

[number_of_book] *//following #number_of_book rows*

[book_author] [book_subject]

…

[number_of_user] //following #number_of_user rows

[user_type] [user_name] [predefined_borrow_book_number]*/*There will be a predefined number if user_type is borrower.*/*

…

//command loop

[Function]

Function and Output:

//Don't enter "input:" or print "output:" String

1. [user_name1] addBook

input: [book_author] [book_subject]

output: Borrower can not add book*//if [user_name1] is a borrower*

2. [user_name1] removeBook [book_id]

output: Borrower can not remove book*//if [user_name1] is a borrower*

3. [user_name1] checkout [user_name2]

input: [book1_id] [book2_id]…

output: Borrower can not check out the books *//if [user_name1] is a borrower*

output: Can not check out since the number of books exceed the limitation of user can check-out /**if amount of books more than[predefined_borrow_book_number]of [user_name2]**/

output: Can not check out since the book is checked out /*if the book is checked out*/

4. [user_name1] return [book_id]

output: Borrower can not return book// *if [user_name1] is a borrower*

output: Can not return since the book isn't checked out /*if the book is checked out

5. [user_name1] listAuthor [book_author]

output: ID: [book_id] Author: [book_author] Subject: [book_subject]

…

6. [user_name1] listSubject [book_subject]

output: ID: [book_id] Author: [book_author] Subject: [book_subject]

…

7. [user_name1] findChecked [user_name2]

output: Borrower can not find books checked out by other users /**if [user_name1] is a borrower and [user_name1] is not [user_name2]**/

output: ID: [book_id] Author: [book_author] Subject: [book_subject]//*else*

…

8. [user_name1] Borrower [book_id]

output: User: [user_name]

output: Borrower can not find borrower //if [user_name1] is a borrower

Comment:

[user_type] must be one of following:

Staff

Borrower

[book_id] is integer and increases from 0 with sequential order form input.

[predefined_borrow_book_number] limit amount of books user can borrower at one time, not total.

You are asked to write a main function in Class LibrarySystem

We'll test your program through "java LibrarySystem inputFile"

e.g java LibrarySystem sample.in

And show output to standard output.

Sample input and output are in the folder.

There should be access modifier in your design.

Group design must be submitted.

If you have individual design, the design fie name should be Team[ID]ClassDiagram, e.g., Team1ClassDiagram

The file can be opened with common software e.g jpg, pdf, ppt, …

(You can also write you design in paper)

Pease zip your source code and upload it.

The file name should be Team[ID].zip. e.g. Team1.zip

The folder structure should be:

unzip Team1.zip

=> [dir] Team1

=> Team1/*.java and Team1ClassDiagram