Automated Library Circulation System

CSC470

Team Member:

Xxxx yyyy zzzz

Glossary

Account: a setting of functions that can be performed by the system for certain user
Check Out: borrowing books from the library
Check In: returning books to the library
Manage Books: adding or removing books from the library system by the librarian
Due Date: three weeks after checking out the book
Fine: the money accrued after the due date if the book is not returned, $0.10 per day
Balance: the amount of fine still owing
Hold On: reserve a book currently checked out
Order Books: asking the library to purchase certain book if the budget permits
Budget: money available to buy books
Report: a list of certain information requested, such as books on order, loan frequency, etc.
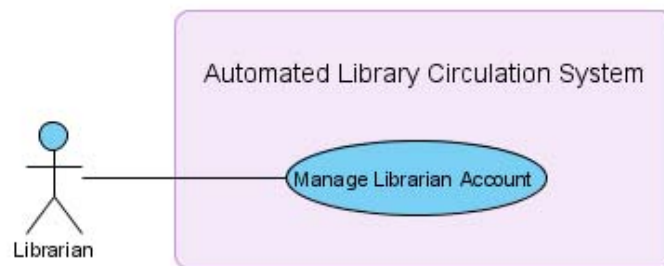
Actor:

Borrower

Librarian

Administration

Use Case:

Manage Librarian Account

Automated Library Circulation System

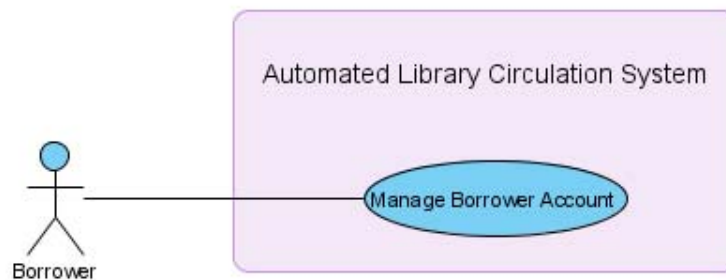Manage Librarian Account

Librarian

Brief Description
The *Manage Librarian Account* use case enables the Librarian to manage account for librarian.
Step-by-Step Description
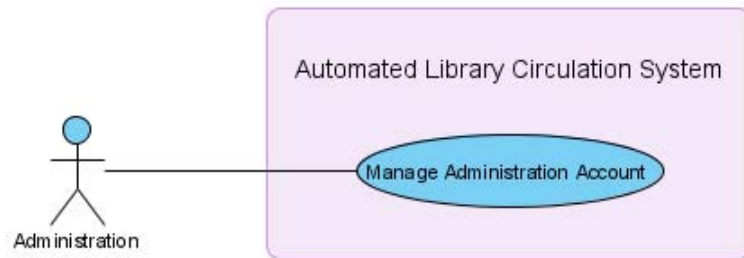Not available at this initial stage.

Manage Borrower Account

Automated Library Circulation System

Manage Borrower Account

Borrower

Brief Description
The *Manage Borrower Account* use case enables the Borrower to manage account for borrower.
Step-by-Step Description
Not available at this initial stage.

Manage Administration Account

Automated Library Circulation System

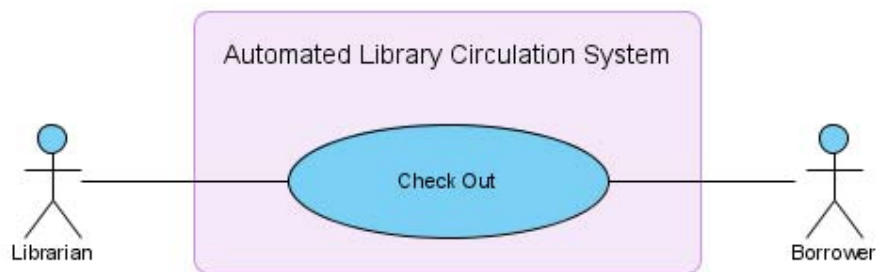Administration — Manage Administration Account

Brief Description
The *Manage Administration Account* use case enables the Administration to manage account for administration.
Step-by-Step Description
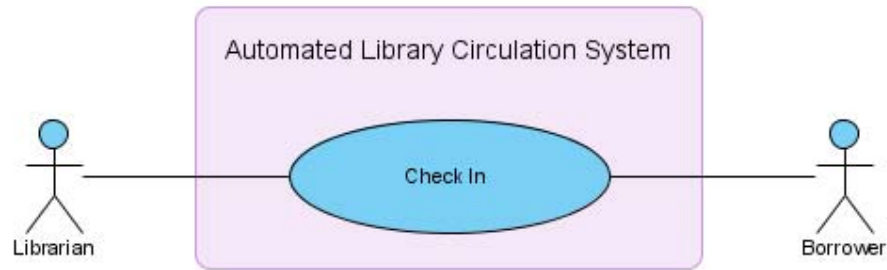Not available at this initial stage.

Check Out a Book

Automated Library Circulation System

Librarian — Check Out — Borrower

Brief Description
The *Check Out* use case enables the librarian to check out a book for the borrower.
Step-by-Step Description
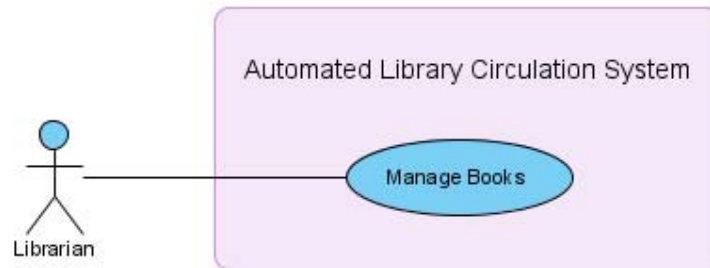Not available at this initial stage.

Check In a Book

Automated Library Circulation System

Check In

Librarian   Borrower

Brief Description
The *Check In* use case enables the librarian to check in a book from the borrower.
Step-by-Step Description
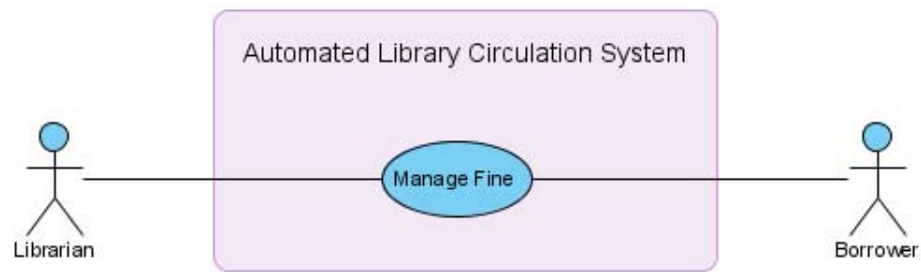Not available at this initial stage.

Manage Books

Automated Library Circulation System

Manage Books

Librarian

Brief Description
The *Manage Books* use case enables the librarian to add books to the library collection or remove them.
Step-by-Step Description
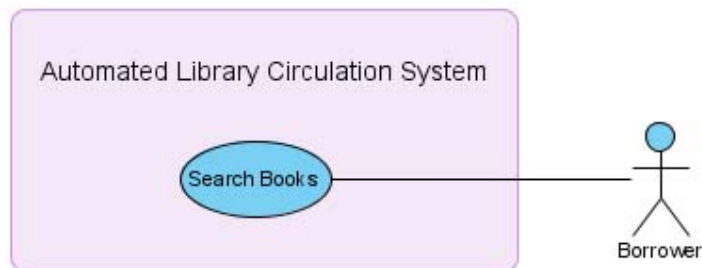Not available at this initial stage.

Manage Fine

Brief Description
The *Manage Fine* use case enables the librarian and Borrower to manage fine generated after due date.
Step-by-Step Description
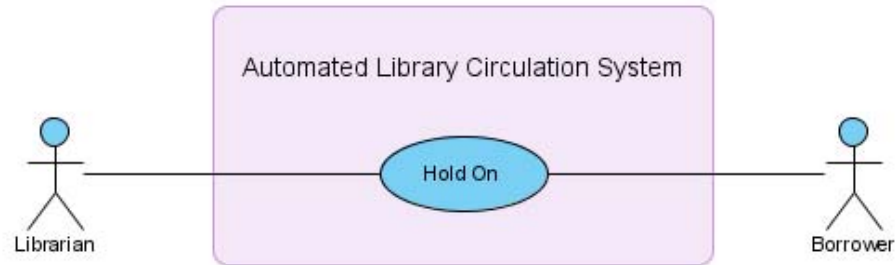Not available at this initial stage.

Search Books

Brief Description
The *Search Books* use case enables the Borrower to search books.
Step-by-Step Description
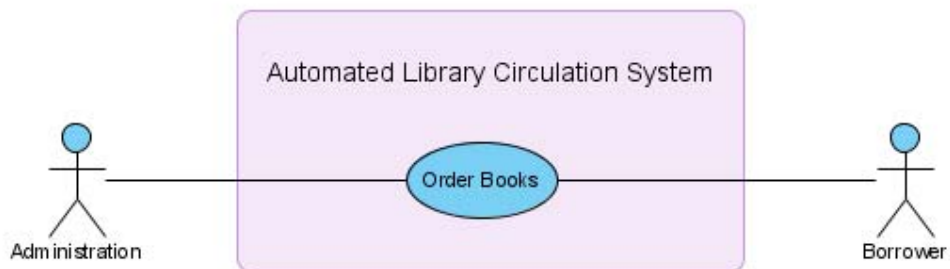Not available at this initial stage.

Hold On a Book

Automated Library Circulation System

Hold On

Librarian

Borrower

Brief Description
The *Hold On* use case enables the Borrower to reserve the book he or she wants.
Step-by-Step Description
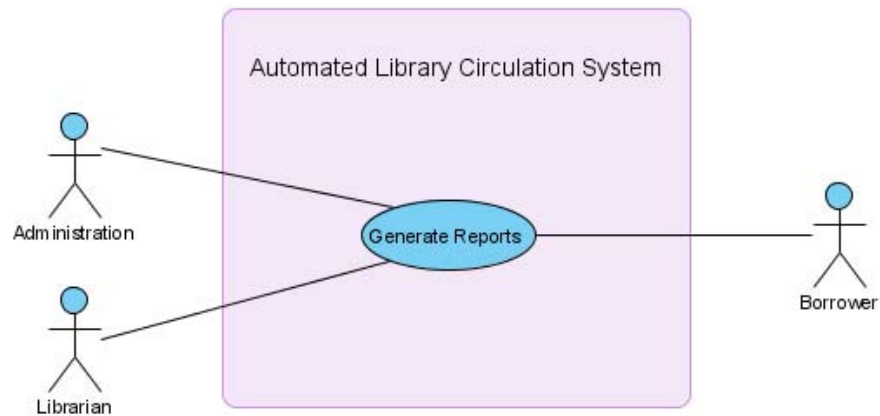Not available at this initial stage.

Order Books

Automated Library Circulation System

Order Books

Administration

Borrower

Brief Description
The *Order Books* use case enables the Borrower to order the book he or she wants.
Step-by-Step Description
Not available at this initial stage.

Generate Reports

Automated Library Circulation System

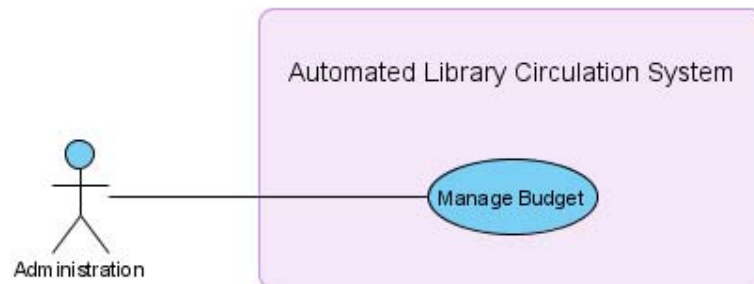Administration

Librarian

Generate Reports

Borrower

Brief Description
The *Generate Reports* use case enables the system to generate certain reports for Administration, Librarian, and Borrower.
Step-by-Step Description
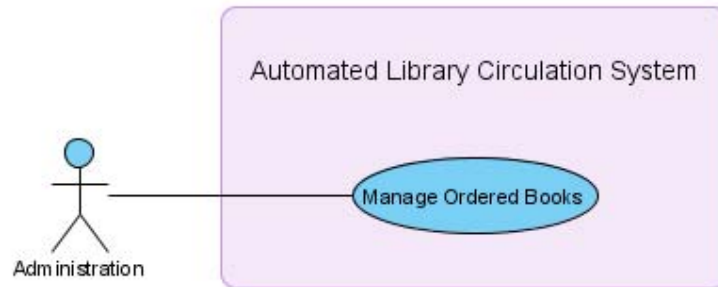Not available at this initial stage.

Manage Budget

Automated Library Circulation System

Administration

Manage Budget

Brief Description
The *Manage Budget* use case enables the Administration to make changes to the available budget.
Step-by-Step Description
Not available at this initial stage.

Manage Ordered Books
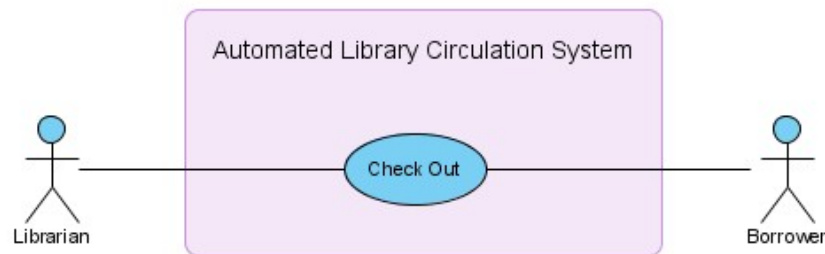
Brief Description
The *Manage Ordered Books* use case enables the Administration to manage the books ordered by the borrowers depending on the budget available.
Step-by-Step Description
Not available at this initial stage.

Refinement:

Check-out a book

Brief Description
The *Check Out* use case enables the librarian to check out a book for the borrower.
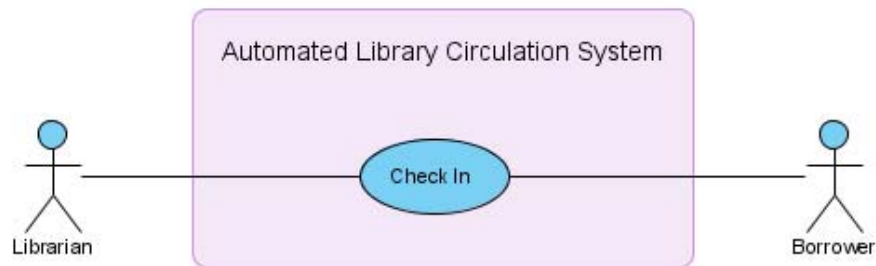**Step-by-Step Description**
When check out,the system will record two aspect:
the borrower information(borrower ID number ,borrower name ,borrower gender, borrower school/major) and
the book information(book name, book number, book authority, check-in date, check-out date, book price , subject area)
It also add the book to current check-out

Check-in a book

Brief Description
The *Check In* use case enables the librarian to check in a book from the borrower.
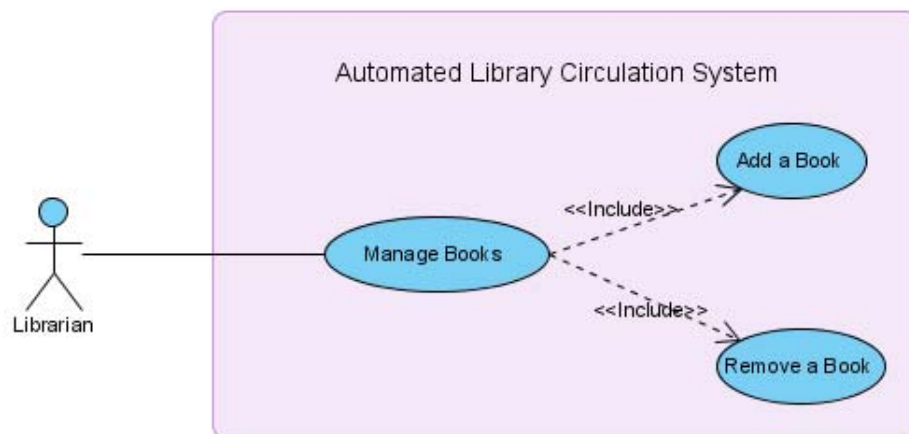**Step-by-Step Description**
when borrower check-in book,the system will record two aspect:
 the borrower information :borrower ID number ,borrower name ,borrower gender, borrower school/major
the book information :book name, book number, book authority, check-in date, check-out date, book price ,fine. add the book to past check-in, subject area
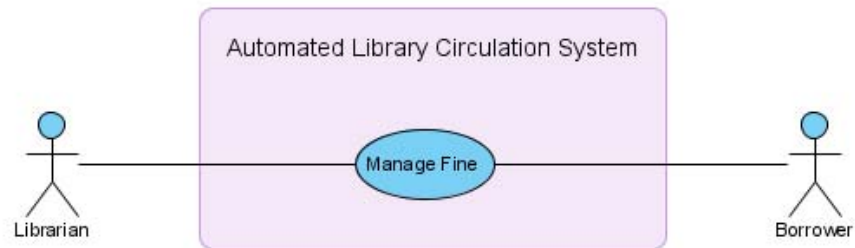
Manage Books

Brief Description
The *Manage Books* use case enables the librarian to add books to the library collection or remove them.
Step-by-Step Description
After search ,the librarian can add/delete/change/edit the books.

Manage Fine

Brief Description
The *Manage Fine* use case enables the librarian and Borrower to manage fine generated after due date.
Step-by-Step Description
If a checked-out book is not returned in the due date, a fine will be added to the borrower account with $0.10 per day (F = followed by the borrower's name). Any borrower who has a balance of over $5.00 is not allowed to check out any book until the fine is paid off.
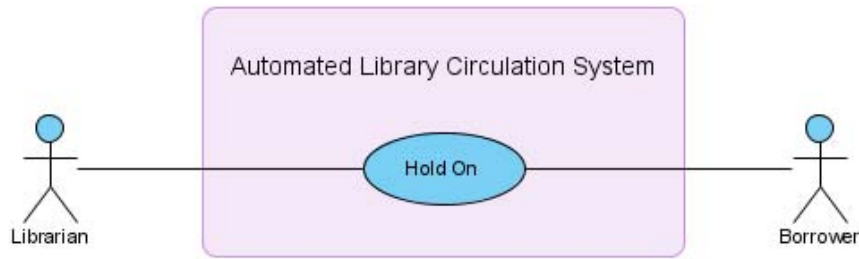
Search book
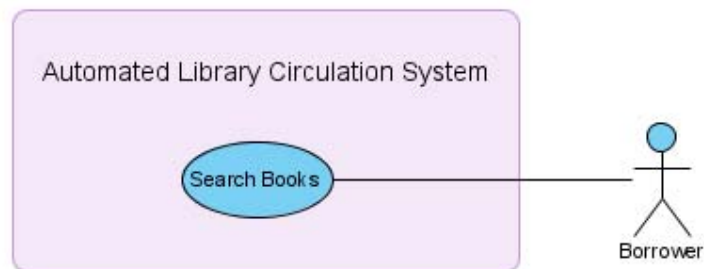
Brief Description
The *Search Books* use case enables the Borrower to search books.
Step-by-Step Description
Borrowers can go to a terminal and determine all the books in the library by a particular author, a specific title, in a particular subject area or the book number.
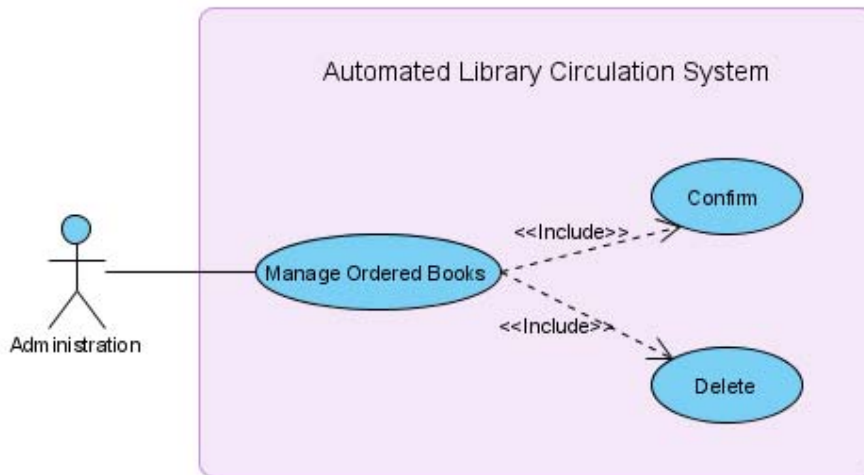
Hold on a book

Brief Description

The *Hold On* use case enables the Borrower to reserve the book he or she wants.

Step-by-Step Description

If a borrower wants a book currently checked out, the librarian can place a hold on the book so that, when it returned, it will be held for the borrower who requested it .you give the
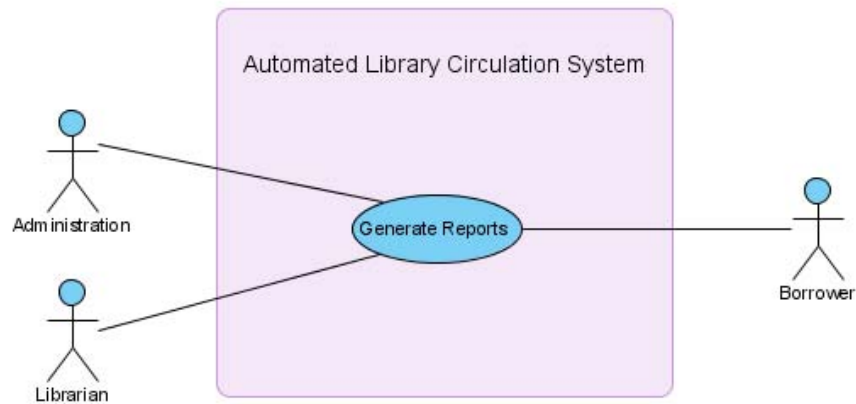
Manage Ordered Books

Brief Description

The *Manage Ordered Books* use case enable the administration to determine the order books

Step-by-Step Description:

The administration can determine to confirm or delete a book order.

Generate report

Brief Description

The *Generate Reports* use case enables the system to generate certain reports for Administration, Librarian, and Borrower.
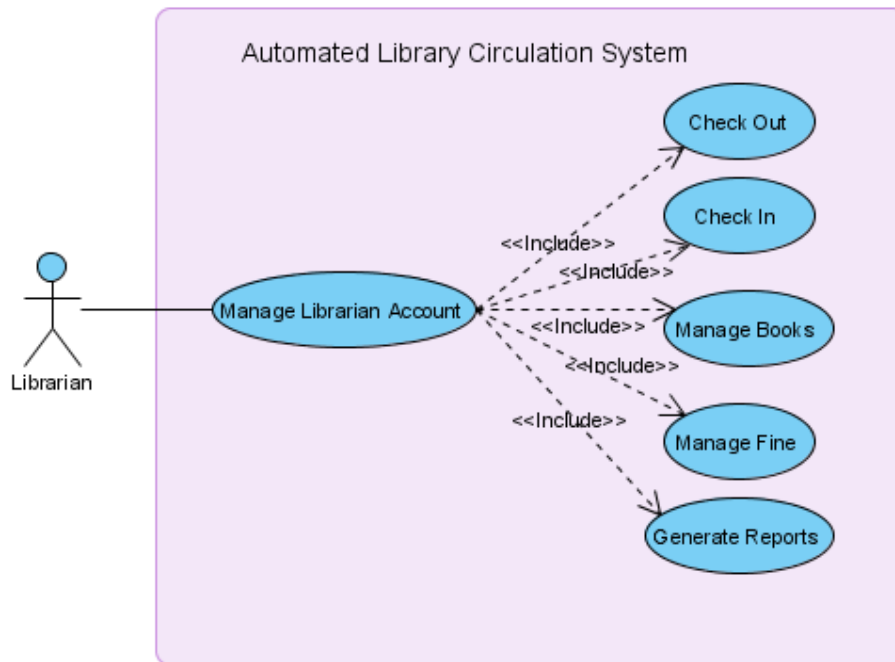
Step-by-Step Description

The administration, librarian and borrower can generate certain reports of their willing.
borrower: Personal books on order, personal loan frequency, current/past checkouts, check out/in date, books on hold, fine
librarian: information of particular borrower(include Personal books on order, loan frequency, current/past checkouts, check out/in date, books on hold, fine and so on),books on order, total loan frequency(books seldom/ frequency used), total current checkouts/check in ,total past checkouts/check in ,books hold on
administration: information of particular borrower(include Personal books on order, loan frequency, current/past checkouts, check out/in date, books on hold, fine and so on),books on order, total loan frequency(books seldom/ frequency used), total current checkouts/check in ,total past checkouts/check in, budget on ,books hold on

Manage Librarian Account

Brief Description:

The *Manage Librarian Account* use case enable the Librarian to check-out ,check-in, Manage Fine, Manage books and Generate reports.

Step-by-Step Description:

In this use case, the Librarian can do this function:

Check-out:
When the book check-out ,the system will record:
The borrower information :borrower ID number ,borrower name ,borrower gender, borrower school/major
the book information :book name, book number, book authority, check-in date, check-out date, book price , subject area
add the book to current check-out
Check-in:
When the book check-in ,the system will record:
the borrower information :borrower ID number ,borrower name ,borrower gender, borrower school/major
the book information :book name, book number, book authority, check-in date, check-out date, book price ,fine. add the book to past check-in, subject area

Manage book:
After search , librarian can add /delete/change/edit the books.
Manage Fine:

If a checked-out book is not returned in the due date, a fine will be added to the borrower's account with $0.10 per day (F= followed by the borrower's name). Any borrower who has a balance of over $5.00 is not allowed to check out any book until the fine is paid off. Generate reports:

The librarian can generate reports on information of particular borrower(include Personal books on order, loan frequency, current/past checkouts, check out/in date, books on hold, fine and so on),books on order, total loan frequency(books seldom/ frequency used), total current checkouts/check in ,total past checkouts/check in ,books hold on

Manage Borrower Account
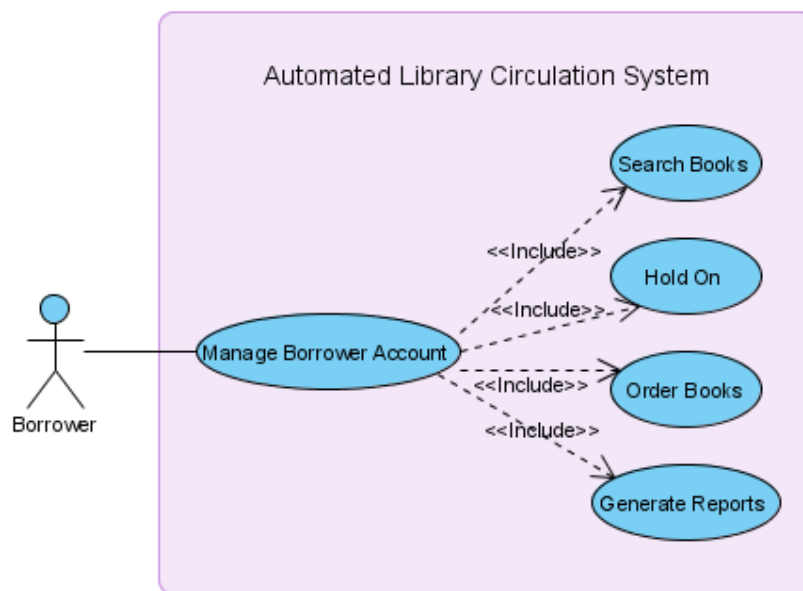
Manage Administration Account

Brief Description:

The *Manage Borrower* Account use case enable the Borrower to search Books ,Hold on,

Order books and Generate reports

Step-by-Step Description:

In this use case, the Borrower can do this function:

Search Books:

Borrowers can go to a terminal and determine all the books in the library by a particular author, a specific title, in a particular subject area or the book number.

Hold on:

If a borrower wants a book currently checked out, the librarian can place a hold on the book so that, when it returned, it will be held for the borrower who requested it .

Order Books:

Borrowers can determine whether to order a book, when you don't want the book ,you can also cancel the order .

Generate Reports:

The Borrower can generate reports on Personal books on order, personal loan frequency, current/past checkouts, check out/in   date, books on hold, fine
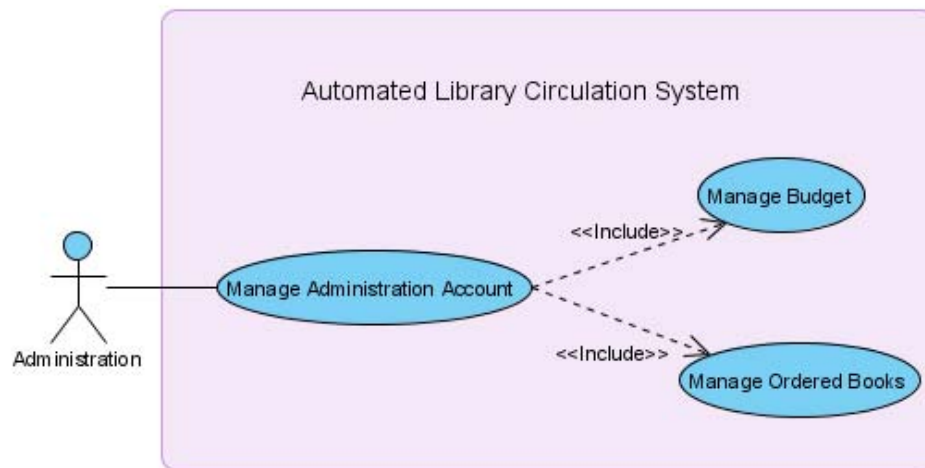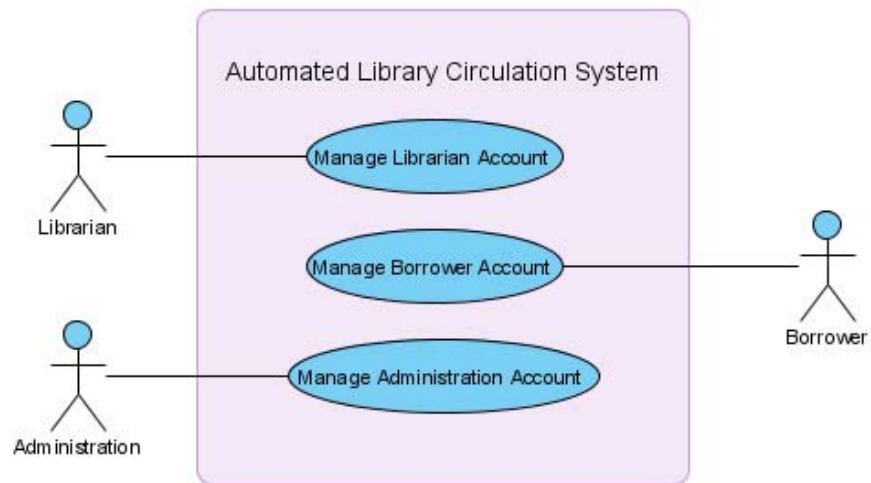

Automated Library Circulation System

Brief Description:

The *Manage Administration* Account use case enable the Administration to Manage Budget and Manage Ordered Books

Step-by-Step Description:

In this use case, the Administration can determine whether to order the book by the consideration of the budget, he can confirm or conceal the order .

Automated Library Circulation System

Manage Librarian Account

Librarian

Manage Borrower Account

Borrower

Manage Administration Account

Administration

Prototype:

Log in:

Library Log in

User Name:

Log in

Password:

Exit

Use a login system to distinguish the borrower, librarian ministration.

Log in as administration：

We will make the relationship between order and budget so that the administration can decide if he will buy the books.
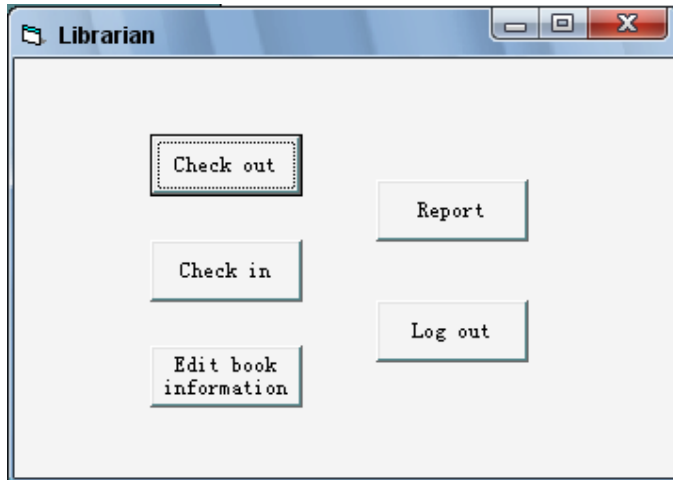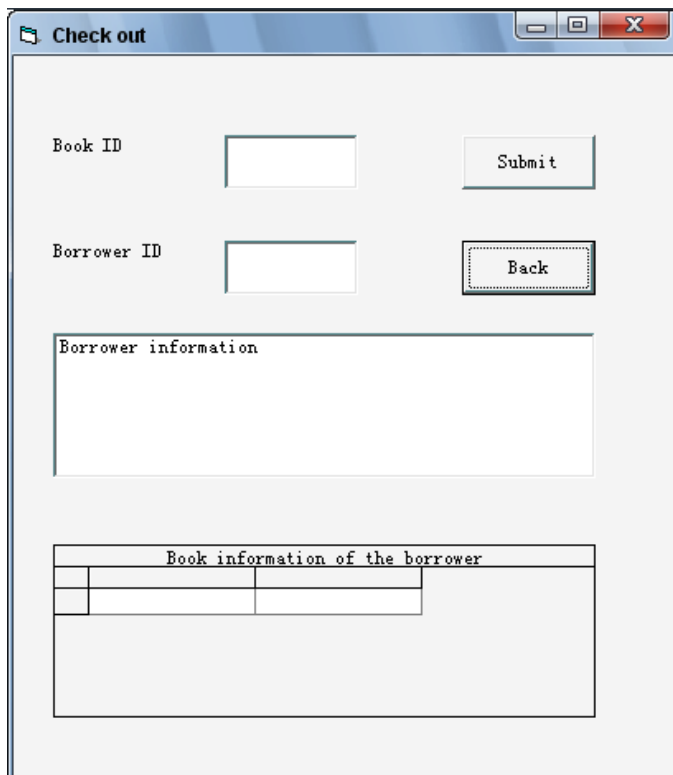
Administration can select information of particular student(include Personal books on order, loan frequency, current/past checkouts, check out/in   date, books on hold, fine), books on order, total loan frequency(books seldom/ frequency used), total current

checkouts/check in ,total past checkouts/check in, budget on.

Log in as Librarian:

The borrower information: borrower ID number, borrower name, borrower gender, borrower school/major

The book information: book name, book number, book authority, check-in date, check-out date, book price , subject area

The borrower information: borrower ID number, borrower name, borrower gender, borrower school/major

The book information: book name, book number, book authority, check-in date, check-out date, book price, fine, add the book to past check-in, subject area

Librarian can search by selecting a particular author, a specific title, in a particular subject

area or the book number.

Librarian can select information of particular student(include Personal books on order, loan frequency, current/past checkouts, check out/in date, books on hold, fine), books on order, total loan frequency(books seldom/ frequency used), total current checkouts/check in ,total past checkouts/check in
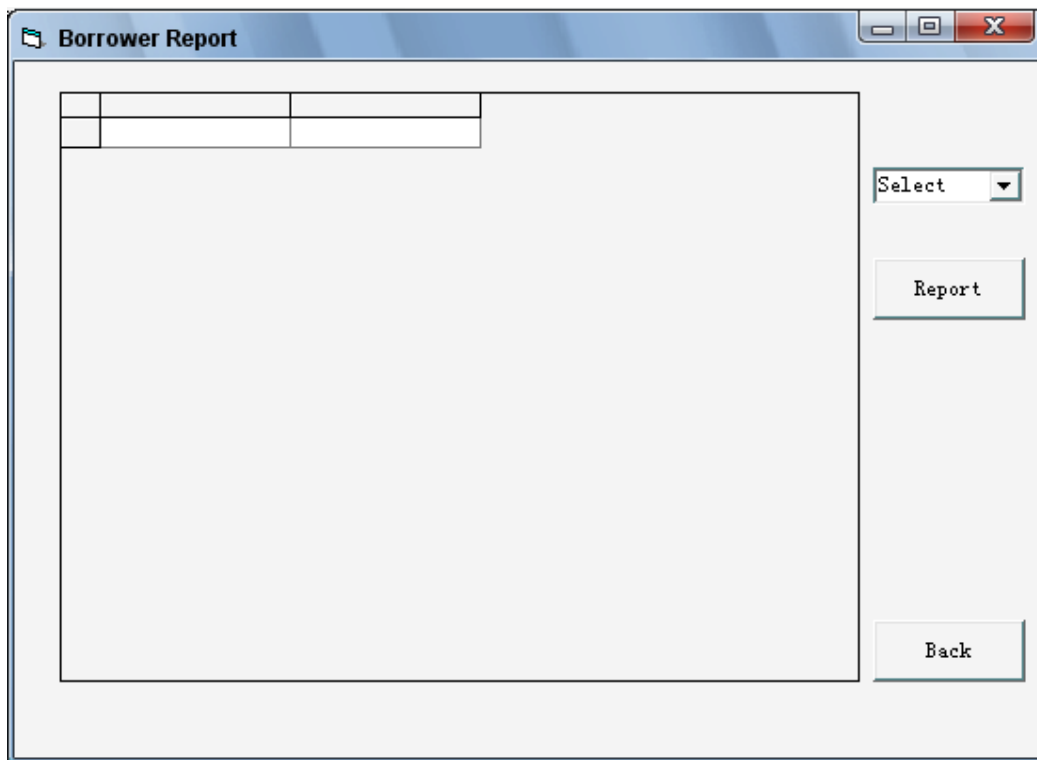
Log in as Borrower:

The borrower can search book by selecting and put in some key information.

The borrower can hold books and also can cancel the held books.

The borrower can order books and also can cancel the ordered book.

The held book and the ordered book can be showed at the frame of My Book.

Borrower can search by selecting a particular author, a specific title, in a particular subject area or the book number.

Borrower can select personal books on order, personal loan frequency, current/past, checkouts, check out/in date, books on hold, fine.

Log:

2009-10-22 The beginning of the project and we divide the work.
            The beginning of the requirement workflow
            xxx for the UML graph and the glossary
            yyy for the UML description
            zzz for the prototype

2009-10-26 The UML graph, brief description and the prototype are built.
            Use Visual Paradigm for UML 7.1 Community Edition to build UML.
            Use Microsoft Visual Basic 6.0 to build prototype
            The prototype does not link to any database.

2009-10-27 Have a discuss about the our UML and detail function of the project
            Change part of UML graph in order to satisfy the requirement.
            Change part of the prototype according to the change of UML graph.

2009-10-28 The glossary and detail description is built.

2009-10-29 Meeting and combine our work together.