```
                              ┌──────────┐
                              │  Start   │
                              └────┬─────┘
                                   │
                              ┌────▼──────────────┐
                              │ User Registration │
                              └────┬──────────────┘
                                   │
                                 ◇ User Type ◇
                         Student ╱           ╲ Librarian
                    ┌───────────▼────┐
                    │ Student Login  │
                    └───────┬────────┘
                            │
                    ┌───────▼────────┐
                    │ Search for Books│
                    └───────┬────────┘
                            │
                      ◇ Book Available? ◇
                  Yes ╱               ╲ No                    Remove Book
         ┌──────────▼─────┐   ┌───────▼──────────┐      ┌────────────────────┐
         │  Borrow Book   │   │ Request Notification│    │ Select Book to Remove│
         └──────┬─────────┘   └───────┬──────────┘      └────────┬───────────┘
                │                     │                          │
  ┌─────────────▼────────┐  ┌─────────▼────────┐      ┌──────────▼──────────┐
  │ Update Borrower Records│  │ Request Notification│   │ Update Book Database │
  └─────────────┬────────┘  └─────────┬────────┘      └──────────┬──────────┘
                │                     │                          │
  ┌─────────────▼────────┐  ┌─────────▼────────┐      ┌──────────▼──────────┐
  │ Send Borrow Confirmation│ │ Notify when Available│  │  Confirm Removal   │
  └──────────────────────┘  └──────────────────┘      └─────────────────────┘
```

Start

User Registration

User Type
- Student
- Librarian

Student Login

Search for Books

Book Available?
- Yes
- No

Borrow Book

Update Borrower Records

Send Borrow Confirmation

Request Notification

Notify when Available

Remove Book

Select Book to Remove

Update Book Database

Confirm Removal

```
                    Librarian Login
                          |
                          v
                    Manage Books
                          |
                          v
                       ◇ Action ◇
                      /           \
              Add Book          Update Book Information
                  |                      \
                  |                       v
                  |              Select Book to Update
                  |                       |
                  v                       v
          Enter Book Details      Modify Book Details
                  \                      /
                   \                    /
                    v                  v
                    Update Book Database
```

End

End Process

Activity Diagram of Library Managmant System

Confirm Addition