# Library Stack Management System

The Library Stack Management System will provide searching, borrowing and returning of books in quick time. When a user joins the system, a library membership card will be given. To use the facilities, the user would present the library card to the Librarian. The Librarian will verify the card and ask for the desired service. A user can access the following features:

  **i.** Search for a book

  **ii.** Borrow a book

  **iii.** Return a book

To *search for a book*, the user must first tell the system by which category they want to search. The following categories will be provided: subject, author name, book name, publisher name, accession number and year. Upon submitting, the queried entry or a list of entries will be displayed. Afterwards, the user will select the desired entry and the system will display information about the selected entry. The section number, shelf number and row number will be displayed as "Location" while information such as number of borrowable copies currently available in the library, accession number, book name, subject of the book, author's name, publisher's name and edition number will be displayed as "Book Information".

To *borrow a book*, the user would have to enter the desired accession number, member ID and a return date (return date must not be more than two weeks from borrowing date). The system will then check how many borrowable copies of the desired book are currently available in the library. If the number is zero, the system will report the unavailability of the book and ask the user if he/she would like to borrow a different book. Otherwise, the current accession number along with the provided return date will be appended into the member's borrow list/cart with necessary borrowing information i.e., borrowing ID, book name, accession number, borrowing date, return date. The number of borrowable copies of the book will be decremented in the database. The new entry will be marked as borrowed. The system will allow a member to borrow at most five books at a time.

To *return a book*, the user would be prompted to provide the borrowing ID. The system will then check the total fine charged associated with the borrowing ID and ask the member to complete payment of the fines (if any). The user will then give his fines and wait for approval. After payment is accepted, the entry with the borrowing ID in the borrow list/cart will be marked as returned and the number of borrowable copies of the returned book will be incremented in the database. The member's fine will be automatically updated by the system every day after exceeding the return date. For a delay of every working day, 5 taka per book will be charged as late fine. If the delay exceeds one month, the member will be notified about the delay including the total amount charged. Upon collecting the fines, the manager will update the fines charged and signal the system to update the borrowing information containing the borrowing ID.