

## **10. Library Information System (LIS):**

Different activities of the library of our institute pertaining to the issue and return of the books by the members of the library and various queries regarding books as listed below are to be automated.

- The library has 10,000 books. Each book is assigned a unique identification number (called ISBN number). The Library clerk should be able to enter the details of the book into the LIS through a suitable interface.
- There are four categories of members of the library: undergraduate students, post graduate students, research scholars, and faculty members.
- Each library member is assigned a unique library membership code number.
- Each undergraduate student can issue up to 2 books for 1 month duration.
- Each postgraduate student can issue up to 4 books for 1 month duration.
- Each research scholar can issue up to 6 books for 3 months duration.
- Each faculty member can issue up to 10 books for six months duration.
- The LIS should answer user queries regarding whether a particular book is available. If a book is available, LIS should display the rack number in which the book is available and the number of copies available.
- LIS registers each book issued to a member. When a member returns a book, LIS deletes the book from the member's account and makes the book available for future issue.
- Members should be allowed to reserve books which have been issued out. When such a reserved book is returned, LIS should print a slip for the concerned member to get the book issued and should disallow issue of the book to any other member for a period of seven days or until the member who has reserved the books gets it issued.
- When a member returns a book, LIS prints a bill for the penalty charge for overdue books. LIS calculates the penalty charge by multiplying the number of days the book is overdue by the penalty rate.
- LIS prints reminder messages for the members against whom books are over due, upon a request by the Librarian.
- LIS should allow the Librarian to create and delete member records.
- The Librarian periodically needs to check if there are any books which have not been issued even once during the last five years. He uses this information in planning to dispose off unused and old books. For this purpose it is necessary for LIS to maintain the statistics regarding issuance of different books.
- When books are disposed off, the Library clerk should be able to delete the book from the list of books in the Library and when a book is procured the system should support entering the details.