Assumptions

1. System Architecture
   1.1. The system will consist of backend components, including a server and a database for storing both administrative and user data, as well as frontend components such as a website. It will support simultaneous service for multiple clients.
   1.2. Communication between the server and clients will occur over the internet.
2. Third-Party Systems
   2.1. Third-party systems will provide APIs that facilitate quick and straightforward integration.
3. Books data
   3.1. The handling of "rare" books will be further detailed later. For now, books can be marked as rare and have the option for special borrowing conditions.

Dana is a library manager seeking to develop a system to assist her in managing the library and its borrowing services. Dana summarized her software requirements in the :following document

I am a library manager overseeing a collection of various types of books, including reference books, textbooks, reading books, and children's books. Managing the library—from the initial receipt of books to their borrowing and return—is very complex, and the software tools currently available on the market do not provide a suitable solution. Therefore, I am interested in a tool that will help simplify the library .management process and the borrowing of books, as I will describe below

For each book, I want to enter its title, author’s name, publication year, category, a brief description, and the number of available copies. Additionally, there should be an option to enter the publisher’s details and the book’s genre. If a book is rare, I want the option .to mark it as such and manage its borrowing in a special way

The system should allow library patrons to connect remotely, register with their details, and browse the book catalog securely. Book borrowing will be handled through an external software system that I have already purchased. After borrowing, a reminder will be sent to the customer’s provided email address. Email sending will also be handled through an external system. Customers will be able to cancel their book borrowings at any time and return the books to the library. The system will record the return, and the .book cannot be borrowed again until the return is properly registered

At any given moment, I want to be able to track the status of book borrowings and also send email notifications to those who have borrowed books, for updates and reminders .about return dates

The system should support managing book loans between different libraries. It should be possible to register which libraries participate in the system and enter data about book loans between libraries. Each library will have the ability to borrow books from other libraries and return them according to agreed conditions. Additionally, the system .will allow libraries to track books borrowed from them by other libraries and vice versa

The system will also assist in managing external suppliers who provide books to the library. It should be possible to manage a list of book suppliers, including contact details. Each library will be able to manage its own list of suppliers and enter data about books received from them. If suppliers provide additional services such as lectures or .workshops, the system should also support managing these interactions

The system should be simple to operate, and I expect it to help me organize the .management process and save me a lot of unnecessary work

,Best regards

Dana, Library Manager