

1/10/2020

LAB WEEK 2

SRS document for library management.

1. Introduction:

1.1 Purpose of the requirement document: To specify software requirements of a library management system.

1.2 Scope of the product: Users are allowed to borrow books post 9am and must return them before 9pm.

1.3 Overview: Detailed information about the requirements and general borrowing procedures.

2. General Description:

2.1 Product Perspective:

* Library Staff perspective: They can view the details of the book being borrowed also about the customer details borrowing the book. Has complete information about the working staff line name working details etc..

* Book perspective: All information about the available books, line ID, issue date, return date, author, publish date, customer who borrowed the book.

* Customer perspective: Details of all available books, info on books, working hours of library subscription plans.

2.2 Product functions:

* Borrowing/Returning books

* Donating books

* Security System

* Library Staff Maintenance.

2.3 User characteristics:

- * customers must have valid library card to borrow/return books.

2.4 General constraints:

- * customer must have valid library card to borrow/return books.
- * Books should be borrowed after 9am & return before 9pm.
- * library cards can be obtained through subscription plans only
- * can borrow only 3 books at a time
- * Books can be borrowed only for 3 weeks.

2.5 Assumptions and Dependencies:

- * customers must ensure that borrowed books are returned in original condition
- * Donated books must be in good condition
- * library card can be obtained only if there is a valid subscription.

3. Functional Requirements:

- * Book borrowing & returning system: Books can be borrowed by scanning the library card.
- * library card generating system: library cards will be provided only with valid proof of subscription to the library.

4. Interface Requirements:

- * User Interface: Borrow/Return functionality
- * API
- * Database interface for books and customer detail
- * User Authentication: for ^{generating} library card

5. Performance Requirements:

* **Response Time**: The system should return search results for books within 2 seconds for a query.

* **Availability**: system should be available to users.

* **Error handling**: handle errors efficiently.

* **Security**: all info should be stored safely.

6. Design constraints:

* **Database** should be large enough to store all the information about customers, staff, book details.

* Should be developed in a form of ~~microservices~~ **services** & should be containerised.

7. Non functional Attributes:

Security, Reliability, Reusability, Application compatibility, Data integrity, Availability.

8. Preliminary Schedule & Budget:

Approximately a duration of 4 months will be required: To hire staff, DBAs, training & documentation, testing etc..

Overall Budget should be approx 45 lakhs.

Luc
1/10/24