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LAB 2

a. SRS document for library management system

1. Introduction:

1.1 Purpose of this document : to specify the software requirements of a library management system

1.2 Scope of this document : Users are allowed to borrow a book post 9am and return a book before 9pm. Allowed to borrow only 3 books at a time, and should always produce library card while borrowing.

1.3 Overview: detailed information about the requirements in 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 like name, working details, etc.
- Book perspective : All information about the available books, like 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 function:

- Borrowing / returning books
- Rating books



- Security system
- library staff maintenance

2.3 User characteristics: customers must have valid library card to borrow/return books

2.4 General characteristics:

- customer must have valid library card to borrow/return books
- books should be borrowed after 9am and 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 Assumption and dependencies:

- Customers must ensure that the borrowed books are returned in original condition
- Damaged books must be in good condition
- library card can be obtained only if there is a valid subscription

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3. Functional requirements:

- Book borrowing and 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 customers



5. Performance requirements:
- the system should respond within 2 seconds for a search query
 - Security : all information should be stored safely & efficiently
6. Design constraints:
- database should be large enough to store all the info about customers, staff, book details and should be relational database
 - should be developed in the form of micro servers & should be containerised
7. Non-functional requirements: security, reliability, reusability, application compatibility, data integrity, availability
8. Preliminary schedule & budget : approximately the project will take 4 months to complete which includes staff ^{& engineering} ~~software~~ requirements and plan the whole software development, development and test it. Budget is needed is nearly 50 lakhs.

Done
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