

Library Management:

1. Introduction:

• Purpose:

The purpose of the Library Management System is to automate the management of books, members and transactions within a library.

• Scope:

The management System ~~will~~ be used by librarians, library members and administrators.

The system ~~will~~ include modules for categoring books, managing member profiles, handling borrowing and returning, generating reports.

• Overview:

The System is designed to manage library resources effectively. It provides an intuitive interface for librarians to manage books & patrons, and for patrons to view and borrow available books.

2. General Description:

- i) Catalog Management
- ii) Member Management
- iii) Transaction Management
- iv) Report Generation
- v) Notification System

3. Functional Requirements:

- i) Book Management
- ii) Member Management
- iii) Transaction Management
- iv) Report Generation
- v) Notification System

i) User Management

4. Interface Requirements:

i) User Interface

ii) Hardware Interface

iii) Software Interface

5. Performance Requirements:

i) The system should support atleast 100 concurrent user

ii) Response time for a search query should be less than 2 sec.

iii) The system should be capable of handling upto 1 million book records

6. Design Constraints:

i) Scalability

ii) Technology

iii) Platform

iv) Security

7. Non-functional:

i) Usability

ii) Reliability

iii) Maintainability

iv) Data Integrity

v) Security

8. Preliminary Schedule:

i) Phase I: Req. Requirement Gathering & Analysis (2 week)

ii) Phase II: System Design (3 weeks)

iii) Phase III: Database Development (2 week)

- iv) Phase IV: Front-end & Back-end Development (4 weeks)
- v) Phase V: Integration & Testing (3 weeks)
- vi) Phase VI: User Training & Development Maintenance

9. Preliminary Budget

- i) Software Development: \$15000
- ii) Hardware: \$5000
- iii) Testing: \$2500
- iv) Training: \$2000
- v) Maintenance (per year): \$3500
- vi) Total Estimated Budget: \$28,000

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