LIBRARY MANAGEMENT

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INTRODUCTION

As you all know with the increase in the number of readers, better management of libraries system is required. The library management system focuses on improving the

management of libraries in a city or town. “

SCOPE OF THE PROJECT

The project's client has determined that this application will provide the

following benefits:

• Provide additional flexibility and convenience to the library users.

• Provide better reliability and security of the library information.

• Provide a more productive environment for the library staff member.

• Reduce the cost of the library operations.

The availability of information at any time in any place

PROJECT DESCRIPTION

Library Management system is the system that manages the book data, staff data members’ registration process and create receipt for the fine paid by the member

1 Product Perspective DLS SYSTEM is used for Library Manager, Librarian, and Library User. The system is self-contained. However, it is possible to exchange data with other system through external interface if required. The following is a typical system diagram:

USES OF LIBRARY MANAGEMENT

This system completely automates all your library’s activities. The best way to maintain, organize, and handle countless books systematically is to implement a library management system software.

A library management system is used to maintain library records. It tracks the records of the number of books in the library, how many books are issued, or how many books have been returned or renewed or late fine charges, etc.

You can find books in an instant, issue/reissue books quickly, and manage all the data efficiently and orderly using this system. The purpose of a library management system is to provide instant and accurate data regarding any type of book, thereby saving a lot of time and effort.

PROJECT CONSTRAINTS

The computer viruses, lack of standardization for digitized information, quick degrading properties of digitized material, different display standard of digital product and its associated problem, hazard nature of the radiation from monitor etc. makes digital libraries sometimes handicap.

1. Copyright: – Digitization violates the copy right law because the thought content of 1 author are often freely transfer by other without his acknowledgement. So One difficulty to beat for digital libraries is that the thanks to distribute information. How does a digital library distribute information at will while protecting the copyright of the author?

2. Speed of access: – As more and more computer are connected to the web its speed of access reasonably decreasing. If new technology won’t evolve to unravel the matter then in near future Internet are going to be filled with error messages.

FUNCTIONAL REQUIREMENTS

Functional requirements in an SRS document (software requirements specification) indicate what a software system must do and how it must function; they are product features that focus on user needs

BUISNESS RULES

You need to define every system activity for each function within the system and address all functional requirement types. That’s why this section will probably be the longest amongst the others as many requirements may fall under this categorization.

ALGORITHMS

Algorithms capture any formulas or manipulations of data elements that need to occur.

AUDIT TRACKING

Audit tracking is the process of tracking critical data.

EXTERNAL INTERFACE

These functions concern the external interface of systems other than the main system.

CERTIFICATION REQUIREMENT

Your organization might require certifications to work on the system, such as security certifications.

HISTORICAL DATA

You will have a growth of data if your database is dynamic, so you need to define storage requirements to accommodate these data.

ARCHIVING

Your system’s data may grow beyond your storage capacity, so the projects must have the capability to archive the data for long-term storage.

NON-FUNCTIONAL REQUIREMENTS

USABILITY

Usability is the main non-functional requirement for a library management system. The UI should be simple enough for everyone to understand and get the relevant information without any special training. Different languages can be provided based on the requirements.

ACCURACY

Accuracy is another important non-functional requirement for the library management system. The data stored about the books and the fines calculated should be correct, consistent, and reliable.

AVAILABILITY

The System should be available for the duration when the library operates and must be recovered within an hour or less if it fails. The system should respond to the requests within two seconds or less.

MAINTAINABILITY

The software should be easily maintainable and adding new features and making changes to the software must be as simple as possible. In addition to this, the software must also be portable.

CONCLUSION

This paper mainly focuses on how we can improve the traditional method of working of a library because the traditional method includes doing all the things in manual mode which is slow, less efficient, less secure, and difficult to manage. The solution to this is an online library management system which take care of all the work by automating and digitizing the whole process. Our application is based on Java and is linked to a relational database The frontend part has been coded using Java and its packages like and swing. The backend is supported and connected with database using java, its libraries and APIs. With the increase in the workload of the library, new features can be added to the existing application to make it relevant in the future as well.