

Library Book Management using RFID Technology

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APPLICATION

RFID LIBRARY BOOK MANAGEMENT

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WHY RFID ?

- Benefits for Library
 - Lower manpower utilization in Library
 - Self Check in, Shelf Management, Inventory
 - Automatic and Real time update of the data base.
 - Cost Effective and Scalable for future expansion

WHY RFID ?

- Benefits for USER

- Easy and convenient to use
- Higher availability of items and articles due to faster item turnover
- Due to faster transactions, the items are available as soon as they are returned
- Late Hour Book Drop facility .
- **Introducing Late Hour Book Issue Facility**

Features of Library Book Management Using RFID

Functional modules (As per requirement)

Basic Software :Self Check In/out ,
Inventory /stock
Book Late drop/issue,
Anti Theft ,
Book search/shelf Management/reservation/notification.

Add on modules- Blue tooth, Ethernet, WIFI,SMS

Operating system

windows

Database

MY SQL

Network Architecture

TCP/IP client /server architecture

User interface

Graphical user interface (GUI) easier to work with it and allow wide range of task to complete easily

LIBRARY MANAGEMENT



Function modules of the RFID library book management

Acquisition module

- Receiving and claiming of materials from vendor
- Tagging
- RFID Based Identity Card.
- Define record format in the data base.

Cataloging module

- Creation, storage, retrieval of bibliographic records.
- Define record format in the data base for authority control

Circulation module

- Books issues/deposits (Rapid Retrieval system) in non working hours of the library
- Self check in /out
- Anti-theft detection with alarm
- Announcement of new arrivals via Bluetooth to mobiles
- Book counter check in /out
- Users account Information
- Book Management and status information
- Shelf Management
- Stock taking/inventory reports

What is Tagging?

- The RFID tag is programmed via host with the complete details of the book and database is updated with all the information
 - Book name
 - ISBN
 - Publisher
 - Published date
 - Author
 - Book status
 - Description
 - Shelf Number Row /column
- Now the tagged books are placed in the library shelf/Rack
- Software Module used : **Inventory/Stock**

Book counter check IN/OUT

- Book Issue by SELF
- Simple procedures
 - Keep The member card
 - Keep the book / books
 - ISSUED/ RETURNED
- Books issued can exit library w/o Alarm

Search/Reserve/get notified

- The user can use this facility to know about the books available and at which place (Shelf Row/column)
- The due dates are sent by SMS . (optional)
- The user can view the latest announcements in the library
- The user can get their account / fine information

Reserve/Drop a book in library

Novell Advantages:

- You send an SMS / Email/ Msg via Bluetooth to reserve the book which can be collected during non working hours from the user book locker which can be accessed through RF ID card only
- Send SMS < memid bookid >
- GET SMS < bookid Date >
- Drop a book in the library during late hours

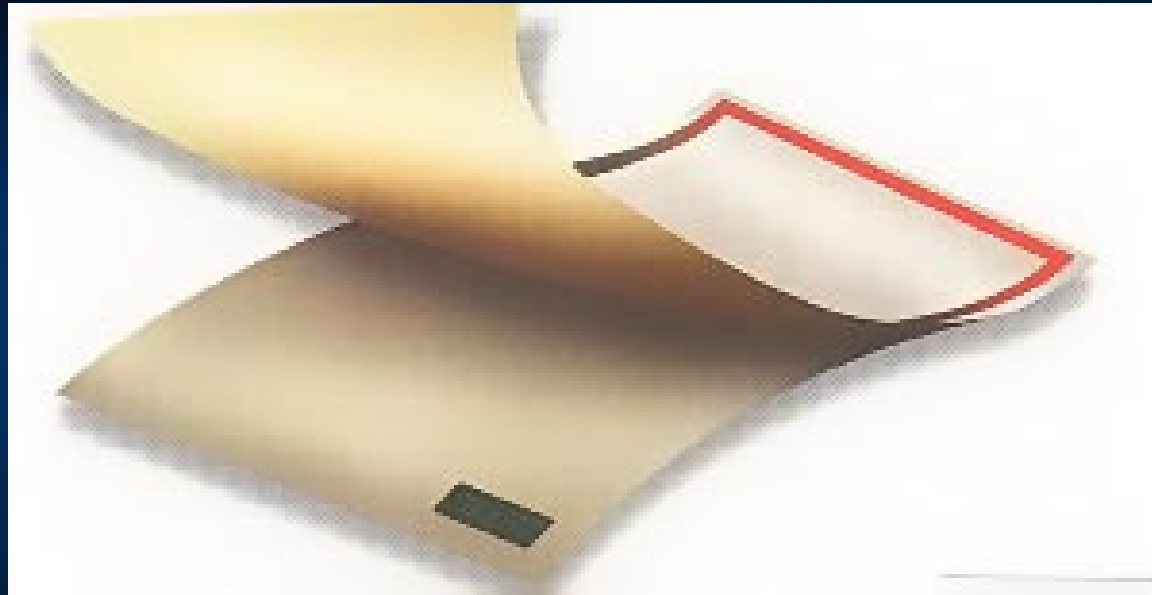
Anti Theft Detection

- The RFID reader at the exit will SOUND alarm in case of improper book checkout.
- Librarian intervention is required to clear the alarm /false alarm.

MEMBER TAG

- RF TAG's are attached to Personal ID card.
- Member personal information updated in Data base .
- Information like:
 - No of books authorized
 - No of books loaned
 - Reservations
 - Notifications
 - Active member ship etc

BOOK Tags





**Thank
You!**