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Advance Library Management System

[1]Ishan Ojha, [2]Archita Upadhyay, [3]Avinash Bhatt, [4]Sahaj Pratap Singh, [5]Santosh Dubey
[1]Student, [2]Student, [3]Student, [4]Student, [5]Assistant Professor
[1] Department of Electronics and Communication Engineering
[1] United College of Engineering and Research

Abstract- ***The Advance Library Management System is a management system designed to oversee and supervise library transactions. A work called "Advanced Library Management System" was created using Python and Raspberry Pi, which primarily addressed fundamental library functions like book requests, book returns (such as time tables), book tags, user management, and so on. This machine is user-friendly for both novice and skilled users.***

INTRODUCTION

Advance Library Management System is a machine that is related to another library system and is suitable for use in small and medium-sized libraries. In this document, we only mention the online system, which is the website and a small part of the offline system. It is utilized by both system administrators and regular users. The website is designed to help regular users use the library's services. For example, to find out if this book is currently in the library. A site can be deployed by an administrator. They can refresh the site and see the same report.

PROPOSED SYSTEM

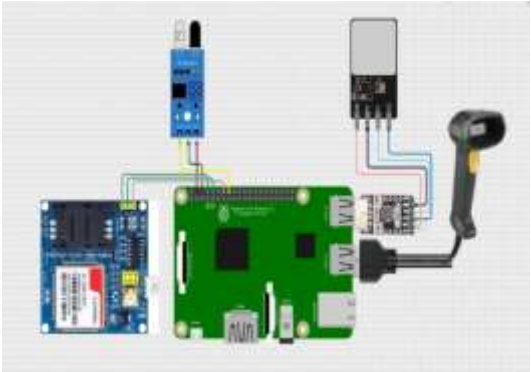
The project aims to simplify the purchase of books by allowing users to order books online. We aim to increase the efficiency of online book searching and create a user-friendly graphical interface to make it more accessible. In addition, the proposed system focuses on database integrity, ensuring data integrity and security while minimizing the risk of data loss. Overall, the project attempts to transform the online bookstore experience through efficiency, accessibility, and powerful data management.

SYSTEM REQUIREMENT

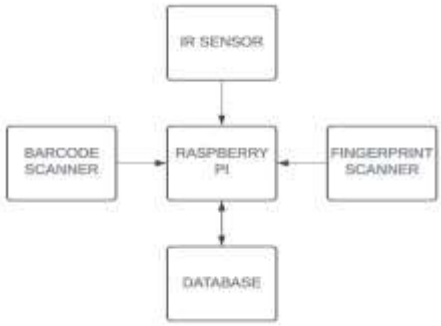
a) User interface: It may contain buttons or icons whichever may be interactive.
b) Hardware interfaces:
- Windows 7 or above
- Processor: Pentium or above.
- Hard disk: 1 TB.
- RAM: 256 MB or more.

c) Software interfaces/Language Used: Python
d) Database: MySQL.

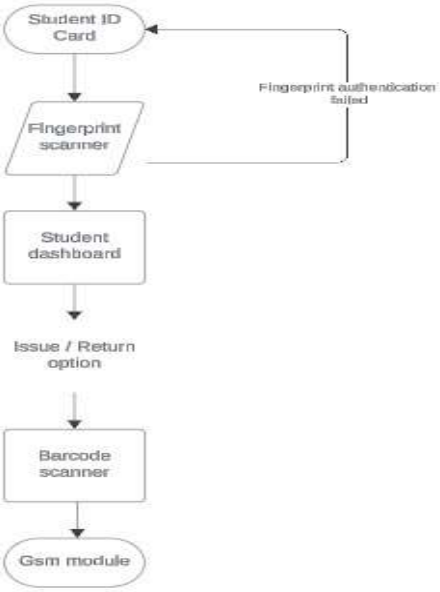
CIRCUIT DIAGRAM



BLOCK DIAGRAM



FLOWCHART



IMPROVEMENT / FUTURE ENHANCECMENT

1) Some problems can be removed or eliminated by AI.

2) Auto fill and rebooking by showing the student's college ID will eliminate the problem of returning a wrong book; a message will be sent to the student one day before the last date.

3) Students can pick up books from the library and the books will be credited to the student's account(All sensors use).

4) Anti-theft for all books.

5) The student's university ID becomes an electronic card that can hold money (coins) and withdraw the fine directly.

6) When returning books, the book section is different in each branch.

7) Book fines are automatically generated.

CONCLUSION

This document is a small project to meet the written requirements in a short period of time at the beginning of the document, and should be updated regularly as the document evolves according to the needs of the organization. This "Advanced Library Management System" has been calculated and successfully tested in many test cases. The interface is simple to navigate and offers a variety of options for achieving your objectives.

ACKNOWLEDGMENT

We are grateful to our project guide Prof. Santosh Dubey whose motivation and encouraging guidance made our project a success. Our project guide provided his professional guidance, friendly advice and timely motivation to help us make decisions about the project. Many thanks to our H.O.D. Professor Dr. Nandita Pradhan provided the computer hardware to the project in our lab and helped us to make it a success.

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