# A MINI PROJECT ON LIBRARY MANAGEMENT SYSTEM

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# **ABSTRACT**

- The main objective of the mini project library management system is to provide service to the library in maintaining records of the books present in library.
- It can perform some operations adding a book, searching a book, deleting a book record, updating a book record, issuing a book record, viewing a book record.
- Each book holds details like category, book name, author, id, quantity, price, rack no,
- Each issued book contains details like student name, student roll no, issued date month and year, return date, month, year.
- The records here are maintained in files.

# I.INTRODUCTION

- Generally, it is very difficult to maintain records of books present in library such as book category, name, quantity, etc., physically in a book.
- A digitalized maintainance of records would be a best solution to make the task easier.
- In order to store the information of books present in library and performing the more operations adding an additional benefits, a library management system is designed.
- This project works with objective of providing a best platform for the maintenance of information regarding books.

# **OBJECTIVE**

- The main objective of the project library management system is to provide a easy access for the admin to maintain the details of books and record of availability of books present in the library.
- This can handle adding, editing, deleting, viewing, issuing, searching operations.

#### **CONCEPTS USED:**

- **FILES**: files in this project are used to store the records of books
- **STRUCTURES**: these are used to hold the details of the books present such as category, name, author, price ......etc.,
- FUNCTIONS: each module operations is designed using each function for specific module

# **REQUIREMENTS**

#### MINIMUM HARDWARE REQUIREMENT HARDWARE:

#### **USED**

**OPERATING SYSTEM: Windows/Linux** 

RAM : 4GB

PROCESSOR : i3

HARDDISK : 100 MB

MINIMUM SOFTWARE REQUIREMENT:

Linux environment

GCC

vi editor

# 2. MODULES IN THE PROJECT

- ADDING BOOKS
- SEARCHING BOOKS
- UPDATION OF BOOKS
- VIEWING OF BOOK LIST
- DELETION OF BOOKS
- ISSUING BOOKS

# MODULE-I (ADDITION OF BOOKS)

- In this module the addition operation can be done which saves the added book details in the file holding each and every record of books entered
- INPUT: option the specifies to which branch the book belongs and the details of book like book title, author, price, quantity, rack.no.
- OUTPUT :the details given as input is stored in a file.

#### **ADDING BOOKS**

o.exit Enter your choice Categories are : 1.Computer 2.Electronics 3.Electrical 4.Civil 5.Mechanical 6.Architecure Enter the category number enter the book ID 101 enter the book name Drillingc Enter the Book Price 120.4 Enter the author name of the book Richard Enter the quantity Enter the rack number Do you want to enter any other record of a book 1.Yes 0.no0

2.1 ADDING BOOKS

# MODULE-2(SEARCHING BOOKS)

- In this module the books entered into record is searched whether it is present in the book list if present returns the book details to standard output screen.
- INPUT : book name to be searched is given as a input
- OUTPUT: if input book name is present in the list the book details are displayed, else an searched book doesn't exist message is displayed.

#### SEARCHING A BOOK

2.2 SEARCHING A BOOKS

# MODULE-3 (UPDATION OF BOOKS)

- In this module the updation or editing of book details present in the book list is done.
- INPUT: book name is given as an input for which the details need to be updated.
- If present then the details you wanted to update is given as input
- OUTPUT: the output of this module is, updations of details of book present is saved in file if the input book name entered is present in the book list, else a error message is displayed.

#### **EDITING A BOOK**

```
6.Issuse a Book
0.exit
Enter your choice
Enter the book title to update
Drillingc
The book catogery is Computer
enter the book ID
101
enter the book name
Drillingc++
Enter the Book Price
Enter the author name of the book
RichardThies
Enter the quantity
Enter the rack number
```

2.3 EDITING A BOOK

# MODULE-4(VIEWING OF BOOKS)

- In this module the book details present in the record is viewed at the standard output screen .
- INPUT: here no input is taken for this module after the selection of this operation the output is displayed
- Output: the output here is the details of each and every book record entered into the list displayed on the standard output screen.

#### **VIEWING A BOOK**

2.4 VIEWING A BOOK

# MODULE-5(DELETION OF BOOK)

- In this module the entire record of specified book given as input is deleted from the list.
- INPUT: the input here is the name of the book you wanted to delete
- Output :if the book name entered is present in book list the file content is upadated by
  deleting the existing book record, if not an error message is displayed allowing to delete
  further more if u want.

# MODULE-6(ISSUING OF BOOKS)

- In this module performs 4 operations say,
- Issuing a book
- Viewing issued book
- Deleting issued book
- Searching issued book
- INPUT : option for specific operation to perform is given as input
  - I. takes book name, student name and student roll.no date of book issued as input

#### MODULE - 6

2.no input

3.takes book name as input

4.takes book name as input

OUTPUT: I.stores the details entered into a file'

2.views all the books and details present in the record

3.delets the book name entered and updates the file

4. displays the details of specific book searched if present

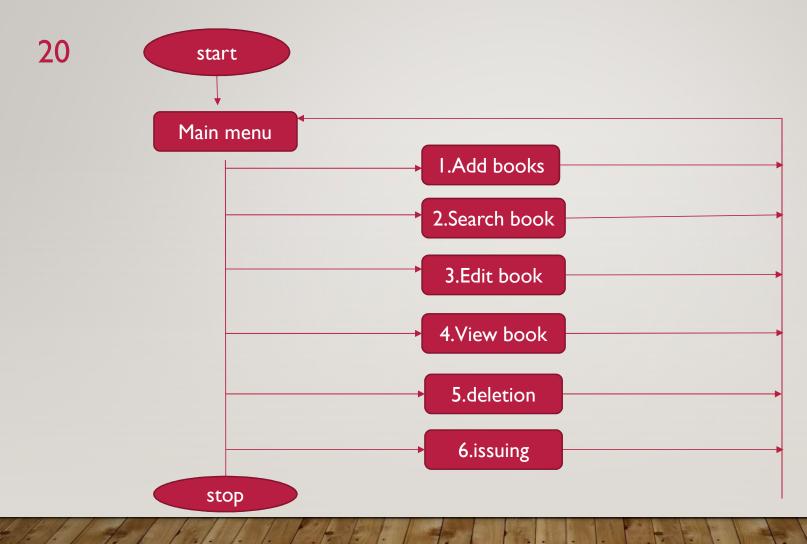


#### **ISSUING A BOOK**

```
++++++++++++++++++++++++++++++++++
1.Enter a record
2.view all records
3.Search a book record
4.Update a book record
5.Delete a book record
6.Issuse a Book
0.exit
Enter your choice
1.Issue a Book
2.View Issued Books
3.Search Isssued Books
4.Remove a Issued book
0.exit
Enter your choice
```

2.6 ISSUING A BOOK

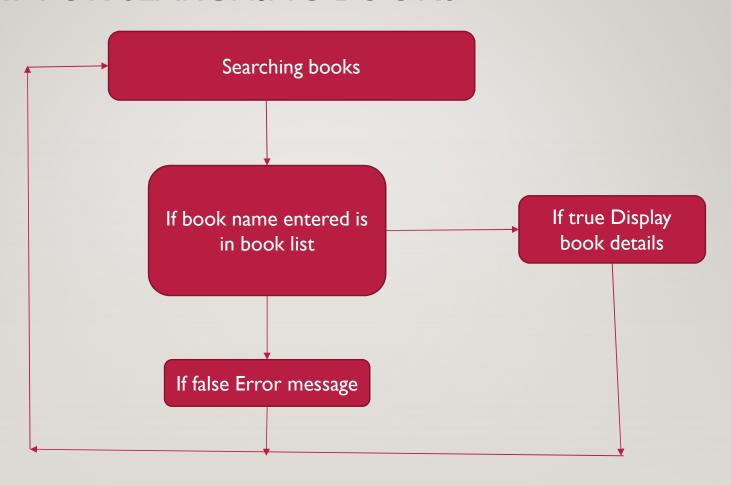
## FLOW CHART: MAIN MENU



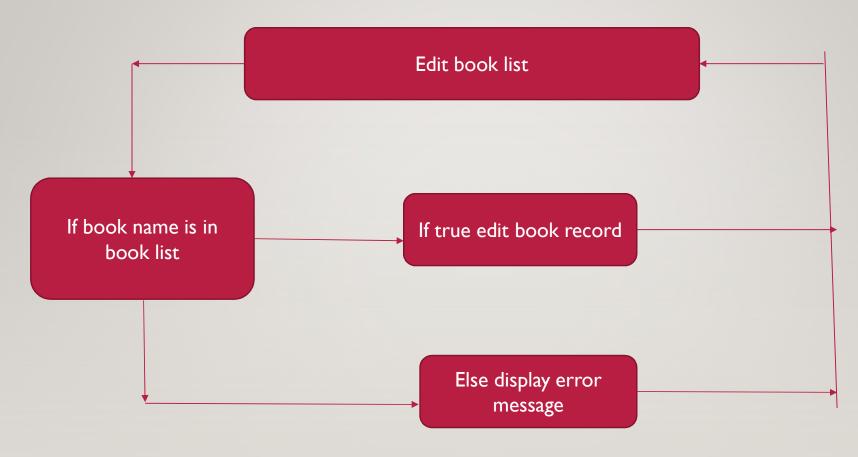
### FLOW CHAT FOR ADDING BOOKS:



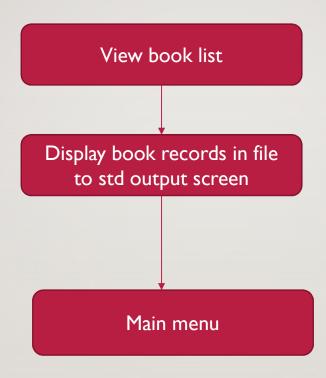
# FLOW CHART FOR SEARCHING BOOKS



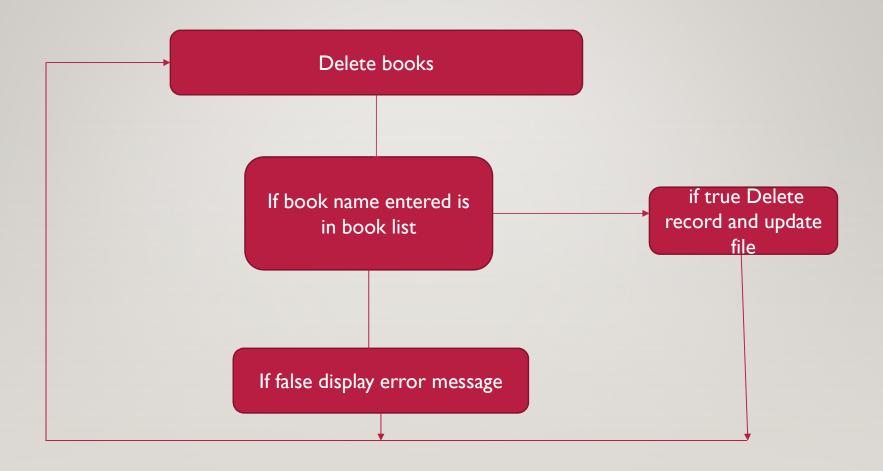
#### FLOWCHART FOR EDIT BOOKS



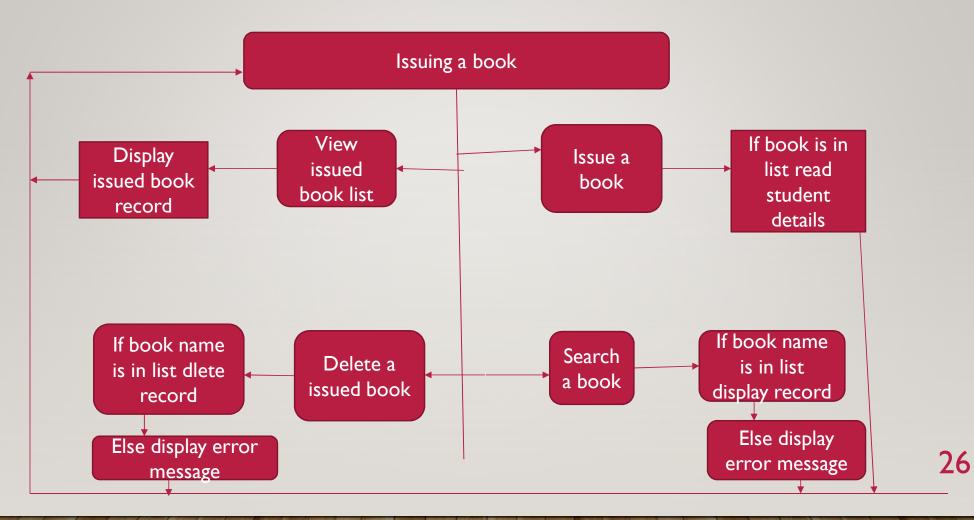
### FLOWCHART FOR VIEW BOOKS



### FLOWCHART FOR DELETE BOOKS



#### FLOWCHART FOR ISSUE BOOKS



#### **ROLES FOR BATCH MEMBERS**

#### **ROLL.NO**

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#### **ROLES**

- ADD BOOKS
- DELETE BOOKS
- DESIGNER& ANALYSING
- SEARCH BOOKS
- ISSUE BOOKS
- DESIGNER&ANALYSING
- VIEW BOOKS
- PROGRAM EXECUTION
- EDIT BOOKLIST

# STATUS OF THE PROJECT







Analysis 100%

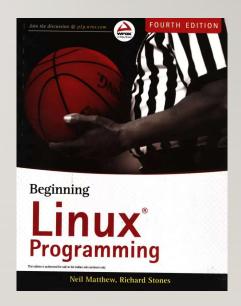
Design 100%

Coding 100%

#### **REFERENCES**

- BEGINNING OF LINUX PROGRAMMING.
- NEIL MATHEW AND RICHARD STONES, WILLEY DREAMTECH, FOURTH EDITION, 2008.
- PROGRAMMING WITH C LANGUAGE, BALAGURUSWAMY.
- ONLINE REFERENCES: CODE WITH C
- SOFTWARE DOWNLOADED :

https://www.ubuntu.com/#download.



#### **FUTURE INFERENCES**

- The library management system mini project designed so far is more advantages for the admin to know the details and perform operations on books present in library
- In future we can update more operations that serves to be more advantageous to the user for getting information of the books present in library
- The operations may include like locking a book, claim for book, check availability.....etc.,

#### CONCLUSION

- With the project library management system we conclude that it provides a best platform for the maintenance of information regargding books present in the library.
- Taking consideration to the future references it can also provides services to the users to know the details of book, locking a book needed ......etc., operations.
- With the designing of this project the c concepts and linux concepts were revised and also the interaction and working in the linux environment is also developed

