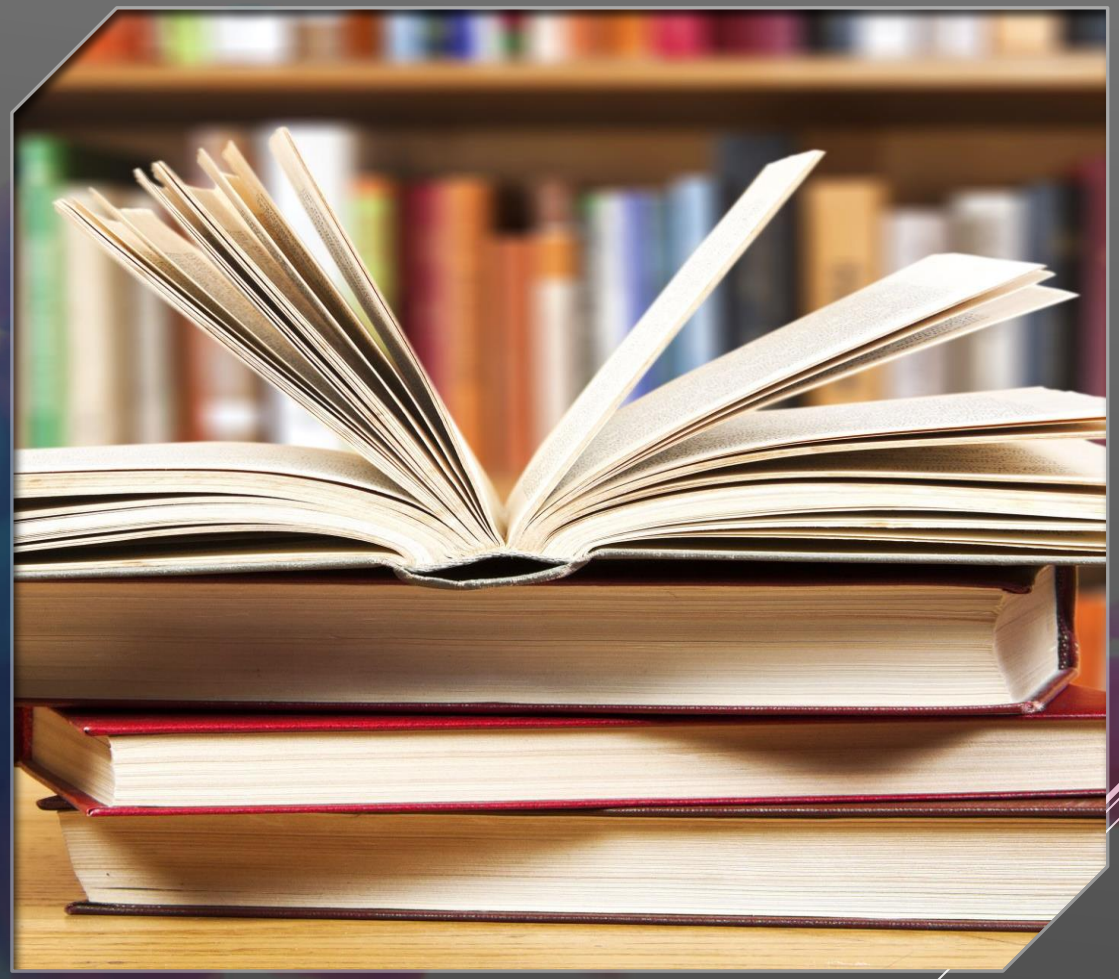
LIBRARY MANAGEMENT SYSTEM

GROUP-4
CSE-C



CONTENT:-

- Aim
- Introduction
- acknowledgement
- Benefits of library management system
- Topics discussed
- Flow chart
- Result / output
- Conclusion

AIM

- To develop a software that will help user to maintain the digital record of library management for making easy to librarians to search books in the library.
- The aim of library management is to efficiently organize, maintain, and provide access to a collection of resources for users, ensuring optimal utilization, preservation, and dissemination of knowledge while meeting the needs of its patrons.

INTRO :

- A library management system (LMS) is a software solution designed to automate and streamline various library operations. It encompasses functions like , circulation, acquisition, and patron management
- LMS facilitates tasks such as book tracking, membership management, inventory control, and enables patrons to search and access library resources efficiently.
- It aims to enhance user experience, improve administrative efficiency, and ensure proper organization and maintenance of library collections.

ACKNOWLEDGEMENTS

- This implementation of a library management system in C++ draws inspiration from various programming paradigms and incorporates fundamental concepts such as abstraction, inheritance, encapsulation, polymorphism, and the use of standard library functions .
- I would like to express gratitude to the broader C++ programming community and the contributors whose insights and tutorials have contributed to shaping my understanding of these programming concepts. Additionally, I acknowledge the foundational knowledge gained from various educational resources, textbooks, and online tutorials that have helped in conceptualizing the structure and functionalities of this code.

BENIFITS OF LIBRARY MANAGEMENT

- Organization
- Efficient Resource Utilization
- Data management
- Enhanced services
- Automation and time saving
- Security and control

FUNCTIONS USED :-

Here is a list of all the functions used in the program:

* add_ Book(): Adds a book to the collection.
* search _Book(): Searches for a book by ISBN.
* update _Book(): Updates the quantity of a book.
* delete _Book(): Deletes a book by ISBN.
* search Book By _Author(): Searches for books by author name.
* search Book By _Genre(): Searches for books by genre.
* search Book By Price(): Searches for books within a price range.
* display _Info(): Displays the information of a book (overloaded function).
* get _ISBN(): Returns the ISBN of a book.
* get _Quantity(): Returns the quantity of a book.
* set _Quantity(): Sets the quantity of a book.
* get _Author(): Returns the author of a book.
* get _Genre(): Returns the genre of a book.
* get _Price(): Returns the price of a book.

TOPICS USED IN CODE

Class

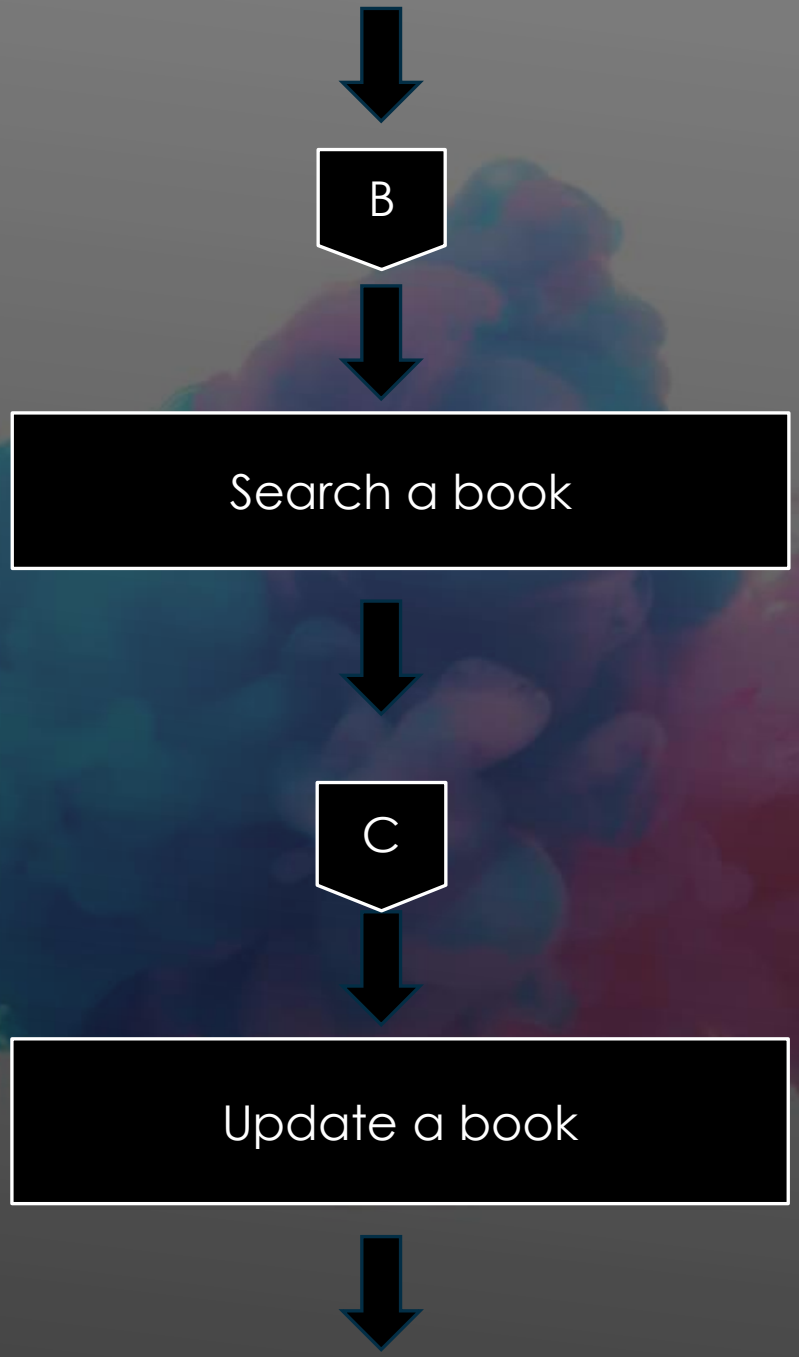
Objects

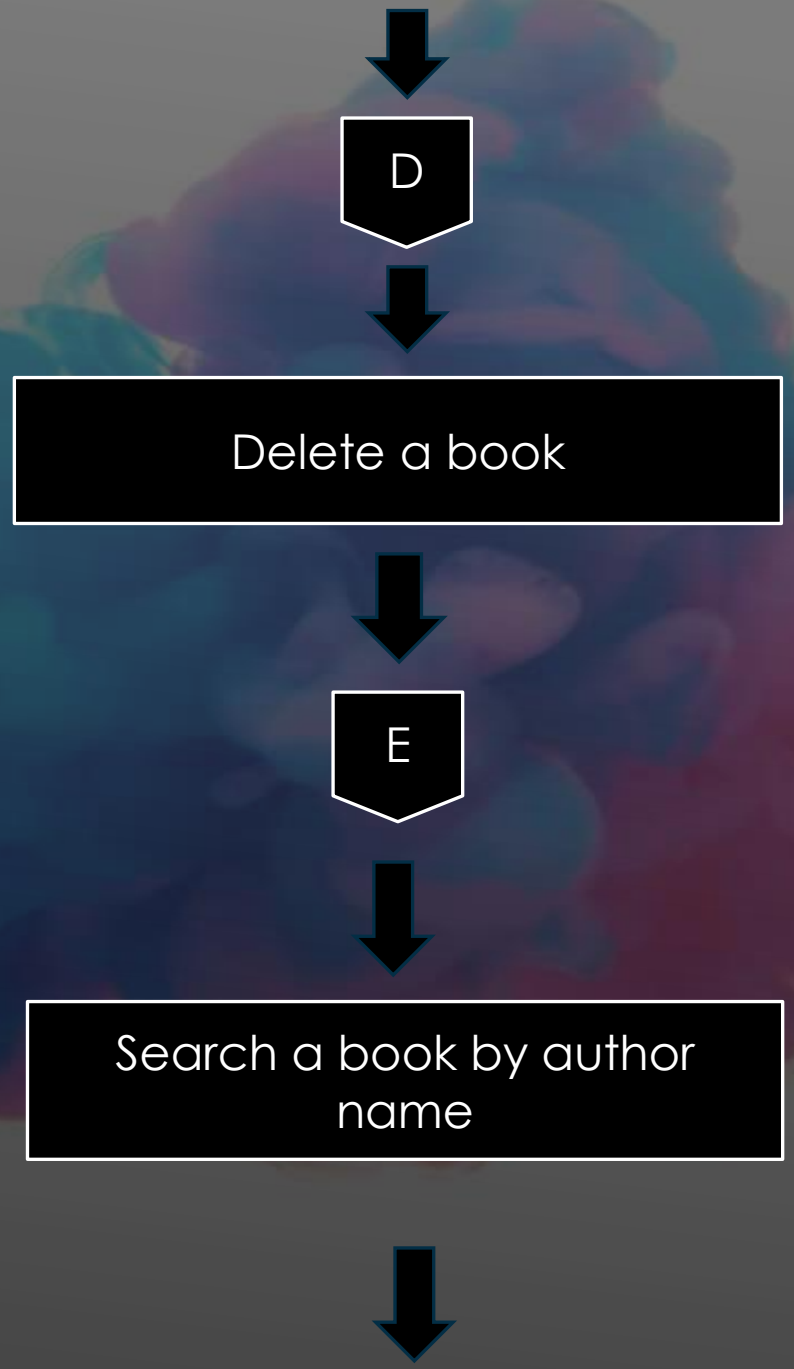
Inheritance

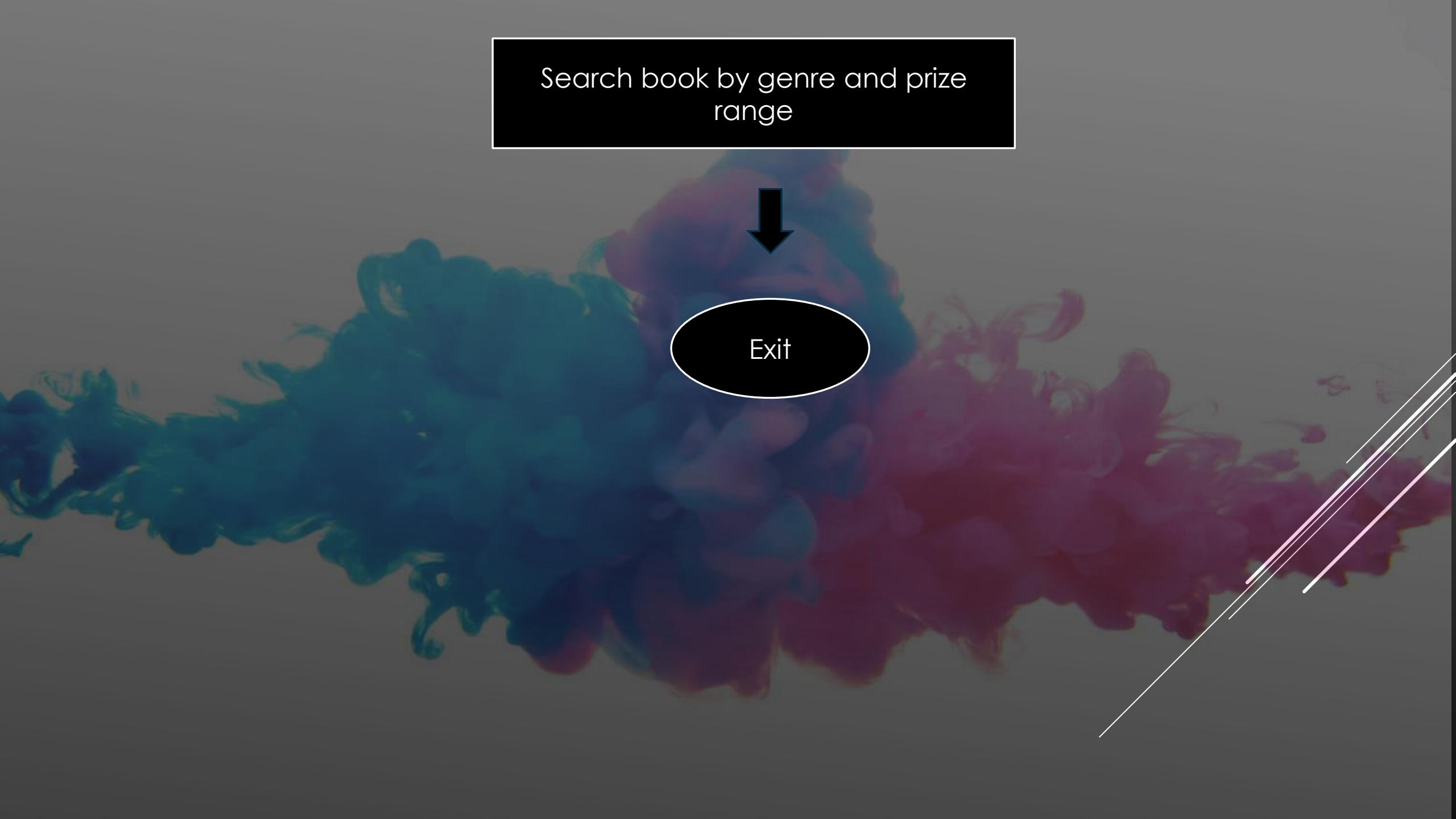
Polymorphism

Encapsulation

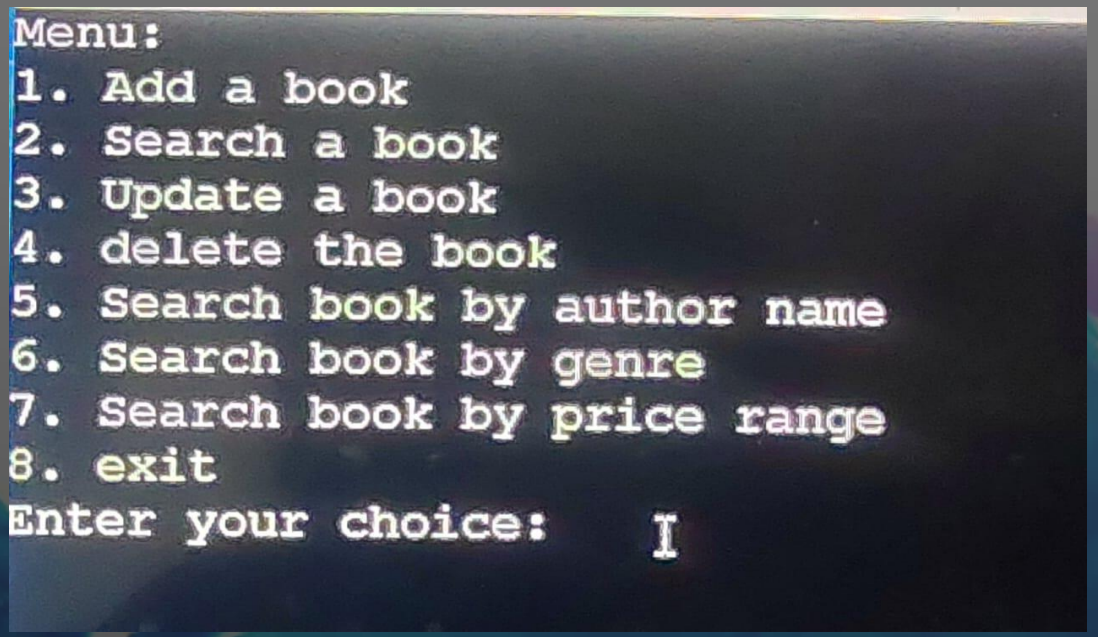
FLOWCHART

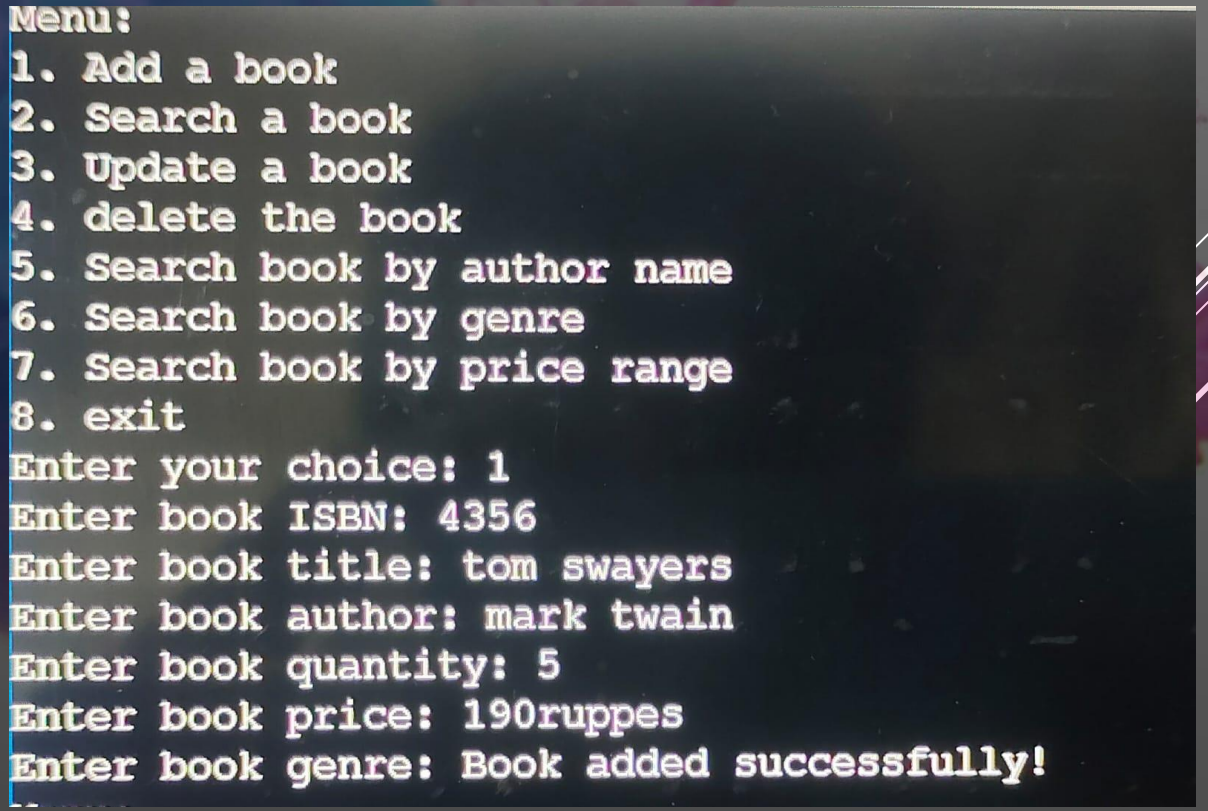

B
Search a book
C
Update a book


D
Delete a book
E
Search a book by author name


Search book by genre and prize range
Exit

OUTPUT


Menu:
1. Add a book
2. Search a book
3. Update a book
4. delete the book
5. Search book by author name
6. Search book by genre
7. Search book by price range
8. exit
Enter your choice:


Menu:
1. Add a book
2. Search a book
3. Update a book
4. delete the book
5. Search book by author name
6. Search book by genre
7. Search book by price range
8. exit
Enter your choice: 1
Enter book ISBN: 4356
Enter book title: tom swayers
Enter book author: mark twain
Enter book quantity: 5
Enter book price: 190ruppes
Enter book genre: Book added successfully!

OUTPUT

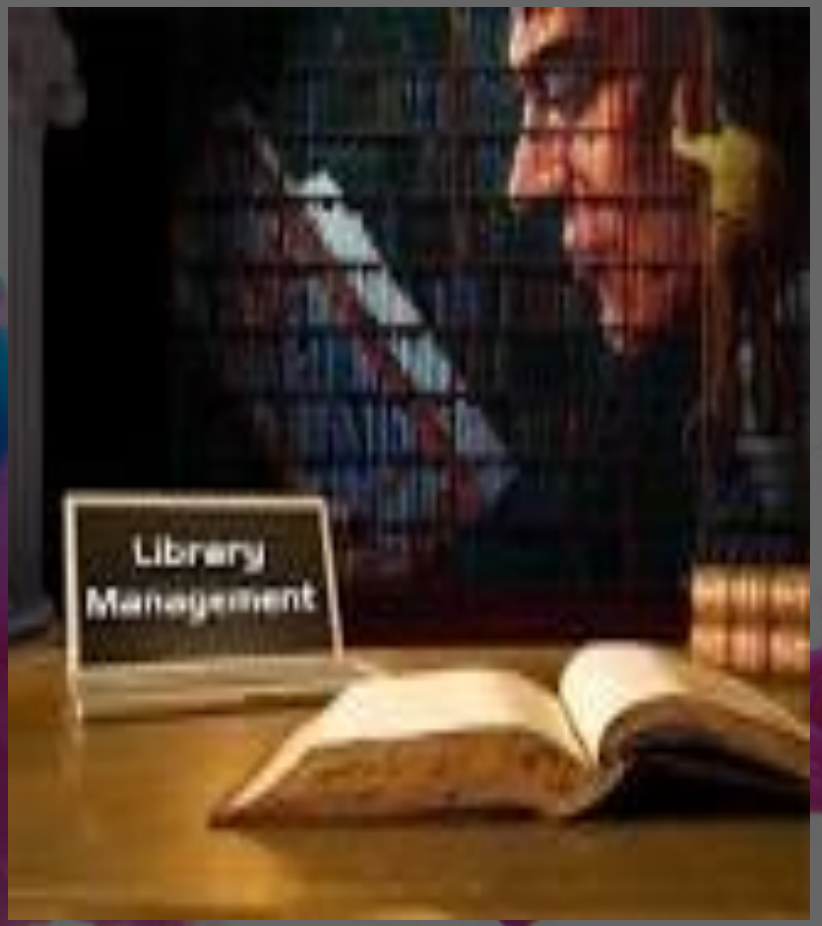
```
Menu:
1. Add a book
2. Search a book
3. Update a book
4. delete the book
5. Search book by author name
6. Search book by genre
7. Search book by price range
8. exit
Enter your choice: 2
Enter book ISBN to search: 2345
Book not found
```

```
Menu:
1. Add a book
2. Search a book
3. Update a book
4. delete the book
5. Search book by author name
6. Search book by genre
7. Search book by price range
8. exit
Enter your choice: 4
Enter book ISBN to delete: 3456
Book not found
```

```
Menu:
1. Add a book
2. Search a book
3. Update a book
4. delete the book
5. Search book by author name
6. Search book by genre
7. Search book by price range
8. exit
Enter your choice: 3
Enter book ISBN to update: 3456
Enter new quantity: 5
Book not found
```

CONCLUSION

The implementation of a library management system ensures efficient organization, retrieval, and management of resources. With its user-friendly interface, comprehensive database, and automation of various tasks, it streamlines library operations, enhances user experience, facilitates resource tracking, and promotes better utilization of library resources.



THANK YOU

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