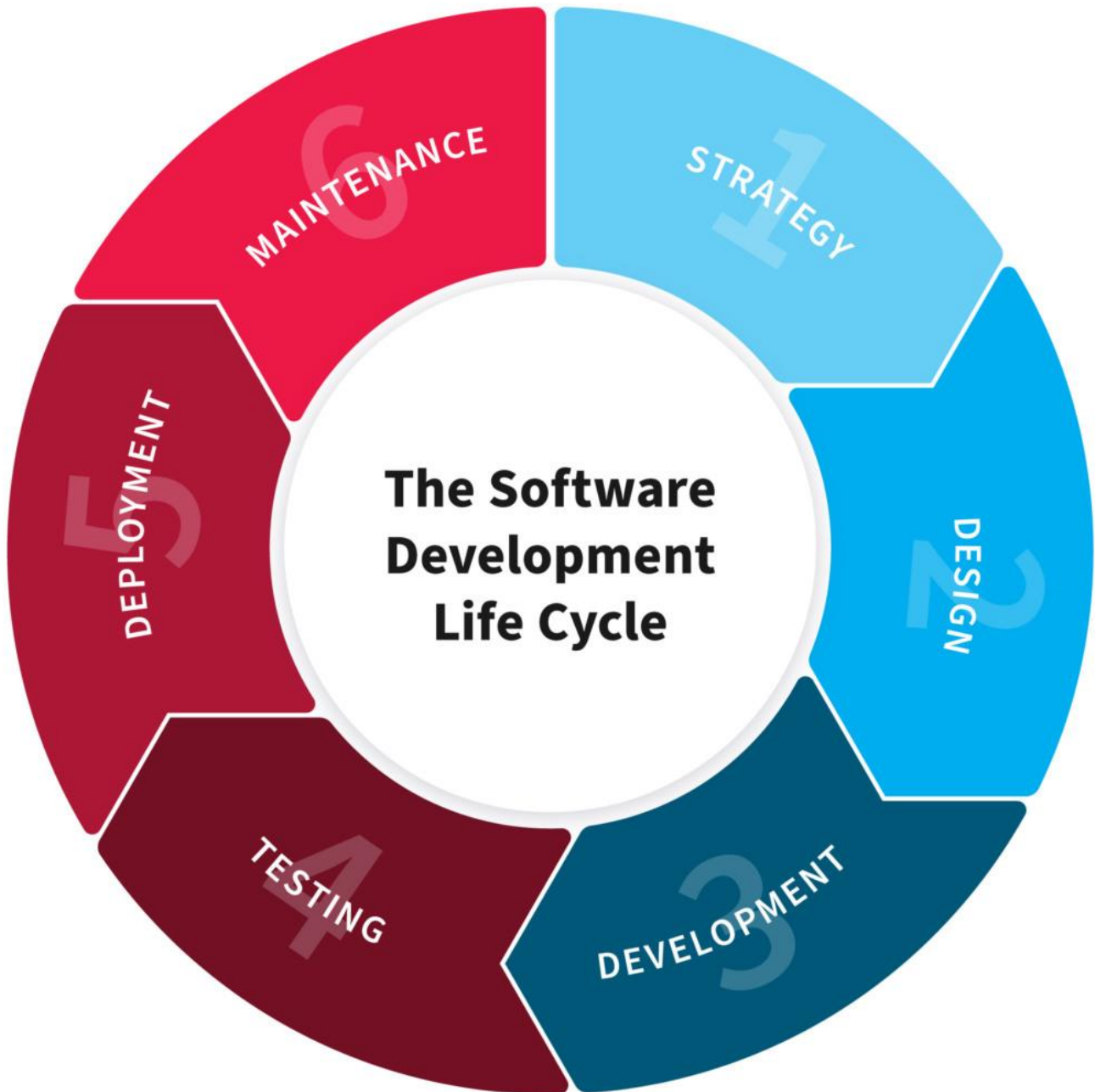


Format to report your ADVANCED JAVA PROGRAMMING PROJECTS



NB: EVERY STUDENTS HAS TO PRODUCE THIS DOC

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PROJECT NAME: LIBRARY MANAGEMENT SYSTEM

1.PLANNING

Library Management System is an application which refers to library systems which are generally small or medium in size. It is used by librarian to manage the library using a computerized system where he/she can record various transactions like issue of books, return of books, addition of new books, addition of new students. With this computerized system there will be no loss of book record or member record which generally happens when a non-computerized system is used.

The project goals and objectives

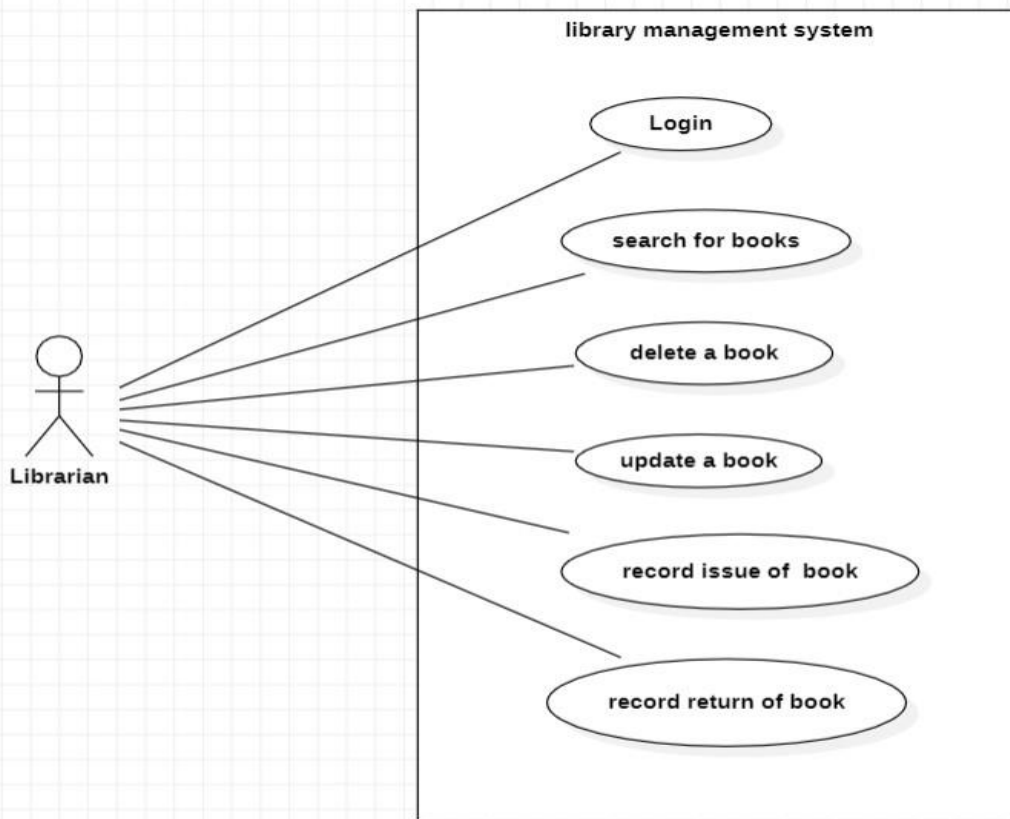
- To have a system that can replace the manual library management system.
- To have a database that stores user and book details.
- Give reliable search facility for the users
- To complete the system according to project schedule
- Their goals are to see to the affairs of the library.

Problems to be solved

- To keep data secured
- To make it easy to search any record
- To reduce the number of workers
- To reduce the space being used
- To make the processing faster

2. DESIGN

- The system is designed to help librarian to easily search the book using its title and retrieve related information about the book searched.
- The system is designed to allow librarian to easily delete and update information about the books.
- The system is designed to allow librarian to record new books.
- The system allow librarian to record the borrowed books and returned books.
- The system is designed to show librarian the list of borrowed books as well as returned books.
- The system is designed to allow authorized access to the librarian.



3. Development

- Our library management system is a desktop application which its backend and frontend parts are developed using java programming language and NetBeans IDE.
- we have used swing controls generated to create forms, buttons, labels and user interfaces which complete all front-end part.
- We used MySQL as database management system to hold backend data.
- We create link between user interface components such as forms and buttons using java programming language codes.
- We used com.mysql.jdbc_5.1.5.jar as library handling MYSQL connection with the system.

4. Testing

- Open a project in Apache NetBeans.
- Open xampp server to start MYSQL.

- Run login page.
- Enter credentials of librarian (username and password).

If username and password correct. The user gets welcome message to the system.

unless username and password are correct, the user is denied to enter in system.

- Once the user gets logged in the system click:

Register book: to open register book panel.

In register book form fill the book details such its name, type, author as well it's corresponding level

And click **add new** button to save the book in database.

Click **home** button to back to the landing page.

Record book return: to open record the returned book panel.

In record returned book form fill the details of book returning such as name of person returning the book, the date in which book was lent, date in which book is returned and book identity number.

And hint **record return** button.

Click **home** button to back to the landing page.

In **returned book panel**. You can click **check returned** books button to search for the activities regarding book returns by given date.

Click **home** button to back to the landing page.

Lend book button: to open lend book panel.

In record lending form fill the details of book to be lent as well as all details concerning book lending activity such as name of person lending the book, the date in which book is lent, date in which book will be returned and book identity number.

And hint record button to save the activity.

Click **home** button to back to the landing page.

In **lend book panel**. You can click search book button to check if the book asked by student exists.

Search book: to open search book panel.

Once the search panel opened the librarian is able to search book by its name.

Once book found he /she is able to delete that book,

As well as update information related to that book.

If he wants to view the list of registered books in general, he/she can click get all book button. And load the list of the books.

5.Deployment

- Installing MYSQL as database management system.
- Download and configure com.mysql.jdbc_5.1.5.jar as library handling MYSQL connection.
- Use portable storage device to transfer project from development computer to the any library's librarian computer.
- Run project file and start using the system.