Library Management system

Mission

At The Grand ABC Library, we want to develop an application for our librarian and members to access all our services online.

General Requirements

1. Application Login:

As a registered member/Librarian, I want to login to the application to manage my services

1.1. Assumptions:

1.1.1.All users are already registered with the system

1.2. Acceptance criteria:

1.2.1. On entering valid credentials, member/librarian should be able to login to the application

1.3. Validations:

1.3.1. Mandatory field validations

2. Search books:

As a registered member, I want to search for books by their title, author and category

2.1. Assumptions:

2.1.1.Books are already present in the library

2.2. Acceptance criteria:

- 2.2.1.On giving the valid search criteria, member should be able to see the books sorted by their title and paginated results displayed
- 2.2.2. The search results should show the status of the books
- 2.2.3. If the book is borrowed, then the return due date should be shown

3. Borrow books:

As a registered member, I want to borrow one or more books from the library

3.1. Validations

- 3.1.1. Member can borrow only 3 books during a given time
- 3.1.2. Return date will be 2 weeks from the date of borrowing
- 3.1.3. Possible status of books: AVAILABLE, BORROWED and OVERDUE

4. Return books:

As a registered member, I want to return one or more books borrowed from the library

4.1. Acceptance Criteria

- 4.1.1. The books returned will be updated to AVAILABLE status
- 4.1.2. Overdue fee if applicable should be charged as applicable

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4.2. Validations

- 4.2.1. Overdue fee is as follows:
 - 4.2.1.1. Upto 3 days after due date Rs.20 /day
 - 4.2.1.2. More than 3 days after due date Rs.50 /day
- 4.2.2.Books can be returned only by borrowed members

5. View borrowed history:

As a registered member, I want to view the history of the books that I borrowed in a given month and/or year

5.1. Acceptance Criteria

5.1.1. As a registered member I can see all the borrowed books for the given period

6. View books - Admin:

As a Librarian I want to search on any member or book to view the status

6.1. Acceptance Criteria

- 6.1.1.If search is based on member id, then the book details the member has borrowed currently will be listed
- 6.1.2.If search is based on book name, then all books with that name with status and member id (if borrowed) will be listed

Eg: For "Sherlock Holmes" is entered, then all copies of Sherlock Holmes books with their availability or borrowed status should be returned

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General directions:

1. Mandatory

- 1.1. All endpoints should be integrated
- 1.2. Code should be available in Github/ Bitbucket
- 1.3. Proper validation of the fields (mandatory and format validations)
- 1.4. Unit test cases for completed functionalities
- 1.5. Javadoc and Swagger documentation
- 1.6. Sonar report

2. Nice to Have

2.1. Spring security

3. Guidelines

- 3.1. It's better to demonstrate one thing working well than it is to demonstrate everything half-complete
- 3.2. Use your product owners
- 3.3. Be open and honest with your stakeholders and yourselves; if you're not going to make it, change direction or negotiate scope with your product owners.

4. Review

Don't underestimate the importance of preparing for the review. Each team will have 15 minutes to demonstrate what they have done. Consider finishing development 15 minutes before reviews are scheduled so you have time to do a practice run.