Design Principles and Algorithms

I have used JSP, AngularJs, Spring, Hibernate and MySQL database. Reason for using Angularjs is it makes a single page web application and it makes the task easier. For example, using Angularjs, we don’t need to write a query to search a book using isbn or by author name. Angularjs provide us a facility where it can be done there only and request does not need to go to the backend.

Spring is a light-weight framework of Java. The MVC pattern results in separating the different aspects of the application (input logic, business logic, and UI logic), while providing a loose coupling between these elements.MVC pattern also facilitate true unit testing. Your Presentation layer can be tested free of the Model or Controller, and vice-a-versa.

I have used MySQL database for storing the details of books and shelves. Because of the short of time, I have only made 2 tables, books and shelves. Table shelves is used to keep track of the capacity of books it can have and the number of slots avail- able at that time. The table can accommodate more shelves if required. Details of the books is been kept in the other table Books. It also keeps the track of who has issued the book, on what date the user has issued the book and on what date the book will be returned. The table can be normalized.

I have made the REST calls to add books in the shelf, get books from the shelf, get the list of issued books, get the list of overdue books.