

# Assignment #5

# Problem Statement



Develop a web application (Application 1) using Spring MVC and JSP for Library Management. A librarian can login to application and manage books.

However, the details of the books and authors are maintained on a separate server (Application 2) which exposes RESTful webservice using Spring Boot to support CRUD operations on books data.

A book must be associated with an author. Authors needs to be configured in Database (not to be added through UI). While adding a book, authors will be shown in the dropdown to choose from the list.

REST APIs for CRUD operations on Author has to be provided, however no separate UI is needed for Author Management.

Following functionalities are expected

Librarian Login/Logout

Books listing

Add a book

Edit a book details

REST APIs for CRUD operations on authors data

REST APIs for CRUD operations on books data

# Application UI



- Librarian Login

The image shows a UI mockup for a Librarian Login page. It features a light blue header bar with the text "Header goes here" in dark blue. Below the header is a white login form box. Inside the form, there is a "Login" label at the top left. Below it are two input fields: "User Id:" and "Password:". The "User Id:" field has a green callout box pointing to it with the text "Min 5 and Max 50 Characters". The "Password:" field has a green callout box pointing to it with the text "Min 5 and Max 50 Characters". Below the input fields is a "Login" button. At the bottom of the page is a light blue footer bar with the text "Footer goes here" in dark blue.

Header goes here

Login

User Id:

Password:

Login

Min 5 and Max 50 Characters

Min 5 and Max 50 Characters

Footer goes here

Header goes here

Welcome UserLogout

Books Listing

Add a book

Book Code	Book Name	Author	Data Added	Actions
500	Clean Code	Robert Cecil	12 July 2021	<div>EditDelete</div>
501	The Pragmatic Programmer	Andy Hiunt	13 July 2021	<div>EditDelete</div>
502	Design Patterns	Erich Gamma	13 July 2021	<div>EditDelete</div>
503	A Passage to India	E.M. Forster	14 July 2021	<div>EditDelete</div>

Footer goes here

# Application UI



- Edit Book Details

Header goes here

Welcome User

Logout

### Edit Book Details

Book Code	501
Book Name	<input type="text" value="A Pragmatic Programmer"/>
Author	<div><input type="text" value="Andy Hunt"/><div>Dropdown to select Author</div></div>
Added On	13 July 2021

Submit

Cancel

Footer goes here

# Application UI



- Add Book Details

Header goes here

Welcome User

Logout

### Add Book Details

Book Code	<input type="text" value="500"/>	Code should be unique. If code entered is not unique. Book should not be added. Alphanumeric.
Book Name	<input type="text" value="A Pragmatic Programmer"/>	
Author	<input type="text" value="Andy Hunt"/>	Dropdown to select Author
Added On	<input type="text" value="13 July 2021"/>	Current Date. Not editable

Submit

Cancel

Footer goes here

## Expected Behavior and Output



- The complete assignment should be done using Spring MVC, Tomcat, Spring Boot and Hibernate only.
- Well documented HTML, JS and CSS files
- Code should follow Java Coding Standards, Guidelines and best practices
- Follow best practices for restful webservises
- Use of appropriate HTTP codes and exception handling for REST APIs.
- Server to server webservice communication

# Evaluation Criteria



- Code correctness
- Code modularity
- Code should be in running condition
- Use of Spring Boot
- Face to face discussion
- Adhere to Java Coding Standards And Guidelines
- Implementation of 3-tier architecture