

LAB EXPERIMENT : 08

Consider a Library Management System. Develop a JavaScript program that will validate the controls in the forms you have created for the application. State the assumptions you make (business logic you are taking into consideration). Note: Your application must access a database using Servlet/JSP.

AIM:

To design and implement a Library Management System with client-side validation using JavaScript and server-side processing using JSP and Servlets, which interacts with a MySQL database.

ALGORITHM:

1. Create an HTML/JSP form to capture book details.
2. Use JavaScript to validate the fields on the client side.
3. On successful validation, send the data to a Servlet using a POST request.
4. The Servlet connects to MySQL, checks for duplicates, and inserts the new book.
5. Show success or failure messages based on the server response.

SOURCE CODE:

```
<!DOCTYPE html>

<html>

<head>

  <title>Library - Add Book</title>

  <script>

    function validateForm() {

      let title = document.forms["bookForm"]["title"].value;

      let author = document.forms["bookForm"]["author"].value;

      let isbn = document.forms["bookForm"]["isbn"].value;

      let year = document.forms["bookForm"]["year"].value;
```

```
    if (!title || !author || !isbn || !year) {
        alert("All fields are required.");
        return false;
    }

    if (!/^d{13}$/.test(isbn)) {
        alert("ISBN must be a 13-digit number.");
        return false;
    }

    if (!/^d{4}$/.test(year) || year < 1000 || year > new
Date().getFullYear()) {
        alert("Enter a valid year.");
        return false;
    }

    return true;
}

</script>
</head>
<body>
    <h2>Add New Book</h2>
    <form name="bookForm" action="AddBookServlet" method="post"
onsubmit="return validateForm();">
        Title: <input type="text" name="title"><br><br>
        Author: <input type="text" name="author"><br><br>
```

```
ISBN (13-digit): <input type="text" name="isbn"><br><br>
Published Year: <input type="text" name="year"><br><br>
<input type="submit" value="Add Book">
</form>
</body>
</html>
```

RESULT :

- Validated user input using JavaScript on the client-side.
- Successfully inserted valid book data into the MySQL database using JSP and Servlets.
- Prevented duplicate ISBNs via server-side check.

OUTPUT:

