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Homework 2

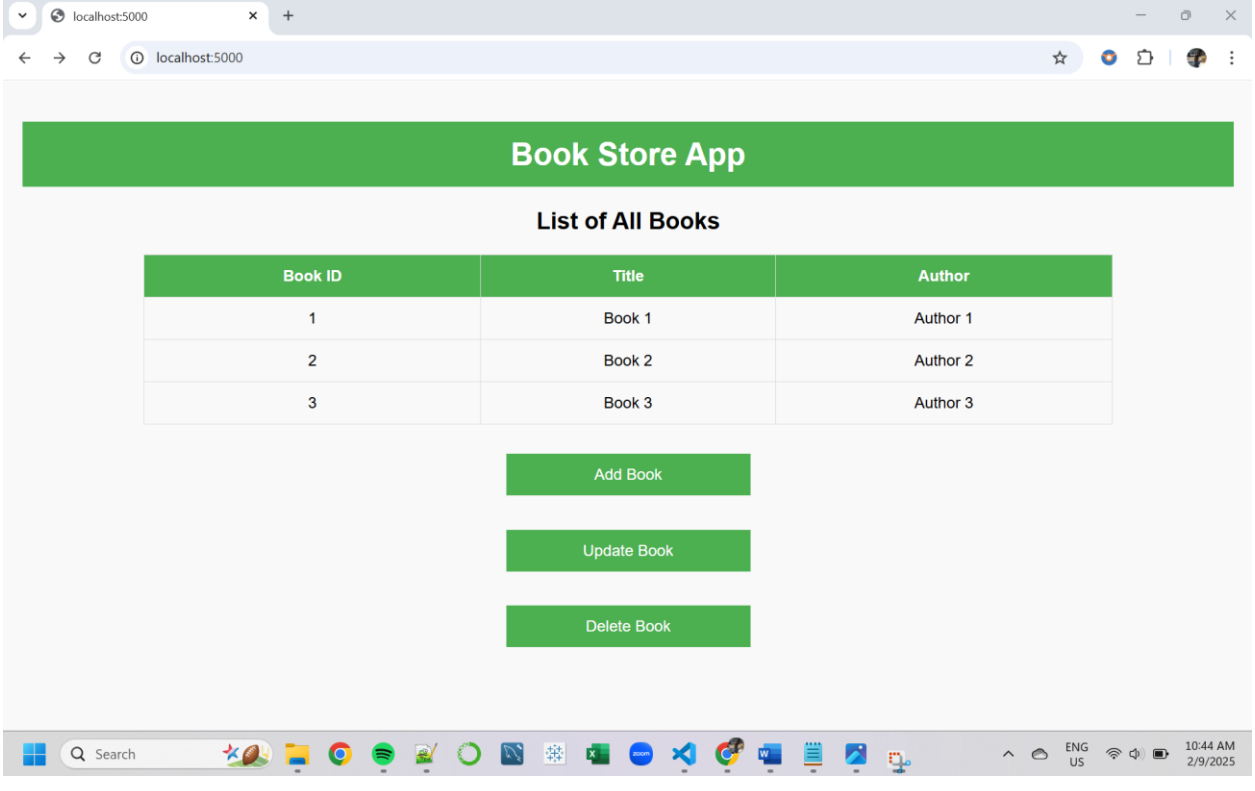
Part 1. HTML & CSS (4 points)

1. Center align all the content present on the home page (i.e the headings, text, buttons, table, etc. everything should be centered). (1 point)
   Here added the center align in **styles.css** on the homepage

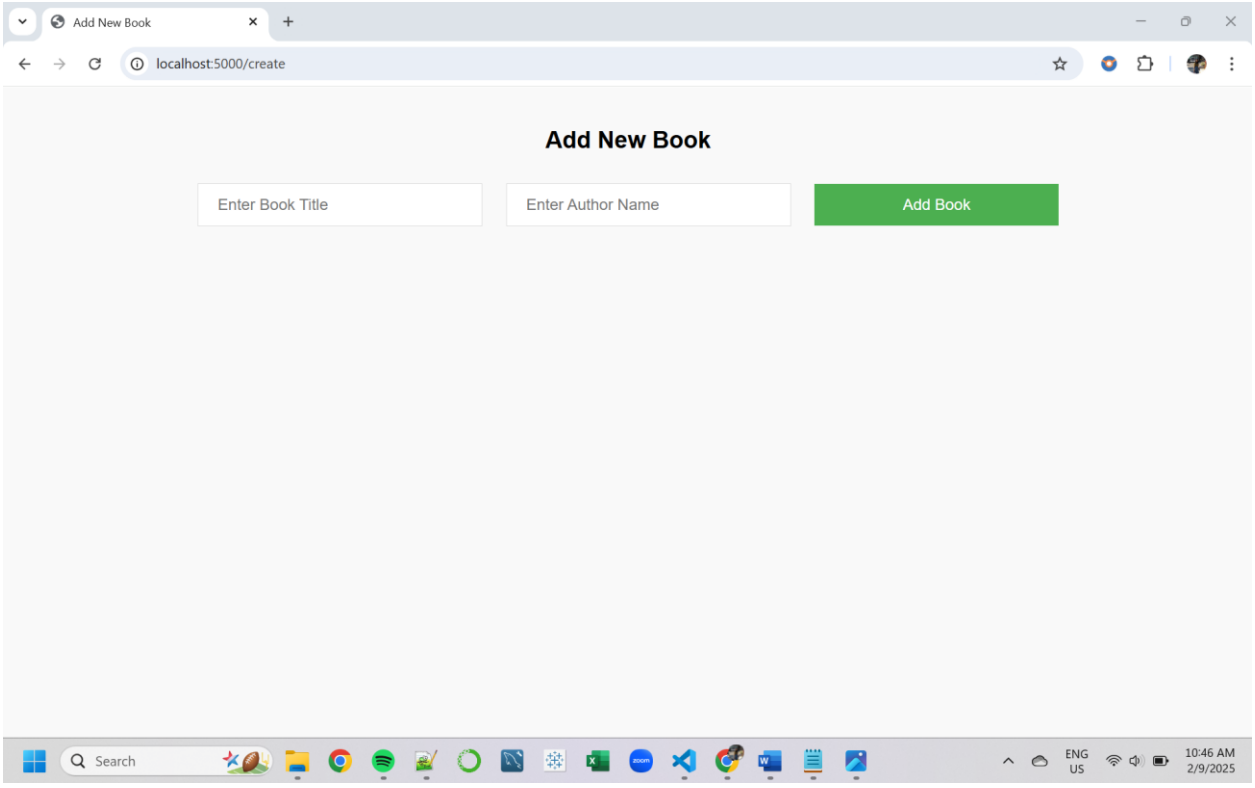
styles.css

```css
body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 20px;
    background-color: #f9f9f9;
    text-align: center;              /*Q1-center aligned all content*/
}
```

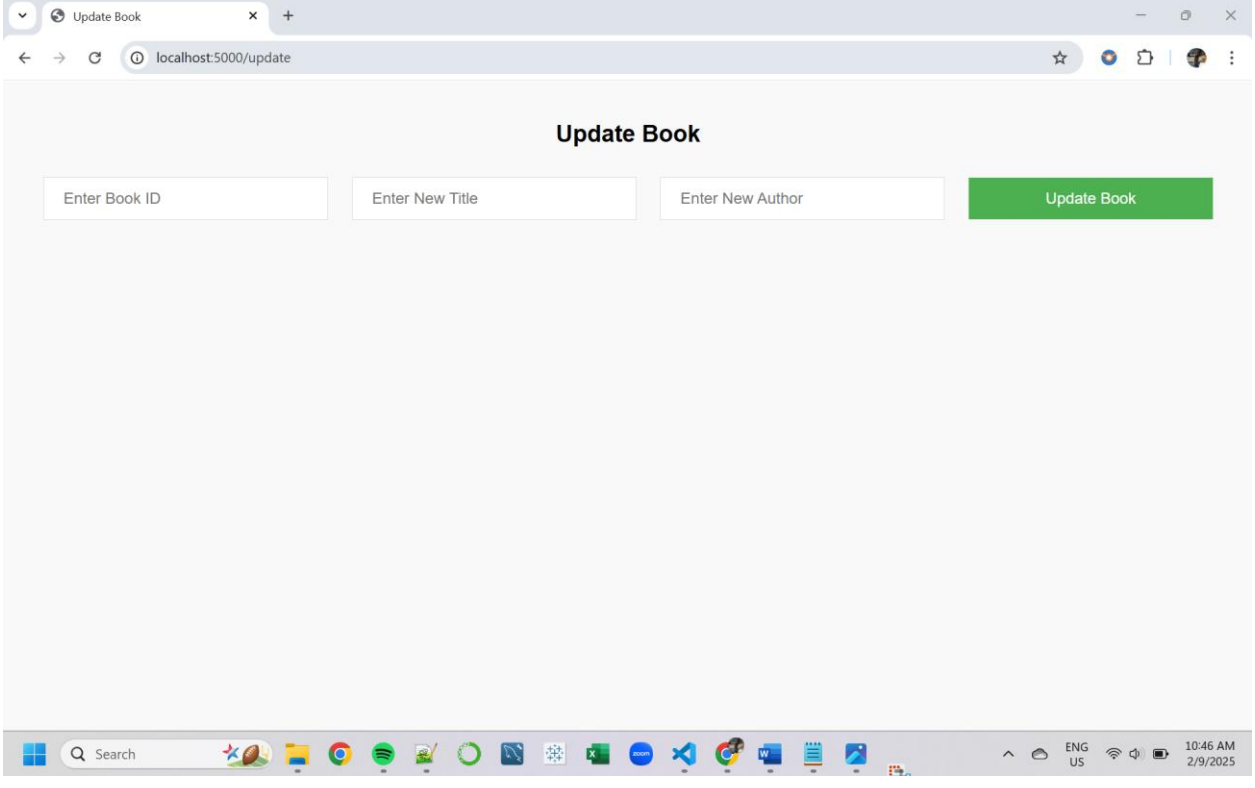
Center alignment of homepage



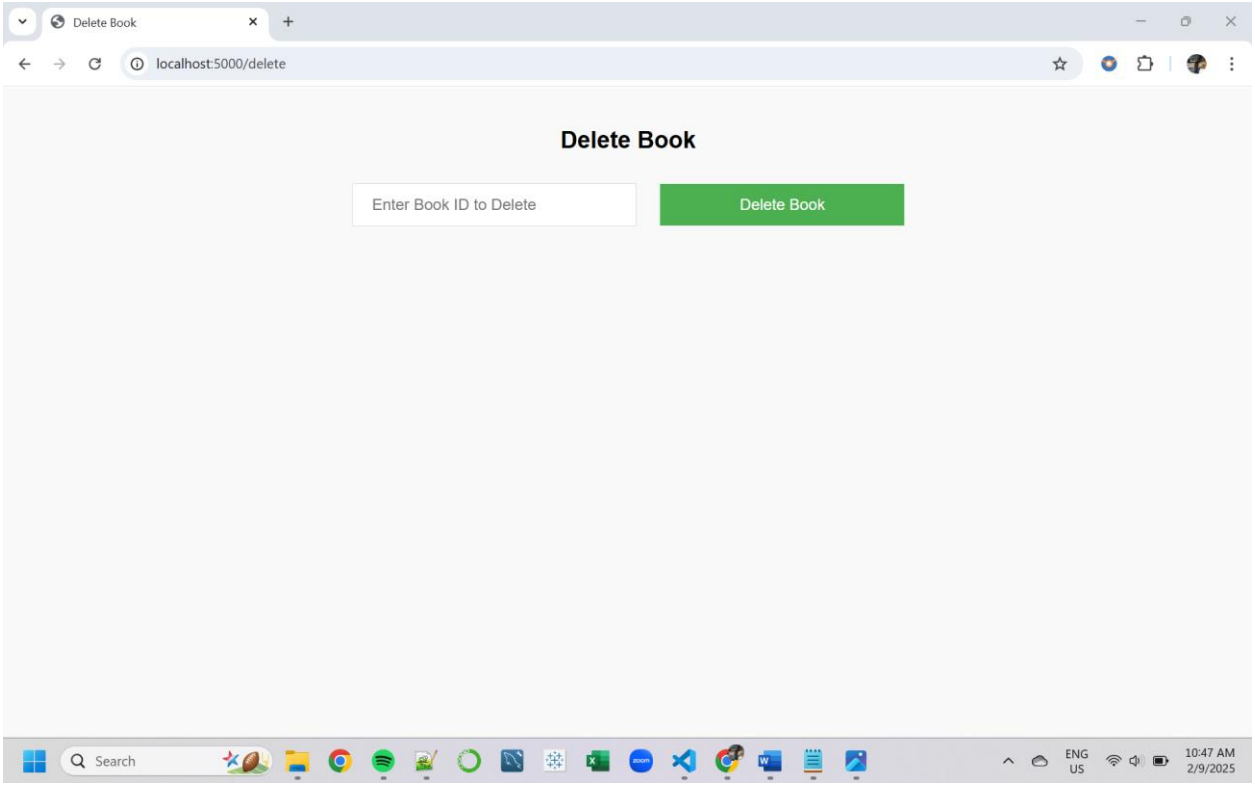
Center alignment of Add New Book Page



Center alignment of Update Book Page



Center alignment of Delete Book Page

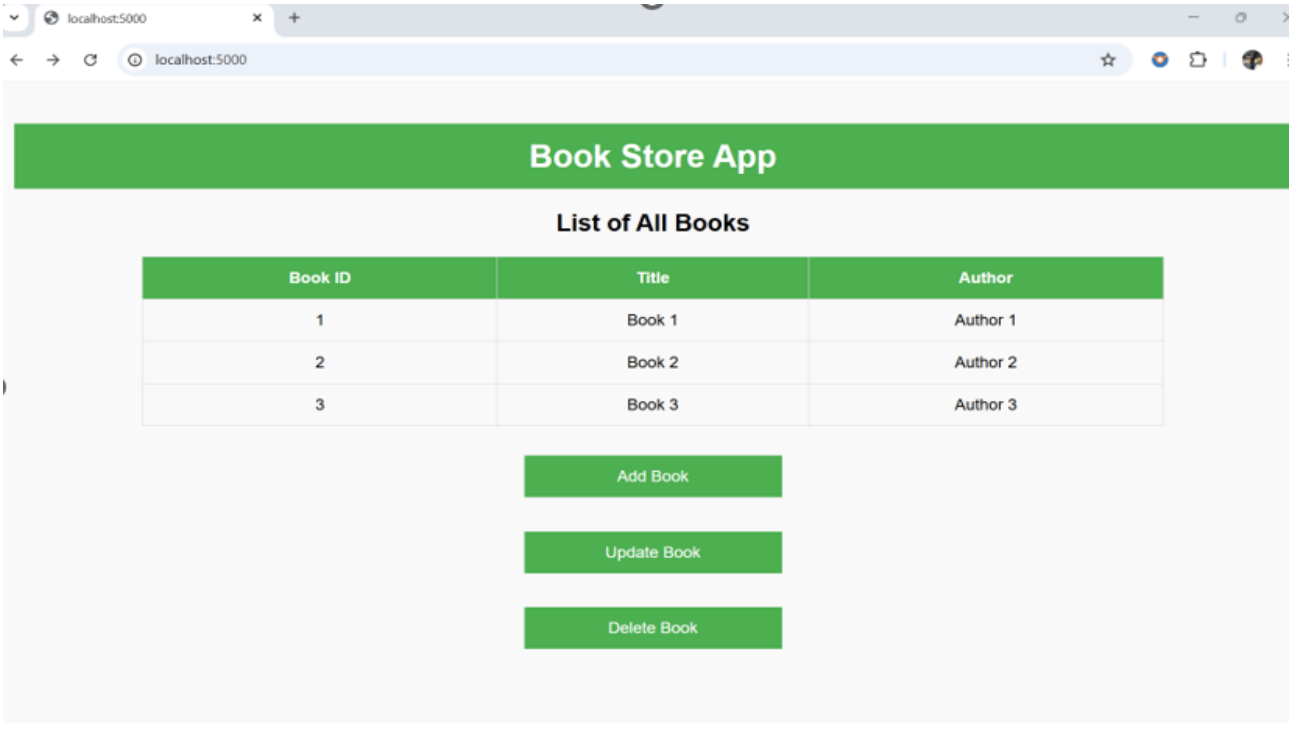


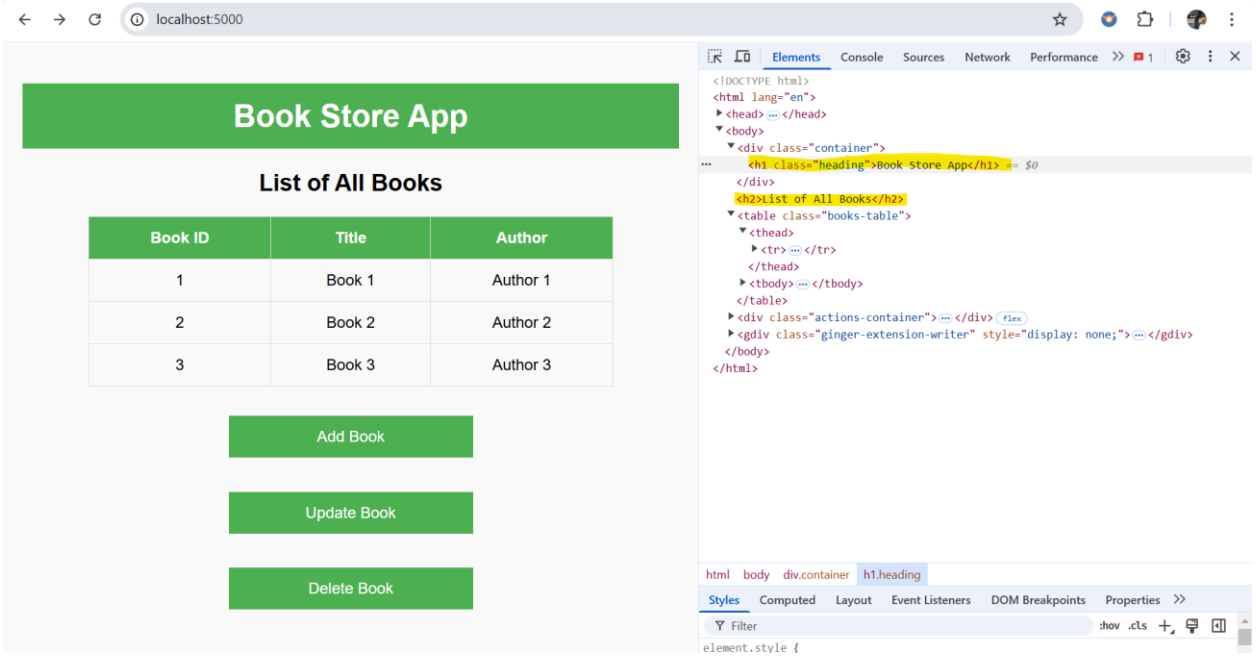
2. Make the background color of the heading, table header, and buttons to ##4CAF50 and set the text color to white for the heading, table header and buttons. (1 point)

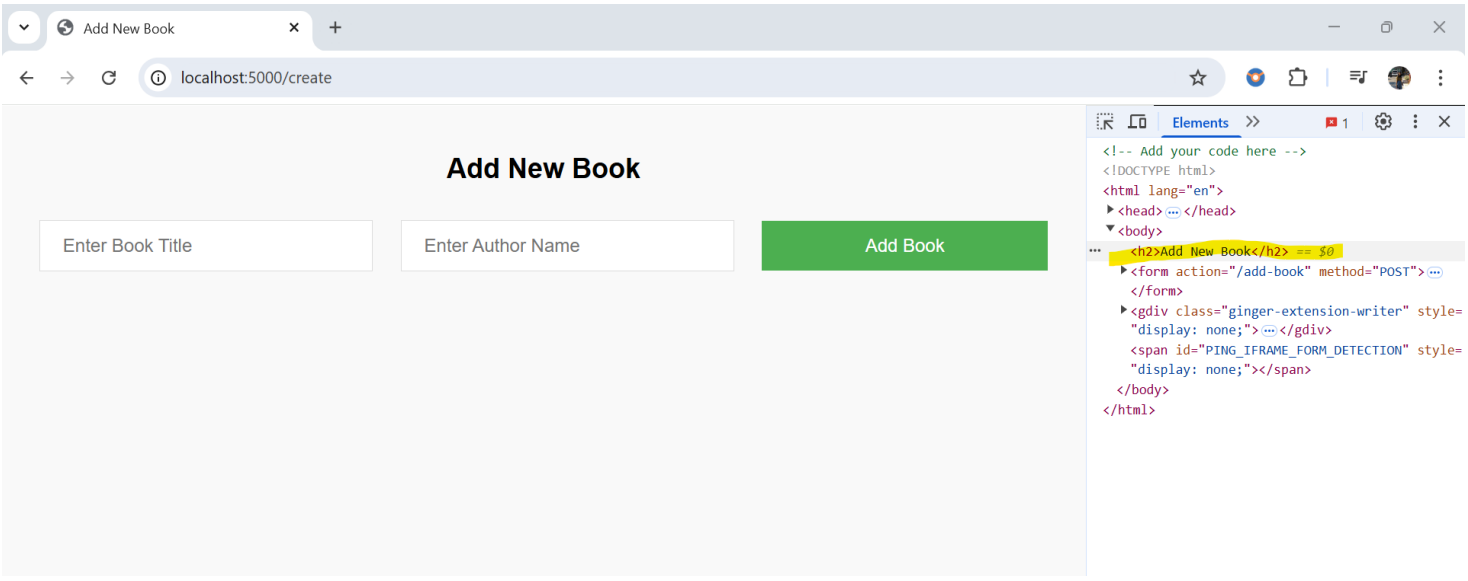
styles.css

```
h1, .heading, .books-table th {
    background-color: #4CAF50;      /*Q2-keep background & text color for headers & table
   headers*/
    color: white;                    /*Q2- keep white color for headers and table headers*/
    padding: 15px;
}
button {
    background-color: #4CAF50;      /*Q2 - green background for buttons*/
    color: white;
    border: none;                   /*Q3 - remove border from buttons */
    cursor: pointer;                /*pointer changed*/
}
```

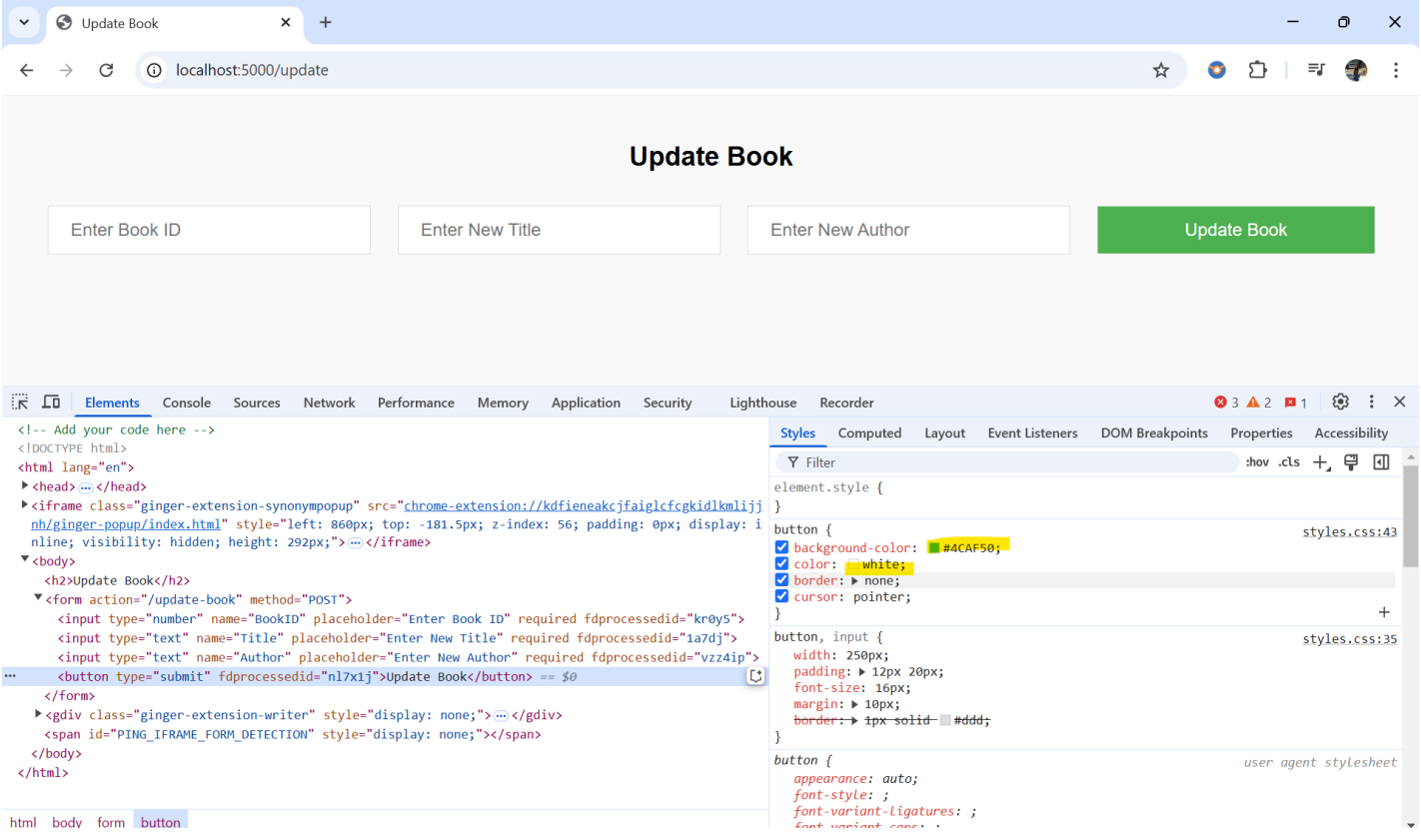
- background for heading, table header, and buttons set to ##4CAF50
- background for heading, table header, and buttons set to white.
- Text Other than heading, table header, and buttons set to black.
- Here “List of All Books”, “Add New Book”, “Update New Book”, “Delete New Book” tags set to <h2> while main heading Book Store App set to <h1>.



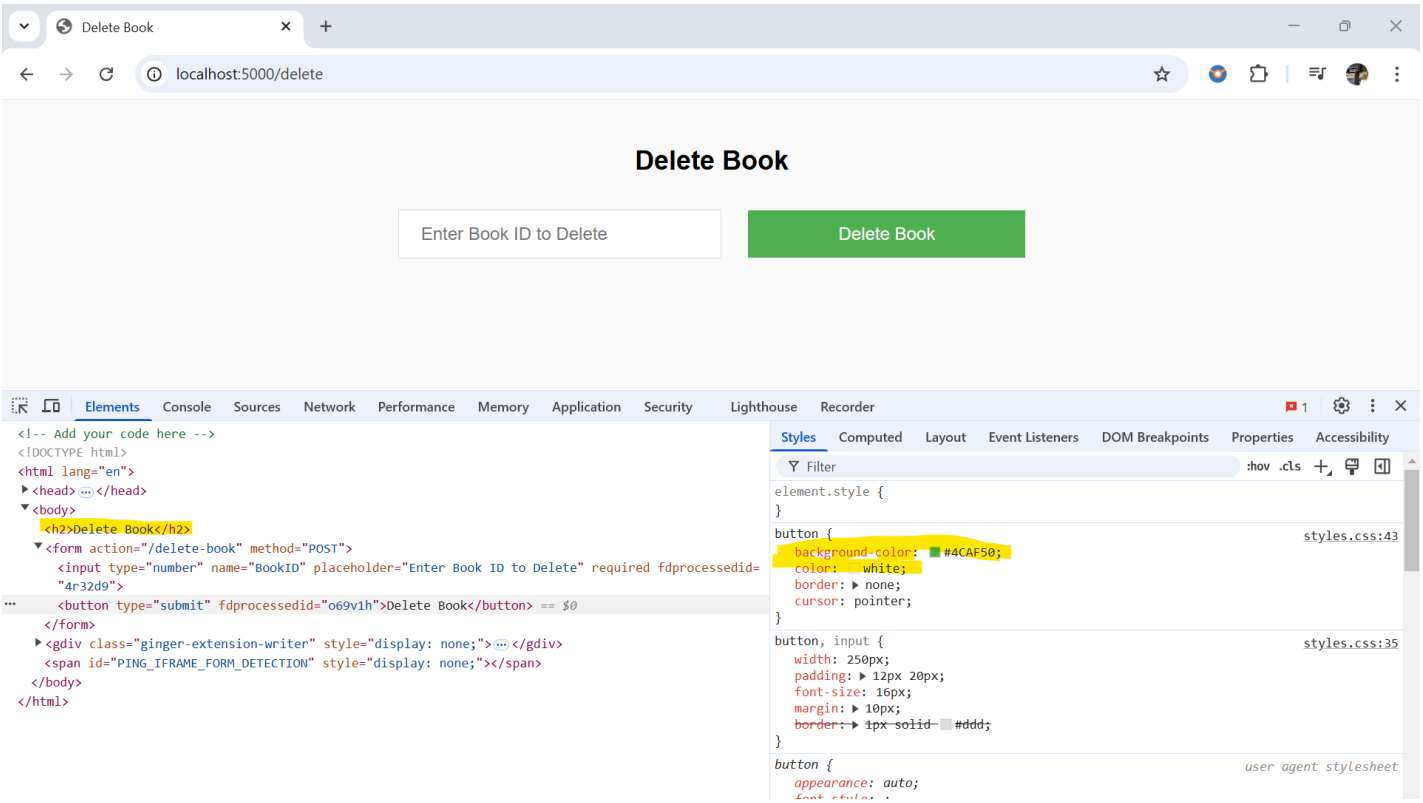



Add New Book
localhost:5000/create
Add New Book
Enter Book Title
Enter Author Name
Add Book
Elements
<!-- Add your code here -->
<!DOCTYPE html>
<html lang="en">
<head> </head>
<body>
<h2>Add New Book</h2> == $0
<form action="/add-book" method="POST">
</form>
<gdiv class="ginger-extension-writer" style="display: none;"> </gdiv>

</body>
</html>


Update Book
localhost:5000/update
Update Book
Enter Book ID
Enter New Title
Enter New Author
Update Book
Elements Console Sources Network Performance Memory Application Security Lighthouse Recorder
<!-- Add your code here -->
<!DOCTYPE html>
<html lang="en">
<head> </head>
<iframe class="ginger-extension-synonympopup" src="chrome-extension://kdfieneakcjfaiglcfcgkidlkmlijjnh/ginger-popup/index.html" style="left: 860px; top: -181.5px; z-index: 56; padding: 0px; display: inline; visibility: hidden; height: 292px;"> </iframe>
<body>
<h2>Update Book</h2>
<form action="/update-book" method="POST">
<input type="number" name="BookID" placeholder="Enter Book ID" required fdprocessedid="kr0y5">
<input type="text" name="Title" placeholder="Enter New Title" required fdprocessedid="1a7dj">
<input type="text" name="Author" placeholder="Enter New Author" required fdprocessedid="vzz4ip">
<button type="submit" fdprocessedid="nl7x1j">Update Book</button> == $0
</form>
<gdiv class="ginger-extension-writer" style="display: none;"> </gdiv>

</body>
</html>
html body form button
Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility
Filter :hov .cls
element.style {
}
button { styles.css:43
background-color: #4CAF50;
color: white;
border: none;
cursor: pointer;
}
button, input { styles.css:35
width: 250px;
padding: 12px 20px;
font-size: 16px;
margin: 10px;
border: 1px solid #ddd;
}
button { user agent stylesheet
appearance: auto;
font-style: ;
font-variant-ligatures: ;



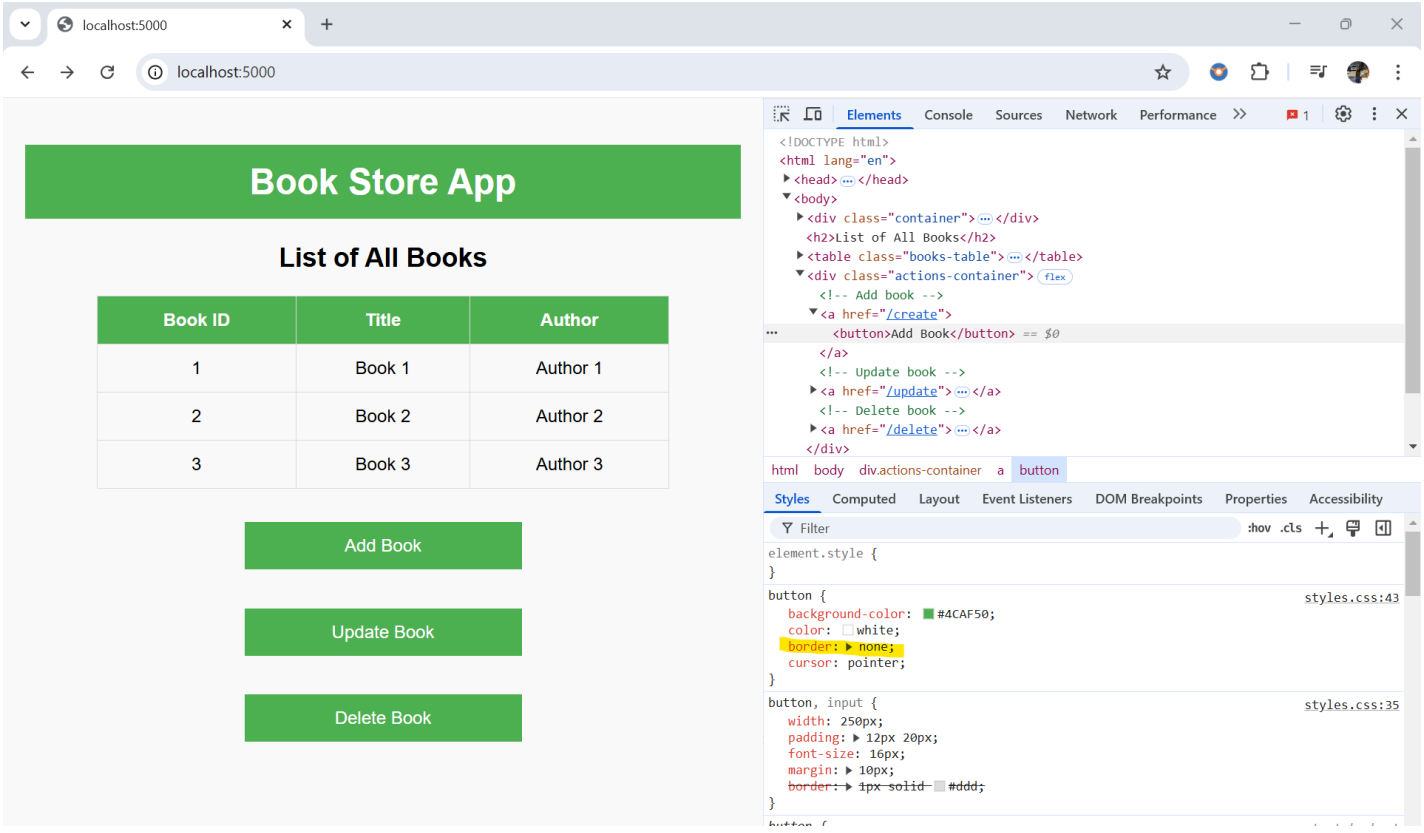
3. Remove any border from the action buttons and change the background of the button to orange on the button's hover, and set the cursor to pointer on hover of the buttons. (1 point)

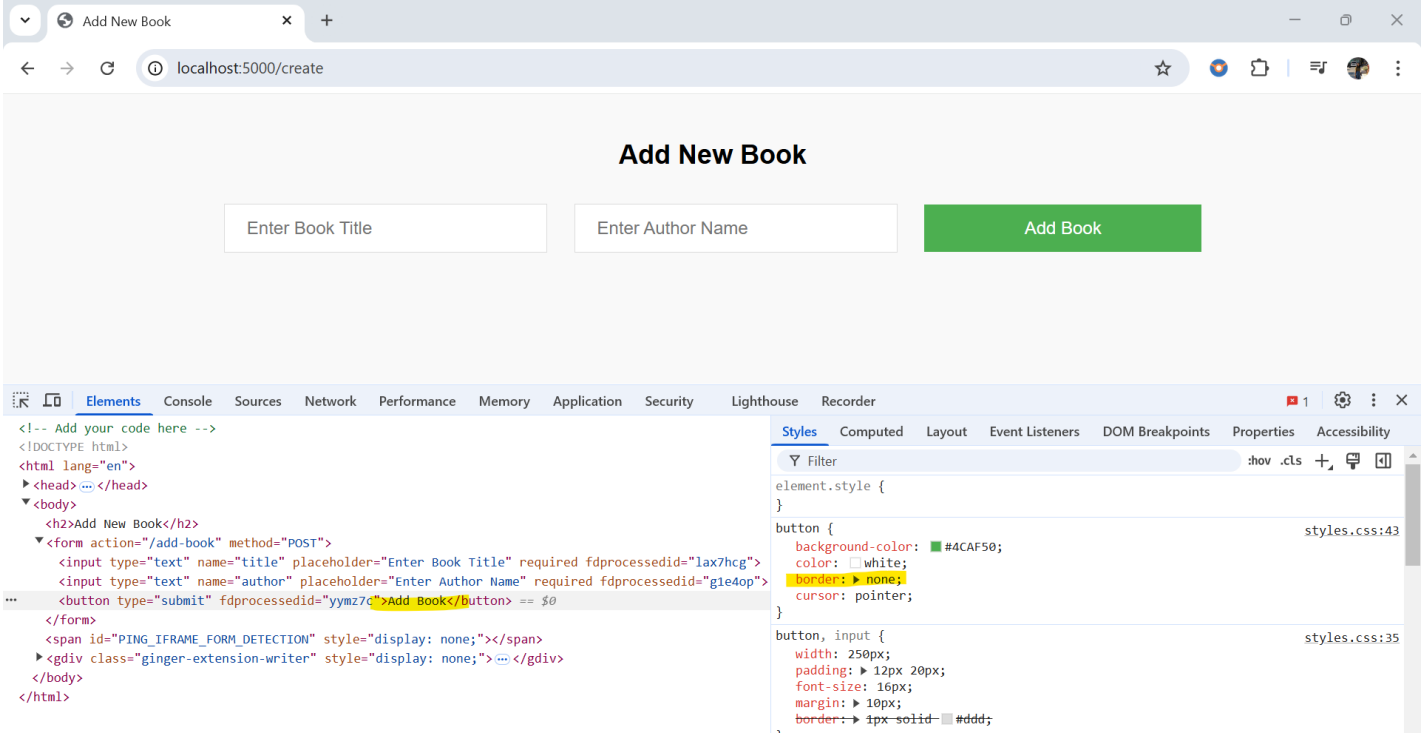
styles.css

```
button {
    border: none;                   /*Q3 - remove border from buttons */
    cursor: pointer;                /*pointer changed*/
}

button:hover {
    background-color: orange;       /*Q3 - orange on hover*/
}
```

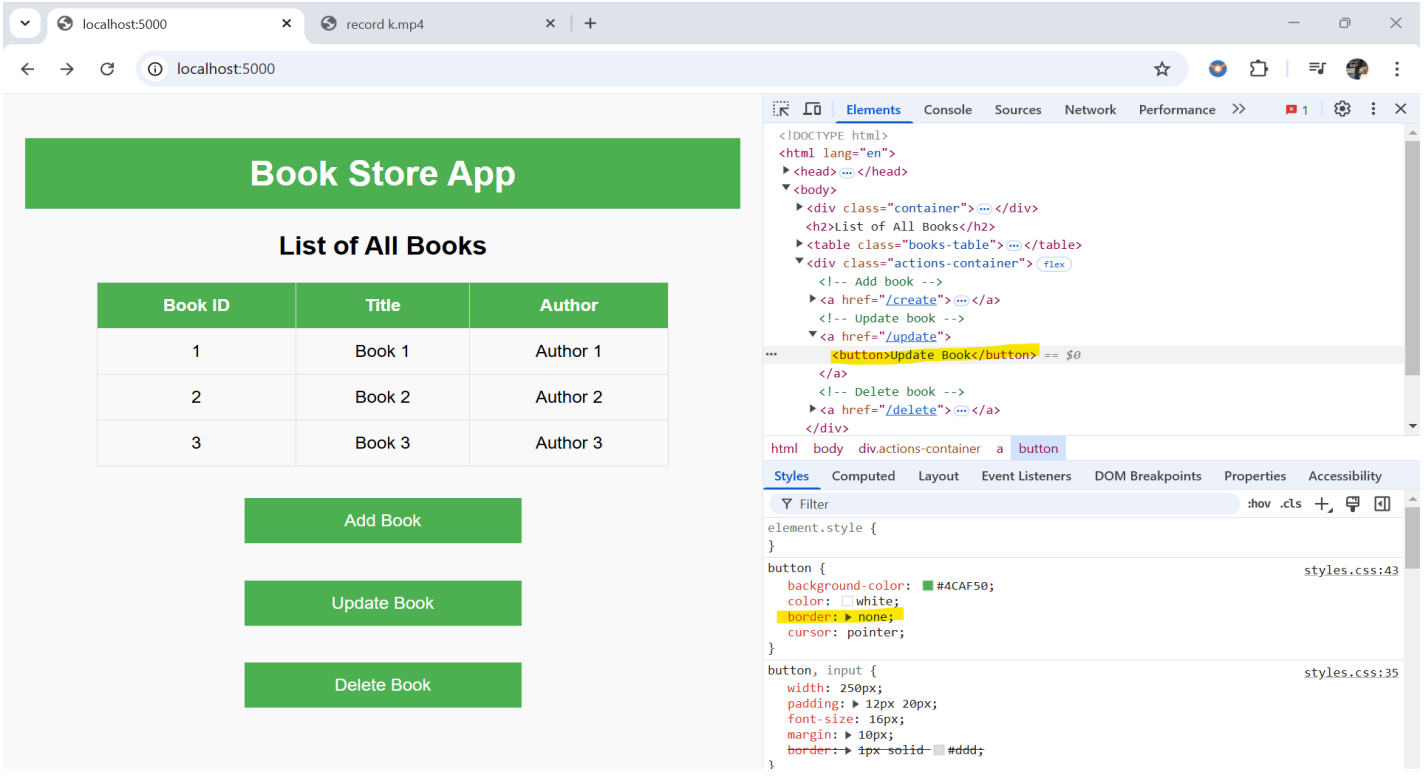
No borders on action button

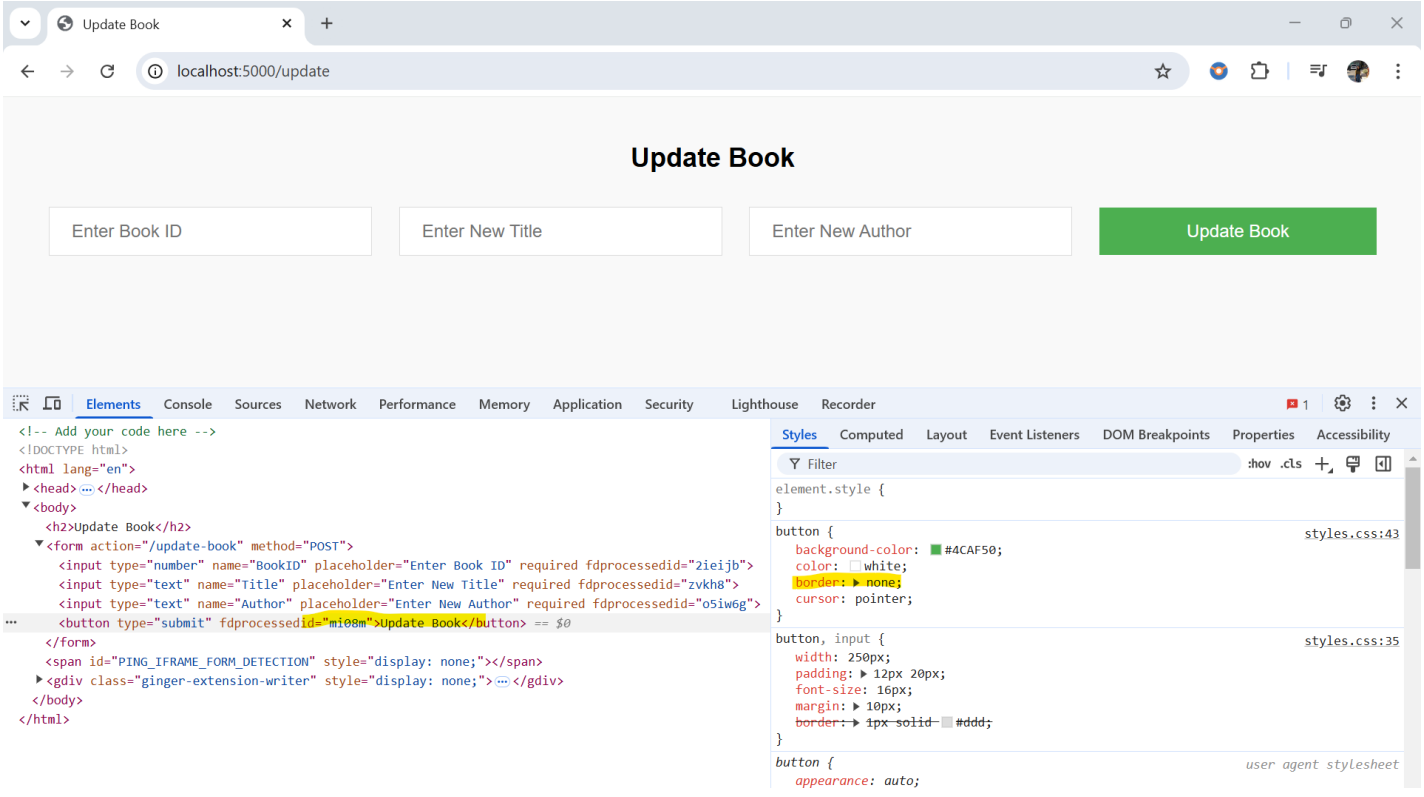
Add Book button



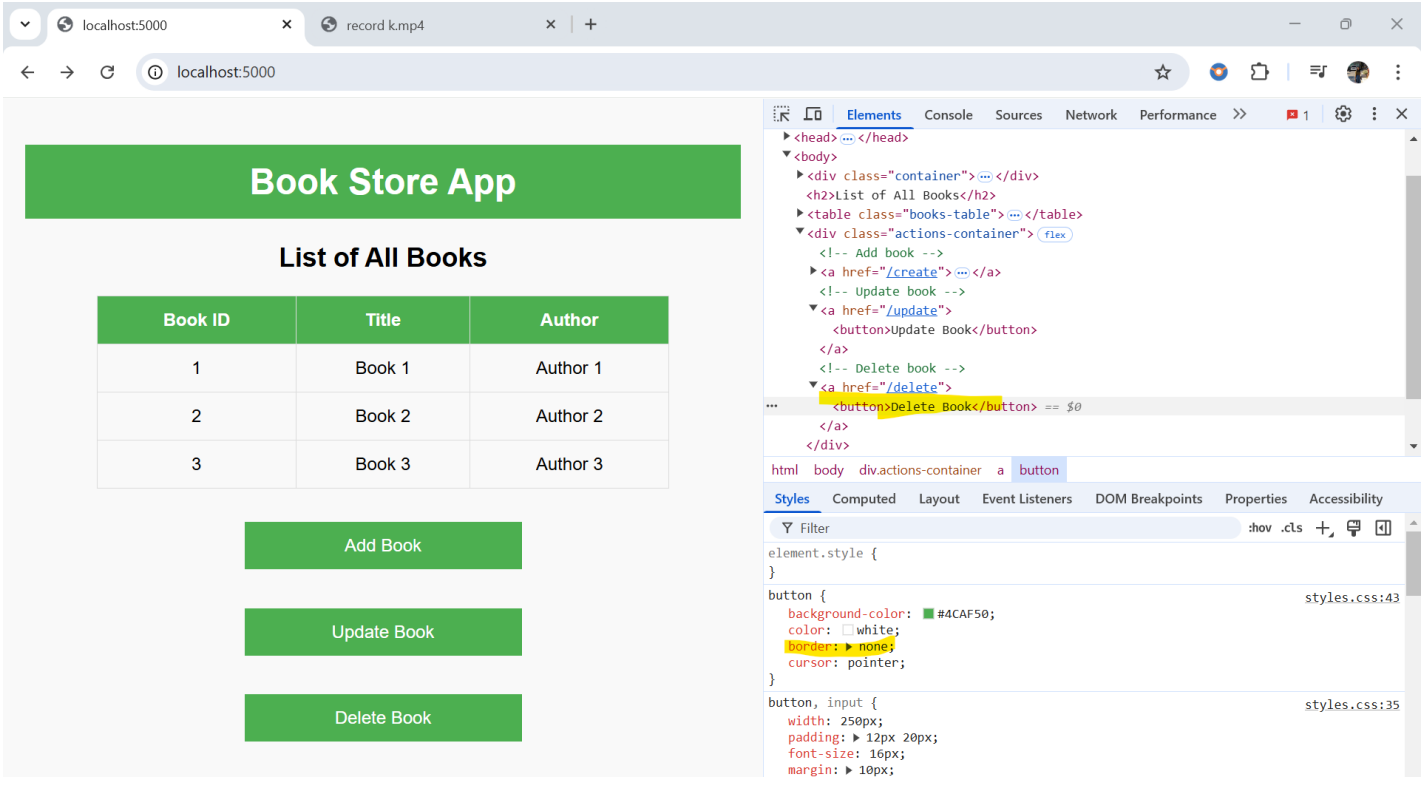


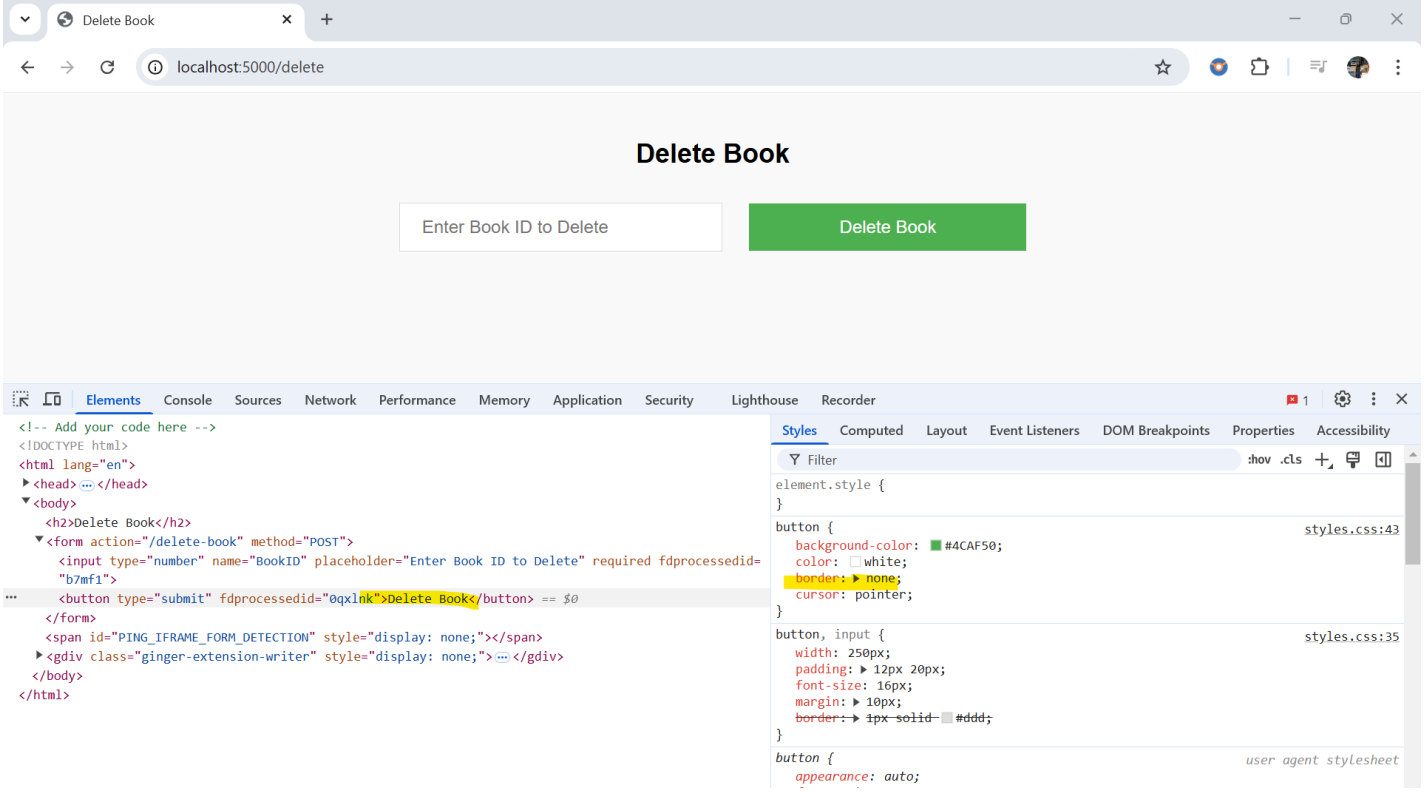
Update Book button



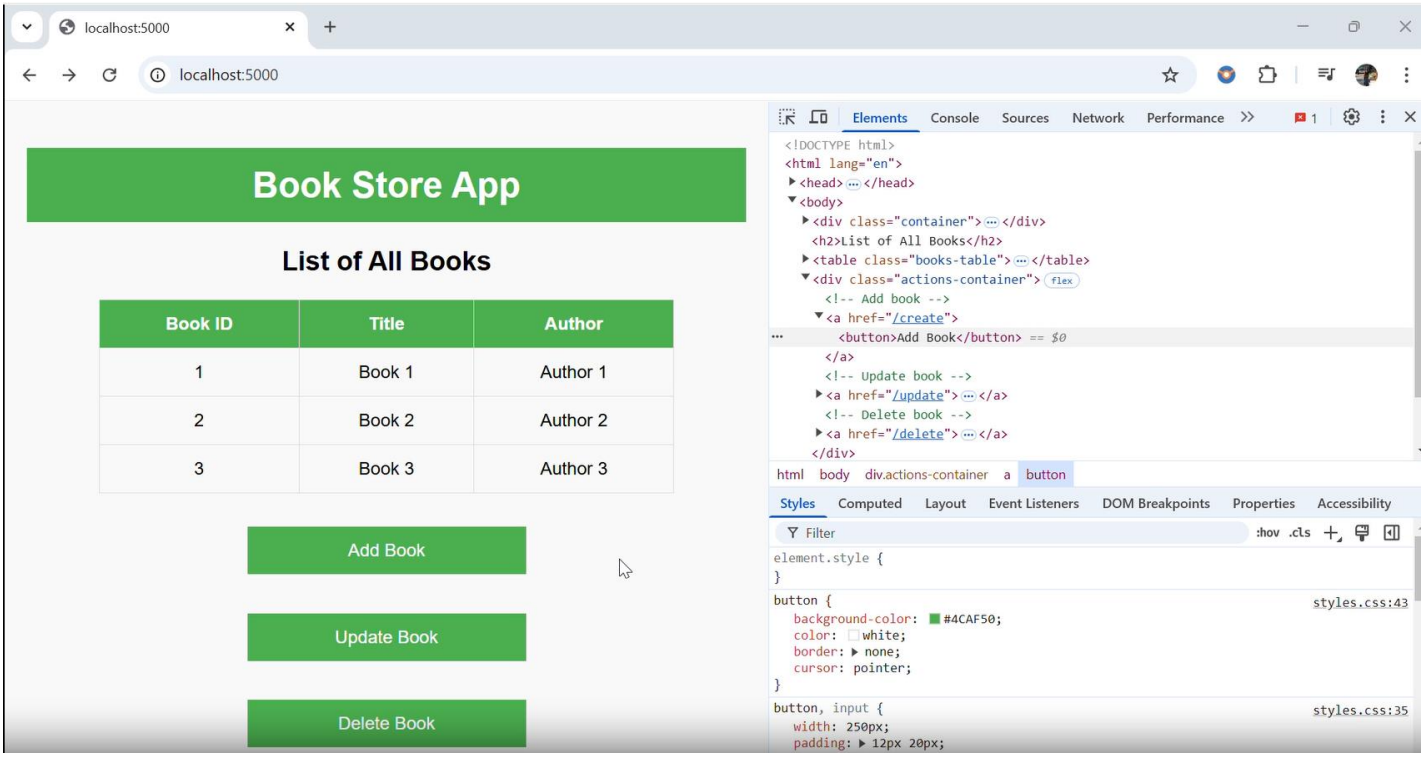


Delete Book button

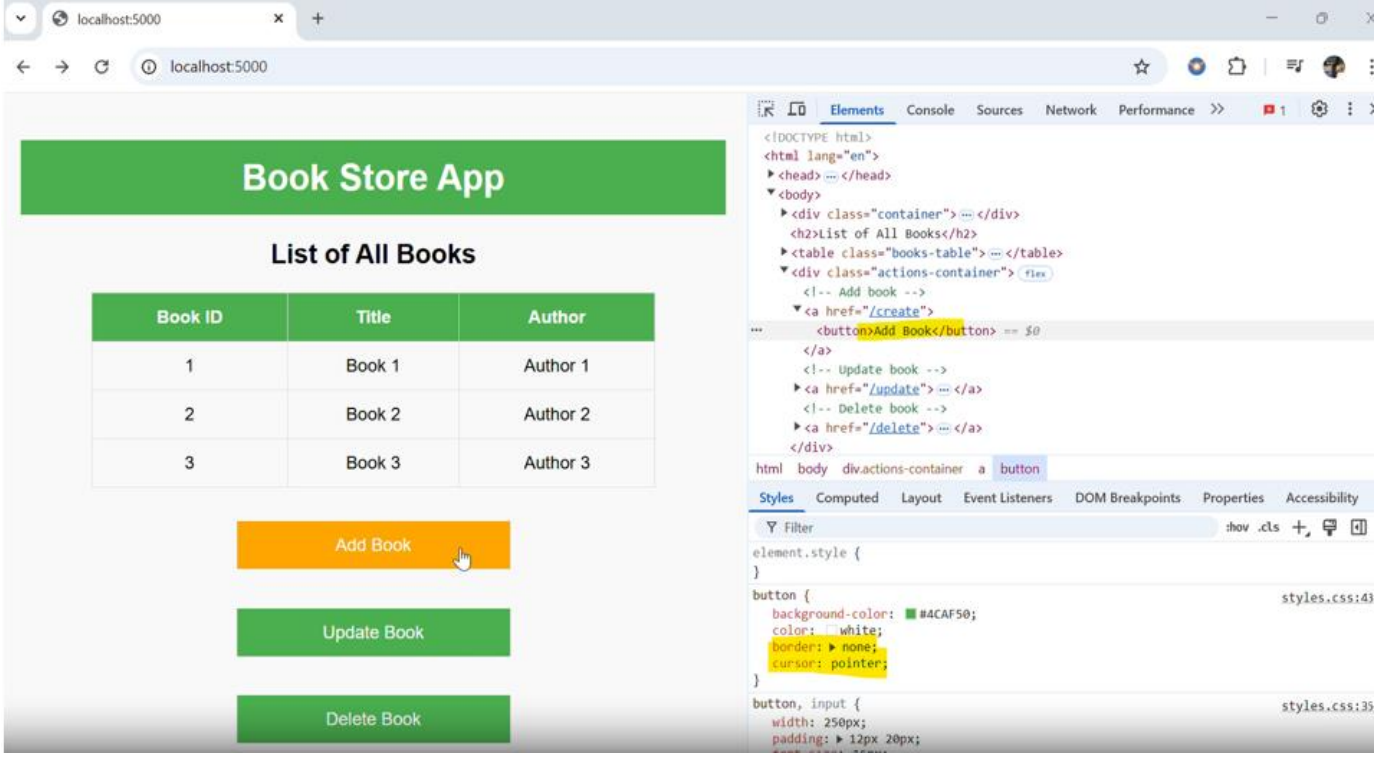


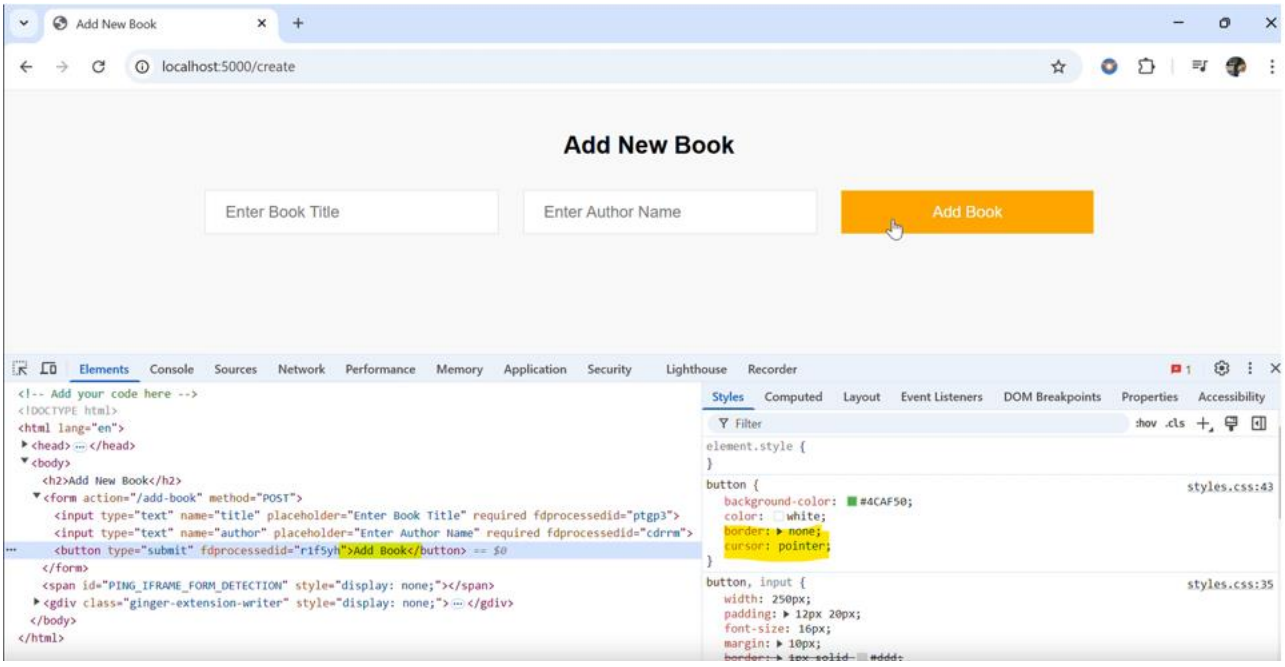


Cursor changed to pointer on hover

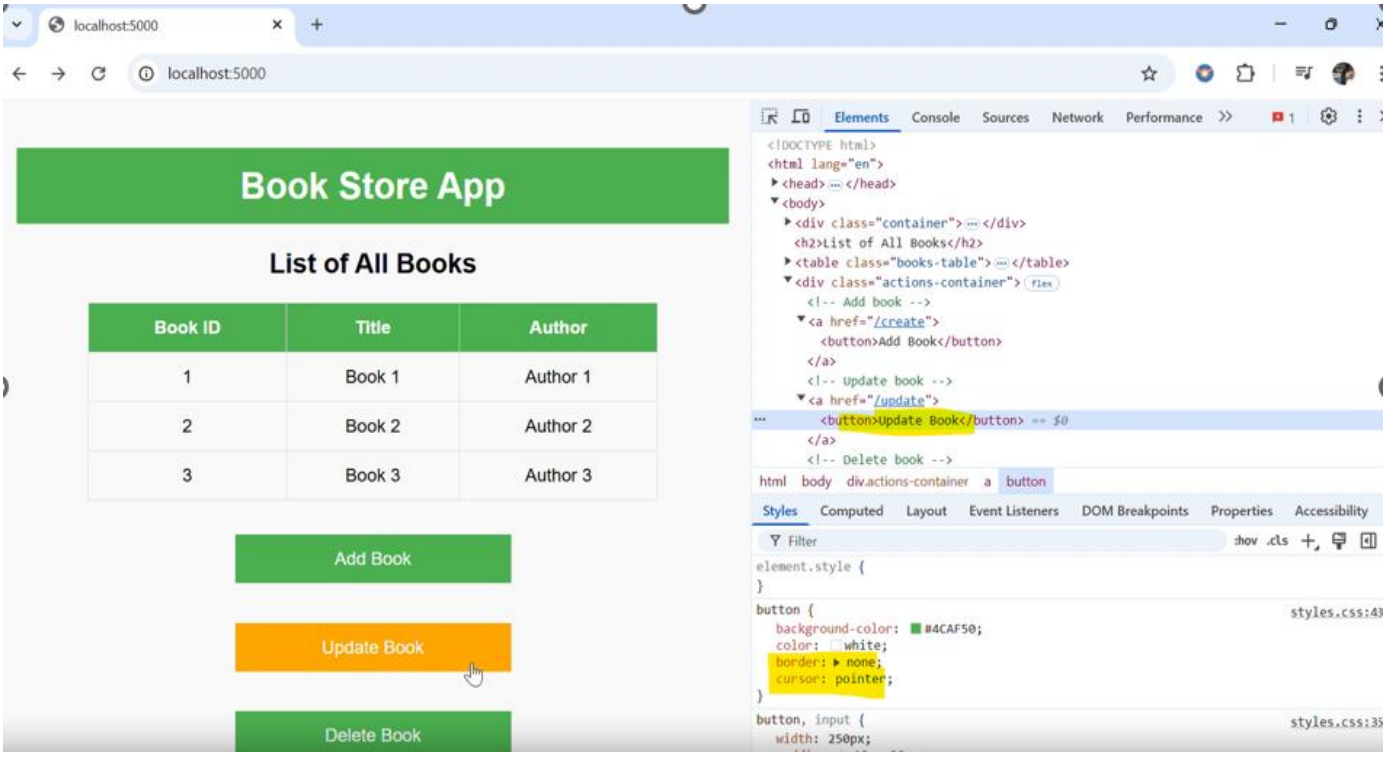


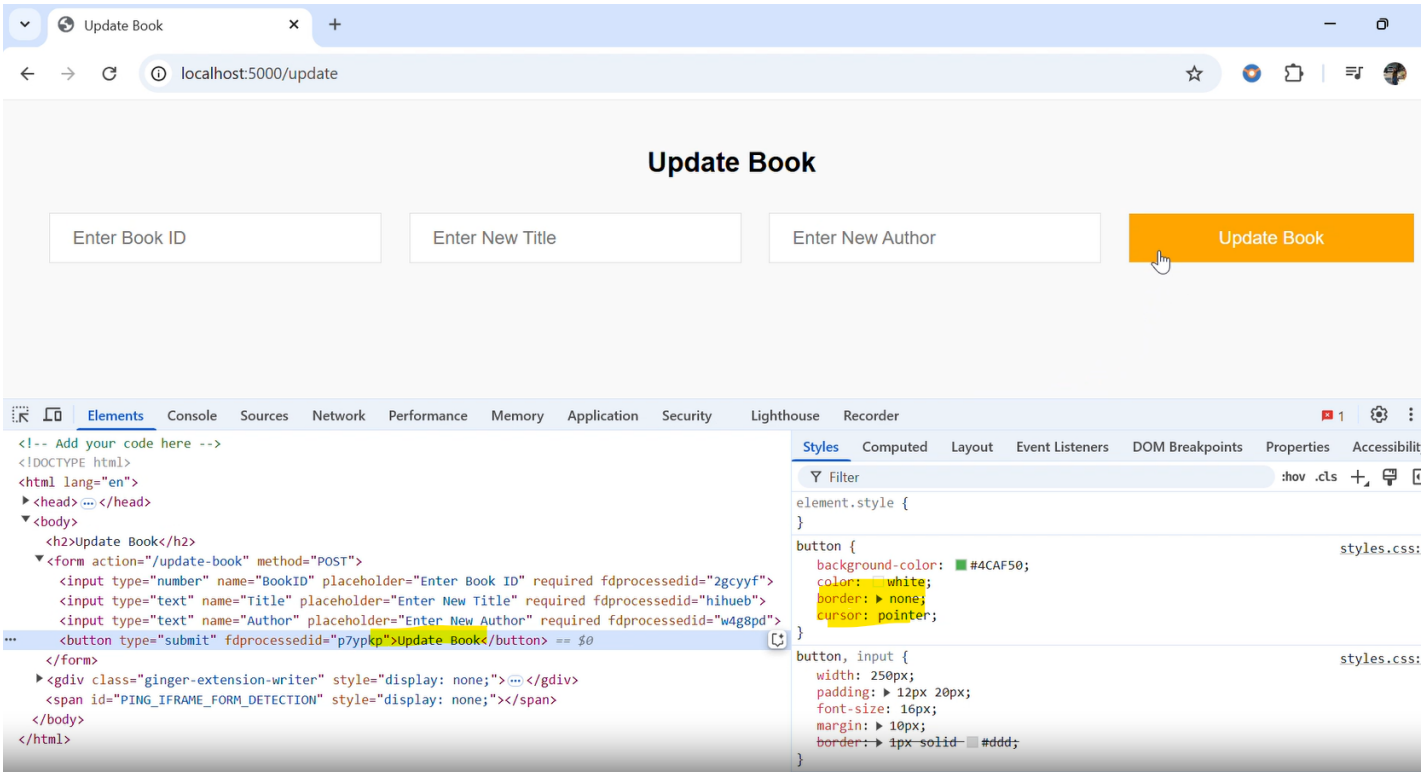
Add Book button



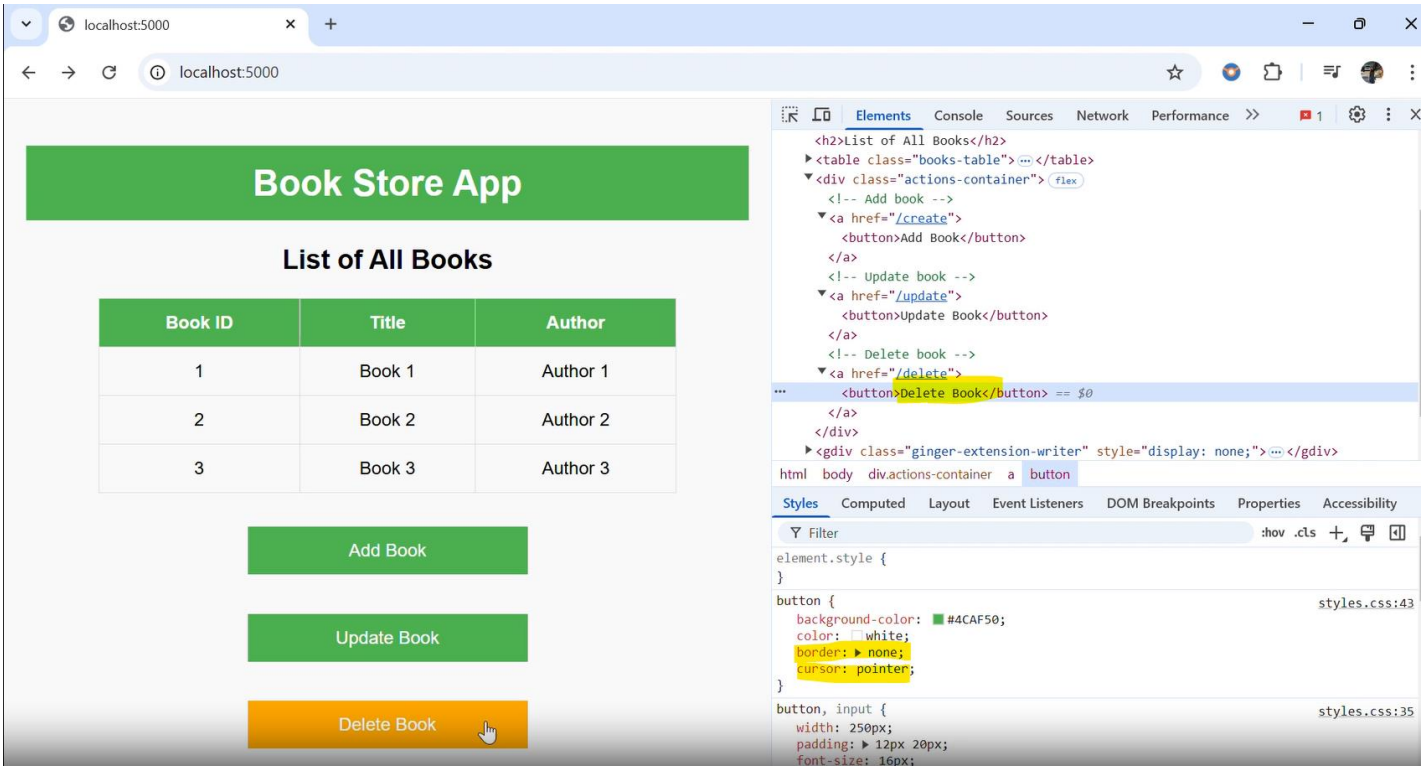


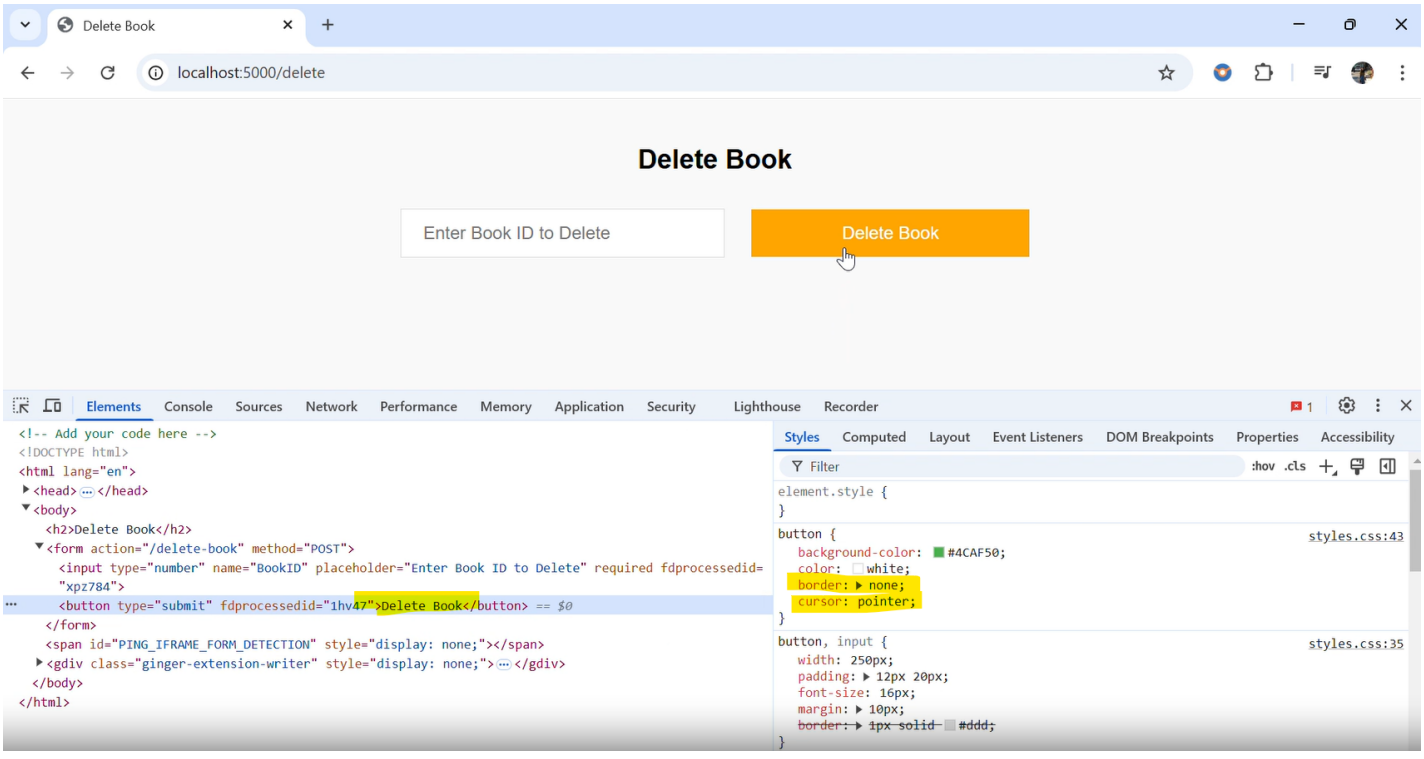
Update Book button





Delete Book button

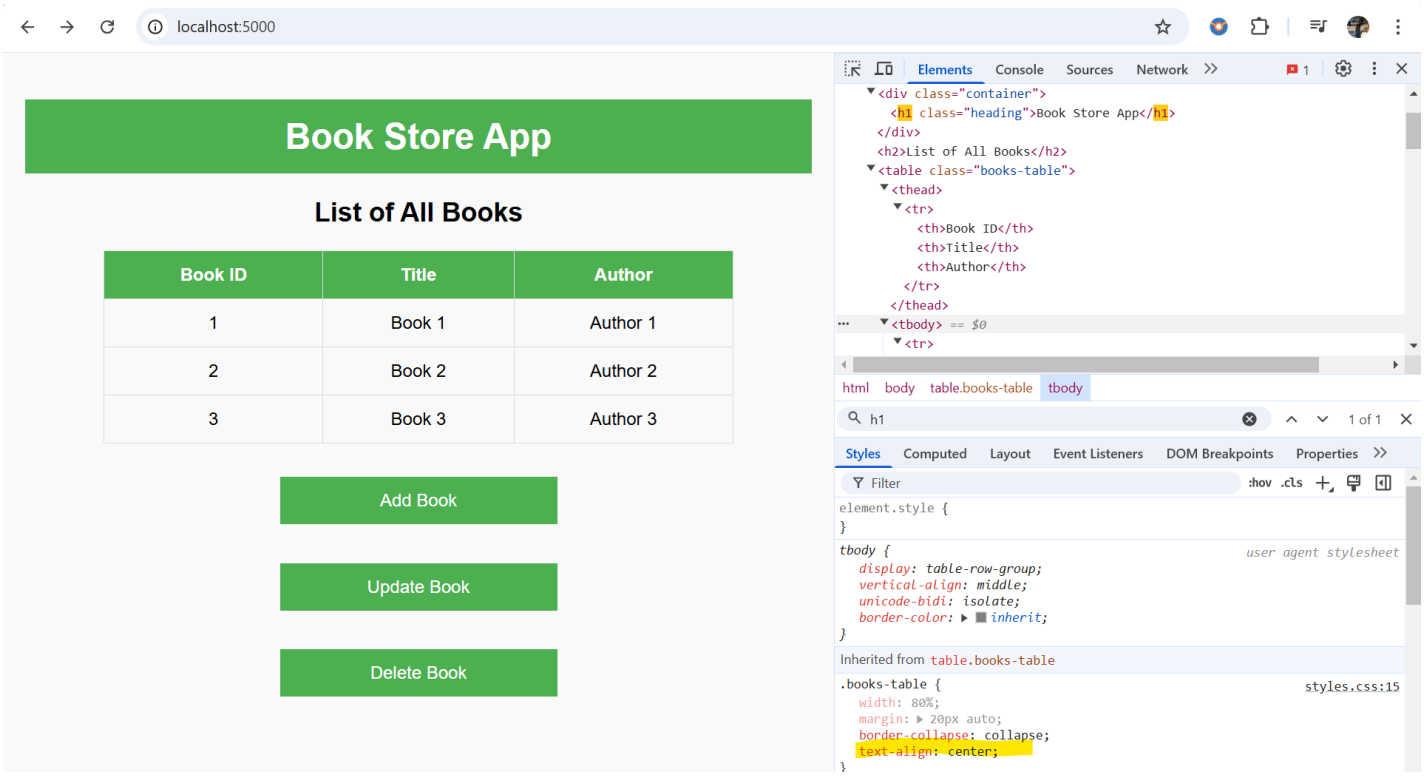




4. Center align the table text of the table. (1 point)

styles.css

```
.books-table {
    width: 80%;
    margin: 20px auto;
    border-collapse: collapse;
    text-align: center;            /*Q4 - center align table text*/
}
.books-table th, .books-table td {
    border: 1px solid #ddd;
    padding: 12px;
    text-align: center;   /*q4 keep text inside table cells to center*/
}
```



Part 2. HTTP, Express, NodeJS (6 points)

1. Write the code to add a new book. The user should be able to enter the Book Title and Author Name. Once the user submits the required data, the book should be added and the user should be redirected to the home view showing the updated list of books. (2 points)

create.ejs (to enter book details)

```
<!-- Add your code here -->
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Add New Book</title>
    <link rel="stylesheet" href="/css/styles.css">
</head>

<body>

    <h2>Add New Book</h2>
    <form action="/add-book" method="POST">
        <input type="text" name="title" placeholder="Enter Book Title" required>
        <input type="text" name="author" placeholder="Enter Author Name" required>
```

```
        <button type="submit">Add Book</button>
    </form>

</body>
</html>
```

index.js (add new book)

```
// add your code to create new book
app.post('/add-book', function (req, res) {
//import express module
const express = require('express');
//create an express app
const  app = express();
//require express middleware body-parser
const bodyParser = require('body-parser');

//set the view engine to ejs
app.set('view engine', 'ejs');
//set the directory of views
app.set('views', './views');
//specify the path of static directory
app.use(express.static(__dirname + '/public'));

//body parser parses the incoming request bodies
app.use(bodyParser.json());
app.use(bodyParser.urlencoded({ extended: true }));

// By default, we have 3 books
var books = [
    { "BookID": "1", "Title": "Book 1", "Author": "Author 1" },
    { "BookID": "2", "Title": "Book 2", "Author": "Author 2" },
    { "BookID": "3", "Title": "Book 3", "Author": "Author 3" }
];

//route to root
app.get('/', function (req, res) {
    res.render('home', { books: books });
});

// route to render create view
app.get('/create', function (req, res) {
    res.render('create');
});

// add new book
app.post('/add-book', (req, res) => {
    const { title, author } = req.body;
```

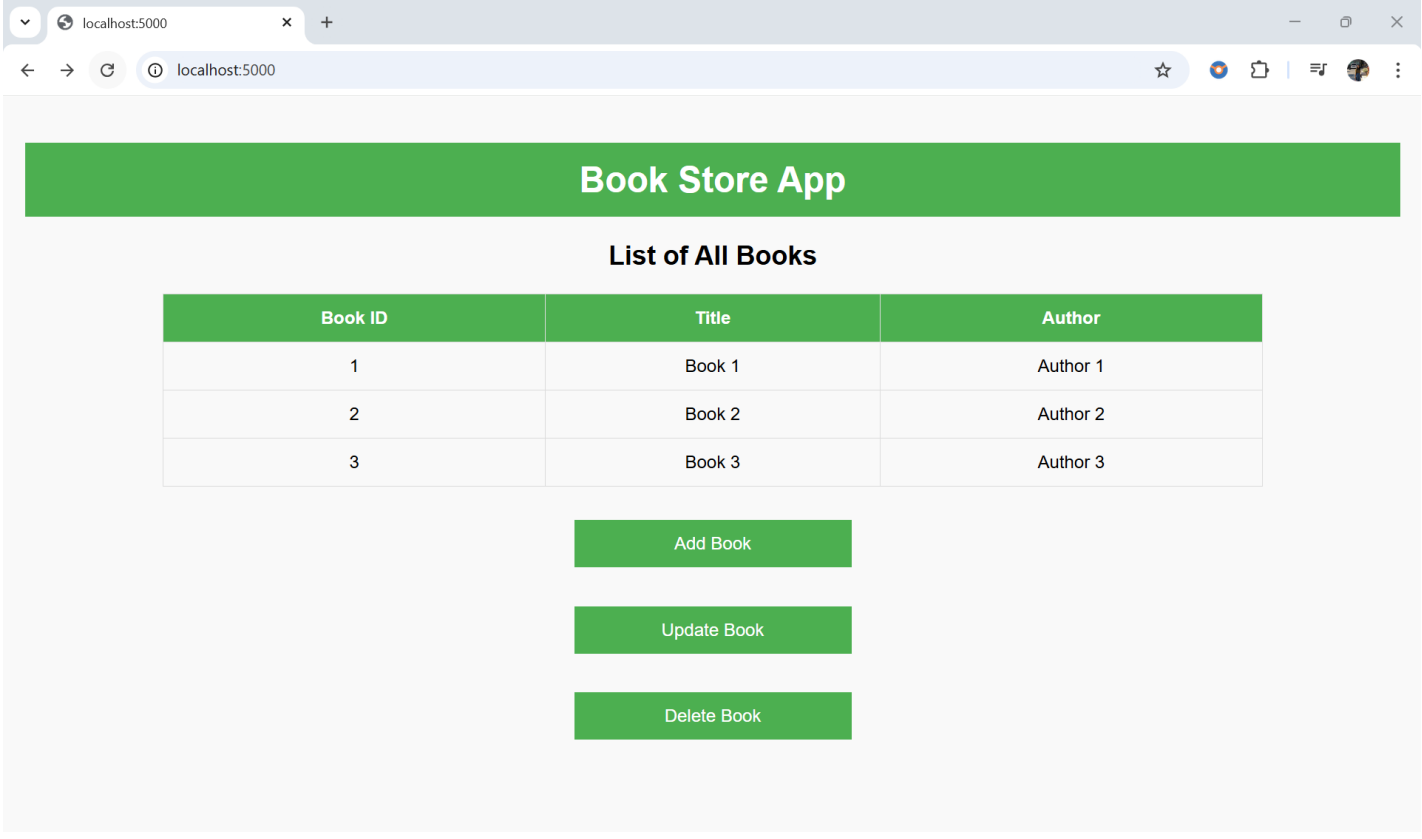
```
    if (!title.trim() || !author.trim()) {
        return res.status(400).send('Book title and author name are required');
    }
    const newBook = { BookID: (books.length + 1).toString(), Title: title, Author: author };
    books.push(newBook);
    res.redirect('/');
});
```

home.ejs (show the updated book table)

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet" href="/css/styles.css">
</head>

<body>
    <div class="container">
        <h1 class="heading">Book Store App</h1>
    </div>

    <h2>List of All Books</h2>
    <table class="books-table">
        <thead>
            <tr>
                <th>Book ID</th>
                <th>Title</th>
                <th>Author</th>
            </tr>
        </thead>
        <tbody>
            <% books.forEach(function(book){ %>
                <tr>
                    <td>
                        <%= book.BookID %>
                    </td>
                    <td>
                        <%= book.Title %>
                    </td>
                    <td>
                        <%= book.Author %>
                    </td>
                </tr>
            <% }); %>
        </tbody>
```

```
    </table>

    <div class="actions-container">
        <!-- Add book -->
        <a href="/create">
            <button>Add Book</button>
        </a>
    </div>

</body>

</html>
```

Page before adding book



Adding new book

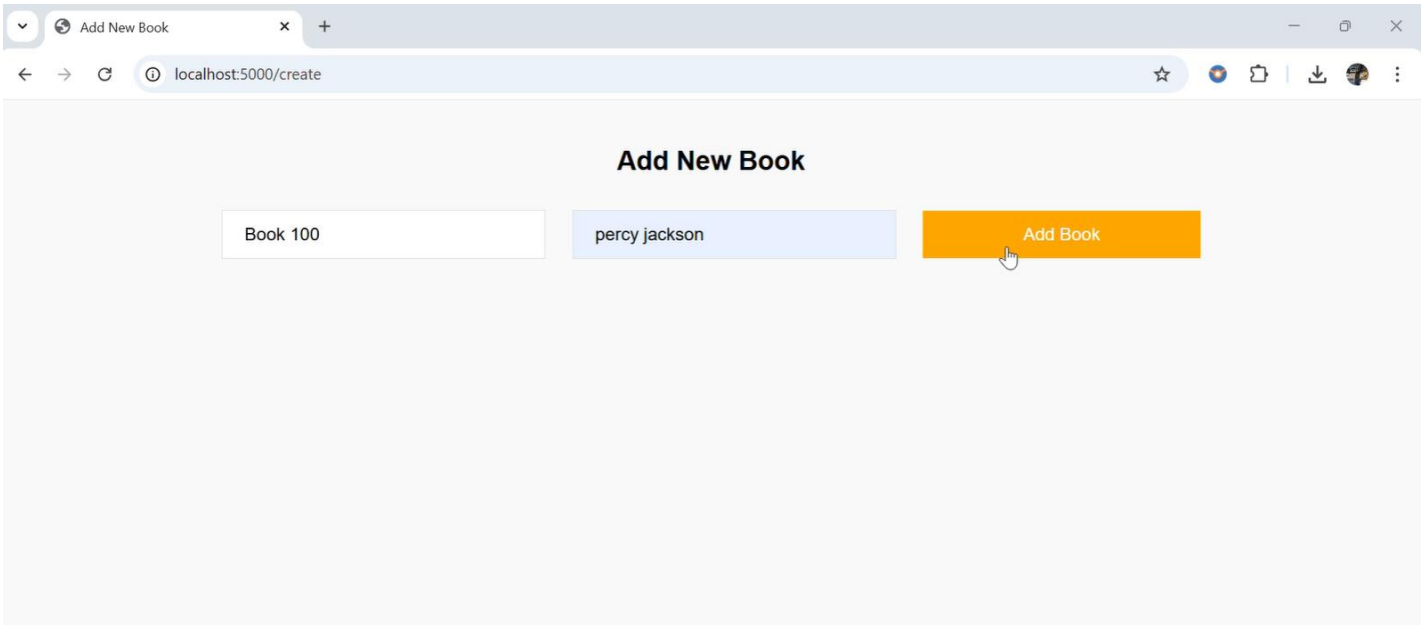
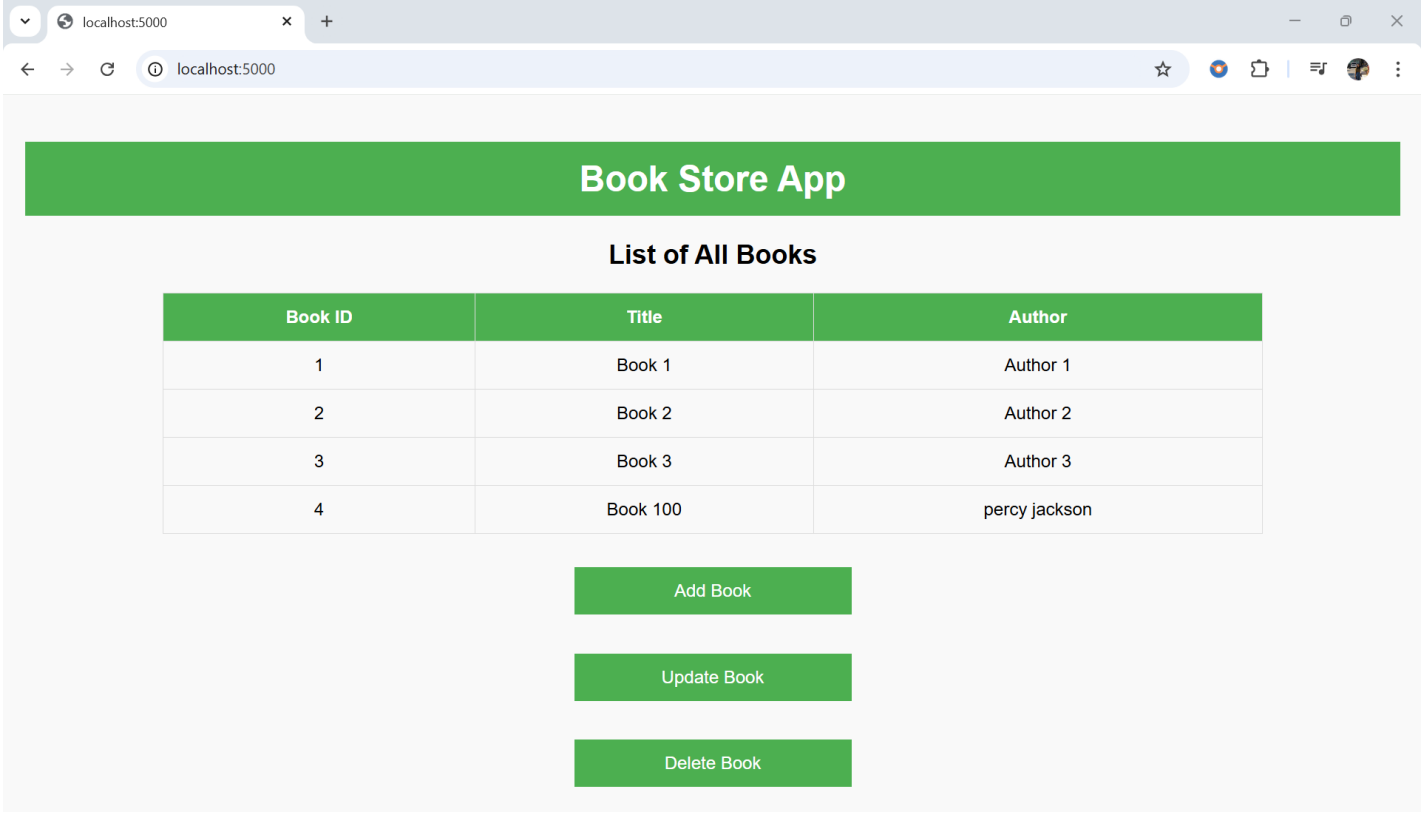


Table updated with new book entry



2. Write the code to update book with id 1 to title:"Harry Potter", Author Name: "J.K Rowling". After submitting the data, redirect to the home view and show the updated data in the list of books. (2 points)

update.ejs (to update book details)

```
<!-- Add your code here -->

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Update Book</title>
    <link rel="stylesheet" href="/css/styles.css">
</head>

<body>

    <h2>Update Book</h2>
    <form action="/update-book" method="POST">
        <input type="number" name="BookID" placeholder="Enter Book ID" required>
        <input type="text" name="Title" placeholder="Enter New Title" required>
        <input type="text" name="Author" placeholder="Enter New Author" required>
        <button type="submit">Update Book</button>
    </form>

</body>

</html>
```

index.js (route for updating the book)

```
// route to render update view
app.get('/update', function (req, res) {
    res.render('update');
});

// update book
app.post('/update-book', (req, res) => {
    const { BookID, Title, Author } = req.body;

    for (let i = 0; i < books.length; i++) {
        if (books[i].BookID === BookID) {
            books[i].Title = Title;
            books[i].Author = Author;
            break;
        }
```

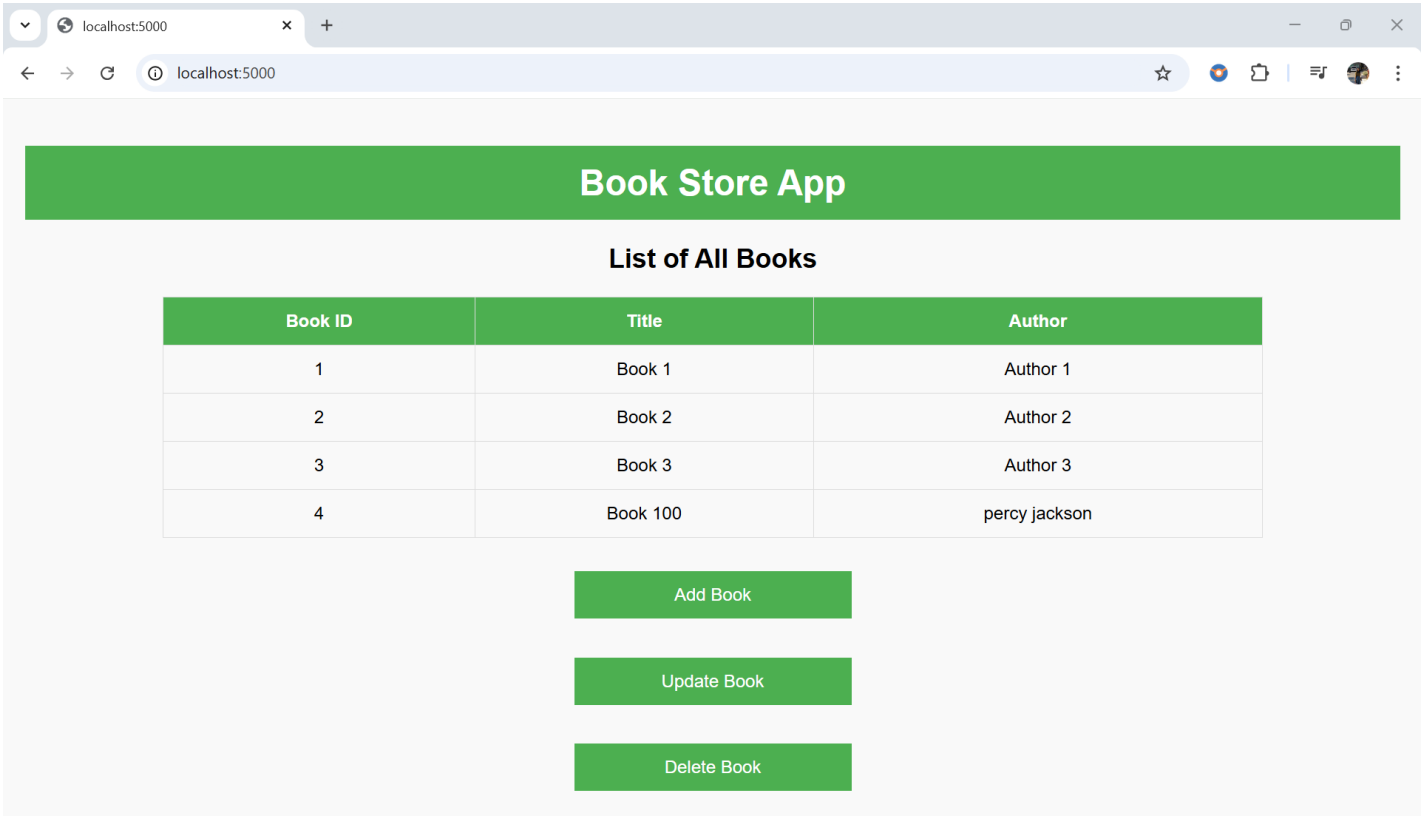
```
    }
    res.redirect('/');
});
```

home.ejs (shows updated table)

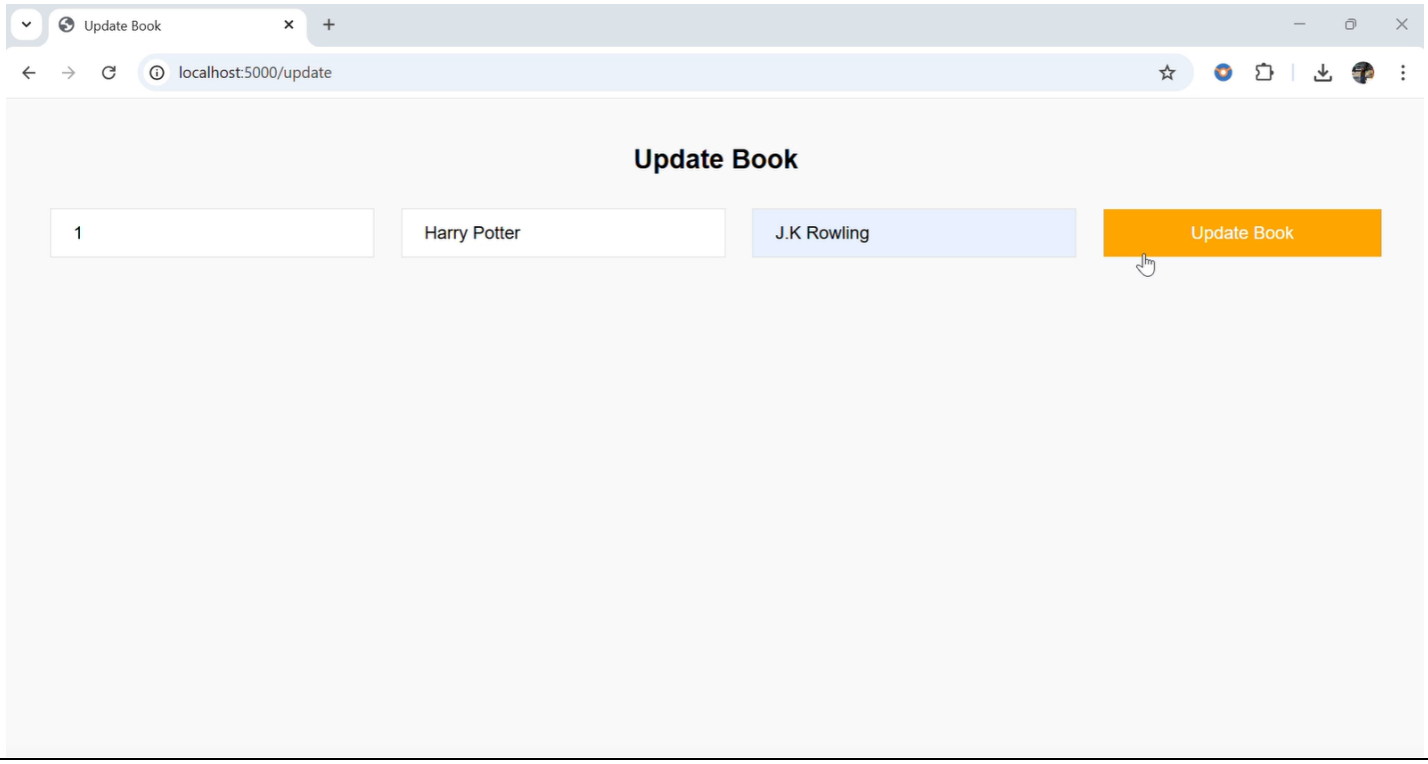
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet" href="/css/styles.css">
</head>
<body>
    <div class="container">
        <h1 class="heading">Book Store App</h1>
    </div>
    <h2>List of All Books</h2>
    <table class="books-table">
        <thead>
            <tr>
                <th>Book ID</th>
                <th>Title</th>
                <th>Author</th>
            </tr>
        </thead>
        <tbody>
            <% books.forEach(function(book){ %>
                <tr>
                    <td>
                        <%= book.BookID %>
                    </td>
                    <td>
                        <%= book.Title %>
                    </td>
                    <td>
                        <%= book.Author %>
                    </td>
                </tr>
            <% }); %>
        </tbody>
    </table>

    <div class="actions-container">
        <!-- Update book -->
        <a href="/update">
            <button>Update Book</button>
        </a>
    </div>
```

```
</body>
</html>
```

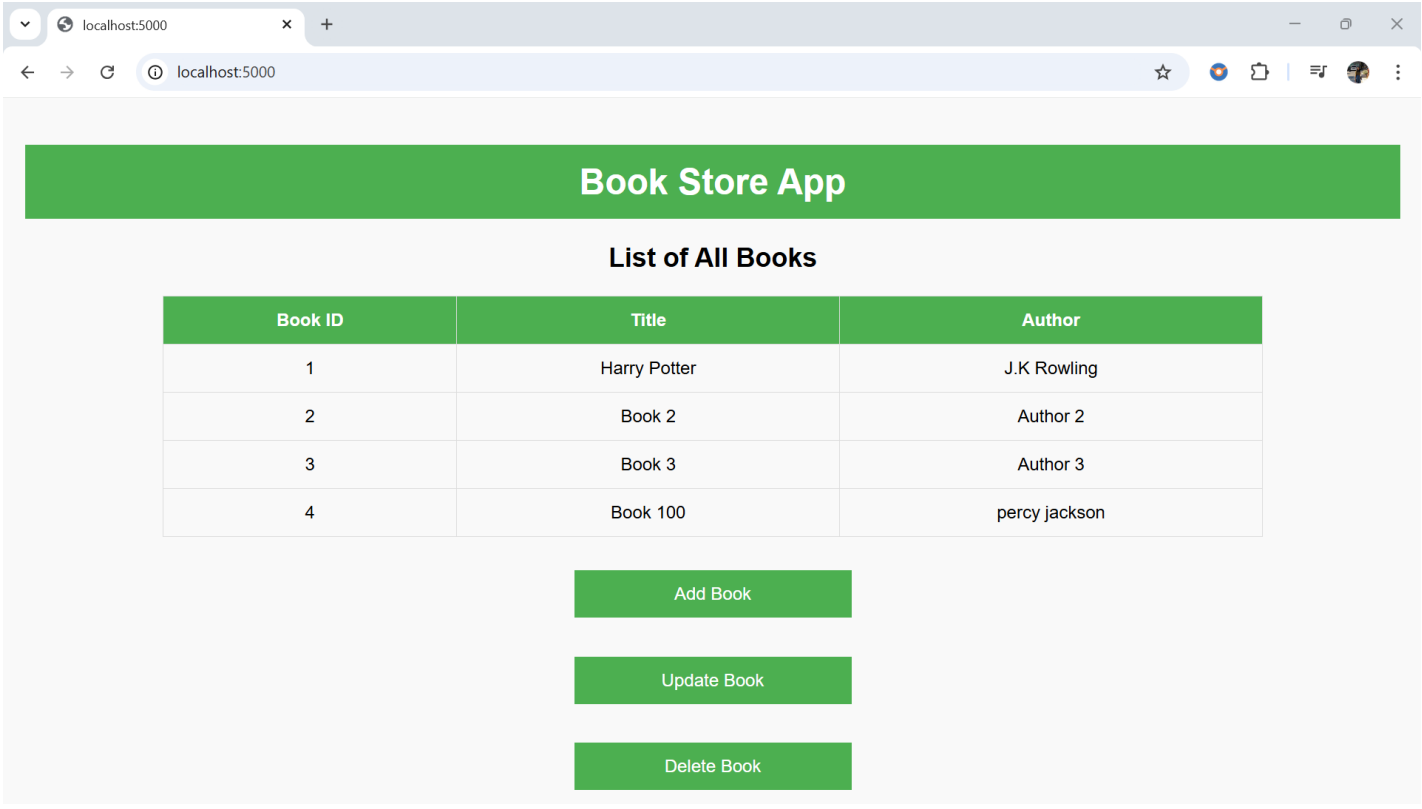
Before updating



Update book with id 1



After updation



3. Write the code to delete the book with the highest id. After submitting the data, redirect to the home view and show the updated data in the list of books. (2 points)

delete.ejs (to delete a book)

```
<!-- Add your code here -->

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Delete Book</title>
    <link rel="stylesheet" href="/css/styles.css">
</head>

<body>

    <h2>Delete Book</h2>
    <form action="/delete-book" method="POST">
        <input type="number" name="BookID" placeholder="Enter Book ID to Delete" required>
```

```
        <button type="submit">Delete Book</button>
    </form>

</body>

</html>
```

index.js (route to delete a book with the highest ID)

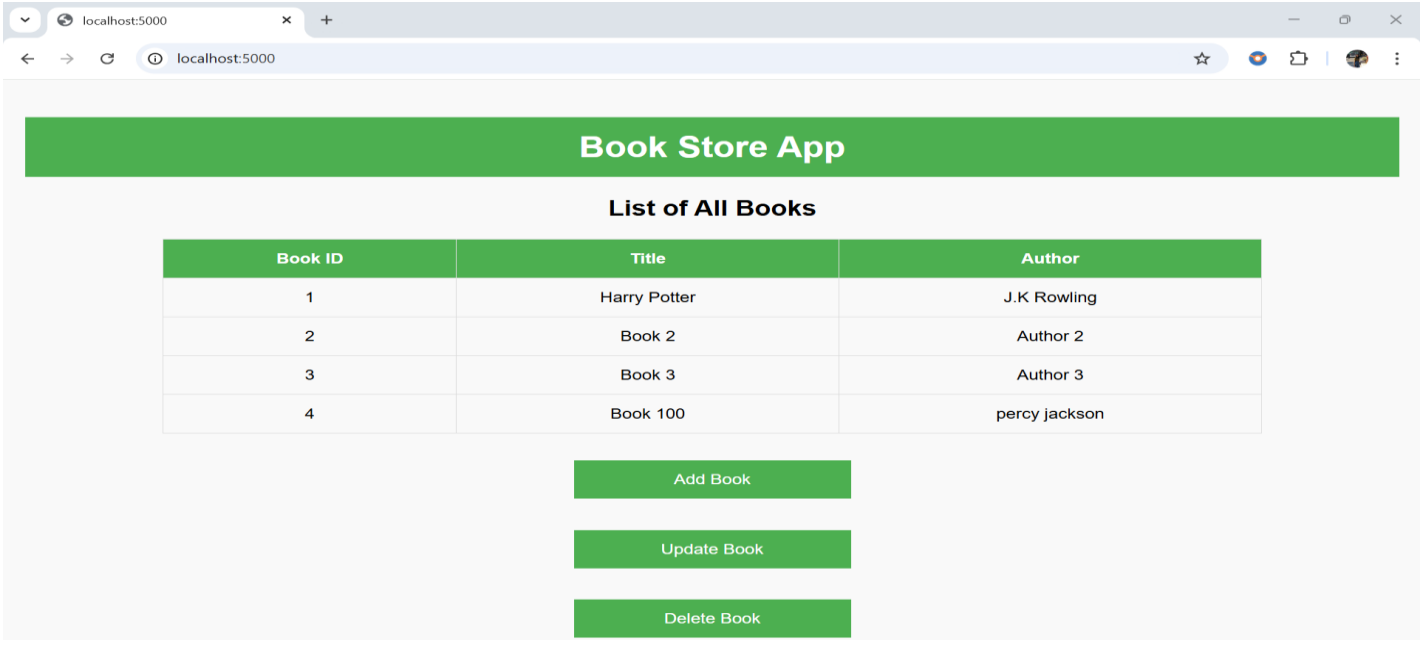
```
// route to render delete view
app.get('/delete', function (req, res) {
    res.render('delete');
});

// delete book with the highest ID
app.post('/delete-book', (req, res) => {
    if (books.length > 0) {
        // find the highest book id
        const highestID = Math.max(...books.map(book => parseInt(book.BookID)));
        // remove the book
        books = books.filter(book => parseInt(book.BookID) !== highestID);
    }
    res.redirect('/');
});
```

home.ejs (display the updated book table)

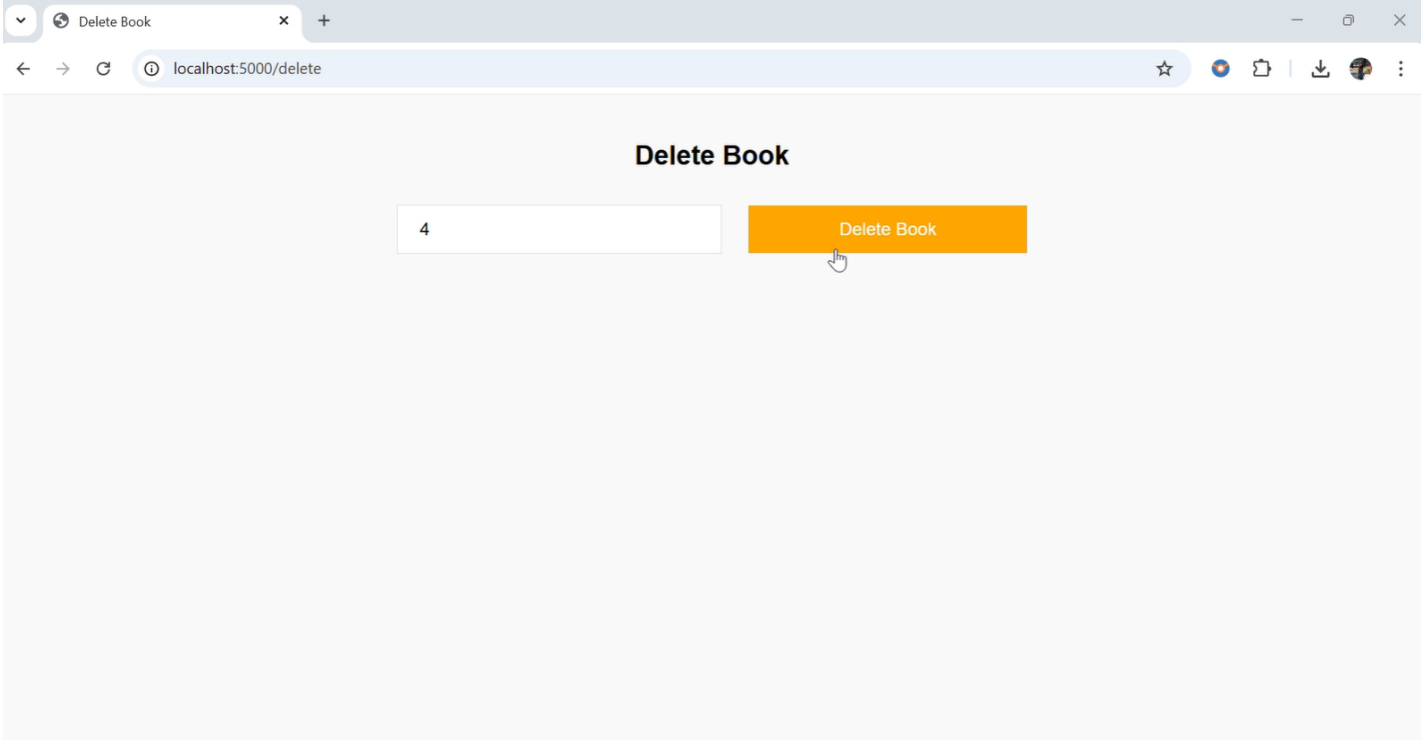
```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet" href="/css/styles.css">
</head>

<body>
    <div class="container">
        <h1 class="heading">Book Store App</h1>
    </div>

    <h2>List of All Books</h2>
    <table class="books-table">
        <thead>
            <tr>
                <th>Book ID</th>
```

```
                <th>Title</th>
                <th>Author</th>
            </tr>
        </thead>
        <tbody>
            <% books.forEach(function(book){ %>
                <tr>
                    <td>
                        <%= book.BookID %>
                    </td>
                    <td>
                        <%= book.Title %>
                    </td>
                    <td>
                        <%= book.Author %>
                    </td>
                </tr>
            <% }); %>
        </tbody>
    </table>

    <div class="actions-container">
        <!-- Delete book -->
        <a href="/delete">
            <button>Delete Book</button>
        </a>
    </div>

</body>

</html>
```

Before deleting



Delete book with id 4



After deletion