

Name: Mrunali Katta

Student ID : 017516785

Homework 2

Part 1. HTML & CSS (4 points)

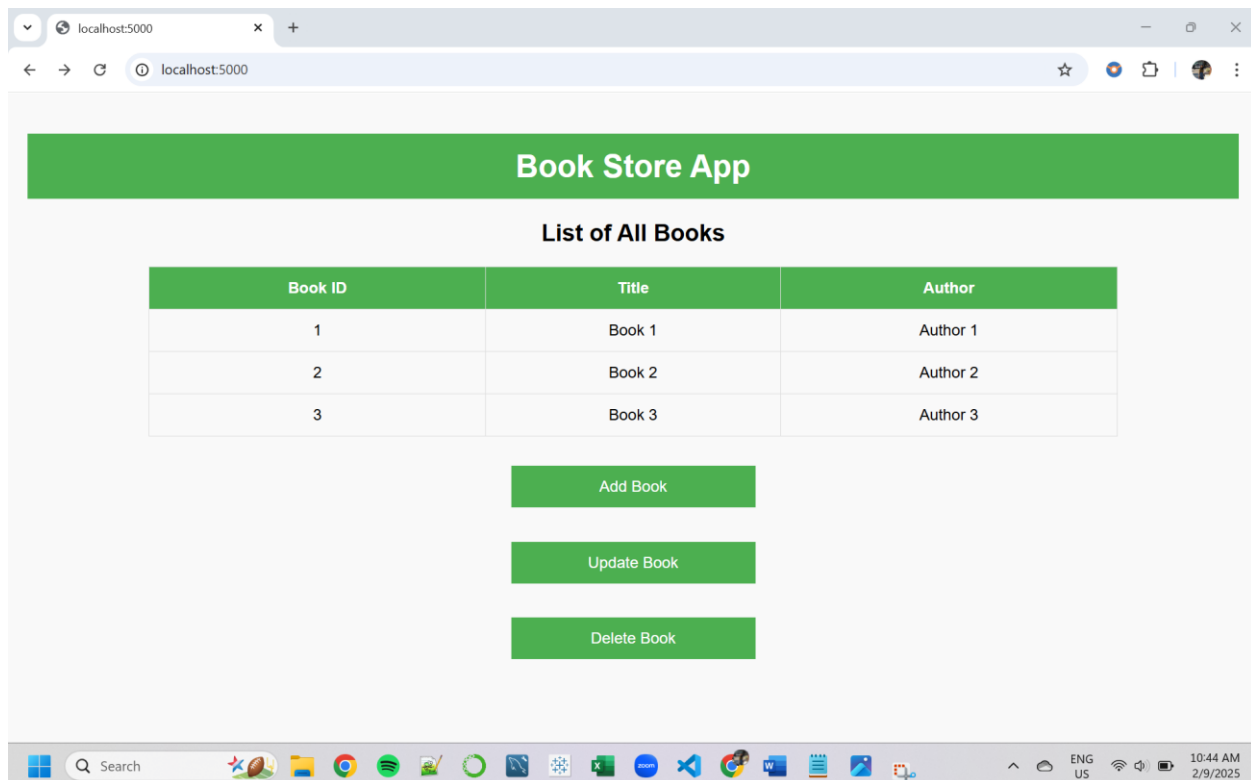
1. Center align all the content present on the home page (i.e the headings, text, buttons, table, etc. everything should be centered). (1 point)

Here added the center align in **styles.css** on the homepage

styles.css

```
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

Add New Book

Enter Book Title

Enter Author Name

Add Book

localhost:5000/create

10:46 AM 2/9/2025

Center alignment of Update Book Page

Update Book

Enter Book ID

Enter New Title

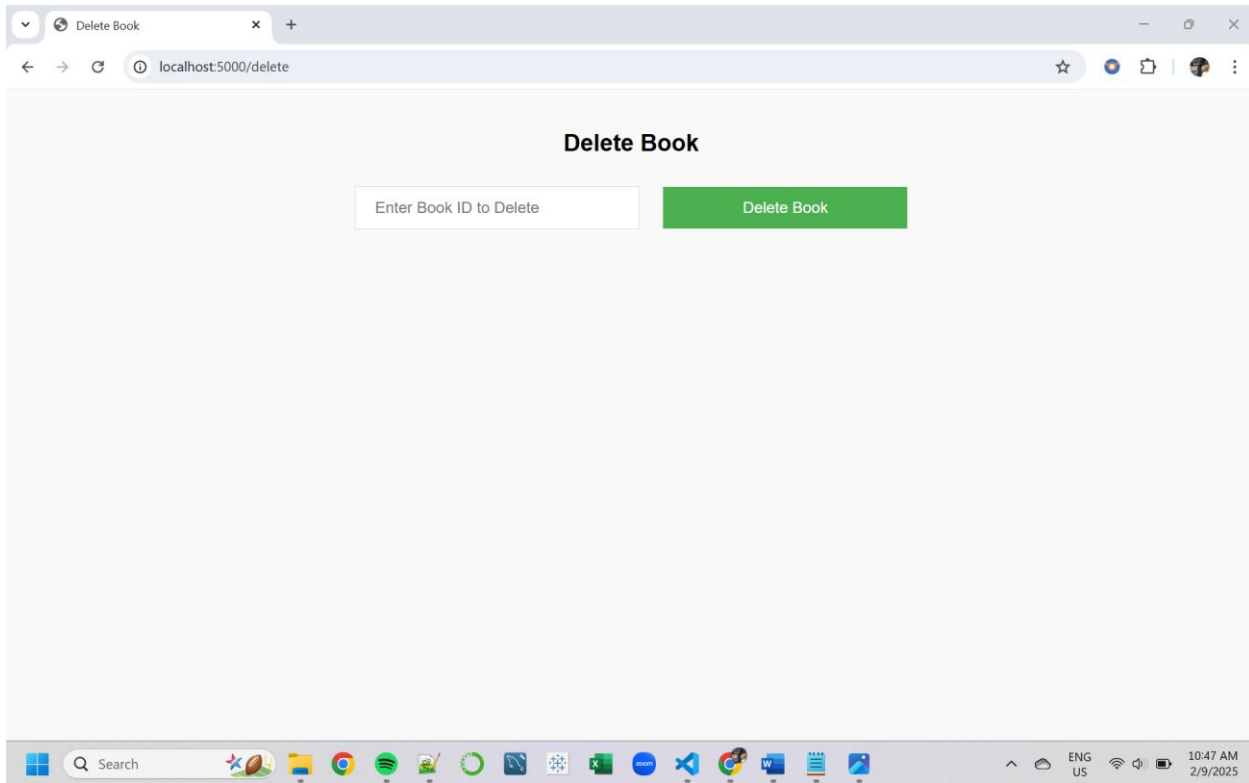
Enter New Author

Update Book

localhost:5000/update

10:46 AM 2/9/2025

Center alignment of Delete Book Page

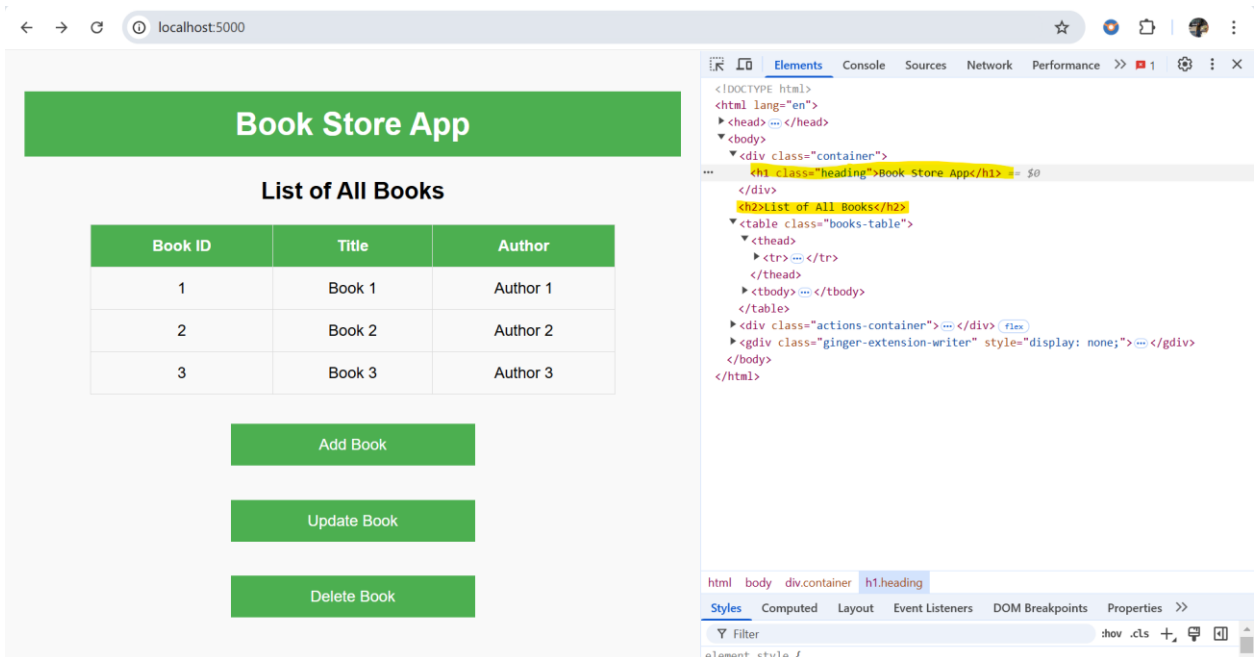
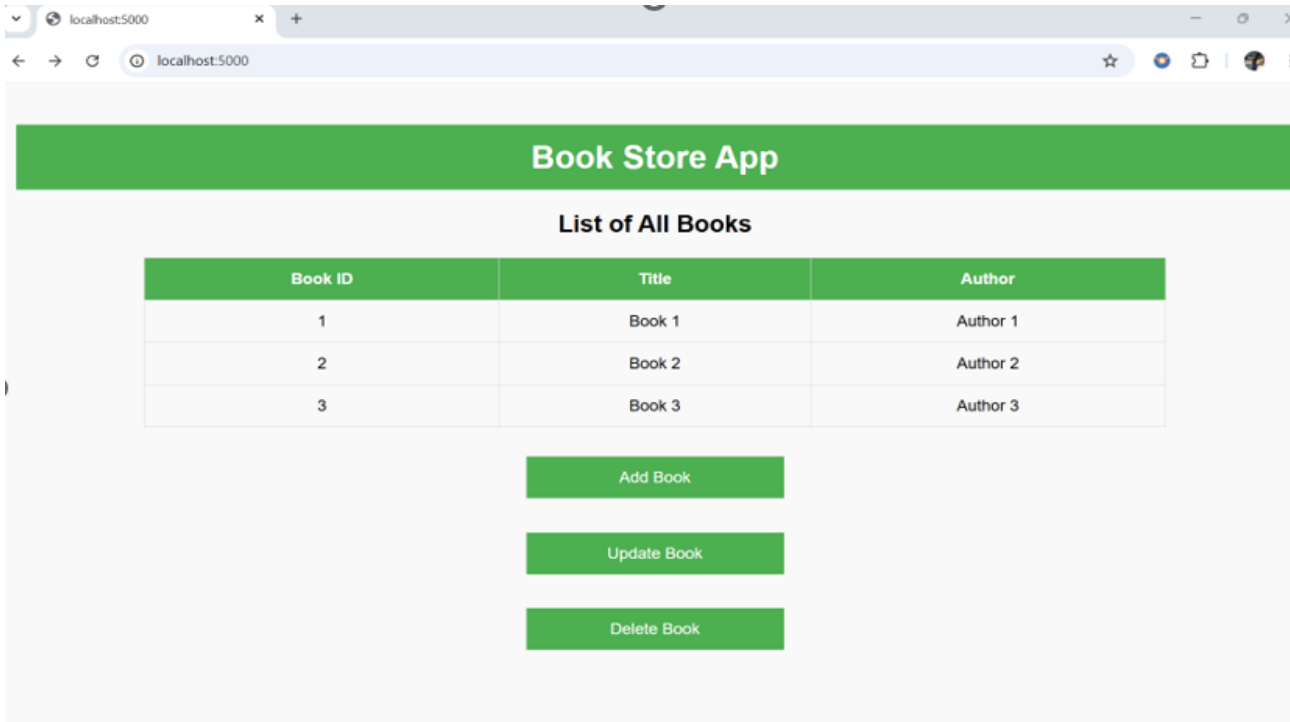


2. Make the background color of the heading, table header, and buttons to ##4CAF50 and set the text color to white for the heading, table header and buttons. (1 point)

styles.css

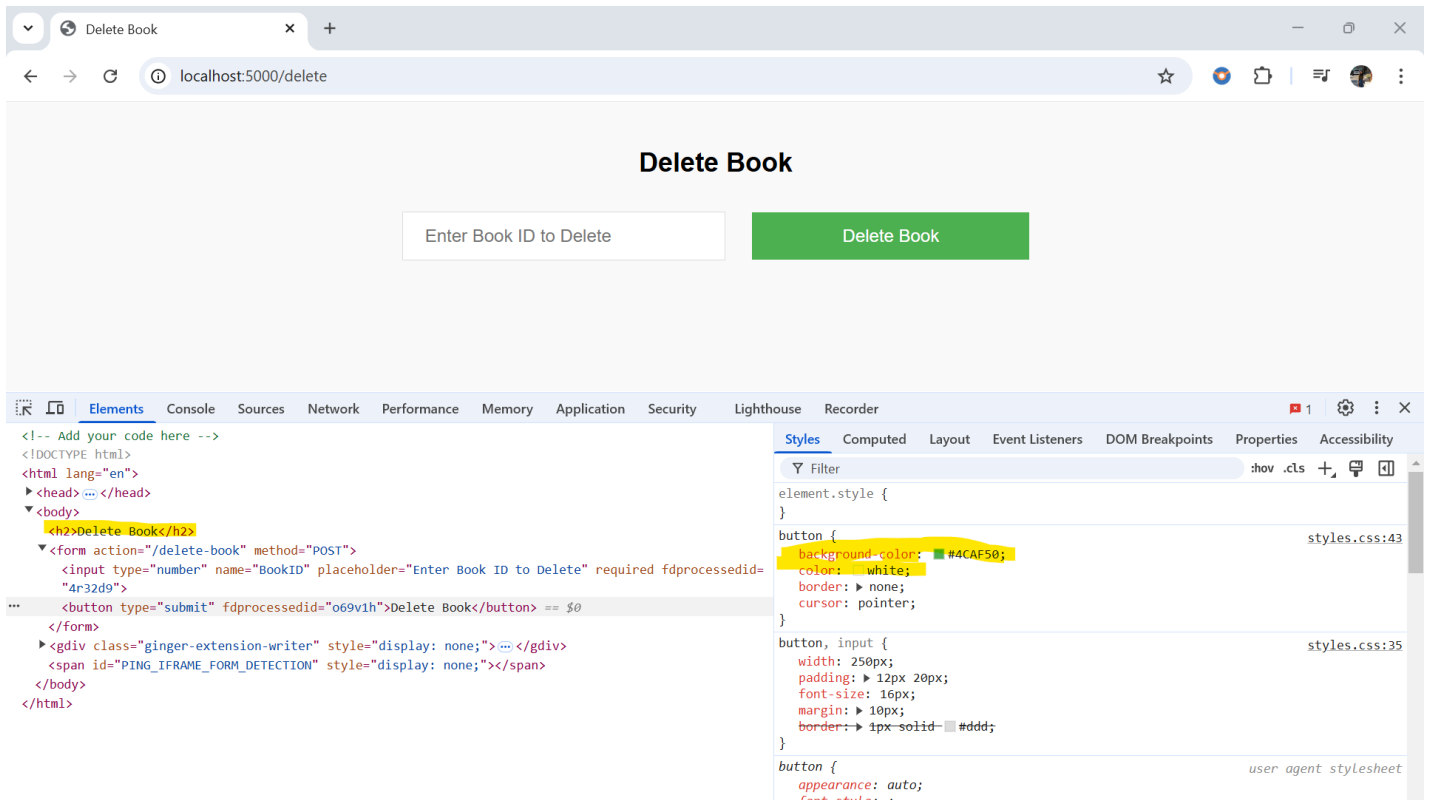
```
h1, .heading, .books-table th {  
  background-color: #4CAF50; /*Q2-keep background & text color for headers & table  
  headers*/  
  color: white; /*Q2- keep white color for headers and table headers*/  
  padding: 15px;  
}  
button {  
  background-color: #4CAF50; /*Q2 - green background for 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>.



The screenshot shows a web browser window with the address bar displaying 'localhost:5000/update'. The page content includes a title 'Update Book' and a form with three input fields: 'Enter Book ID', 'Enter New Title', and 'Enter New Author', followed by a green 'Update Book' button.

The Chrome DevTools interface is open at the bottom. The 'Elements' panel shows the HTML structure of the page, with the 'button' element selected. The 'Styles' panel displays the styles for the selected button, including 'background-color: #4CAF50', 'color: white', 'border: none', and 'cursor: pointer'. The 'Computed' tab is active, showing the styles applied to the element.

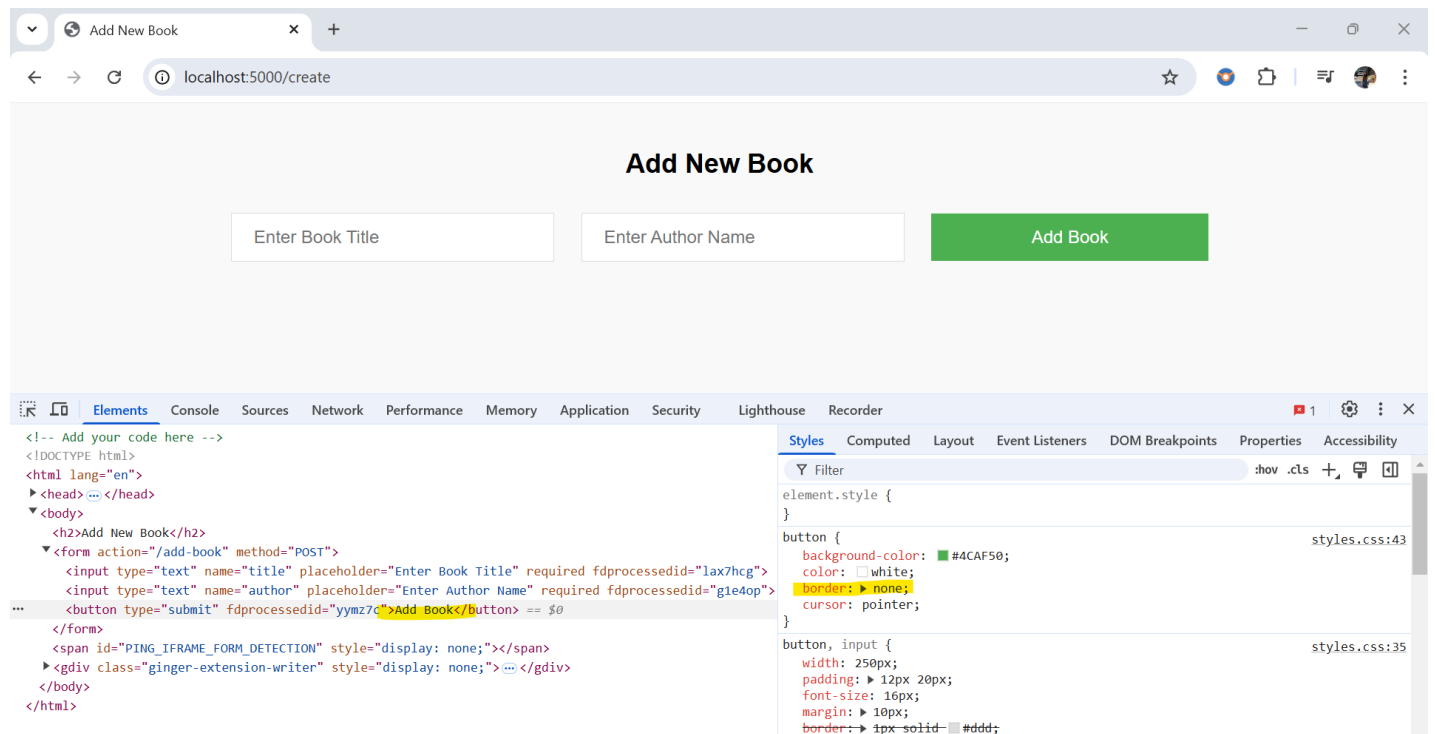


3. Remove any border from the action buttons and change the background of the button to orange on the button's hover, and set the cursor to pointer on hover of the buttons. (1 point)

styles.css

```
button {  
    border: none; /*Q3 - remove border from buttons */  
    cursor: pointer; /*pointer changed*/  
}  
  
button:hover {  
    background-color: orange; /*Q3 - orange on hover*/  
}
```

Add Book button



Update Book button

Book Store App

List of All Books

Book ID	Title	Author
1	Book 1	Author 1
2	Book 2	Author 2
3	Book 3	Author 3

Add Book

Update Book

Delete Book

Elements

<!DOCTYPE html>
<html lang="en">
<head>
</head>
<body>
<div class="container">
<h2>list of All Books</h2>
<table class="books-table">
<div class="actions-container">
<!-- Add book -->

<!-- Update book -->

<button>Update Book</button>

<!-- Delete book -->

</div>
...</div>
body div.actions-container a button</div>
html body div.actions-container a button</div>
Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility</div>

Filter</div>

element.style {</div>

button {</div>

background-color: #4CAF50;</div>

color: white;</div>

border: none;</div>

cursor: pointer;</div>

</div></div>

button, input {</div>

width: 250px;</div>

padding: 12px 20px;</div>

font-size: 16px;</div>

margin: 10px;</div>

border: 1px solid #ddd;</div>

</div></div></div>

Update Book

Enter Book ID

Enter New Title

Enter New Author

Update Book

Elements

<!-- Add your code here -->
<!DOCTYPE html>
<html lang="en">
<head>
</head>
<body>
<h2>Update Book</h2>
<form action="/update-book" method="POST">
<input type="number" name="BookID" placeholder="Enter Book ID" required fdprocessedid="2ieiJB">
<input type="text" name="title" placeholder="Enter New Title" required fdprocessedid="zvkh8">
<input type="text" name="Author" placeholder="Enter New Author" required fdprocessedid="oSiwEg">
<button type="submit" fdprocessedid="m108m">Update Book</button>
</form>

<gdiv class="ginger-extension-writer" style="display: none;"></gdiv>
</body>
</html>
...</div>
body div.actions-container a button</div>
html body div.actions-container a button</div>
Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility</div>

Filter</div>

element.style {</div>

button {</div>

background-color: #4CAF50;</div>

color: white;</div>

border: none;</div>

cursor: pointer;</div>

</div></div>

button, input {</div>

width: 250px;</div>

padding: 12px 20px;</div>

font-size: 16px;</div>

margin: 10px;</div>

border: 1px solid #ddd;</div>

</div></div></div>

button {</div>

appearance: auto;</div>

</div></div></div>

Delete Book button

localhost:5000

record k.mp4

localhost:5000

Book Store App

List of All Books

Book ID	Title	Author
1	Book 1	Author 1
2	Book 2	Author 2
3	Book 3	Author 3

Add Book

Update Book

Delete Book

Elements

Console

Sources

Network

Performance

>>

1

Settings

Close

<head>...</head>

<body>

<div class="container">...</div>

<h2>List of All Books</h2>

<table class="books-table">...</table>

<div class="actions-container">...</div>

<!-- Add book -->

...

<!-- Update book -->

<button>Update Book</button>

<!-- Delete book -->

<button>Delete Book</button> == \$0

</div>

html

body

div.actions-container

a

button

Styles

Computed

Layout

Event Listeners

DOM Breakpoints

Properties

Accessibility

Filter

show .cls +

element.style {

}

button {

background-color: #4CAF50;

color: white;

border: none;

cursor: pointer;

}

button, input {

width: 250px;

padding: 12px 20px;

font-size: 16px;

margin: 10px;

}

styles.css:43

styles.css:35

Delete Book

localhost:5000/delete

Delete Book

Enter Book ID to Delete

Delete Book

Elements

Console

Sources

Network

Performance

Memory

Application

Security

Lighthouse

Recorder

1

Settings

Close

<!-- Add your code here -->

<!DOCTYPE html>

<html lang="en">

<head>...</head>

<body>

<h2>Delete Book</h2>

<form action="/delete-book" method="POST">

<input type="number" name="BookID" placeholder="Enter Book ID to Delete" required fdprocessedid="b7mf1">

<button type="submit" fdprocessedid="0qxlnk">Delete Book</button> == \$0

</form>

<div class="ginger-extension-writer" style="display: none;">...</div>

</body>

</html>

Styles

Computed

Layout

Event Listeners

DOM Breakpoints

Properties

Accessibility

Filter

show .cls +

element.style {

}

button {

background-color: #4CAF50;

color: white;

border: none;

cursor: pointer;

}

button, input {

width: 250px;

padding: 12px 20px;

font-size: 16px;

margin: 10px;

border: 1px solid #ddd;

}

button {

appearance: auto;

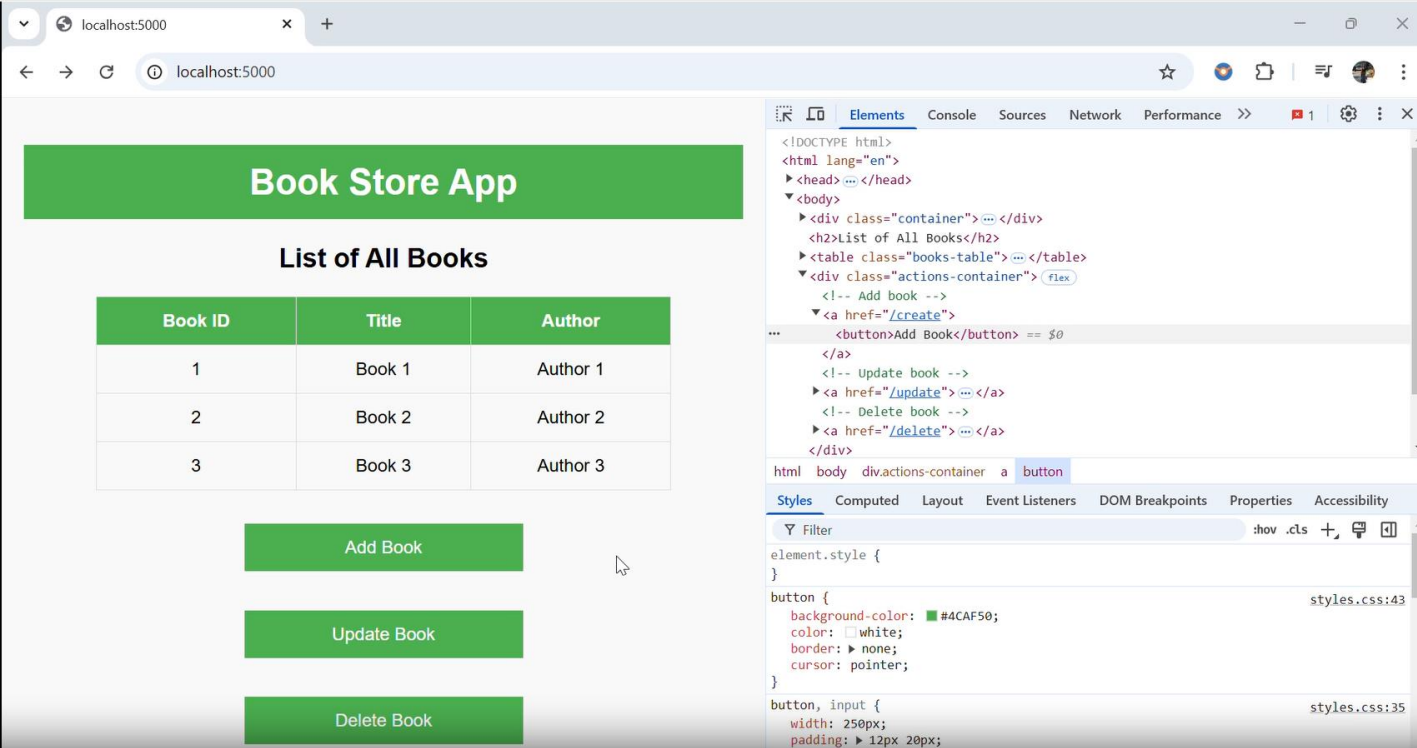
}

styles.css:43

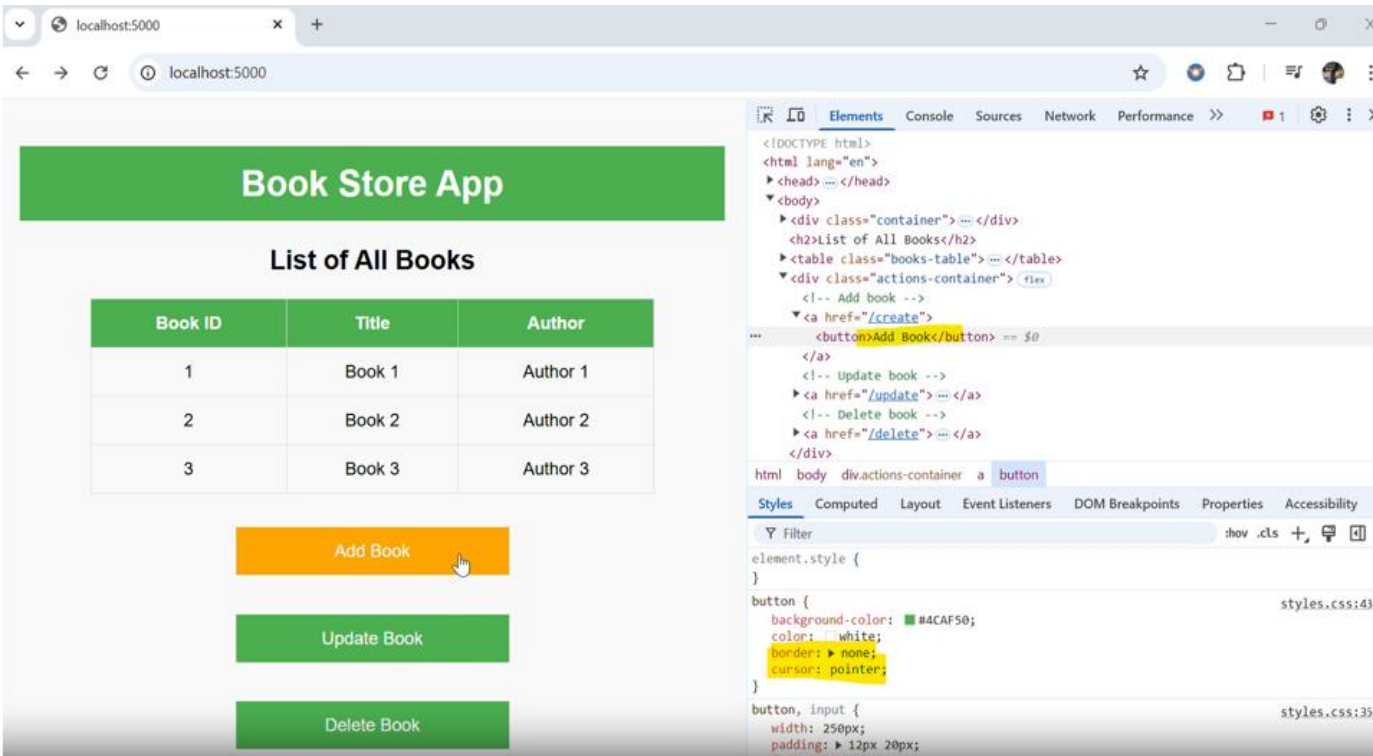
styles.css:35

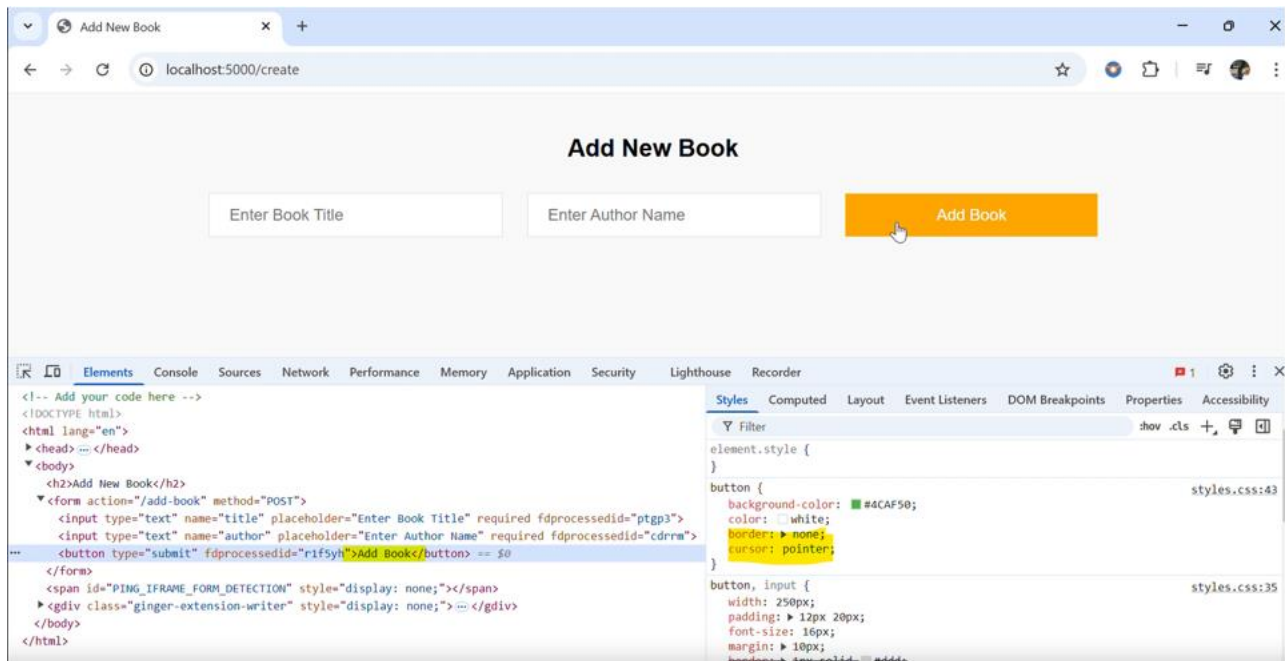
user agent stylesheet

Cursor changed to pointer on hover

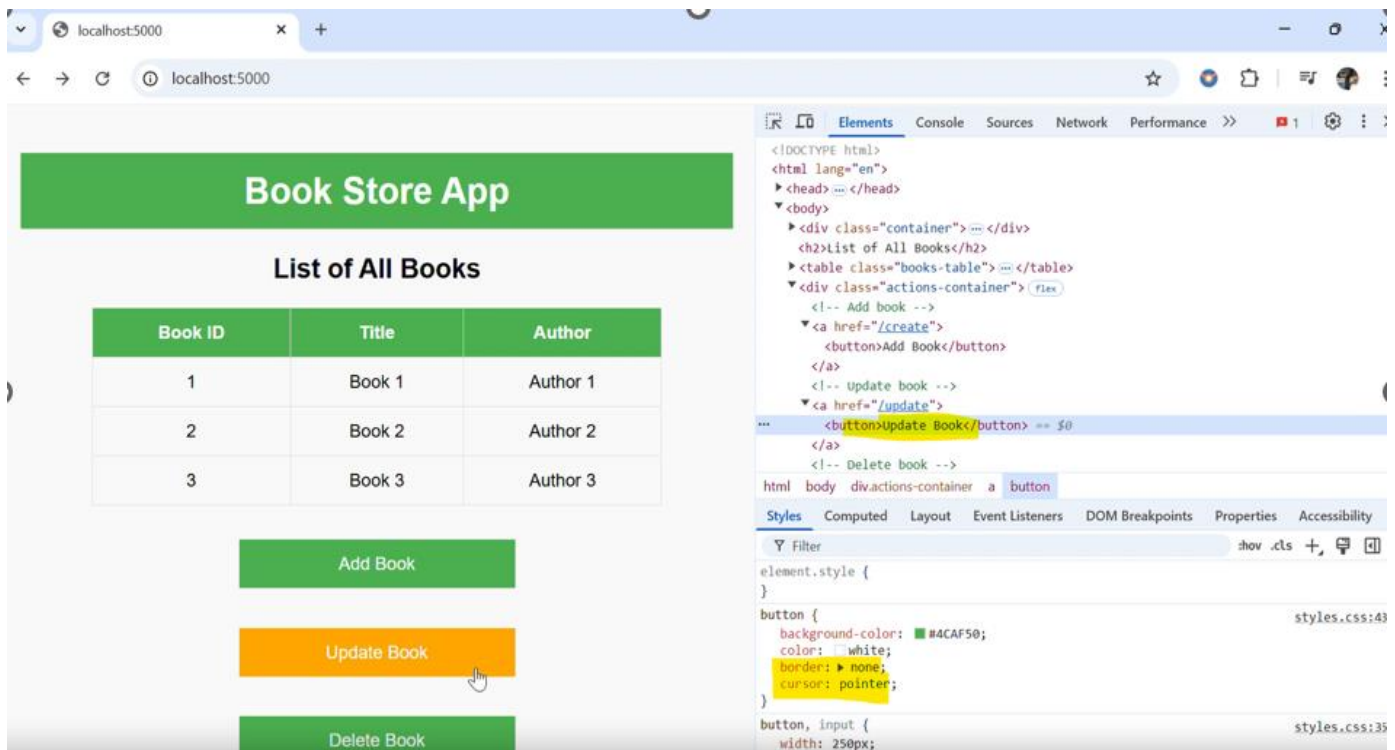


Add Book button





Update Book button



Update Book

Enter Book ID Enter New Title Enter New Author **Update Book**

```
<!-- Add your code here -->
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Update Book</title>
  </head>
  <body>
    <h2>Update Book</h2>
    <form action="/update-book" method="POST">
      <input type="number" name="BookID" placeholder="Enter Book ID" required fdprocessedid="2gcyf">
      <input type="text" name="Title" placeholder="Enter New Title" required fdprocessedid="hihueb">
      <input type="text" name="Author" placeholder="Enter New Author" required fdprocessedid="w4g8pd">
      <button type="submit" fdprocessedid="p7ypkp">Update Book</button>
    </form>
    <div class="ginger-extension-writer" style="display: none;">
      <span id="PING_IFRAME_FORM_DETECTION" style="display: none;"></span>
    </div>
  </body>
</html>
```

Styles

button {

```
background-color: #4CAF50;
color: white;
border: none;
cursor: pointer;
```

button, input {

```
width: 250px;
padding: 12px 20px;
font-size: 16px;
margin: 10px;
border: 1px solid #ddd;
```

Delete Book button

Book Store App

List of All Books

Book ID	Title	Author
1	Book 1	Author 1
2	Book 2	Author 2
3	Book 3	Author 3

Add Book

Update Book

Delete Book

```
<h2>List of All Books</h2>
<table class="books-table">
  <tr>
    <th>Book ID</th>
    <th>Title</th>
    <th>Author</th>
  </tr>
  <tr>
    <td>1</td>
    <td>Book 1</td>
    <td>Author 1</td>
  </tr>
  <tr>
    <td>2</td>
    <td>Book 2</td>
    <td>Author 2</td>
  </tr>
  <tr>
    <td>3</td>
    <td>Book 3</td>
    <td>Author 3</td>
  </tr>
</table>
<div class="actions-container">
  <!-- Add book -->
  <a href="/create">
    <button>Add Book</button>
  </a>
  <!-- Update book -->
  <a href="/update">
    <button>Update Book</button>
  </a>
  <!-- Delete book -->
  <a href="/delete">
    <button>Delete Book</button>
  </a>
</div>
<div class="ginger-extension-writer" style="display: none;">
```

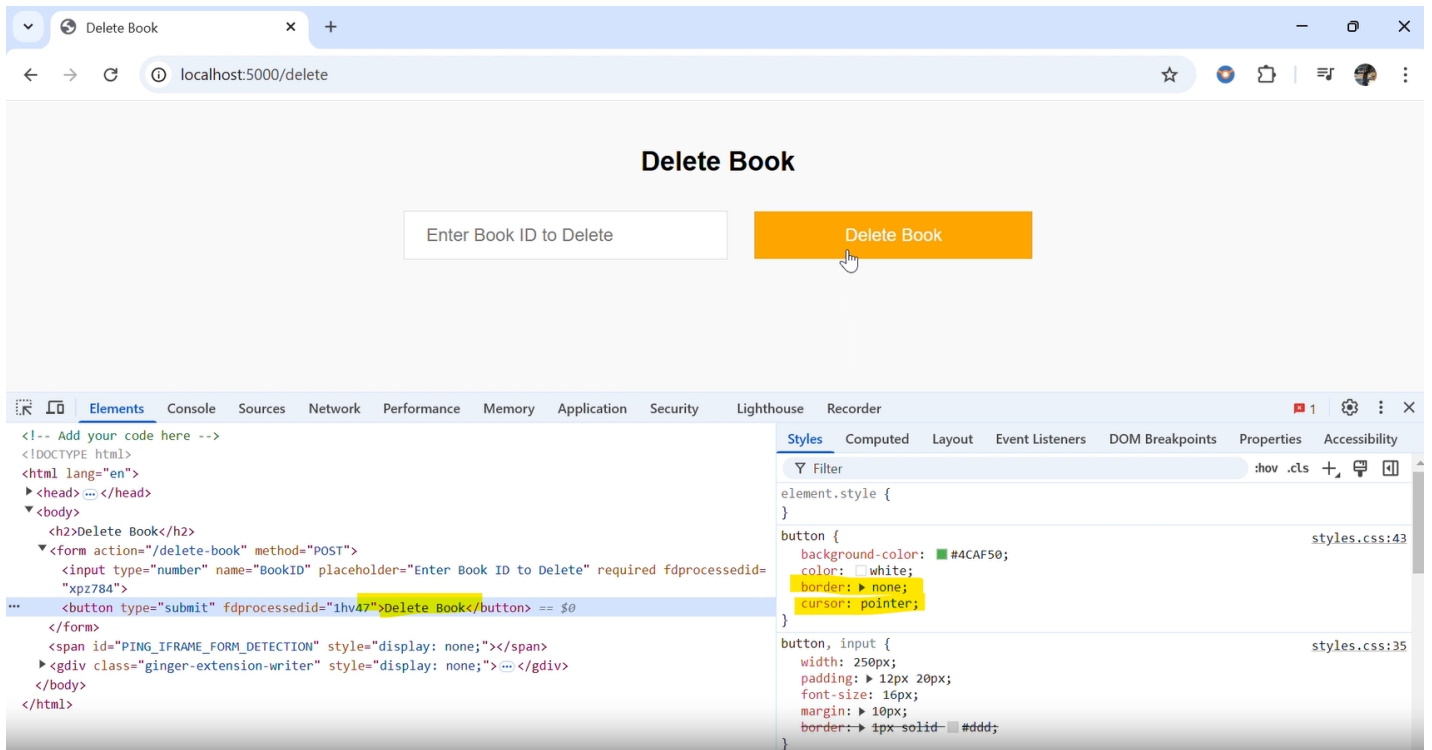
Styles

button {

```
background-color: #4CAF50;
color: white;
border: none;
cursor: pointer;
```

button, input {

```
width: 250px;
padding: 12px 20px;
font-size: 16px;
```



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*/
}
```

The screenshot shows a web browser at localhost:5000 displaying a 'Book Store App'. The app has a green header with the title 'Book Store App'. Below it is a section titled 'List of All Books' containing a table with 3 columns: Book ID, Title, and Author. The table lists three books: Book 1 (Author 1), Book 2 (Author 2), and Book 3 (Author 3). Below the table are three green buttons: 'Add Book', 'Update Book', and 'Delete Book'. The browser's developer tools are open on the right, showing the HTML structure. The 'Elements' panel shows a table with class 'books-table'. The 'Styles' panel shows the default user agent styles for the table's tbody, including display: table-row-group, vertical-align: middle, and text-align: center (highlighted in yellow).

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>

```



```

</table>

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

</body>

</html>

```

Page before adding book

The screenshot shows a web browser at localhost:5000 displaying the 'Book Store App'. The page features a green header with the title 'Book Store App'. Below the header is a section titled 'List of All Books' which contains a table with the following data:

Book ID	Title	Author
1	Book 1	Author 1
2	Book 2	Author 2
3	Book 3	Author 3

Below the table, there are three green buttons arranged vertically: 'Add Book', 'Update Book', and 'Delete Book'.

Adding new book

Add New Book

localhost:5000/create

Add New Book

Book 100

percy jackson

Add Book

Table updated with new book entry

localhost:5000

localhost:5000

Book Store App

List of All Books

Book ID	Title	Author
1	Book 1	Author 1
2	Book 2	Author 2
3	Book 3	Author 3
4	Book 100	percy jackson

Add Book

Update Book

Delete Book

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

localhost:5000

localhost:5000

Book Store App

List of All Books

Book ID	Title	Author
1	Book 1	Author 1
2	Book 2	Author 2
3	Book 3	Author 3
4	Book 100	percy jackson

Add Book

Update Book

Delete Book

Update book with id 1

Update Book

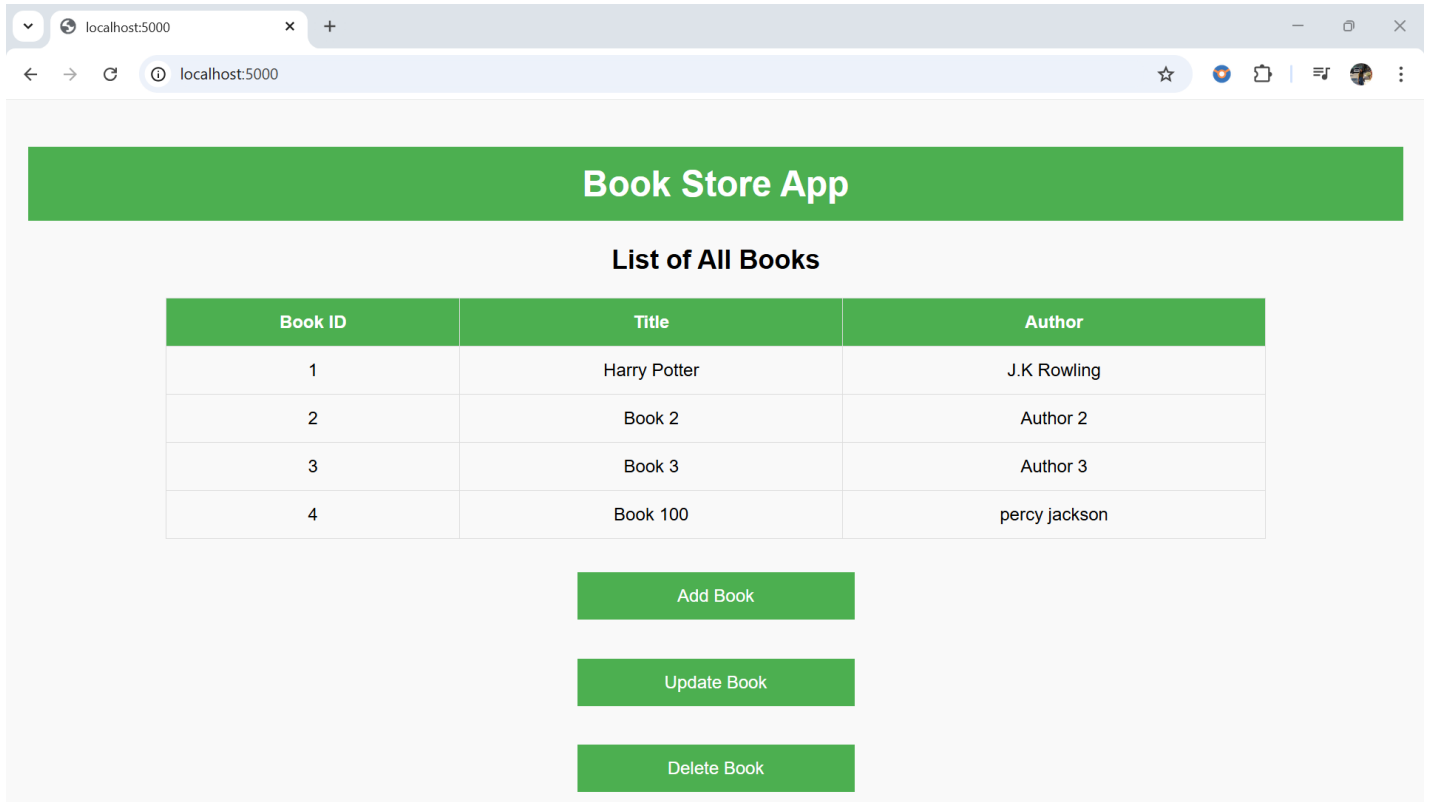
1

Harry Potter

J.K Rowling

Update Book

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>
```

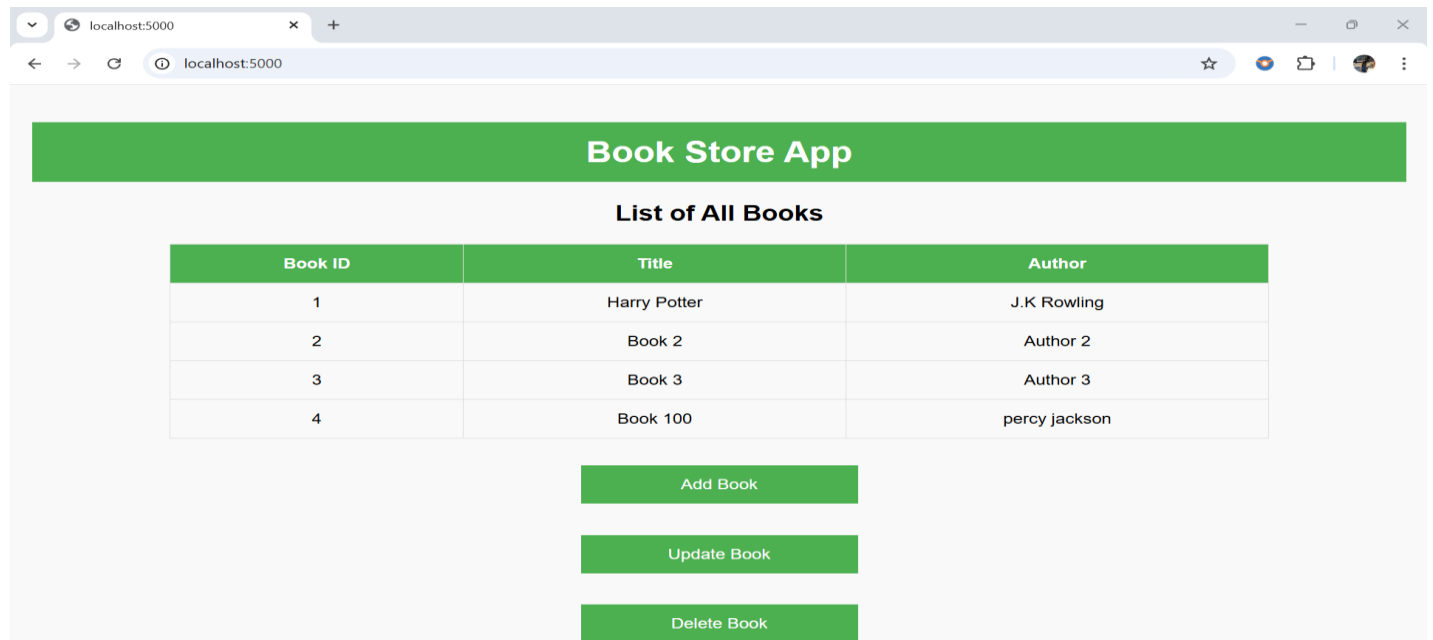
```
        <th>Title</th>
        <th>Author</th>
    </tr>
</thead>
<tbody>
    <% books.forEach(function(book){ %>
        <tr>
            <td>
                <%= book.BookID %>
            </td>
            <td>
                <%= book.Title %>
            </td>
            <td>
             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

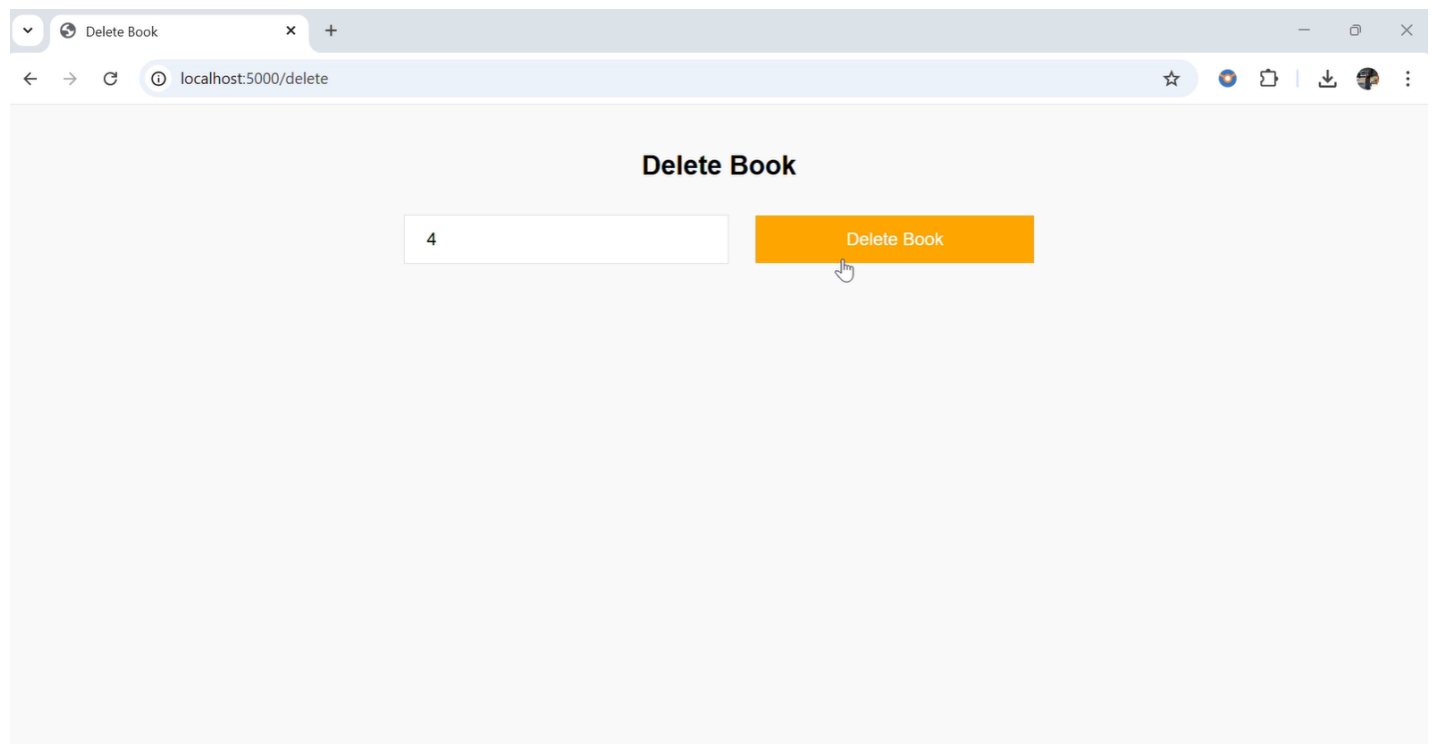


The screenshot shows a web browser at localhost:5000 displaying the 'Book Store App'. The app has a green header with the title 'Book Store App'. Below the header is a section titled 'List of All Books' containing a table with 4 books. Below the table are three green buttons: 'Add Book', 'Update Book', and 'Delete Book'.

Book ID	Title	Author
1	Harry Potter	J.K Rowling
2	Book 2	Author 2
3	Book 3	Author 3
4	Book 100	percy jackson

Buttons: Add Book, Update Book, Delete Book

Delete book with id 4



The screenshot shows the browser at localhost:5000/delete. The page title is 'Delete Book'. It features a text input field containing the number '4' and an orange 'Delete Book' button. A mouse cursor is hovering over the button.

Input: 4

Button: Delete Book

After deletion

localhost:5000

localhost:5000

Book Store App

List of All Books

Book ID	Title	Author
1	Harry Potter	J.K Rowling
2	Book 2	Author 2
3	Book 3	Author 3

Add Book

Update Book

Delete Book