#### Overview

The bookServlet class is a Java EE Servlet that handles CRUD (Create, Read, Update, Delete) operations for books. It interacts with the BookDAO class for database operations and uses JSP pages for rendering responses.

# **API Endpoints**

#### 1. **GET** /

- Description: Fetches and displays the list of all books.
- Request Parameters: None
- Request Body: None
- Response:
  - o Renders the index.jsp page.
  - Sets the following attribute:
    - listBook: List of all books retrieved from the database.

#### 2. GET /new

- Description: Displays a form for adding a new book.
- Request Parameters: None
- Request Body: None
- Response:
  - O Renders the book-form.jsp page.

### 3. POST /insert

- Description: Inserts a new book into the database.
- Request Parameters:
  - o name (String): The name of the book.
  - o isbn (String): The ISBN of the book.
- Request Body: None
- Response:
  - O Redirects to /list.

## $4.\,GET$ /edit

- Description: Displays a form to edit an existing book.
- Request Parameters:
  - o id (int): The ID of the book to edit.
- Request Body: None
- Response:
  - O Renders the edit-form.jsp page.
  - O Sets the following attribute:
    - book: The details of the book retrieved from the database.

### 5. POST /update

- Description: Updates an existing book in the database.
- Request Parameters:
  - o id (int): The ID of the book to update.
  - o name (String): The updated name of the book.
  - o isbn (String): The updated ISBN of the book.
- Request Body: None
- Response:
  - O Redirects to /list.

### 6. POST /delete

- Description: Deletes a book from the database.
- Request Parameters:
  - o id (int): The ID of the book to delete.
- Request Body: None
- Response:
  - o Redirects to /list.

# **Error Handling**

- SQL Exceptions: Any database-related errors are caught and rethrown as ServletException.
- Validation: Ensure all required parameters (id, name, isbn) are provided; otherwise, handle missing data appropriately
  in the JSP views or controllers.