

Exercise: Database CRUD Operations with JSP

Task: Create a JSP application for managing a list of employees with full CRUD operations.

Requirements:

1. **Setup Database:** Create an `employees` table with:

- o id (INT, primary key, auto-increment)
- o name (VARCHAR)
- o department (VARCHAR)
- o salary (DECIMAL)
- o email (VARCHAR)

2. **Create** `listEmployees.jsp`:

- o Display all employees in an HTML table
- o Add "Edit" and "Delete" buttons for each row
- o Include "Add New Employee" button

3. **Create** `addEmployee.jsp`:

- o Form to input new employee details
- o Validate required fields (client-side JavaScript optional)
- o Connect to database using JDBC and insert record
- o Redirect back to list after successful addition

4. **Create** `editEmployee.jsp`:

- o Pre-populate form with existing employee data
- o Update record in database
- o Handle form submission to update database

5. **Create** `deleteEmployee.jsp`:

- o Confirm deletion (can be JavaScript confirmation)
- o Delete record from database
- o Redirect to list

Key concepts: JDBC connection, PreparedStatement, JSP database operations, CRUD patterns, redirect vs forward