

Lab 4

Workflow of the Application

1. Entry Point

The entry point of the system is the page:

- list_students.jsp

When the user opens this page in the browser, the page:

1. Connects to the MySQL database using JDBC.
2. Runs a SELECT query to get all rows from the students table.
3. Loops through the ResultSet and displays all students in an HTML table.
4. Shows action links next to each record:
 - “Add New Student” (go to add_student.jsp)
 - “Edit” (go to edit_student.jsp?id=...)
 - “Delete” (go to delete_student.jsp?id=...)

2. High-Level Flow

The high-level system flow is:

Browser → list_students.jsp → user chooses an action → corresponding JSP handler → database → redirect back to list_students.jsp.

More concretely:

- View list: list_students.jsp
- Create new: add_student.jsp → process_add.jsp → back to list_students.jsp
- Edit existing: edit_student.jsp → process_edit.jsp → back to list_students.jsp
- Delete record: delete_student.jsp → back to list_students.jsp

After each operation, the user is always returned to the main list page, often with a success or error message attached via URL parameter, for example:

`list_students.jsp?success=Student+added+successfully`