Web Application Development Lab 04
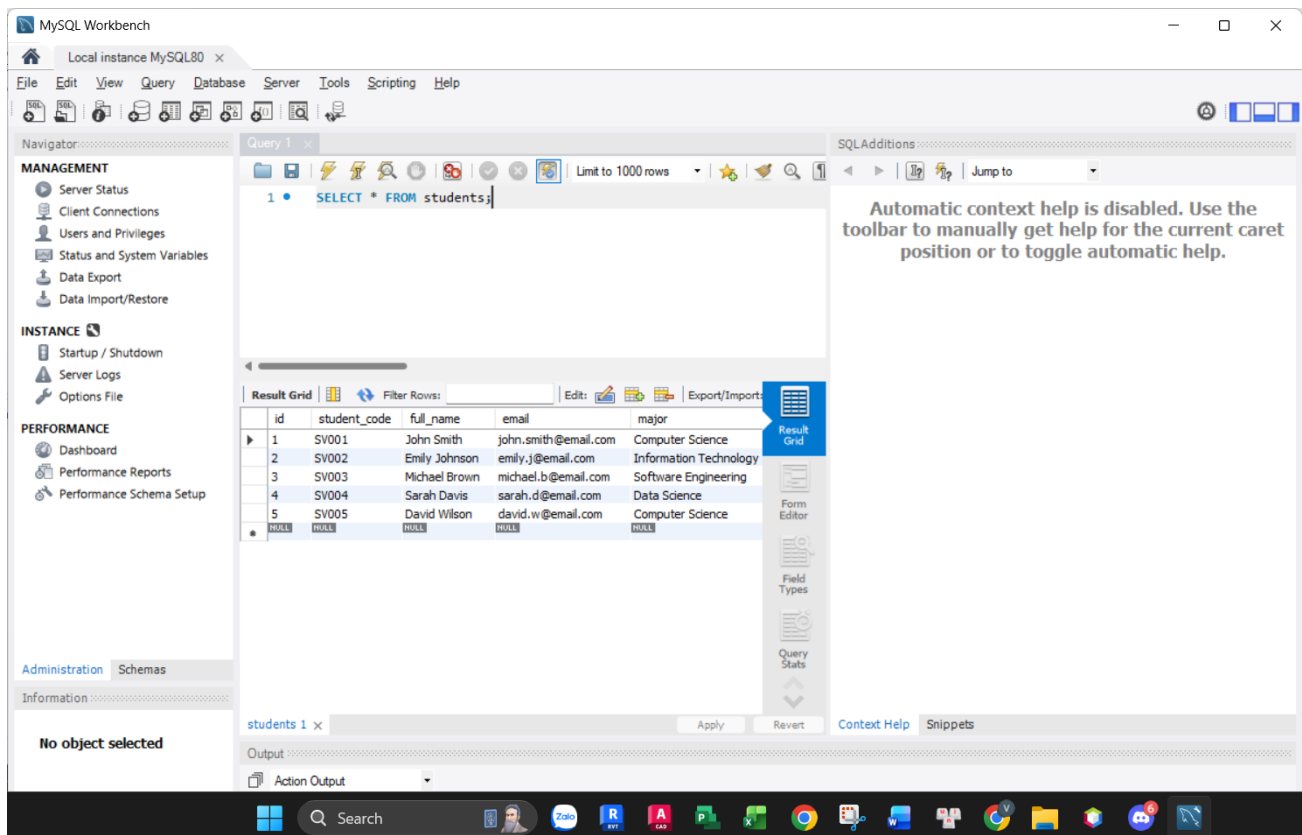## JSP + MySQL

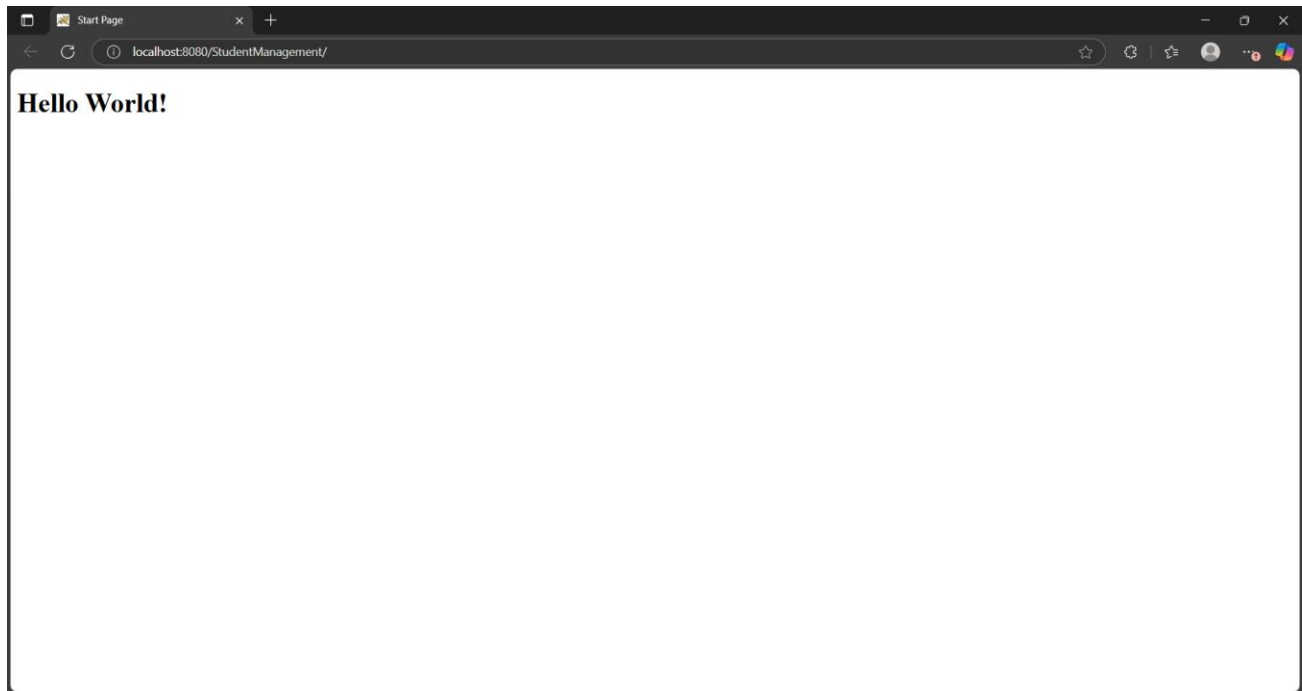*Part A – In-class practices and exercises*

I. Exercise 1: SETUP AND DISPLAY
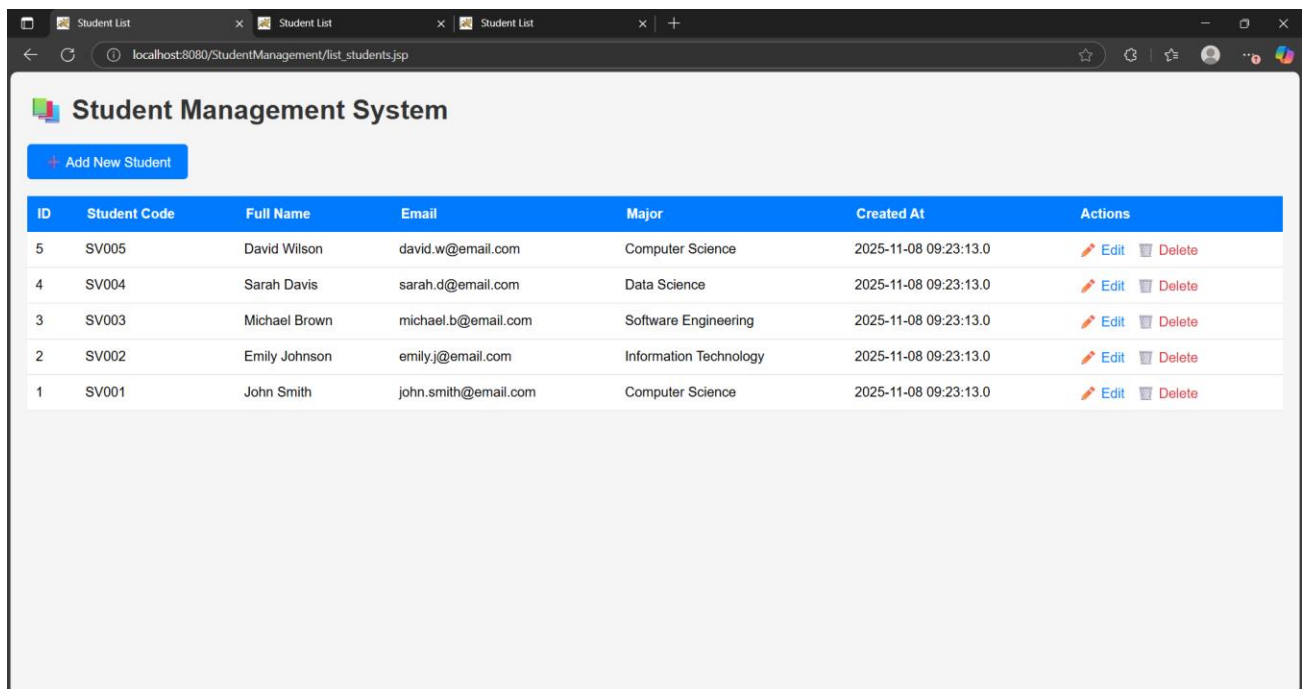
Task 1.1. - Setting up the DB and Project

- Database is set up with MySQL and executing "SELECT * FROM students;" returns exactly 5 students.

- NetBeans project configured with Tomcat sever runs smoothly.
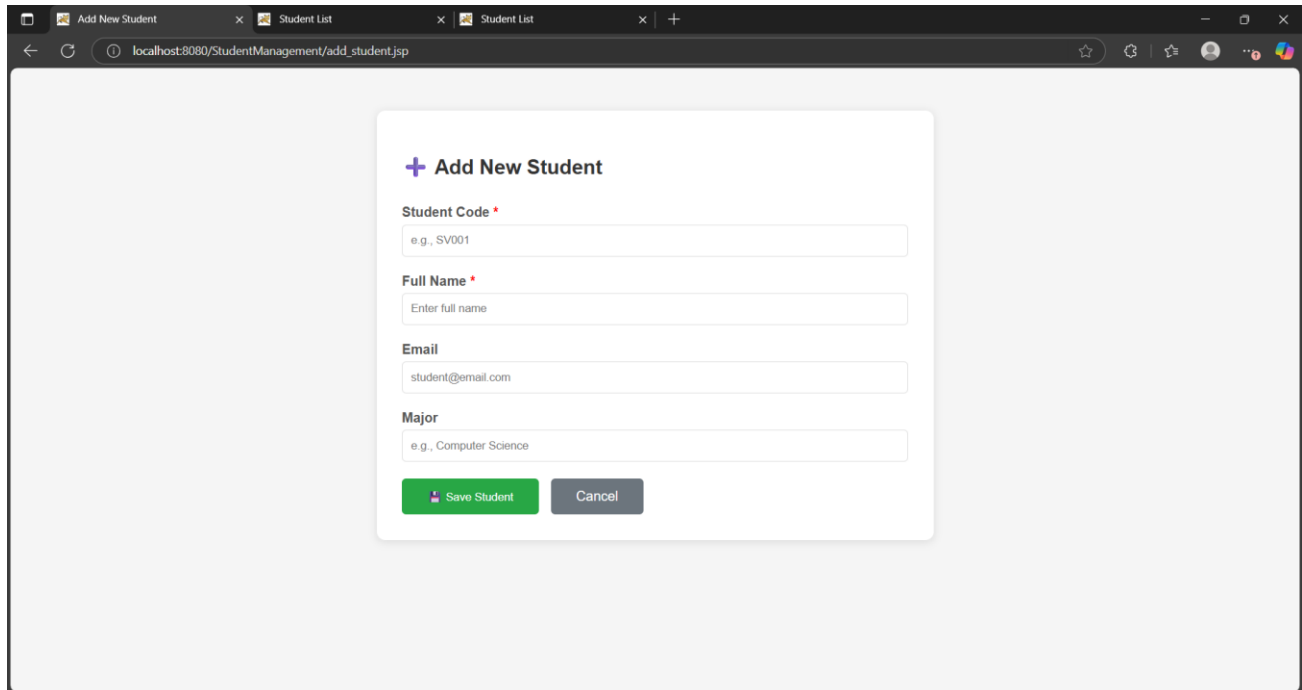
Task 1.2 – Display Student List

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- Code walkthrough:

    o First off, establish connection the database with JDBC connection

    o Execute the query "SELECT * FROM students ORDER BY id DESC" in order to get all the student data in descending order of their ID

    o Then, for each student in our data base, take their information and parse

them into a table.

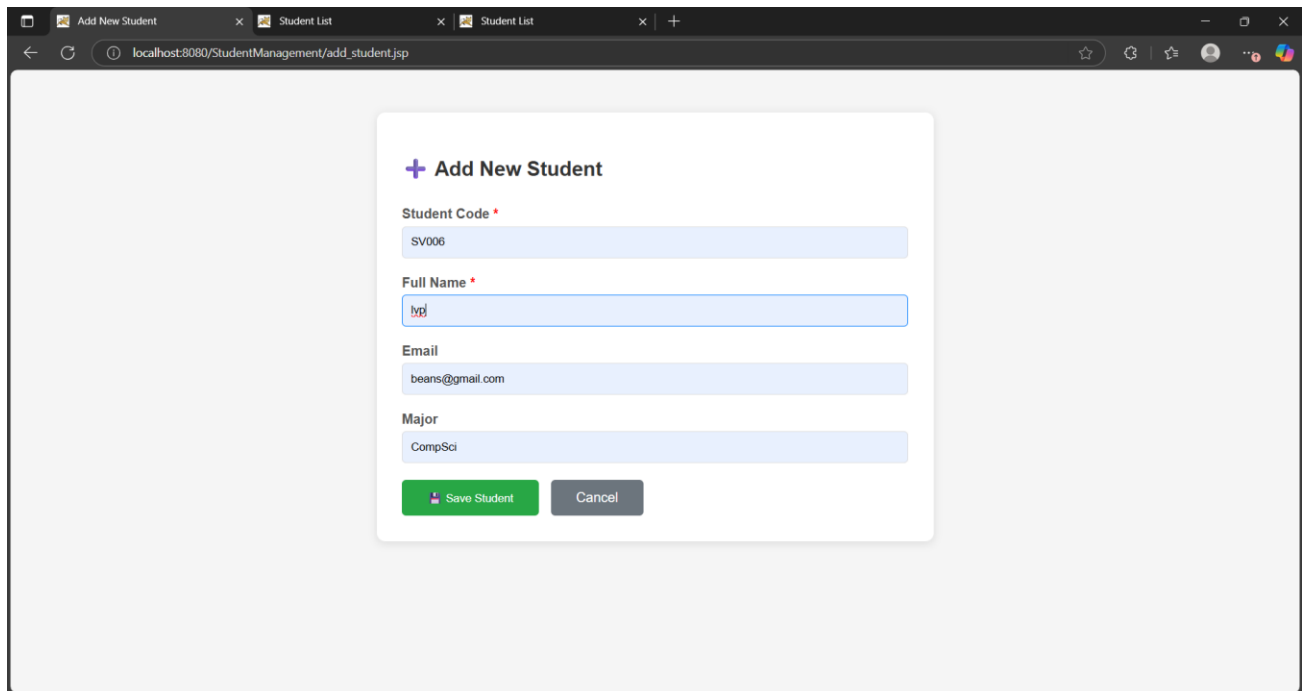## II. **EXERCISE 2: CREATE OPERATION**

Task 2.1: Create Add Student Form

- Code walkthrough:

    o Simple form in html with appropriate input

    o Submit button process user's form with process_add.jsp in task 2.2

Task 2.2: Process Add Student

- Code walkthrough:
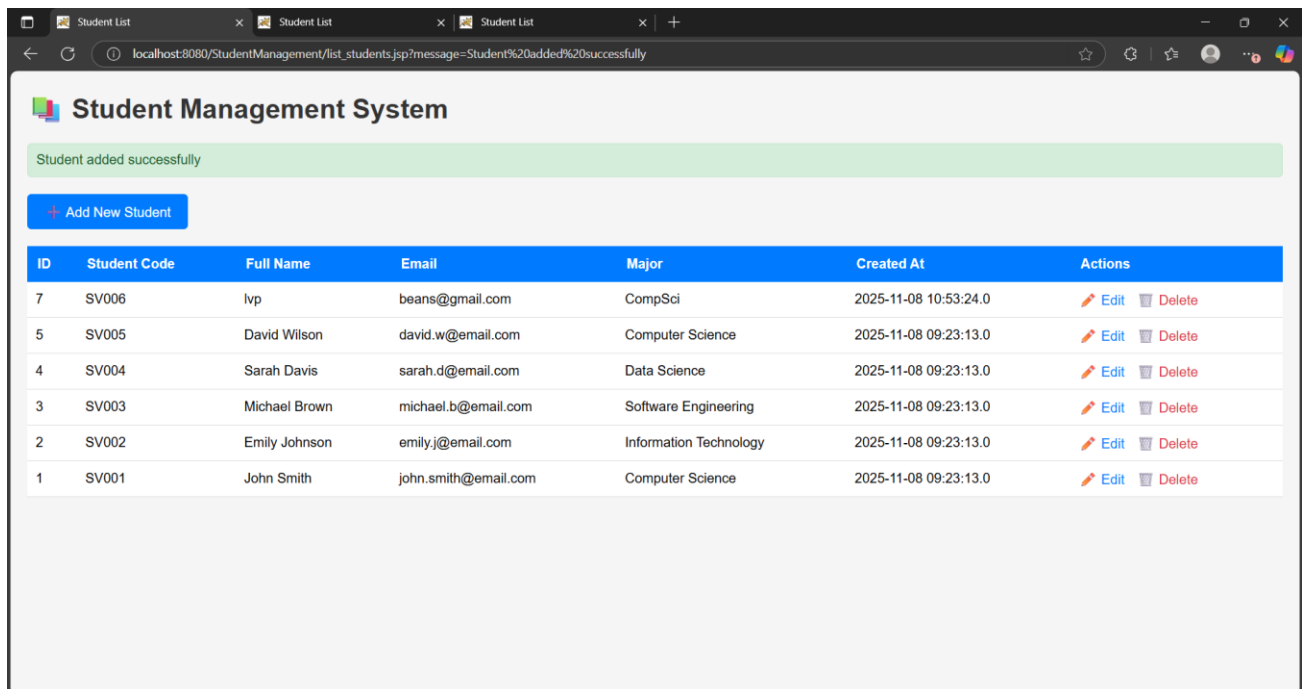
    o Get parameters from form with request.getParameters

    o Establish connection with database server

    o Insert the user information in the current table

    o Redirect the user to the student display website if successful and an error
      message at the add page if not.

o Error handling for form validation
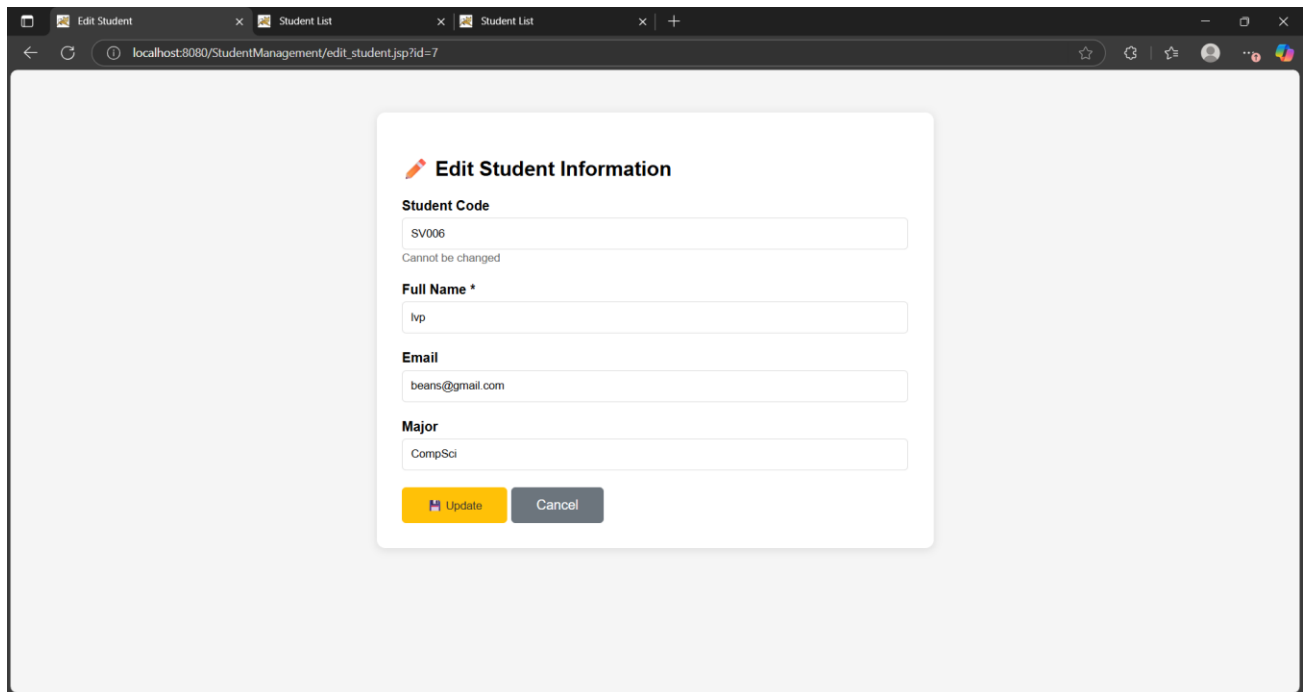
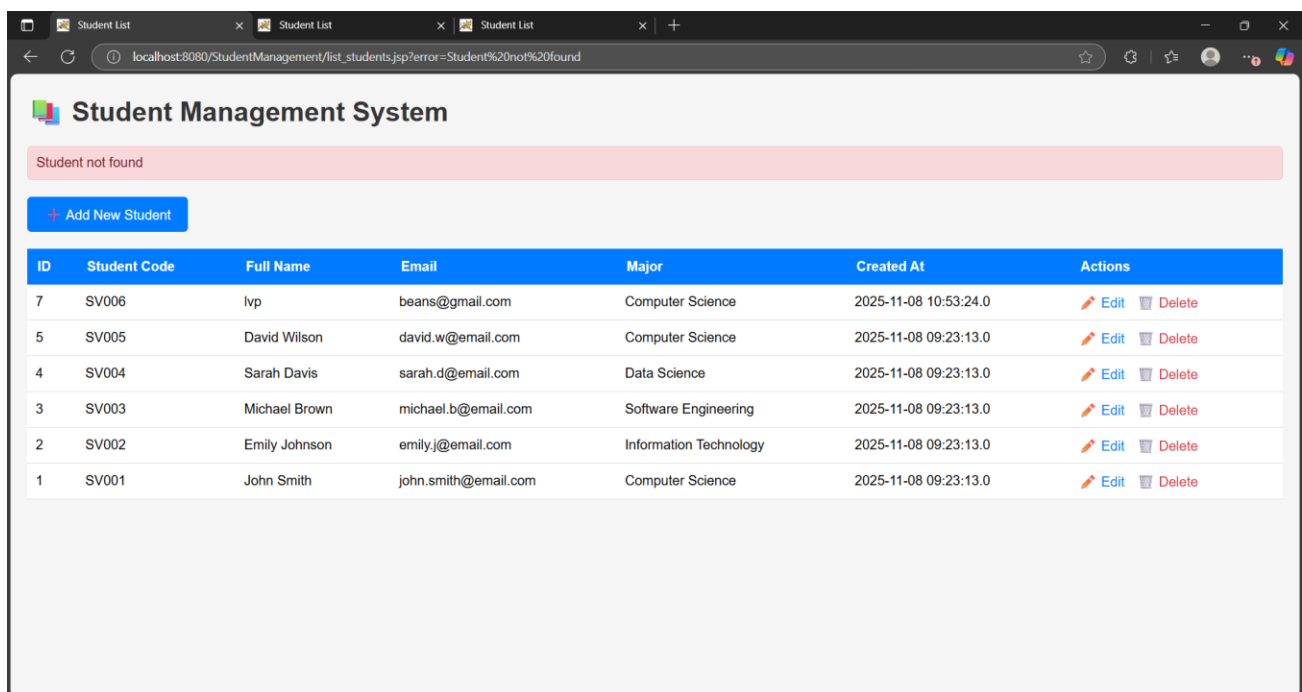## III. EXERCISE 3: UPDATE OPERATION

- Code walkthrough:

    o Establish a connection to the database

    o Retrieve user information based on their ID

    o Parse them onto a form

    o On submit form, process the form information make the necessary updates to the database.

Task 3.2: Process Update

- Code walkthrough:

  o Establish connection with the database

  o Validate some critical information, namely student name and id

  o Perform the necessary updates

  o Redirect the user the appropriate next page.

IV. EXERCISE 4: DELETE OPERATION
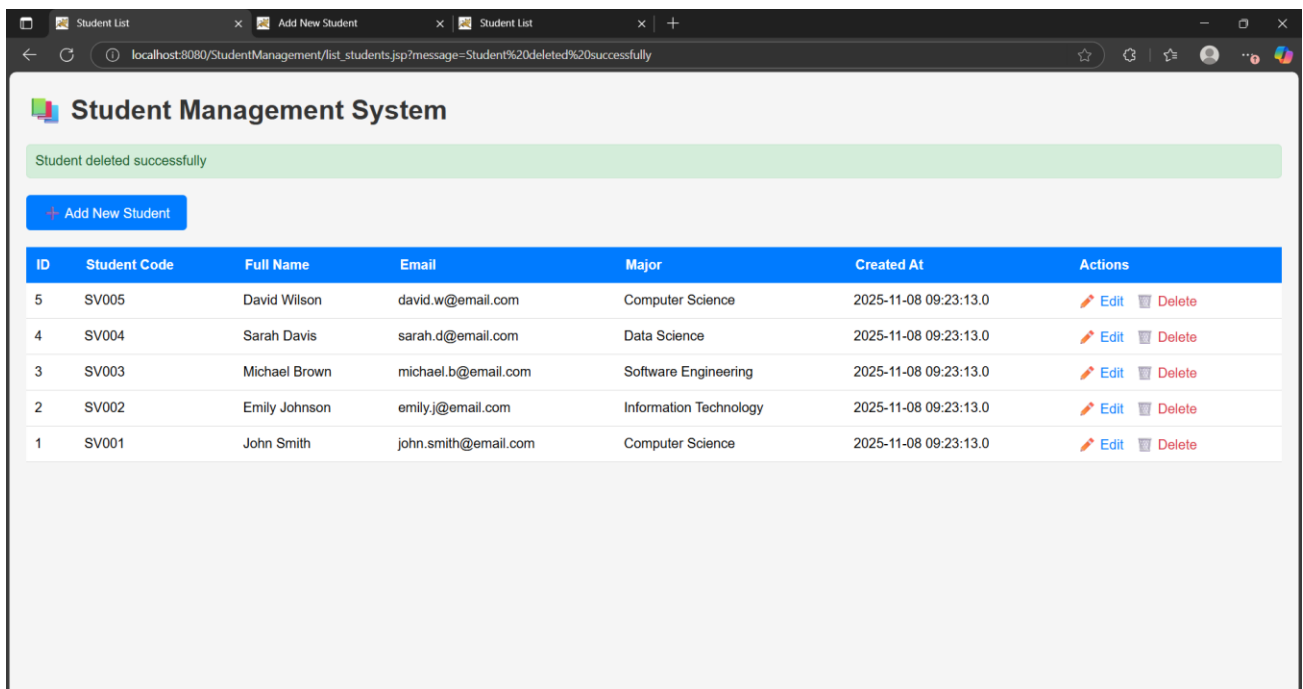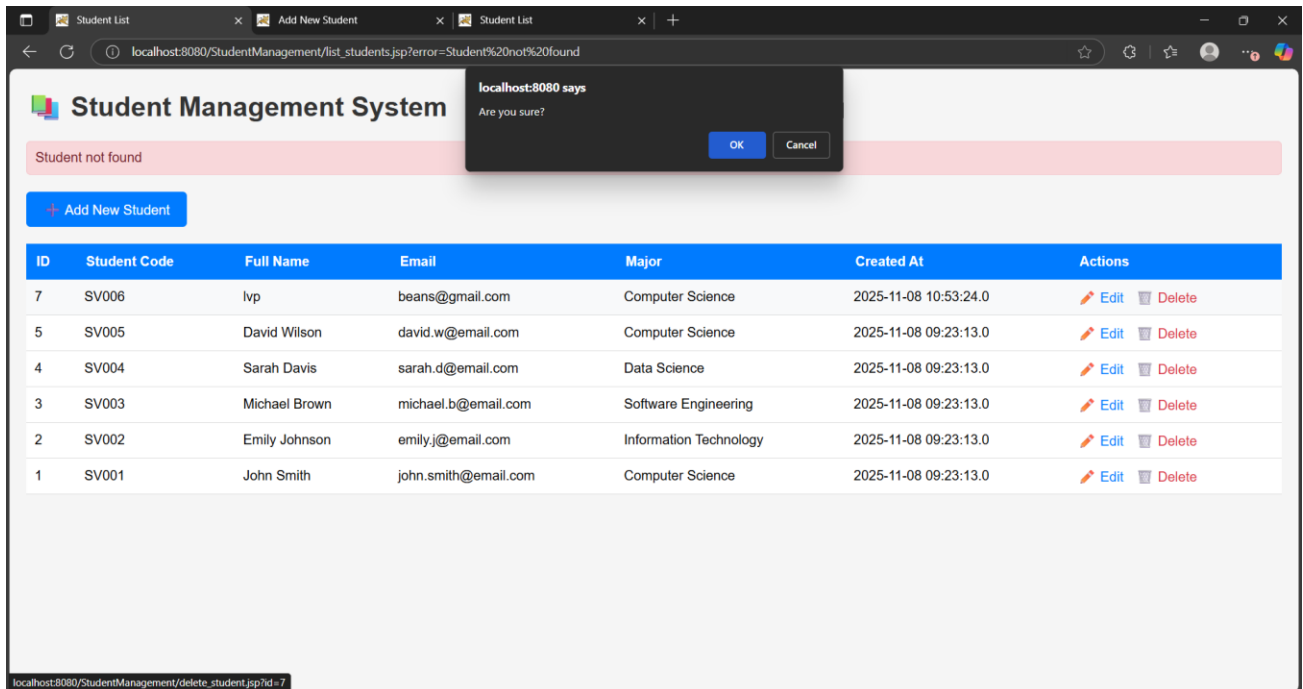
- Code walkthrough:

  o Establish connection with the database

  o Perform the delete update base on ID

  o Redirect user to the appropriate web page with message