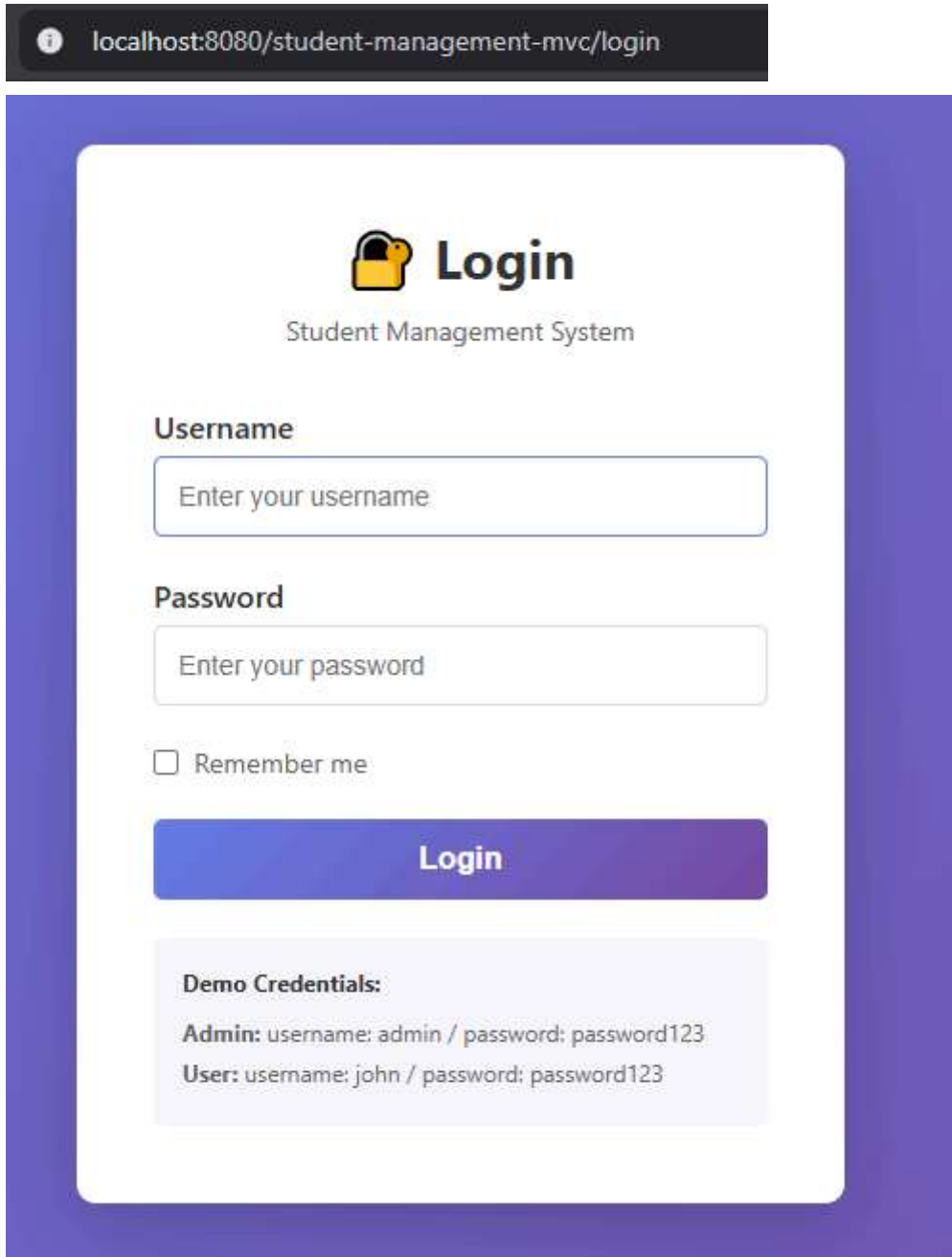


Exercise 5: AuthFilter

- Allow access to public urls:

localhost:8080/student-management-mvc/login



Login

Student Management System

Username

Enter your username

Password

Enter your password

☐ Remember me

Login

Demo Credentials:

Admin: username: admin / password: password123

User: username: john / password: password123

- Redirect to login if url is not public:

localhost:8080/student-management-mvc/dashboard

localhost:8080/student-management-mvc/login

- How it works: When accessing public urls, the filter will allow the request to reach the servlet. When accessing non-public paths like /dashboard or /student, the filter will check first if a session exists, if there is a session that means the user is logged in and the filter will let the request go to the servlet.

Exercise 6: AdminFilter

- How it works: Whenever the client sends a request with a url that begins with /student, the AdminFilter will intercept the request to check if the action parameter is admin action or not. Then if the action is an admin action, the filter will check if a session exists (logged in or not) and then check if the user of that session has an admin role or not. If the user is admin then the filter will let the request go to the servlet, otherwise the filter will redirect to list-student.jsp with an error message.
- Example:

Log in as normal user:

The screenshot shows the 'Student Management System' dashboard. The left sidebar is blue with the system logo, 'Welcome, John Doe' with a 'user' role indicator, and links for 'Dashboard' and 'Logout'. The main content area is white and contains the system logo, 'MVC Pattern with Jakarta EE & JSTL', a search bar for 'student code/full name/email', a 'Filter by Major' dropdown set to 'All Majors', and a table of students. The first row of the table is visible, showing '1 2 3 4 5 6 Next »' and 'Showing page 1 of 6'.

Try to do delete action in search bar:

The screenshot shows the browser address bar with the URL: `localhost:8080/student-management-mvc/student?action=delete&id=92`.

Denied:

The screenshot shows the 'Student Management System' dashboard. The left sidebar is blue with the system logo, 'Welcome, John Doe' with a 'user' role indicator, and links for 'Dashboard' and 'Logout'. The main content area is white and contains the system logo, 'MVC Pattern with Jakarta EE & JSTL', and a red error message: 'Access denied. Admin privileges required.' Below the message, the search bar and filter dropdown are visible.

Exercise 7: Role-based UI

- For normal users, no action column and add student button:

Student Management System
Welcome, John Doe user
[Dashboard](#) [Logout](#)

Student Management System
MVC Pattern with Jakarta EE & JSTL

✖ Access denied. Admin privileges required.

Search for student code/full name/email
Search for a keyword

Filter by Major:

1 2 3 4 5 6 [Next »](#)
Showing page 1 of 6

ID	CODE	NAME	EMAIL	MAJOR
92	CR520	Tina Marsh	tina.marsh@example.com	Computer Science
91	CR519	Steven Cole	steven.cole@example.com	Computer Science

- For admin users, all functionalities:

Student Management System
Welcome, Admin User admin
[Dashboard](#) [Logout](#)

Student Management System
MVC Pattern with Jakarta EE & JSTL

[+ Add New Student](#)

Search for student code/full name/email
Search for a keyword

Filter by Major:

1 2 3 4 5 6 [Next »](#)
Showing page 1 of 6

ID	CODE	NAME	EMAIL	MAJOR	ACTIONS
92	CR520	Tina Marsh	tina.marsh@example.com	Computer Science	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
91	CR519	Steven Cole	steven.cole@example.com	Computer Science	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

Exercise 8: Add change password functionality

- Add change password button to dashboard:

Admin User admin

- Change password page:

Change Password

Current Password *

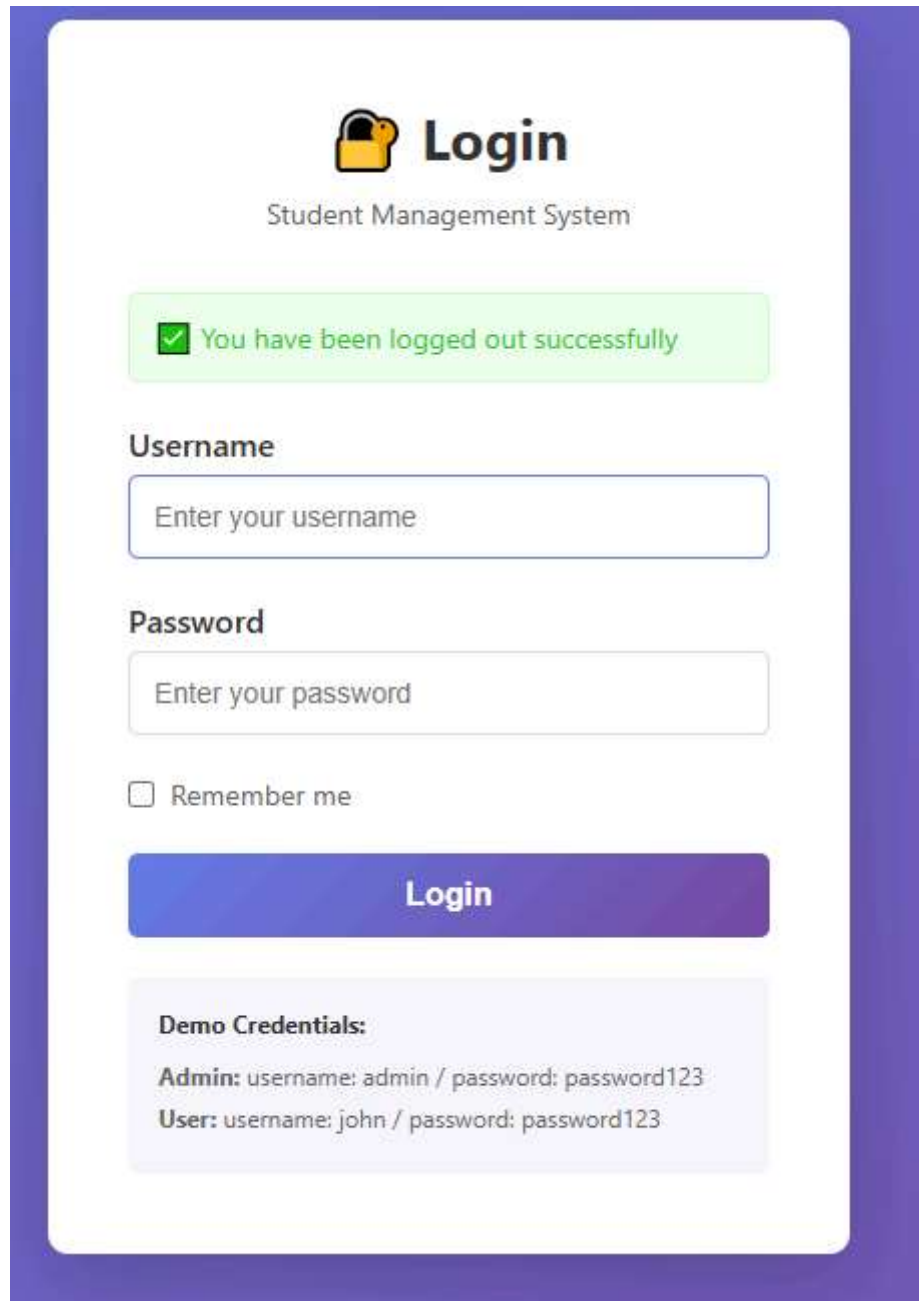
New Password *

Confirm Password *

Change Password

 Cancel

- Logout after changing password:



The image shows a login form for a 'Student Management System'. At the top, there is a yellow padlock icon followed by the word 'Login' in a large, bold, black font. Below this, the text 'Student Management System' is displayed in a smaller, grey font. A green success message box with a checkmark icon contains the text 'You have been logged out successfully'. The form includes two input fields: 'Username' and 'Password', both with placeholder text 'Enter your username' and 'Enter your password' respectively. Below the password field is a checkbox labeled 'Remember me'. A large blue button with the text 'Login' is positioned below the checkbox. At the bottom, a light purple box titled 'Demo Credentials:' lists two sets of credentials: 'Admin: username: admin / password: password123' and 'User: username: john / password: password123'.

Login

Student Management System

✓ You have been logged out successfully

Username

Enter your username

Password

Enter your password

☐ Remember me

Login

Demo Credentials:

Admin: username: admin / password: password123

User: username: john / password: password123

- How this works: When logged in, any user can click the change password button in the dashboard. That will send a GET request to the change password controller and the controller will forward to the change password page. After filling in the fields and pressing Change Password, a POST request will be sent to the controller, which will first check if the user is logged in, then validate all fields and finally invoke `userDAO.updatePassword` with the hashed value of the new password. If the method returns true, the controller will logout the user.