
Description of Project (User-Validation)

In this project we need to create servlets and html pages with the help of HTML, Java and Servlets knowledge

Objective-

Create a servlet-based web application that shows a login page and validates it. The correct values are hard-coded. On successful login, a dashboard page is shown. The dashboard will provide a link for logging out. Incorrect logins need to be handled by showing an error message page.

Steps/ Algo to implement Above Project-

1. Set up a new Java web project in your IDE
2. Add the required jar's for servlet development (e.g., javax.servlet-api) to your project's build configuration
3. Create a servlet class, LoginServlet, that extends HttpServlet.
 - a. Override the doPost method to handle form submissions.
 - b. Retrieve the username and password parameters from the request.
 - c. Validate the credentials against the hard-coded values or a database.
 - d. If the credentials are valid, create a session and store the username attribute. Redirect to the dashboard page.
 - e. If the credentials are invalid, redirect back to the login page with an error message.
4. Create a servlet class, DashboardServlet, that extends HttpServlet.
 - a. Override the doGet method to handle GET requests.
 - b. Retrieve the session from the request.
 - c. Check if a valid session exists and if the username attribute is set.
 - d. If the session and username are valid, set a welcome message attribute and forward the request to the dashboard JSP page.

- e. If the session or username is invalid, redirect back to the login page.
- 5. Create a servlet class, LogoutServlet, that extends HttpServlet.
 - a. Override the doGet method to handle GET requests.
 - b. Retrieve the session from the request.
 - c. If a session exists, invalidate it.
 - d. Redirect back to the login page.
- 6. Create an HTML login page (login.html) with a form that includes fields for username and password. Set the form's action attribute to point to the LoginServlet.
 - a. Optionally, handle the display of an error message on the login page if the login credentials are incorrect.
- a. Retrieve the welcome message attribute set by the DashboardServlet.
 - b. Display the welcome message and provide a link to log out (LogoutServlet).
- 7. Set up the deployment descriptor (web.xml) or use annotations to map the servlets and define welcome file settings.
- 8. Deploy the web application to a web server (e.g., Apache Tomcat) and run it.
- 9. Access the application in a web browser and verify that the login page is displayed correctly.
- 10. Enter the correct credentials and check if the application redirects to the dashboard page.
- 11. Test the logout functionality to ensure that it clears the session and redirects back to the login page.

By following these steps, you should be able to create a servlet-based web application that provides a login page, validates credentials, displays a dashboard page on successful login, handles incorrect logins, and allows users to log out.