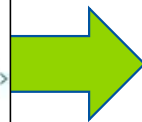


Lab 4 – Session Management

- Import the Lab04_HttpSession_STARTER project
- Rename the project to “Lab04_HttpSession”
- Examine the index.html file under WebContent
 - This is our login page
 - Note the method (POST) and the action (Home)

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <meta charset="ISO-8859-1">
5 <title>Login</title>
6 </head>
7 <body>
8   <h3>LOGIN PAGE</h3>
9   <div>
10    <form method="POST" action="Home">
11      Username <input name="username" type="text" />
12      Password <input name="password" type="password" />
13      <input type="submit" value="Login">
14    </form>
15  </div>
16  <br>
17  <br>
18  <div><a href="Home">Go directly to Home</a></div>
19
20
21 </body>
22 </html>
```



Login

localhost:8080/Lab04_SessionManagement/index.html

LOGIN PAGE

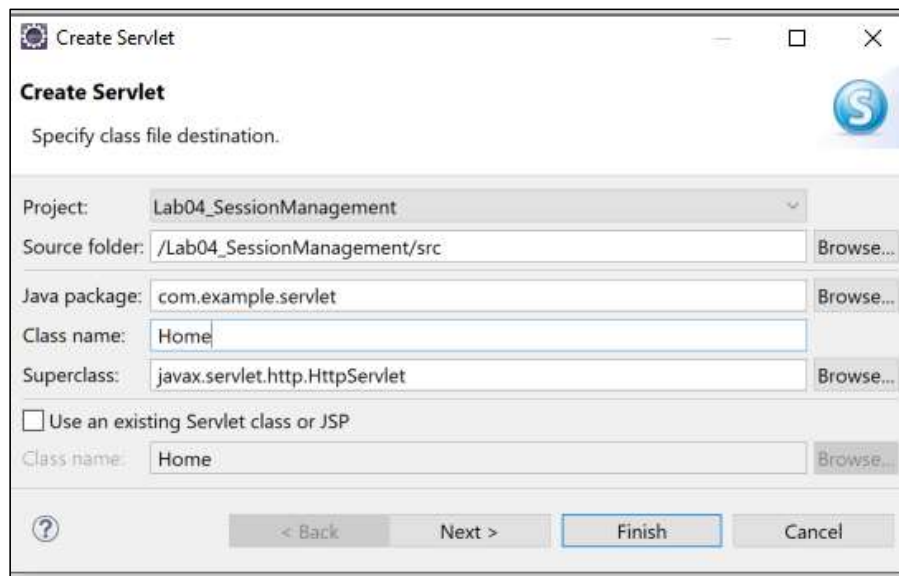
Username Password

[Go directly to Home](#)

Lab 4 – Session Management

Create a Home Servlet

- Within the Project Explorer right click on the Java Resources, select New->Servlet
- Within the Create Servlet window enter a Java package name of "com.example.servlet", enter a Class name of "Home", and then select "Finish"



Create Servlet

Specify class file destination.

Project: Lab04_SessionManagement

Source folder: /Lab04_SessionManagement/src [Browse...](#)

Java package: com.example.servlet [Browse...](#)

Class name: Home

Superclass: javax.servlet.http.HttpServlet [Browse...](#)

☐ Use an existing Servlet class or JSP

Class name: Home [Browse...](#)

[?](#) [< Back](#) [Next >](#) [Finish](#) [Cancel](#)

Lab 4 – Session Management

Edit the Home Servlet file and modify the doPost method to handle the login

```
protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
    String username = request.getParameter("username");
    String password = request.getParameter("password");
    if (username != null || password != null) {
        if (!username.equals("root") || !password.equals("pa$$word")) {
            RequestDispatcher dispatcher = getServletContext()
                .getRequestDispatcher("/");
            dispatcher.forward(request, response);
            return;
        }
    }
    // get a session, create new one if necessary
    HttpSession session = request.getSession();
    // store the username in the session
    session.setAttribute("username", username);
    doGet( request, response);
}
```

Lab 4 – Session Management

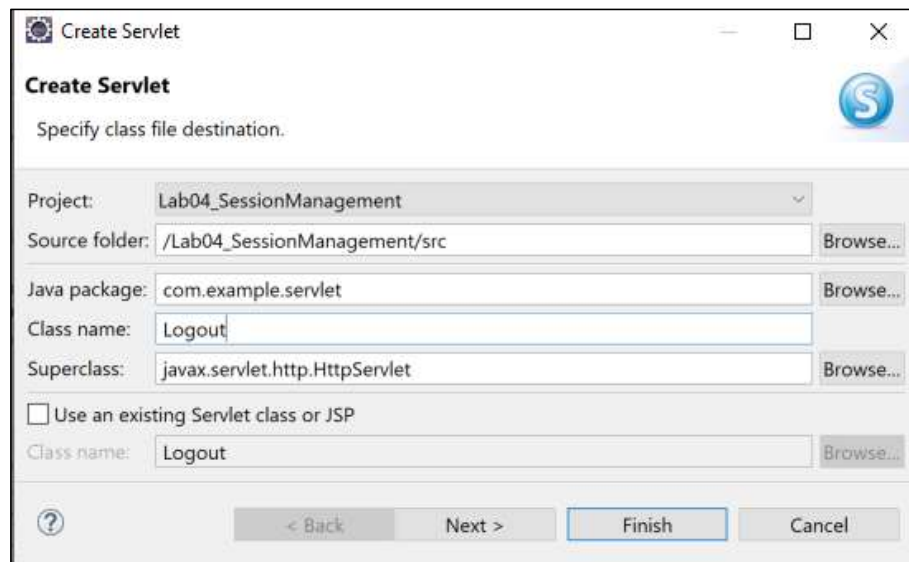
Edit the Home Servlet file and modify the doGet method to read the username and output

```
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    // get session (this time, the existing one)
    HttpSession session = request.getSession();
    // retrieve user from session
    String username = (String)session.getAttribute("username");
    if (username == null) { // username not stored go back to login
        RequestDispatcher dispatcher = getServletContext()
            .getRequestDispatcher("/");
        dispatcher.forward(request, response);
        return;
    }
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();
    out.println("<!DOCTYPE html>\n<html>\n" +
        "<head><title>Home</title></head><body>\n" +
        "<h3>HOME PAGE</h3><br><br><div>Welcome <b>" +
        username + "</b></div>\n" +
        "<div><a href='Logout'>Logout</a></div>\n" + "</body></html>");
}
```

Lab 4 – Session Management

Create a Logout Servlet

- Within the Project Explorer right click on the Java Resources, select New->Servlet
- Within the Create Servlet window enter a Java package name of “com.ntier”, enter a Class name of “Logout”, and then select “Finish”



Create Servlet

Specify class file destination.

Project: Lab04_SessionManagement

Source folder: /Lab04_SessionManagement/src Browse...

Java package: com.example.servlet Browse...

Class name: Logout

Superclass: javax.servlet.http.HttpServlet Browse...

☐ Use an existing Servlet class or JSP

Class name: Logout Browse...

? < Back Next > Finish Cancel

Lab 4 – Session Management

Edit the Logout Servlet file and modify the doGet method to invalidate the session

```
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    // get a session, create new one if necessary
    HttpSession session = request.getSession();
    // Invalidate the session
    session.invalidate();
    RequestDispatcher dispatcher = getServletContext()
        .getRequestDispatcher("/Home");
    dispatcher.forward(request, response);
}
```

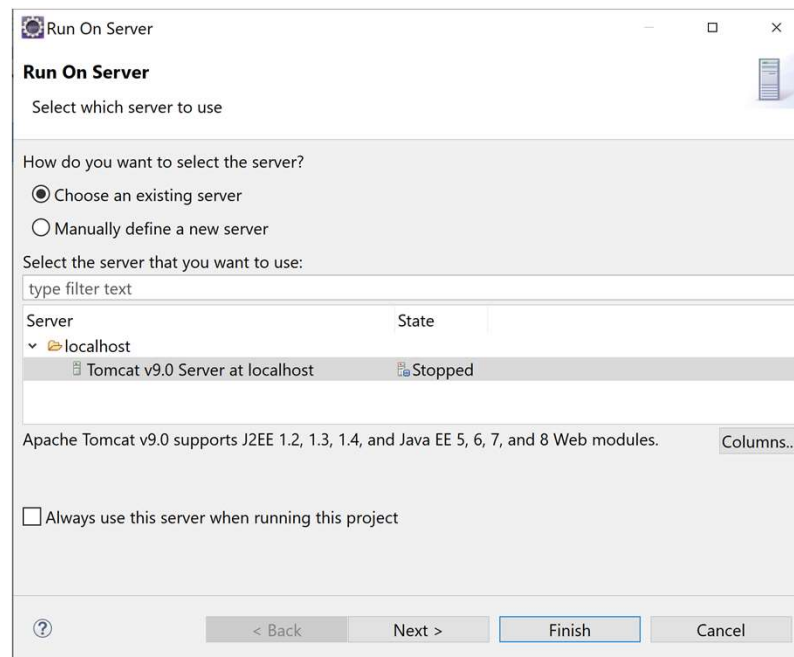
Lab 4 – Session Management

- **Use an external Web Browser (if not already configured)**

- On the menu bar select Window->Web Browser -> Chrome if it exists or anything other than Internal Web Browser ¹

- **Run the index.html on Tomcat**

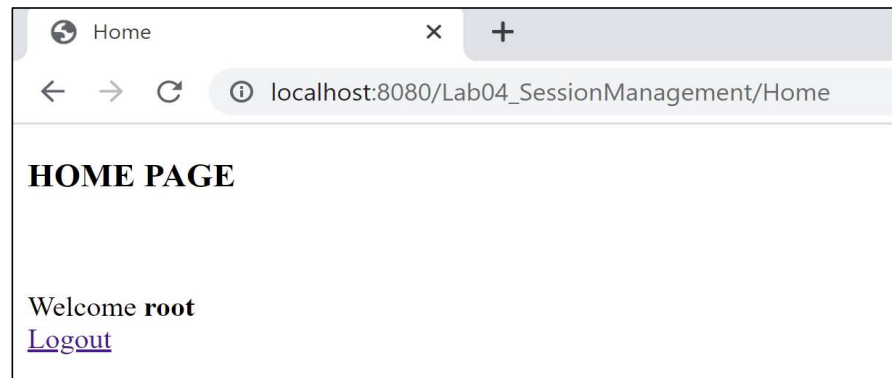
- Within the Project Explorer window, right click on the index.html file and select Run->Run on Server
- Confirm that Tomcat v9.0 Server at localhost is selected and then select “Finish”



Lab 4 – Session Management

Confirm that the Home Servlet displays the Home page after successfully logging in and otherwise displays the login page (user = root, password = pa\$\$word)

Successful login



Unsuccessful login

