

### Graded Lab Assignment 3 – CSF416\_Web Technologies and Applications, ODD Sem, 2024

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#### Question 1:

##### Cookie Expiration Example

- Write a servlet that creates a temporary cookie (expires in 1 minute).
- Display a message indicating whether the cookie is present or has expired each time the page is visited.

Code :-

```
<%@ page import="javax.servlet.http.Cookie" %>
<%@ page import="javax.servlet.http.HttpServletRequest" %>
<%@ page import="javax.servlet.http.HttpServletResponse" %>
<%@ page import="java.io.IOException" %>
<%
    Cookie[] cookies = request.getCookies();
    Cookie tempCookie = null;
    boolean cookieExists = false;

    if (cookies != null) {
        for (Cookie cookie : cookies) {
            if ("tempCookie".equals(cookie.getName())) {
                tempCookie = cookie;
                cookieExists = true;
                break;
            }
        }
    }

    if (tempCookie == null) {
        tempCookie = new Cookie("tempCookie", "This is a temporary cookie");
        tempCookie.setMaxAge(60); // Expires in 1 minute
        response.addCookie(tempCookie);
        out.println("A new temporary cookie has been created.");
    } else {
        out.println("The temporary cookie is still present.");
    }
}
```

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%>

#### Question 2:

##### Logout Feature with Session Invalidation

- Create a simple login and logout system with JSP and servlets.
- Use session attributes to track if a user is logged in.
- Provide a logout option that invalidates the session and redirects the user to the login page.

Code:-

Login servlet :

```
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

@WebServlet("/login")
public class LoginServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        String username = request.getParameter("username");
        String password = request.getParameter("password");

        if ("admin".equals(username) && "password".equals(password)) {
            HttpSession session = request.getSession();
            session.setAttribute("user", username);
            response.sendRedirect("welcome.jsp");
        } else {
            response.sendRedirect("login.jsp?error=Invalid credentials");
        }
    }
}
```

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```
}  
}
```

Logout servlet :

```
import java.io.IOException;  
import javax.servlet.ServletException;  
import javax.servlet.annotation.WebServlet;  
import javax.servlet.http.HttpServlet;  
import javax.servlet.http.HttpServletRequest;  
import javax.servlet.http.HttpServletResponse;  
import javax.servlet.http.HttpSession;  
  
@WebServlet("/logout")  
public class LogoutServlet extends HttpServlet {  
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws  
ServletException, IOException {  
        HttpSession session = request.getSession(false);  
        if (session != null) {  
            session.invalidate(); // Invalidate the session  
        }  
        response.sendRedirect("login.jsp"); // Redirect to login page  
    }  
}
```

Login page :-

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>  
<!DOCTYPE html>  
<html>  
<head>  
    <title>Login</title>  
</head>  
<body>  
    <h2>Login</h2>  
    <form action="login" method="post">
```



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```
Username: <input type="text" name="username" required><br>
Password: <input type="password" name="password" required><br>
<input type="submit" value="Login">
</form>
<c:if test="${not empty param.error}">
  <p style="color:red;">${param.error}</p>
</c:if>
</body>
</html>
```

Welcome page :-

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%@ page import="javax.servlet.http.HttpSession" %>
<!DOCTYPE html>
<html>
<head>
  <title>Welcome</title>
</head>
<body>
  <h2>Welcome, <%= request.getSession().getAttribute("user") %>!</h2>
  <a href="logout">Logout</a>
</body>
</html>
```