

LAB EXPERIMENT :07

Write a Servlet program to store a user's preferences (like theme or language) using cookies. Retrieve and display these preferences on subsequent visits.

AIM :

To write a Java Servlet program that stores and retrieves user preferences (such as theme and language) using cookies. The servlet saves the preferences on the user's browser and displays them on subsequent visits.

ALGORITHM :

1. **Create HTML Form** to allow users to select their theme and language preferences.
2. **On form submission**, send a POST request to the servlet.
3. **In the servlet (POST method):**
 - Read the form data (theme and language).
 - Create cookies to store the preferences.
 - Add cookies to the response.
 - Redirect or display a confirmation.
4. **In the servlet (GET method):**
 - Read cookies from the request.
 - If cookies are found, retrieve and display preferences.
 - If not found, show the form to choose preferences.

SOURCE CODE:

```
<!DOCTYPE html>

<html>

<head>

    <title>User Preferences</title>

</head>

<body>

    <h2>Set Your Preferences</h2>

    <form action="UserPreferenceServlet" method="post">

        <label for="theme">Choose Theme:</label>

        <select name="theme" id="theme">
```

```
        <option value="Light">Light</option>
        <option value="Dark">Dark</option>
    </select><br><br>

    <label for="language">Choose Language:</label>
    <select name="language" id="language">
        <option value="English">English</option>
        <option value="French">French</option>
    </select><br><br>

    <input type="submit" value="Save Preferences">
</form>
</body>
</html>
```

2. UserPreferenceServlet.java – Servlet Code

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class UserPreferenceServlet extends HttpServlet {

    public void doGet(HttpServletRequest request, HttpServletResponse
response)
        throws ServletException, IOException {
```

```
response.setContentType("text/html");
PrintWriter out = response.getWriter();

String theme = "Not set";
String language = "Not set";

Cookie[] cookies = request.getCookies();
if (cookies != null) {
    for (Cookie cookie : cookies) {
        if (cookie.getName().equals("theme")) {
            theme = cookie.getValue();
        }
        if (cookie.getName().equals("language")) {
            language = cookie.getValue();
        }
    }
}

out.println("<html><body>");
out.println("<h2>Your Preferences</h2>");
out.println("<p>Theme: " + theme + "</p>");
out.println("<p>Language: " + language + "</p>");
out.println("<a href='preferences.html'>Change Preferences</a>");
out.println("</body></html>");
}
```

```
public void doPost(HttpServletRequest request, HttpServletResponse
response)
    throws ServletException, IOException {

    String theme = request.getParameter("theme");
    String language = request.getParameter("language");

    Cookie themeCookie = new Cookie("theme", theme);
    Cookie languageCookie = new Cookie("language", language);

    // Set expiry to 7 days
    themeCookie.setMaxAge(60 * 60 * 24 * 7);
    languageCookie.setMaxAge(60 * 60 * 24 * 7);

    response.addCookie(themeCookie);
    response.addCookie(languageCookie);

    response.setContentType("text/html");
    PrintWriter out = response.getWriter();
    out.println("<html><body>");
    out.println("<h2>Preferences Saved!</h2>");
    out.println("<p>Theme: " + theme + "</p>");
    out.println("<p>Language: " + language + "</p>");
    out.println("<a href='UserPreferenceServlet'>View Preferences</a>");
    out.println("</body></html>");
}
```

}

RESULT:

◆ First Visit:

User sees the **HTML form** to set their preferences.

User selects:

- Theme: Dark
- Language: French

OUTPUT:

