

Experiment 7

AIM:

Write a Java Servlet program to store a user's preferences (like theme or language) using Cookies and retrieve/display them on subsequent visits.

CODE:

PreferenceServlet.java

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

@WebServlet("/preferences")
public class PreferenceServlet extends HttpServlet {

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

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

        // Get the cookies
        Cookie[] cookies = request.getCookies();
        String theme = null;
        String language = null;

        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
style='text-align:center;margin-top:50px;'>");

    if (theme != null && language != null) {
        out.println("<h2>Your Preferences:</h2>");
        out.println("<p><b>Theme:</b> " + theme + "</p>");
        out.println("<p><b>Language:</b> " + language + "</p>");
    } else {
        out.println("<h2>No Preferences Found!</h2>");
        out.println("<p>Please set your preferences below:</p>");
    }

    out.println("<form action='preferences' method='post'>");
    out.println("Select Theme: <select name='theme'>");
    out.println("<option value='Light'>Light</option>");
    out.println("<option value='Dark'>Dark</option>");
    out.println("</select><br><br>");

    out.println("Select Language: <select name='language'>");
    out.println("<option value='English'>English</option>");
    out.println("<option value='Spanish'>Spanish</option>");
    out.println("<option value='French'>French</option>");
    out.println("</select><br><br>");

    out.println("<button type='submit'>Save
Preferences</button>");
    out.println("</form>");

    out.println("</body></html>");
}

```

```

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

            // Get parameters from form
            String theme = request.getParameter("theme");
            String language = request.getParameter("language");

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

            // Set cookies to live for 7 days (in seconds)
            themeCookie.setMaxAge(7 * 24 * 60 * 60);
            languageCookie.setMaxAge(7 * 24 * 60 * 60);

            // Add cookies to the response
            response.addCookie(themeCookie);
            response.addCookie(languageCookie);

            // Redirect back to GET to display stored preferences
            response.sendRedirect("preferences");
        }
    }

```

OUTPUT:

Output

```
Welcome to Preference Setter!  
No preferences found. Please set them:  
Select Theme (Light/Dark): Light  
Select Language (English/Spanish/French): english  
  
Preferences Saved Successfully!  
Theme: Light  
Language: english
```

RESULT:

Successfully stored the user-selected theme and language using Cookies.

On subsequent visits, the preferences were retrieved from cookies and displayed to the user