WEB TECHNOLOGY MOBILE APPLICATION

# 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 develop a Java Servlet application that stores and retrieves user preferences (like theme or language) using cookies.

# **Algorithm:**

# **Create a Servlet (**PreferenceServlet**)** to handle user preferences.

# Accept user input for **theme** and **language**.

# **Store these preferences as cookies** in the user's browser.

# On **subsequent visits**, retrieve the cookies and display the user's saved preferences.

# If no preferences exist, prompt the user to select new ones.

# **Display the preferences** using an HTML page.

# Program Code :

# Servlet Program (PreferenceServlet.java)

# import java.io.\*;

# import javax.servlet.\*;

# import javax.servlet.http.\*;

# public class PreferenceServlet extends HttpServlet {

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

# // Get user preferences

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

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

# // Create cookies

# Cookie themeCookie = new Cookie("userTheme", theme);

# Cookie langCookie = new Cookie("userLanguage", language);

# // Set expiration time (7 days)

# themeCookie.setMaxAge(7 \* 24 \* 60 \* 60);

# langCookie.setMaxAge(7 \* 24 \* 60 \* 60);

# // Add cookies to response

# response.addCookie(themeCookie);

# response.addCookie(langCookie);

# response.setContentType("text/html");

# PrintWriter out = response.getWriter();

# out.println("<html><body>");

# out.println("<h2>Preferences Saved!</h2>");

# out.println("<a href='PreferenceServlet'>View Your Preferences</a>");

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

# }

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

# // Retrieve stored cookies

# Cookie[] cookies = request.getCookies();

# String theme = "Default";

# String language = "English";

# if (cookies != null) {

# for (Cookie cookie : cookies) {

# if (cookie.getName().equals("userTheme")) {

# theme = cookie.getValue();

# } else if (cookie.getName().equals("userLanguage")) {

# language = cookie.getValue();

# }

# }

# }

# response.setContentType("text/html");

# PrintWriter out = response.getWriter();

# out.println("<html><body>");

# out.println("<h2>Your Preferences:</h2>");

# out.println("<p>Theme: " + theme + "</p>");

# out.println("<p>Language: " + language + "</p>");

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

# }

# }

# HTML Form (preferences.html)

# <!DOCTYPE html>

# <html>

# <head>

# <title>User Preferences</title>

# </head>

# <body>

# <h2>Select Your Preferences</h2>

# <form action="PreferenceServlet" method="POST">

# Theme: <input type="text" name="theme"><br>

# Language: <input type="text" name="language"><br>

# <input type="submit" value="Save Preferences">

# </form>

# </body>

# </html>

# **Output:**

# **1st Visit:**

# User selects **Theme: Dark**, **Language: French**.

# Preferences stored using **cookies**.

# **Subsequent Visit:**

# Servlet retrieves preferences and displays:

# Theme: Dark

# Language: French

# RESULT :

# The **Servlet successfully stores user preferences using cookies** and retrieves them in subsequent visits, providing a personalized user experience.

# Output :

