

USING COOKIES

INDEX.HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Home Appliance Themed Welcome Page</title>
  <style>
    body {
      background-image: url("home_appliance.jpg");
      background-size: cover;
      font-family: Georgia, 'Times New Roman', Times, serif;
      font-size: xx-large;
      background-color: #fff8dc;
      margin: 0;
      padding: 0;
    }
    .container {
      text-align: center;
      padding: 50px;
    }
    .title {
      font-size: 2.5em;
      color: #1c0912;
      margin-bottom: 20px;
    }
    .link-button {
      display: inline-block;
      padding: 15px 25px;
      font-size: 1.2em;
      color: white;
      background-color: #e12c87;
      text-decoration: none;
      border-radius: 5px;
      margin-top: 20px;
    }
    .link-button:hover {
      background-color: #ff1493;
    }
    .image {
      width: 100%;
```

```

        max-width: 600px;
        height: auto;
        margin-top: 30px;
    }
</style>
</head>
<body>
    <div class="container">
        <div class="title">Welcome to Our Home Appliance Themed Page!</div>
        <a href="appliancePage" class="link-button">Enter Appliance Page</a>
    </div>
</body>
</html>

```

java:

```

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;
import java.io.IOException;
import java.io.PrintWriter;

```

```

@WebServlet("/appliancePage")
public class AppliancePageServlet extends HttpServlet {

```

```

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        String userName = null;
        String theme = "default";
        int visitCount = 0;

        Cookie[] cookies = request.getCookies();
        if (cookies != null) {
            for (Cookie cookie : cookies) {
                switch (cookie.getName()) {
                    case "userName":
                        userName = cookie.getValue();
                        break;
                    case "theme":
                        theme = cookie.getValue();

```

```

        break;
    case "visitCount":
        visitCount = Integer.parseInt(cookie.getValue());
        break;
    }
}
}
}

```

```
visitCount++;
```

```

Cookie visitCookie = new Cookie("visitCount", Integer.toString(visitCount));
visitCookie.setMaxAge(60 * 60 * 24); // 1 day
response.addCookie(visitCookie);

```

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

```

PrintWriter out = response.getWriter();
out.println("<html><body>");
out.println("<h1>Home Appliance Themed Page</h1>");
if (userName != null) {
    out.println("<p>Welcome back, " + userName + "!</p>");
} else {
    out.println("<p>Welcome to our appliance page!</p>");
}
out.println("<p>Number of visits: " + visitCount + "</p>");
out.println("<p>Current theme: " + theme + "</p>");
out.println("<form method='POST' action='appliancePage'>");
out.println("Name: <input type='text' name='userName'><br>");
out.println("<input type='submit' value='Save Name'>");
out.println("</form>");
out.println("<a href='theme'>Change Theme</a>");
out.println("</body></html>");
}

```

```
@Override
```

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

```

    String userName = request.getParameter("userName");

    if (userName != null && !userName.trim().isEmpty()) {
        Cookie userCookie = new Cookie("userName", userName);
        userCookie.setMaxAge(60 * 60 * 24 * 30); // 30 days
        response.addCookie(userCookie);
    }
}

```

```

        response.sendRedirect("appliancePage");
    }
}

```

ThemeServlet.java:

```

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;
import java.io.IOException;
import java.io.PrintWriter;

```

```

@WebServlet("/theme")
public class ThemeServlet extends HttpServlet {

```

```

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        response.setContentType("text/html");

        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        out.println("<h1>Select Theme</h1>");
        out.println("<form method='POST' action='theme'>");
        out.println("<input type='radio' name='theme' value='light'> Light Theme<br>");
        out.println("<input type='radio' name='theme' value='dark'> Dark Theme<br>");
        out.println("<input type='radio' name='theme' value='appliance'> Appliance Theme<br>");
        out.println("<input type='submit' value='Save Theme'>");
        out.println("</form>");
        out.println("<a href='appliancePage'>Back to Appliance Page</a>");
        out.println("</body></html>");
    }

```

```

    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        String theme = request.getParameter("theme");

        if (theme != null) {

```

```

        Cookie themeCookie = new Cookie("theme", theme);
        themeCookie.setMaxAge(60 * 60 * 24 * 30); // 30 days
        response.addCookie(themeCookie);
    }

    response.sendRedirect("appliancePage");
}
}

```

Web.xml:

```

<web-app>
  <servlet>
    <servlet-name>AppliancePageServlet</servlet-name>
    <servlet-class>AppliancePageServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>AppliancePageServlet</servlet-name>
    <url-pattern>/appliancePage</url-pattern>
  </servlet-mapping>
  <servlet>
    <servlet-name>ThemeServlet</servlet-name>
    <servlet-class>ThemeServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>ThemeServlet</servlet-name>
    <url-pattern>/theme</url-pattern>
  </servlet-mapping>
</web-app>

```

USING HTTP SESSION

INDEX.HTML:

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Session Handling Example</title>
  <style>
    body {

```

```

        font-family: Arial, sans-serif;
        background-color: #f0f0f0;
        margin: 0;
        padding: 0;
    }
    .container {
        text-align: center;
        padding: 50px;
    }
    .title {
        font-size: 2.5em;
        color: #333;
        margin-bottom: 20px;
    }
    .link-button {
        display: inline-block;
        padding: 15px 25px;
        font-size: 1.2em;
        color: white;
        background-color: #007bff;
        text-decoration: none;
        border-radius: 5px;
        margin-top: 20px;
    }
    .link-button:hover {
        background-color: #0056b3;
    }
</style>
</head>
<body>
    <div class="container">
        <div class="title">Welcome to the Session Handling Example!</div>
        <a href="session" class="link-button">Enter Session Page</a>
    </div>
</body>
</html>

```

SessionServlet.java:

```

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;
import java.io.IOException;
import java.io.PrintWriter;

@WebServlet("/session")
public class SessionServlet extends HttpServlet {

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

        HttpSession session = request.getSession(true);

        String userName = (String) session.getAttribute("userName");
        Integer visitCount = (Integer) session.getAttribute("visitCount");

        if (visitCount == null) {
            visitCount = 0;
        }

        visitCount++;

        session.setAttribute("visitCount", visitCount);
        response.setContentType("text/html");

        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        out.println("<h1>Session Information</h1>");
        if (userName != null) {
            out.println("<p>Welcome back, " + userName + "!</p>");
        } else {
            out.println("<p>Welcome to our page!</p>");
        }
        out.println("<p>Number of visits: " + visitCount + "</p>");
        out.println("<form method='POST' action='session'>");
        out.println("Name: <input type='text' name='userName'><br>");
        out.println("<input type='submit' value='Save Name'>");
        out.println("</form>");
        out.println("</body></html>");
    }

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

```

```

HttpSession session = request.getSession(true);
String userName = request.getParameter("userName");

if (userName != null && !userName.trim().isEmpty()) {
    session.setAttribute("userName", userName);
}

response.sendRedirect("session");
}
}

```

Web.xml:

```

<web-app>
  <servlet>
    <servlet-name>SessionServlet</servlet-name>
    <servlet-class>SessionServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>SessionServlet</servlet-name>
    <url-pattern>/session</url-pattern>
  </servlet-mapping>
</web-app>

```

USING URL REWRITING:

INDEX.HTML:

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Home Appliance Themed Welcome Page</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #fff8dc;
      margin: 0;
      padding: 0;
    }
  </style>

```



```

    }
    .container {
        text-align: center;
        padding: 50px;
    }
    .title {
        font-size: 2.5em;
        color: #1c0912;
        margin-bottom: 20px;
    }
    .link-button {
        display: inline-block;
        padding: 15px 25px;
        font-size: 1.2em;
        color: white;
        background-color: #e12c87;
        text-decoration: none;
        border-radius: 5px;
        margin-top: 20px;
    }
    .link-button:hover {
        background-color: #ff1493;
    }
    .image {
        width: 100%;
        max-width: 600px;
        height: auto;
        margin-top: 30px;
    }
}
</style>
</head>
<body>
    <div class="container">
        <div class="title">Welcome to Our Home Appliance Themed Page!</div>
        <a href="homeAppliancePage" class="link-button">Enter Home Appliance Page</a>
        
    </div>
</body>
</html>

```

JAVA:

```
package com.example;
```

```
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;
import java.io.IOException;
import java.io.PrintWriter;
```

```
@WebServlet("/homeAppliancePage")
public class HomeAppliancePageServlet extends HttpServlet {
```

```
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        // Retrieve the current session or create a new one if it doesn't exist
        HttpSession session = request.getSession(true);

        // Retrieve session attributes
        String userName = (String) session.getAttribute("userName");
        Integer visitCount = (Integer) session.getAttribute("visitCount");

        // If visitCount is null, initialize it to 0
        if (visitCount == null) {
            visitCount = 0;
        }

        // Increment visit count
        visitCount++;

        // Update session attributes
        session.setAttribute("visitCount", visitCount);

        // Generate the URL with the session ID
        String sessionIdUrl = response.encodeURL("homeAppliancePage");

        // Set response content type
        response.setContentType("text/html");

        // Display the session information
        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        out.println("<h1>Home Appliance Themed Page</h1>");
        if (userName != null) {
```

```

        out.println("<p>Welcome back, " + userName + "!</p>");
    } else {
        out.println("<p>Welcome to our home appliance page!</p>");
    }
    out.println("<p>Number of visits: " + visitCount + "</p>");
    out.println("<form method='POST' action='" + sessionIdUrl + "'>");
    out.println("Name: <input type='text' name='userName'><br>");
    out.println("<input type='submit' value='Save Name'>");
    out.println("</form>");
    out.println("</body></html>");
}

```

@Override

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

```

    String userName = request.getParameter("userName");

```

```

    HttpSession session = request.getSession(true);

```

```

    if (userName != null && !userName.trim().isEmpty()) {
        session.setAttribute("userName", userName);
    }

```

```

    response.sendRedirect(response.encodeRedirectURL("homeAppliancePage"));
}

```

WEB.XML:

```

<web-app>
  <servlet>
    <servlet-name>HomeAppliancePageServlet</servlet-name>
    <servlet-class>com.example.HomeAppliancePageServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>HomeAppliancePageServlet</servlet-name>
    <url-pattern>/homeAppliancePage</url-pattern>
  </servlet-mapping>
</web-app>

```

USING HIDDEN FORM FIELDS:

INDEX.HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Home Appliance Themed Welcome Page</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #fff8dc;
      margin: 0;
      padding: 0;
    }
    .container {
      text-align: center;
      padding: 50px;
    }
    .title {
      font-size: 2.5em;
      color: #1c0912;
      margin-bottom: 20px;
    }
    .link-button {
      display: inline-block;
      padding: 15px 25px;
      font-size: 1.2em;
      color: white;
      background-color: #e12c87;
      text-decoration: none;
      border-radius: 5px;
      margin-top: 20px;
    }
    .link-button:hover {
      background-color: #ff1493;
    }
    .image {
      width: 100%;
      max-width: 600px;
      height: auto;
      margin-top: 30px;
    }
  </style>
```

```

</head>
<body>
  <div class="container">
    <div class="title">Welcome to Our Home Appliance Themed Page!</div>
    <a href="homeAppliancePage" class="link-button">Enter Home Appliance Page</a>
    
  </div>
</body>
</html>

```

JAVA:

```

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 java.io.IOException;
import java.io.PrintWriter;

```

```

@WebServlet("/homeAppliancePage")
public class HomeAppliancePageServlet extends HttpServlet {

```

```

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

```

```

        String userName = request.getParameter("userName");
        String visitCountStr = request.getParameter("visitCount");

```

```

        int visitCount = 0;
        if (visitCountStr != null && !visitCountStr.isEmpty()) {
            visitCount = Integer.parseInt(visitCountStr);
        }

```

```

        visitCount++;

```

```

        response.setContentType("text/html");

```

```

        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        out.println("<h1>Home Appliance Themed Page</h1>");
        if (userName != null) {

```

```

        out.println("<p>Welcome back, " + userName + "!</p>");
    } else {
        out.println("<p>Welcome to our home appliance page!</p>");
    }
    out.println("<p>Number of visits: " + visitCount + "</p>");
    out.println("<form method='POST' action='homeAppliancePage'>");
    out.println("Name: <input type='text' name='userName' value='" + (userName != null ? userName :
"")) + "'><br>");
    out.println("<input type='hidden' name='visitCount' value='" + visitCount + "'>");
    out.println("<input type='submit' value='Save Name'>");
    out.println("</form>");
    out.println("</body></html>");
}

```

@Override

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

```

    String userName = request.getParameter("userName");
    String visitCountStr = request.getParameter("visitCount");

```

```

    int visitCount = 0;
    if (visitCountStr != null && !visitCountStr.isEmpty()) {
        visitCount = Integer.parseInt(visitCountStr);
    }

```

```

    String url = "homeAppliancePage?userName=" + userName + "&visitCount=" + visitCount;
    response.sendRedirect(url);

```

```

    }
}

```

Web.xml:

```

<web-app>
  <servlet>
    <servlet-name>HomeAppliancePageServlet</servlet-name>
    <servlet-class>com.example.HomeAppliancePageServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>HomeAppliancePageServlet</servlet-name>
    <url-pattern>/homeAppliancePage</url-pattern>
  </servlet-mapping>
</web-app>

```

