

## 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>Royal Enfield Themed Welcome Page</title>
  <style>
    body {
      background-image: url("royal_enfield.jpg");
      background-size: cover;
      font-family: 'Lucida Sans', Arial, sans-serif;
      font-size: large;
      background-color: #000000;
      color: #ffffff;
      margin: 0;
      padding: 0;
    }
    .container {
      text-align: center;
      padding: 50px;
    }
    .title {
      font-size: 3em;
      color: #d4af37;
      margin-bottom: 20px;
      text-shadow: 2px 2px #000;
    }
    .link-button {
      display: inline-block;
      padding: 15px 30px;
      font-size: 1.5em;
      color: #ffffff;
      background-color: #800000;
      text-decoration: none;
      border-radius: 10px;
      margin-top: 20px;
    }
    .link-button:hover {
      background-color: #a52a2a;
    }
    .image {
```

```

        width: 100%;
        max-width: 700px;
        height: auto;
        margin-top: 30px;
    }
</style>
</head>
<body>
    <div class="container">
        <div class="title">Welcome to the Royal Enfield Themed Page!</div>
        <a href="royalEnfieldPage" class="link-button">Enter Royal Enfield 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("/royalEnfieldPage")
public class RoyalEnfieldPageServlet 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 style='background-color:black;color:white;'>");
out.println("<h1>Royal Enfield Themed Page</h1>");
if (userName != null) {
    out.println("<p>Welcome back, " + userName + "!</p>");
} else {
    out.println("<p>Welcome to the Royal Enfield page!</p>");
}
out.println("<p>Number of visits: " + visitCount + "</p>");
out.println("<p>Current theme: " + theme + "</p>");
out.println("<form method='POST' action='royalEnfieldPage'>");
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("royalEnfieldPage");
}
}

```

## web.xml

```

<web-app>
  <servlet>
    <servlet-name>RoyalEnfieldPageServlet</servlet-name>
    <servlet-class>RoyalEnfieldPageServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>RoyalEnfieldPageServlet</servlet-name>
    <url-pattern>/royalEnfieldPage</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>

```

## Session Handling

### Index.html

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Royal Enfield Welcome Page</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-image: url("royal_enfield_bg.jpg");
      background-size: cover;
      color: white;
      margin: 0;
    }
  </style>

```

```

        padding: 0;
    }
    .container {
        text-align: center;
        padding: 50px;
    }
    .title {
        font-size: 3em;
        margin-bottom: 20px;
    }
    .link-button {
        display: inline-block;
        padding: 15px 25px;
        font-size: 1.5em;
        color: white;
        background-color: #3e2723;
        text-decoration: none;
        border-radius: 5px;
        margin-top: 20px;
    }
    .link-button:hover {
        background-color: #5d4037;
    }
</style>
</head>
<body>
    <div class="container">
        <div class="title">Welcome to the Royal Enfield Enthusiasts Page!</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 style='font-family: Arial; background-color: #fbe9e7;'>");
    out.println("<h1>Royal Enfield Enthusiasts</h1>");
    if (userName != null) {
        out.println("<p>Welcome back, " + userName + "!</p>");
    } else {
        out.println("<p>Welcome to the Royal Enfield 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>
```

## 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>URL Rewriting</title>
</head>
<body style="font-family: Arial; background-color: #f5f5f5;">
  <h1>URL Rewriting Example</h1>
  <form action="URLRewritingServlet" method="get">
    <label for="username">Enter your name:</label>
    <input type="text" id="username" name="username" required>
    <button type="submit">Submit</button>
  </form>
</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("/royalEnfieldPage")
public class RoyalEnfieldPageServlet 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);
```

```
        String sessionIdUrl = response.encodeURL("royalEnfieldPage");
```

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

```
        PrintWriter out = response.getWriter();
        out.println("<html><body style='background-color: #efebe9; font-family: Arial;'>");
        out.println("<h1>Royal Enfield Enthusiasts</h1>");
        if (userName != null) {
            out.println("<p>Welcome back, " + userName + "!</p>");
        } else {
            out.println("<p>Welcome to the Royal Enfield enthusiasts 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("royalEnfieldPage"));
}
```

## Web.xml

```
<web-app>
  <servlet>
    <servlet-name>RoyalEnfieldPageServlet</servlet-name>
    <servlet-class>com.example.RoyalEnfieldPageServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>RoyalEnfieldPageServlet</servlet-name>
    <url-pattern>/royalEnfieldPage</url-pattern>
  </servlet-mapping>
</web-app>
```

## 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>Hidden Form Fields</title>
</head>
<body style="font-family: Arial; background-color: #f5f5f5;">
  <h1>Hidden Form Fields Example</h1>
  <form action="HiddenFieldServlet" method="post">
    <label for="username">Enter your name:</label>
```

```
<input type="text" id="username" name="userName" required>
<input type="hidden" name="visitCount" value="1">
<button type="submit">Submit</button>
</form>
</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("/royalEnfieldPage")
public class RoyalEnfieldPageServlet 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 style='font-family: Arial; background-color: #f5f5f5;'>");
        out.println("<h1>Royal Enfield Enthusiasts</h1>");
        if (userName != null) {
            out.println("<p>Welcome back, " + userName + "!</p>");
        } else {
            out.println("<p>Welcome to the Royal Enfield enthusiasts page!</p>");
        }
    }
}
```

```

    }
    out.println("<p>Number of visits: " + visitCount + "</p>");
    out.println("<form method='POST' action='royalEnfieldPage'>");
    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 = "royalEnfieldPage?userName=" + userName + "&visitCount=" + visitCount;

    response.sendRedirect(url);
}
}

```

### **web.xml**

```

<web-app xmlns="http://java.sun.com/xml/ns/javaee"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
    http://java.sun.com/xml/ns/javaee/web-app_3_0.xsd"
    version="3.0">

    <!-- Servlet Definition -->
    <servlet>
        <servlet-name>HiddenFieldServlet</servlet-name>
        <servlet-class>com.example.HiddenFieldServlet</servlet-class>
    </servlet>

    <!-- Servlet Mapping -->
    <servlet-mapping>

```

```
    <servlet-name>HiddenFieldServlet</servlet-name>  
    <url-pattern>/hiddenFieldExample</url-pattern>  
</servlet-mapping>
```

```
</web-app>
```