

EXP 7 Store user preference using cookies

AIM:

To create web page to store and retrieve user preferences using cookies.

ALGORITHM:

- **Display form** with theme and language options in HTML.
- On **page load**, JavaScript reads cookies for saved preferences.
- **Pre-fill form** and apply theme (e.g., dark mode) using cookie values.
- On **form submit**, send data to the servlet via POST.
- **Servlet receives** theme and language, creates cookies, and sets expiry.
- Servlet **adds cookies to response** and redirects to the form page.
- On next visit, preferences are **loaded from cookies and displayed**.

PROGRAM:

UserPreferencesServlet.java (Servlet code)

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

```
import javax.servlet.*;
```

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

```
public class UserPreferencesServlet extends HttpServlet {
```

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

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

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

```
        Cookie themeCookie = new Cookie("theme", theme);
```

```
        Cookie langCookie = new Cookie("language", language);
```

```
        themeCookie.setMaxAge(60 * 60 * 24 * 7); // 7 days

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

        response.addCookie(themeCookie);

        response.addCookie(langCookie);

        response.sendRedirect("index.html"); // Reload page
    }
}
```

web.xml (Servlet Mapping)

```
<web-app>

    <servlet>

        <servlet-name>UserPreferencesServlet</servlet-name>

        <servlet-class>UserPreferencesServlet</servlet-class>

    </servlet>

    <servlet-mapping>

        <servlet-name>UserPreferencesServlet</servlet-name>

        <url-pattern>/savePreferences</url-pattern>

    </servlet-mapping>

</web-app>
```

index.html (Stylish UI with HTML/CSS/JS + cookie reading)

```
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8" />

    <title>User Preferences</title>
```

```
<style>

body {

  font-family: 'Segoe UI', sans-serif;

  margin: 0;

  padding: 50px;

  background: linear-gradient(to right, #f9f9f9, #dfe9f3);

  transition: background-color 0.3s, color 0.3s;

}

.container {

  max-width: 500px;

  margin: auto;

  padding: 30px;

  background: #fff;

  box-shadow: 0 0 20px rgba(0,0,0,0.1);

  border-radius: 12px;

}

h2 {

  text-align: center;

  color: #5c67f2;

}

form {

  display: flex;

  flex-direction: column;

}

label {

  margin: 10px 0 5px;

}
```

```
select, button {  
  
  padding: 10px;  
  
  border-radius: 8px;  
  
  border: 1px solid #ccc;  
  
}  
  
button {  
  
  background: #5c67f2;  
  
  color: white;  
  
  margin-top: 20px;  
  
  border: none;  
  
  cursor: pointer;  
  
  transition: background 0.3s;  
  
}
```

```
button:hover {  
  
  background: #4a54e1;  
  
}
```

```
#prefs {  
  
  margin-top: 20px;  
  
  background: #eef1ff;  
  
  padding: 15px;  
  
  border-radius: 10px;  
  
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<div class="container">
```

```
<h2>Set Your Preferences</h2>
```

```
<form method="POST" action="savePreferences">
```

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

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

```
    <option value="light">Light</option>
```

```
    <option value="dark">Dark</option>
```

```
  </select>
```

```
  <label for="language">Language:</label>
```

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

```
    <option value="English">English</option>
```

```
    <option value="Spanish">Spanish</option>
```

```
    <option value="French">French</option>
```

```
  </select>
```

```
  <button type="submit">Save Preferences</button>
```

```
</form>
```

```
<div id="prefs">
```

```
  <h3>Saved Preferences</h3>
```

```
  <p><strong>Theme:</strong> <span id="savedTheme">N/A</span></p>
```

```
  <p><strong>Language:</strong> <span id="savedLanguage">N/A</span></p>
```

```
</div>
```

```
</div>
```

```
<script>
```

```
  function getCookie(name) {
```

```
    let decoded = decodeURIComponent(document.cookie);
```

```
let cookies = decoded.split(';');

for (let cookie of cookies) {

  let c = cookie.trim();

  if (c.startsWith(name + '=')) {

    return c.substring(name.length + 1);

  }

}

return null;

}
```

```
window.onload = () => {

  const theme = getCookie('theme') || 'light';

  const language = getCookie('language') || 'English';

  document.getElementById('theme').value = theme;

  document.getElementById('language').value = language;

  document.getElementById('savedTheme').textContent = theme;

  document.getElementById('savedLanguage').textContent = language;
```

```
// Optional: Apply dark mode
```

```
if (theme === 'dark') {

  document.body.style.background = '#1f1f1f';

  document.body.style.color = '#fff';

}
```

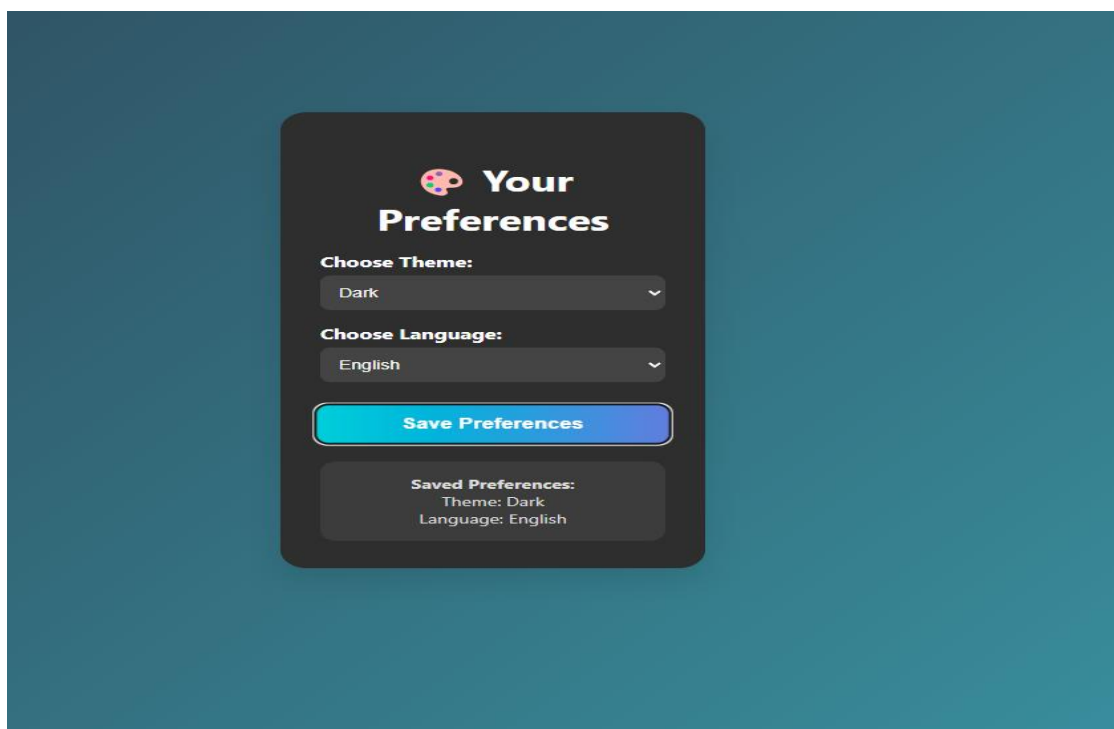
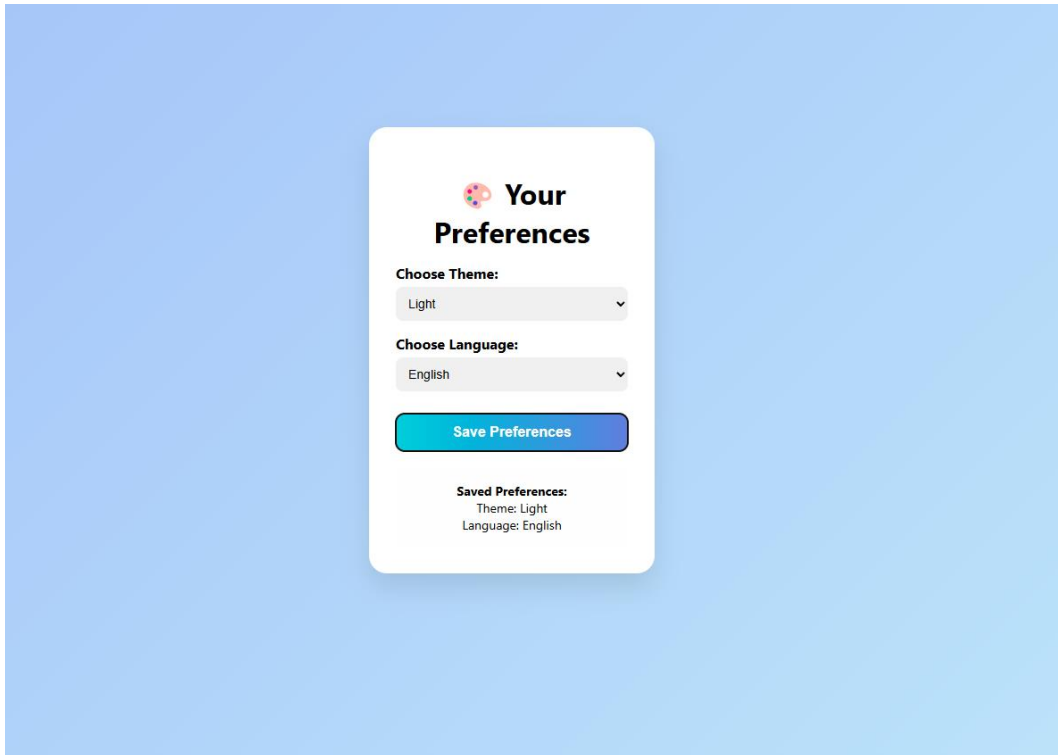
```
};
```

```
</script>
```

```
</body>
```

```
</html>
```

OUTPUT:



RESULT: The Session Tracking using HttpSession were executed successfully.