



Practical

10

JSP - Application Context

* UserCounterListener.java

```
package com.example;
```

```
import jakarta.servlet.*;
```

```
import jakarta.servlet.http.*;
```

```
import java.util.concurrent.atomic.AtomicInteger;
```

```
public class UserCounterListener implements HttpSessionListener {
```

```
    private static final int MAX_USERS = 3;
```

```
    private static AtomicInteger activeUsers = new AtomicInteger(0);
```

⑨Override

```
    public void sessionCreated (HttpSessionEvent event) {
```

```
        int count = activeUsers.incrementAndGet();
```

```
        ServletContext context = event.getSession().getServletContext();
```

```
        context.setAttribute("activeUsers", count);
```

```
        System.out.println("Session Created. Active Users: " + count);
```

```
    }
```

⑨Override

```
    public void sessionDestroyed (HttpSessionEvent event) {
```

```
        int count = activeUsers.decrementAndGet();
```

```
        ServletContext context = event.getSession().getServletContext();
```

```
        context.setAttribute("activeUsers", count);
```

```
        System.out.println("Session Destroyed. Active Users: " + count);
```

```
    }
```

```
}
```




* index.jsp

```
<%@page import="jakarta.servlet.ServletContext"%>
<% ServletContext context = request.getServletContext();
    Integer activeUsers = (Integer)
    context.getAttribute("activeUsers"); if (activeUsers == null)
    { activeUsers = 0; } if (activeUsers > 3)
    { response.sendRedirect("error.jsp"); return; } %>
```

```
<html>
  <head>
    <title>Welcome </title>
  </head>
  <body>
    <h2>Welcome to the Application</h2>
    <p>Active Users : <%= activeUsers %> </p>
    <p><a href="logout.jsp">Logout</a> </p>
  </body>
</html>
```




* logout.jsp

```
<html>
    <head>
        <title>Logout </title>
    </head>
    <body>
        <%
            session.invalidate();
            response.sendRedirect("index.jsp");
        %>
    </body>
</html>
```

* error.jsp

```
<html>
    <head>
        <title>Access Denied </title>
    </head>
    <body>
        <h2>Access Denied </h2>
        <p>Sorry, the application is full. Please  
try again later.
        </p>
    </body>
</html>
```

* web.xml

```
<listener>
    <listener-class> com.example.UsersCountryListener </listener-class>
</listener>
```