

Practical No. 7(a)

Q. Create a JSP page to demonstrate the use of Expression Language.

index.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Index</title>
  </head>
  <body>
    <h3>Welcome to Index Page</h3>
    <%
      session.setAttribute("user", "Admin");
    %>
    <%
      Cookie ck = new Cookie("name","mycookie");
      response.addCookie(ck);
    %>
    <form action="ExpressionLanguage.jsp" >
      Enter Name : <input type="text" name="name" /><br><br>
      <input type="submit" value="Submit" />
    </form>
  </body>
</html>
```

ExpressionLanguage.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Expression Language</title>
  </head>
  <body>
    Welcome, ${param.name} <br>
    <b> Session Value is: </b> ${sessionScope.user} <br>
    <b> Cookie name is: </b> ${cookie.name.value}
  </body>
</html>
```

ELArithmetic.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>ELArithmetic</title>
  </head>
  <body>
    <%-- arithmetic op --%>
    5*5+4: ${5*5+4} <br>
    10 mod 4: ${10 mod 4} <br>
    15 div 3: ${15 div 3} <br>
  </body>
</html>
```

ELLogicOperator.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>ELLogicOperator</title>
  </head>
  <body>
    <%-- LogicalOperator --%>
    <h2>Logical Operator</h2>
    true and true: ${true and true} <br>
    true && false: ${true && false} <br>
    true or true: ${true or true} <br>
    true || false: ${true || false} <br>
    not true: ${not true} <br>
    !false: ${!false}
  </body>
</html>
```

ELRelationalOperator.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>ELRelationalOperator</title>
```

```

</head>
<body>
  <%-- RelationalOperator --%>
  <h2>Relational Operator</h2>

  10.0==10: ${10.0==10} <br>
  10.0 eq 10: ${10.0 eq 10} <br>

  ((20*10)!= 200): ${((20*10)!= 200)} <br>
  3 ne 3: ${3 ne 3} <br>

  2>1: ${2>1} <br>
  2 gt 1: ${2 gt 1} <br>

  3.2>=2: ${3.2>=2} <br>
  3.2 ge 2: ${3.2 ge 2} <br>

  2<3: ${2<3} <br>
  4 lt 6: ${4 lt 6} <br>

  2 <= 4: ${2 <= 4} <br>
  4 le 2: ${4 le 2}

</body>
</html>

```

ELConditionalOperator.jsp

```

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>ELConditionalOperator</title>
  </head>
  <body>
    <h2>Conditional Operator</h2>
    The result of 10>2 is: "${(10>1)?'greater':'lesser'}"
  </body>
</html>

```

EmptyOperator.jsp

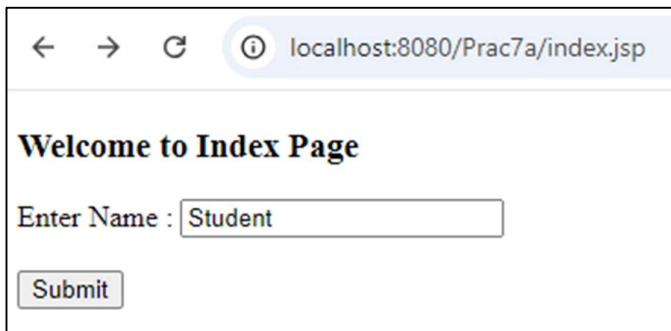
```

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>

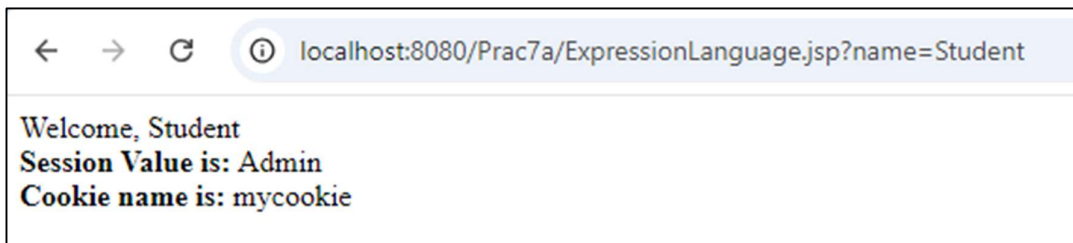
```

```
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>EmptyOperator</title>
</head>
<body>
  <H1>Empty Operator Example</H1>
  The Value for the Empty operator is:: ${empty "txt"}
</body>
</html>
```

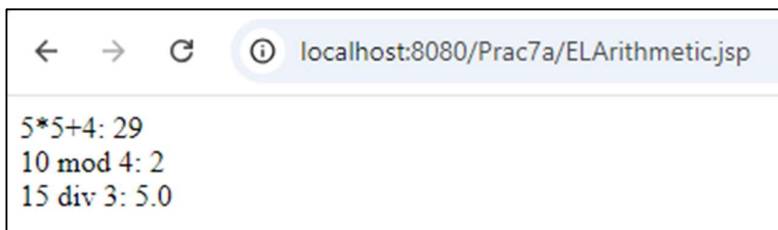
Output:



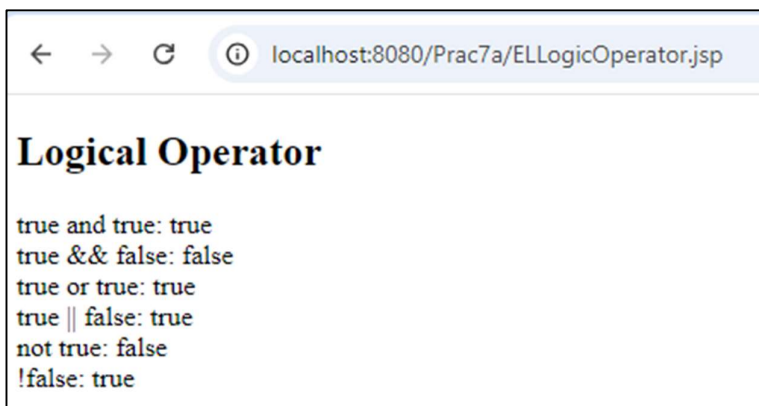
A screenshot of a web browser window. The address bar shows 'localhost:8080/Prac7a/index.jsp'. The page content includes a heading 'Welcome to Index Page', a text input field with the value 'Student', and a 'Submit' button.



A screenshot of a web browser window. The address bar shows 'localhost:8080/Prac7a/ExpressionLanguage.jsp?name=Student'. The page content displays the results of an EL expression: 'Welcome, Student', 'Session Value is: Admin', and 'Cookie name is: mycookie'.



A screenshot of a web browser window. The address bar shows 'localhost:8080/Prac7a/ELArithmetic.jsp'. The page content displays the results of arithmetic EL expressions: '5*5+4: 29', '10 mod 4: 2', and '15 div 3: 5.0'.



A screenshot of a web browser window. The address bar shows 'localhost:8080/Prac7a/ELLogicOperator.jsp'. The page content displays the results of logical EL expressions: 'true and true: true', 'true && false: false', 'true or true: true', 'true || false: true', 'not true: false', and '!false: true'.

← → ↻ ⓘ localhost:8080/Prac7a/ELRelationalOperator.jsp

Relational Operator

```
10.0==10: true
10.0 eq 10: true
((20*10)!= 200): false
3 ne 3: false
2>1: true
2 gt 1: true
3.2>=2: true
3.2 ge 2: true
2<3: true
4 lt 6: true
2 <= 4: true
4 le 2: false
```

← → ↻ ⓘ localhost:8080/Prac7a/ELConditionalOperator.jsp

Conditional Operator

The result of 10>2 is: "greater"

← → ↻ ⓘ localhost:8080/Prac7a/EmptyOperator.jsp

Empty Operator Example

The Value for the Empty operator is: false

Practical No. 7(b)

Q. Create a JSP application to demonstrate the use of JSTL.

index.html

```
<html>
<body>
  <a href="setDemo.jsp">SetDemo</a><br>
  <a href="MaxIf.html">MaxIF</a><br>
  <a href="forEachDemo.jsp">ForEachDemo</a><br>
  <a href="outDemo.jsp">OutDemo</a><br>
  <a href="URLDemo.jsp">URLDemo</a><br>
  <a href="Choose_when_otherwise.jsp">choose_when_otherwise</a><br>
</body>
</html>
```

setDemo.jsp

```
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>
<c:set
  var="pageTitle"
  scope="application"
  value="Barclays Premier League: Registration"
/>
${pageTitle}
```

MaxIf.html

```
<form action="IFDemo.jsp">
  x=<input type="text" name="x" /><br>
  y=<input type="text" name="y" /><br>
  <input type="submit" value="Check Max" />
</form>
```

IFDemo.jsp

```
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>

<c:set var="x" value="${param.x}" />
<c:set var="y" value="${param.y}" />

<c:if test="${x > y}">
  <font color="blue">
```

```
<h2>The Ans is:</h2>
</font>
<c:out value="\${x} is greater than \${y}" />
</c:if>
```

forEachDemo.jsp

```
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>

<c:forEach begin="1" end="10" var="i">
  The Square of <c:out value="\${i}=\${i * i}" /><br>
</c:forEach>
```

outDemo.jsp

```
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>

<c:set var="name" value="John" />
My name is: <c:out value="\${name}" />
```

URLDemo.jsp

```
<%@taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>
<c:url value="/index.html"/>
```

Choose_when_otherwise.jsp

```
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>

<c:set var="income" value="\${20000 * 4}" />
Your Income is: <c:out value="\${income}" />

<c:choose>
  <c:when test="\${income <= 1000}">
    Income is not good
  </c:when>
  <c:when test="\${income > 10000}">
    Income is Very Good
  </c:when>
  <c:otherwise>
    Income is undetermined
  </c:otherwise>
</c:choose>
```

Output:

