10) Make use of the following types of Tags available in JSTL Taglibs as a part of JSP programs.
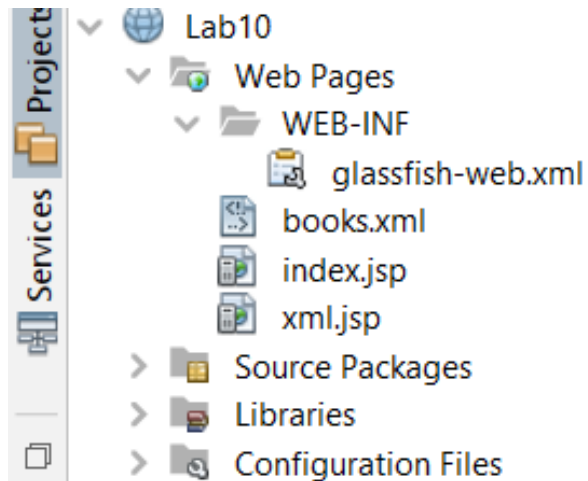
a) Format: fmt:formatDate, fmt:parseDate and fmt:setTimeZone tags.

b) XML: x:parse, x:forEach and x:out tags.

Lab10
- Web Pages
  - WEB-INF
    - glassfish-web.xml
  - books.xml
  - index.jsp
  - xml.jsp
- Source Packages
- Libraries
- Configuration Files

Index.jsp

```
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>
<%@ taglib prefix="fmt" uri="http://java.sun.com/jsp/jstl/fmt"%>
<html>
  <head>
    <title>fmt</title>
  </head>
  <body>
     <a href="xml.jsp"> Click Here For XML  </a>
    <h3>Different Formats of the Date :</h3>
    <c:set var="Date" value="<%=new java.util.Date()%>" />
    <p>
      Formatted Time :
      <fmt:formatDate type="time" value="${Date}" />
    </p>
    <p>
      Formatted Date :
```
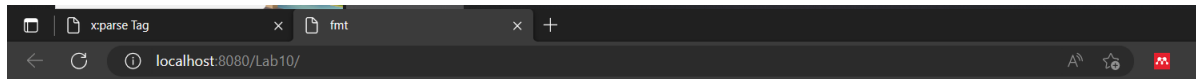
```
    <fmt:formatDate type="date" value="${Date}" />
</p>
<p>
  Formatted Date and Time :
  <fmt:formatDate type="both" value="${Date}" />
</p>
<p>
  Formatted Date and Time in short style :
  <fmt:formatDate type="both" dateStyle="short" timeStyle="short"
          value="${Date}" />
</p>
<p>
  Formatted Date and Time in medium style :
  <fmt:formatDate type="both" dateStyle="medium" timeStyle="medium"
          value="${Date}" />
</p>
<p>
  Formatted Date and Time in long style :
  <fmt:formatDate type="both" dateStyle="long" timeStyle="long"
          value="${Date}" />
</p>
<h3>Parsed Date:</h3>
<c:set var="date" value="26-06-2023" />


<fmt:parseDate value="${date}" var="parsedDate"  pattern="dd-MM-yyyy" />
<p><c:out value="${parsedDate}" /></p>


<h3>set Time Zone: </h3>
<c:set var="date" value="<%=new java.util.Date()%>" />
<p>Date and Time in Indian Standard Time(IST) Zone: <fmt:formatDate value="${date}"
          type="both" timeStyle="long" dateStyle="long" /></p>
```

```
<fmt:setTimeZone value="GMT-10" />

<p>Date and Time in GMT-10 time Zone: <fmt:formatDate value="${date}"
    type="both" timeStyle="long" dateStyle="long" /></p>


    </body>

</html>
```


Click Here For XML

Different Formats of the Date :

Formatted Time : 1:49:32 PM

Formatted Date : Mar 25, 2023

Formatted Date and Time : Mar 25, 2023 1:49:32 PM

Formatted Date and Time in short style : 3/25/23 1:49 PM

Formatted Date and Time in medium style : Mar 25, 2023 1:49:32 PM

Formatted Date and Time in long style : March 25, 2023 1:49:32 PM IST

Parsed Date:

Mon Jun 26 00:00:00 IST 2023

set Time Zone:

Date and Time in Indian Standard Time(IST) Zone: March 25, 2023 1:49:32 PM IST

Date and Time in GMT-10 time Zone: March 24, 2023 10:19:32 PM GMT-10:00

books.xml

```
<books>
<book>
 <name>Three mistakes of my life</name>
 <author>Chetan Bhagat</author>
 <price>200</price>
</book>
<book>
 <name>Tomorrow land</name>
 <author>NUHA</author>
 <price>2000</price>
</book>
</books>
```

xml.jsp

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

<html>
  <head>
    <title>x Tag</title>
  </head>
  <body>
    <h3>x:Parse</h3>
    <h5>Books Info:</h5>
    <c:import var="bookInfo" url="books.xml"/>

    <x:parse xml="${bookInfo}" var="output"/>
    <p>First Book title: <x:out select="$output/books/book[1]/name" /></p>
    <p>First Book price: <x:out select="$output/books/book[1]/price" /></p>
    <p>Second Book title: <x:out select="$output/books/book[2]/name" /></p>
    <p>Second Book price: <x:out select="$output/books/book[2]/price" /></p>
    <h3>For Each: </h3>

    <c:set var = "xmltext">
    <books>
      <book>
        <name>Three mistakes of my life</name>
        <author>Chetan Bhagat</author>
        <price>200</price>
      </book>

      <book>
```

```
        <name>Tomorrow land</name>

        <author>NUHA</author>

        <price>2000</price>

      </book>

   </books>

</c:set>


<x:parse xml = "${xmltext}" var = "output"/>


<ul class = "list">

   <x:forEach select = "$output/books/book/name" var = "item">

      <li>Book Name: <x:out select = "$item" /></li>

      </x:forEach>

</ul>

<br>

<h3>x:out </h3>


<c:set var="book">

   <books>

      <book>

        <name>Three mistakes of my life</name>

        <author>Chetan Bhagat</author>

        <price>200</price>

      </book>

      <book>

        <name>Tomorrow land</name>

        <author>NUHA</author>

        <price>2000</price>

      </book>

   </books>

</c:set>
```

```
<x:parse xml="${book}" var="output"/>

<b>Name of the book is</b>:

<x:out select="$output/books/book[1]/name" /><br>

<b>Price of the book is</b>:

<x:out select="$output/books/book[2]/price" />



</body>

</html>
```

Output

x:Parse

Books Info:

First Book title: Three mistakes of my life

First Book price: 200

Second Book title: Tomorrow land

Second Book price: 2000

For Each:

- Book Name: Three mistakes of my life
- Book Name: Tomorrow land

x:out

Name of the book is: Three mistakes of my life
Price of the book is: 2000