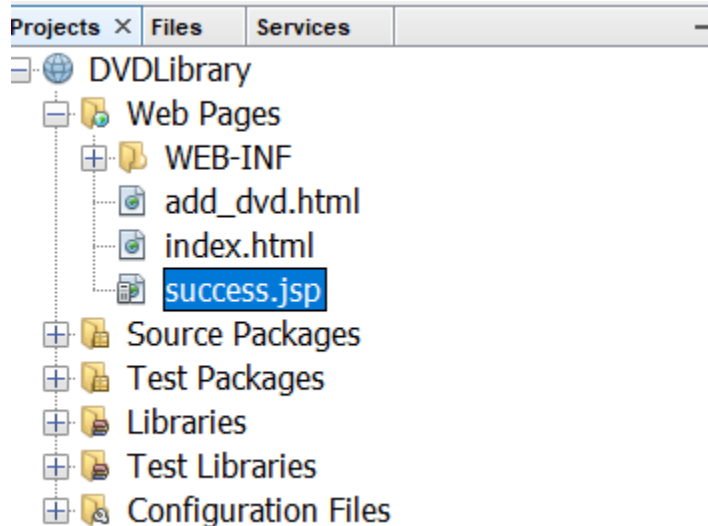


LAB 7: JSP - CSC584

1. Exercise 1: Converting the Add DVD Success View Component to a JSP Page

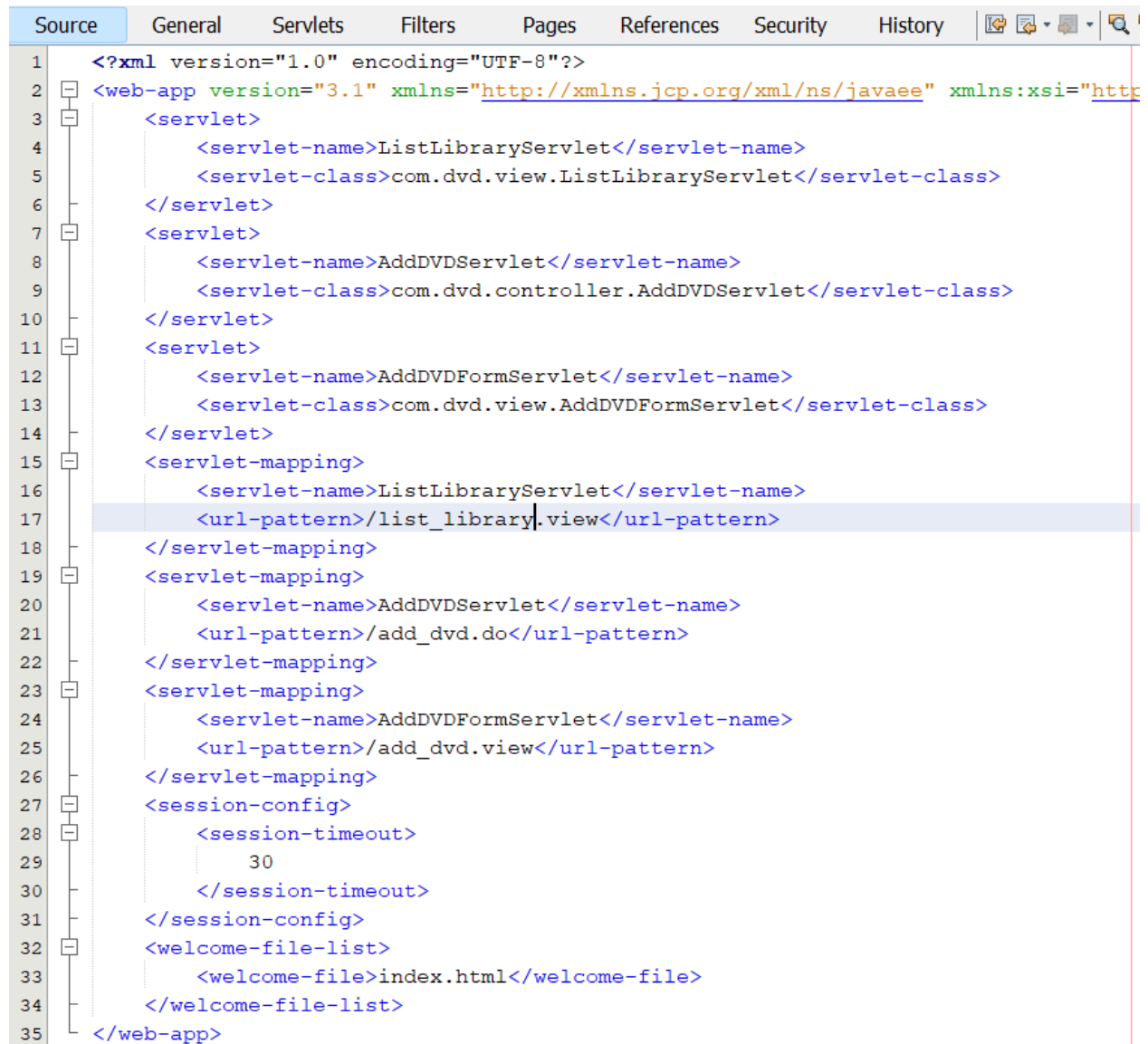
Task 1: Convert the Success Servlet

1. Create JSP file with the following characteristics:



```
Source History
1  <%--
2      Document    : success
3      Created on  : Nov 19, 2024, 5:12:11 PM
4      Author     : nasru
5  --%>
6
7  <%@page contentType="text/html" pageEncoding="UTF-8"%>
8  <!DOCTYPE html>
9  <jsp:useBean id="dvdItem" scope="request" type="com.dvd.model.DVDItem" />
10
11 <html>
12 <head>
13     <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
14     <title>DVD Library Application: Add DVD Success</title>
15 </head>
16 <body>
17     <h1>Add DVD Success (JSP)</h1>
18
19     You have add the following DVD: <br/>
20     Title: <jsp:getProperty name="dvdItem" property="title" /><br>
21     Year Release: <jsp:getProperty name="dvdItem" property="year" /><br>
22     Genre of film: <jsp:getProperty name="dvdItem" property="genre" /><br>
23     <br><a href='index.html'>Home</a>
24 </body>
25 </html>
26
```

Task 2: Remove the Old Servlet Code (optional)



```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <web-app version="3.1" xmlns="http://xmlns.jcp.org/xml/ns/javaee" xmlns:xsi="http://xmlns.jcp.org/xml/ns/javaee/xsi" xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd">
3      <servlet>
4          <servlet-name>ListLibraryServlet</servlet-name>
5          <servlet-class>com.dvd.view.ListLibraryServlet</servlet-class>
6      </servlet>
7      <servlet>
8          <servlet-name>AddDVDServlet</servlet-name>
9          <servlet-class>com.dvd.controller.AddDVDServlet</servlet-class>
10     </servlet>
11     <servlet>
12         <servlet-name>AddDVDFormServlet</servlet-name>
13         <servlet-class>com.dvd.view.AddDVDFormServlet</servlet-class>
14     </servlet>
15     <servlet-mapping>
16         <servlet-name>ListLibraryServlet</servlet-name>
17         <url-pattern>/list_library.view</url-pattern>
18     </servlet-mapping>
19     <servlet-mapping>
20         <servlet-name>AddDVDServlet</servlet-name>
21         <url-pattern>/add_dvd.do</url-pattern>
22     </servlet-mapping>
23     <servlet-mapping>
24         <servlet-name>AddDVDFormServlet</servlet-name>
25         <url-pattern>/add_dvd.view</url-pattern>
26     </servlet-mapping>
27     <session-config>
28         <session-timeout>
29             30
30         </session-timeout>
31     </session-config>
32     <welcome-file-list>
33         <welcome-file>index.html</welcome-file>
34     </welcome-file-list>
35 </web-app>
```

Task 3: Deploy the Web Application

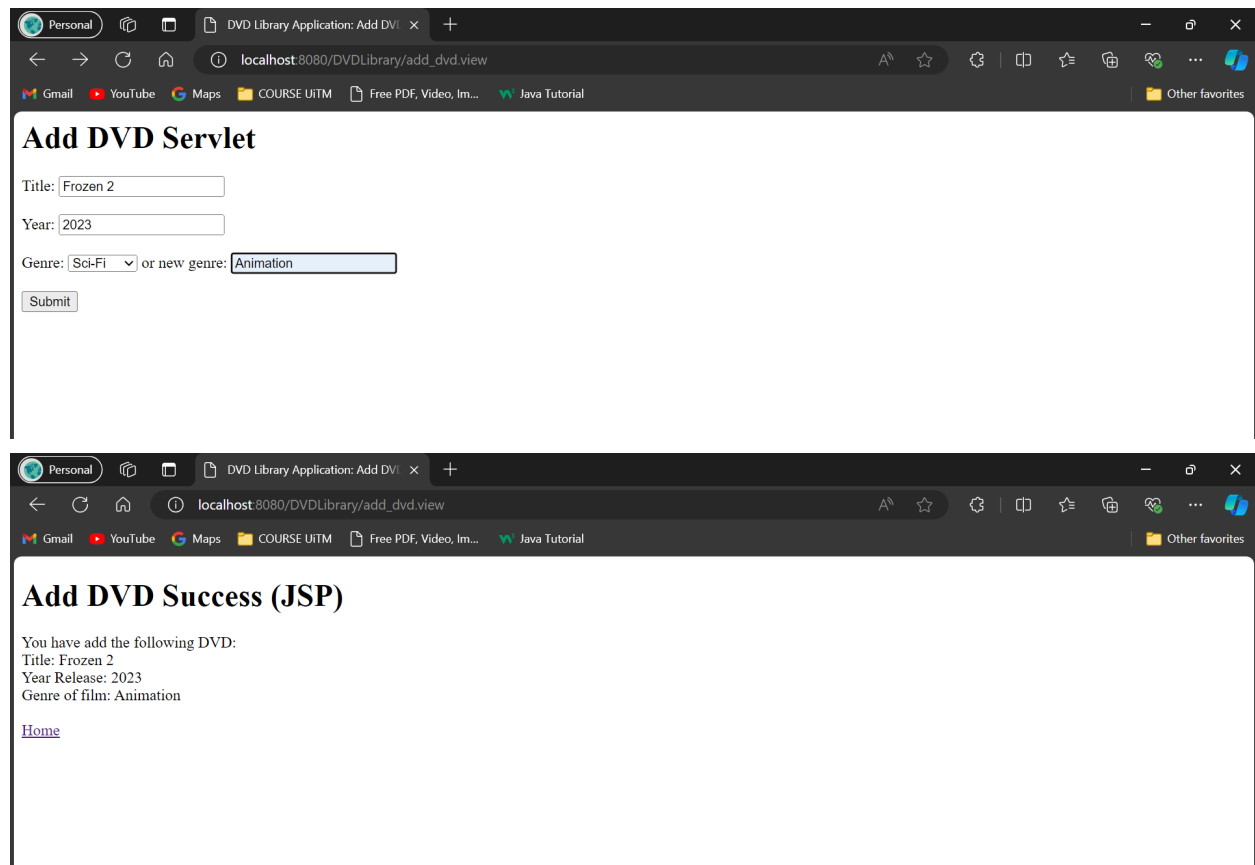


The image shows the NetBeans IDE's output window with the 'Output' tab selected. It displays the execution of an Ant script for deploying the DVDLibrary application. The output shows various build steps like 'init:', 'deps-module-jar:', 'deps-ear-jar:', 'deps-jar:', 'library-inclusion-in-archive:', 'library-inclusion-in-manifest:', 'compile:', and 'compile-jsp:'. The final step is 'In-place deployment at C:\Users\nasru\OneDrive\Documents\NetBeansProjects\DVDLibrary\build\web', which is followed by 'run-deploy:' and a green message 'BUILD SUCCESSFUL (total time: 0 seconds)'.

```
ant -f C:\Users\nasru\OneDrive\Documents\NetBeansProjects\DVDLibrary -Dnb.internal.action.name=redeploy -Ddirec
init:
deps-module-jar:
deps-ear-jar:
deps-jar:
library-inclusion-in-archive:
library-inclusion-in-manifest:
compile:
compile-jsp:
In-place deployment at C:\Users\nasru\OneDrive\Documents\NetBeansProjects\DVDLibrary\build\web
run-deploy:
BUILD SUCCESSFUL (total time: 0 seconds)
```

Task 4: Test the Web Application

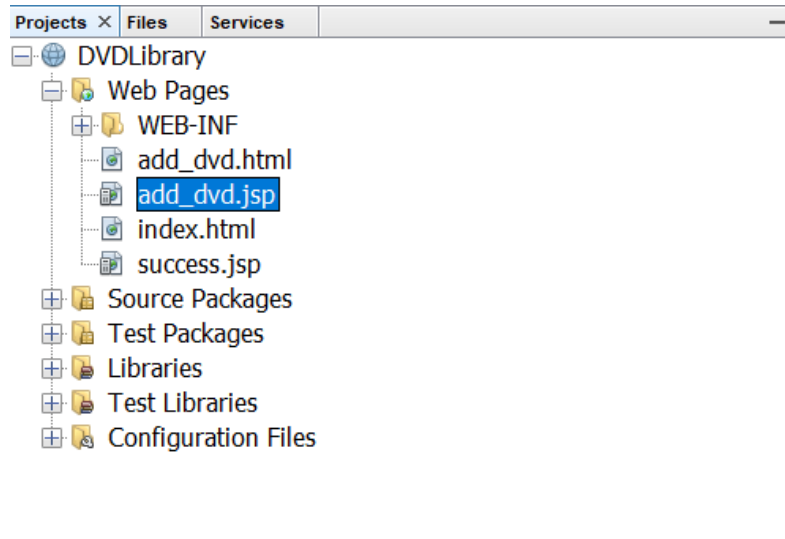
1. Refresh the DVDLibrary web application home page. Test the Add DVD form page.



Exercise 2: Converting the Add DVD Form Component to a JSP Page

Task 1: Convert the AddDVDFormServlet Servlet

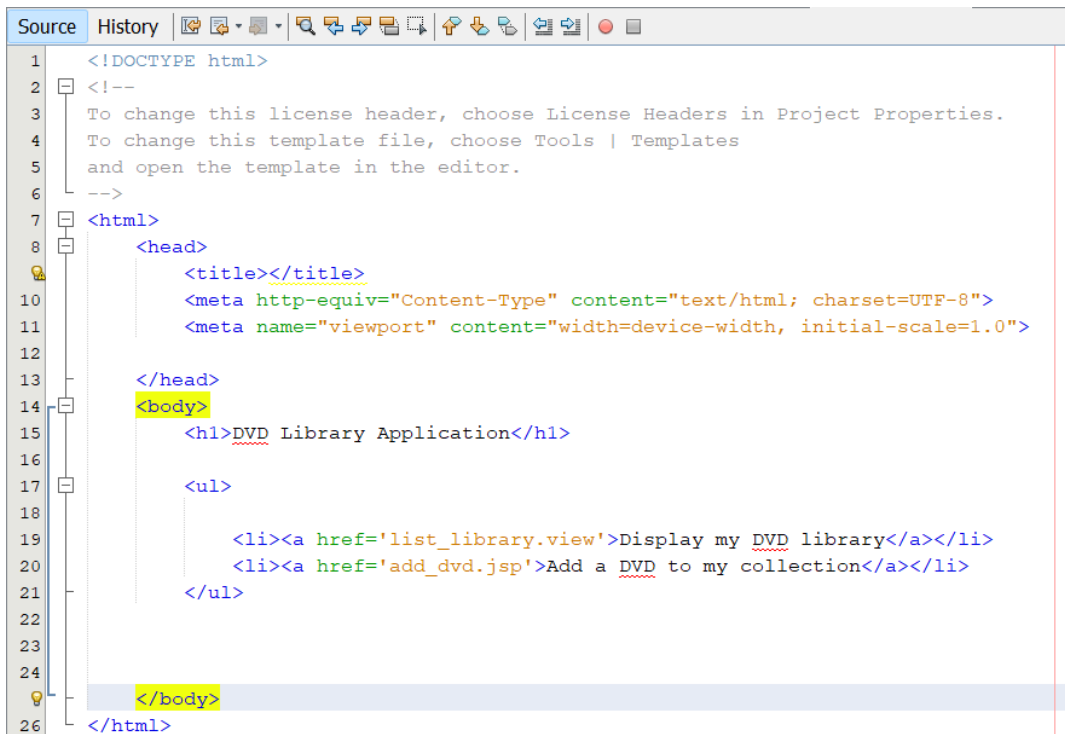
1.



2. + 3

```
Source History | [Icons]
1  <!--
2  Document : add_dvd
3  Created on : Nov 19, 2024, 6:59:22 PM
4  Author : nasru
5  -->
6
7  <@page contentType="text/html" pageEncoding="UTF-8"%>
8  <!DOCTYPE html>
9  <html>
10     <head>
11         <title>DVD Library Application: Add DVD Form</title>
12     </head>
13     <body>
14         <h1>Add DVD</h1>
15         <form action='add_dvd.do' method='POST'>
16             Title: <input type='text' name='title'> <br/> <br/>
17             <%
18                 java.util.Calendar calendar = java.util.Calendar.getInstance();
19                 int currYear = calendar.get(java.util.Calendar.YEAR);
20             %>
21             Year: <input type='text' name='year' value="<%= currYear %>"> <br/> <br/>
22             Genre <select name='genre'>
23                 <option value='Sci-Fi'>Sci-Fi</option>
24                 <option value='Drama'>Drama</option>
25                 <option value='Comedy'>Comedy</option>
26             </select>
27             or new genre: <input type='text' name='newGenre'> <br/> <br/>
28             <input type='submit'>
29         </form>
30     </body>
31 </html>
```

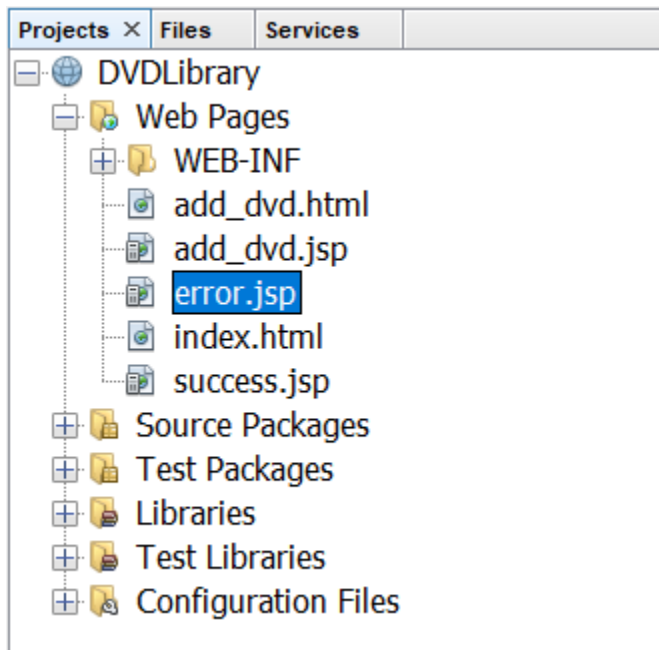
4.



```
1 <!DOCTYPE html>
2 <!--
3 To change this license header, choose License Headers in Project Properties.
4 To change this template file, choose Tools | Templates
5 and open the template in the editor.
6 -->
7 <html>
8 <head>
9 <title></title>
10 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
11 <meta name="viewport" content="width=device-width, initial-scale=1.0">
12
13 </head>
14 <body>
15 <h1>DVD Library Application</h1>
16
17 <ul>
18
19 <li><a href='list_library.view'>Display my DVD library</a></li>
20 <li><a href='add_dvd.jsp'>Add a DVD to my collection</a></li>
21 </ul>
22
23
24 </body>
25
26 </html>
```

Task 2: Create the JSP error page

1. Create JSP file with the following characteristics:

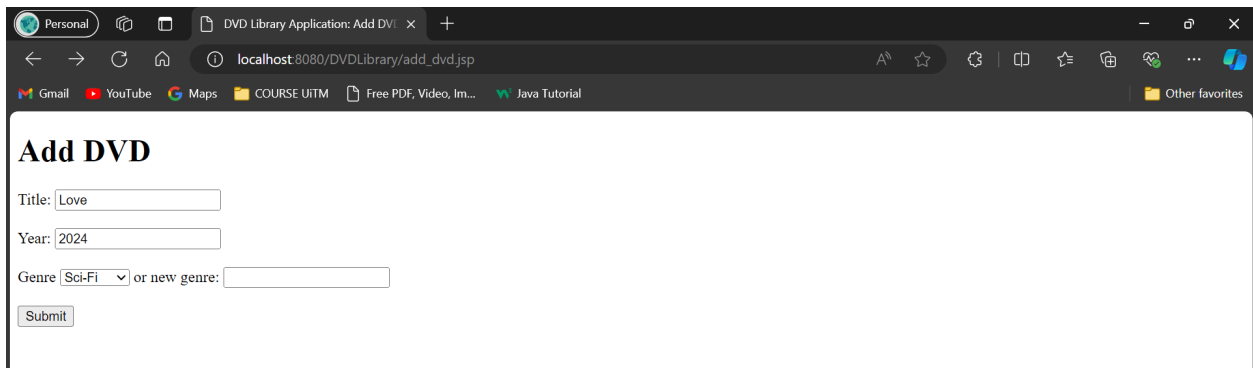


2. + 3

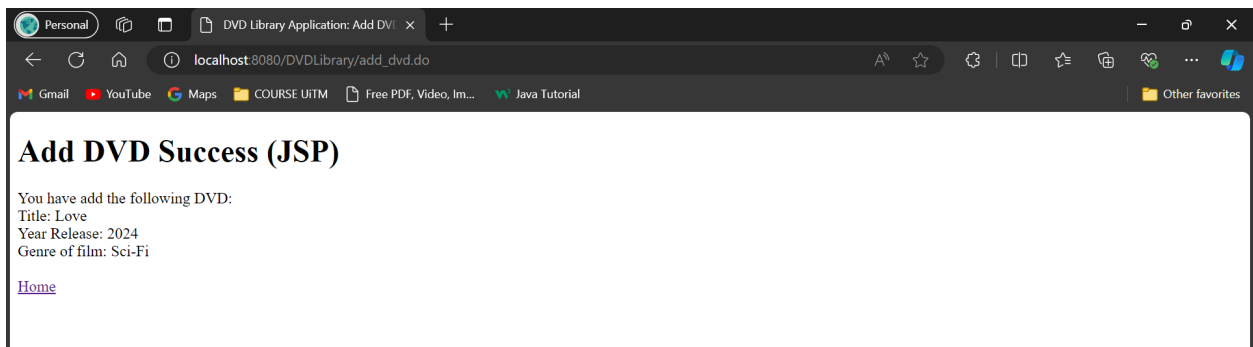
```
46     }
47     if(!errorMsgs.isEmpty()){
48         request.setAttribute("errorMsgs", errorMsgs);
49         RequestDispatcher view = request.getRequestDispatcher("/error.jsp");
50         view.forward(request, response);
51         return;
52     }
53     // Business logic
54     DVDItem item = new DVDItem(title, year, genre);
55
56     // Store the item on the request-scope
57     request.setAttribute("dvdItem", item);
58
59     // Dispatch to Success view
60     RequestDispatcher view = request.getRequestDispatcher("/success.jsp");
61     view.forward(request, response);
62 
```

Task 3: Remove the Old Servlet Code (optional)

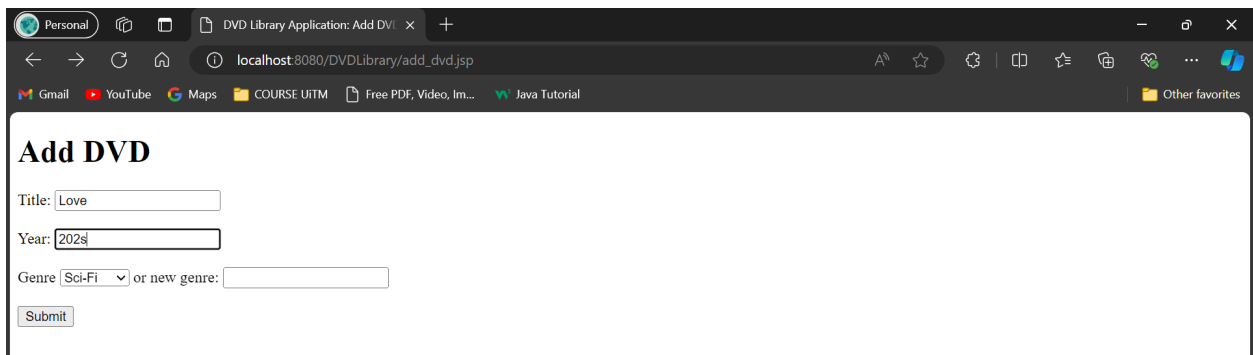
Task 4: Deploy and Test the Web Application



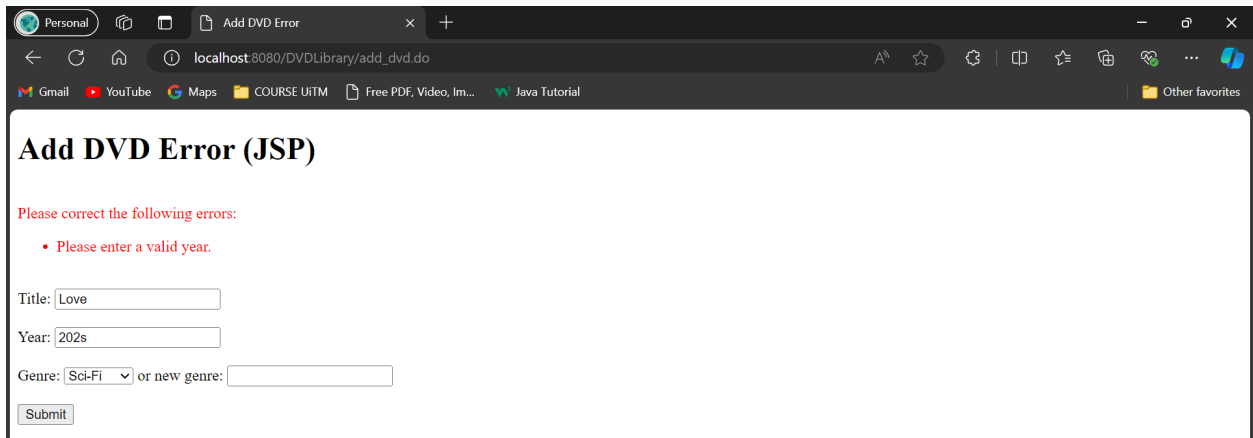
A screenshot of a web browser showing the 'Add DVD' form. The browser's address bar displays 'localhost:8080/DVDLibrary/add_dvd.jsp'. The form includes three input fields: 'Title' with the value 'Love', 'Year' with the value '2024', and 'Genre' with a dropdown menu set to 'Sci-Fi' and a text input for 'or new genre:'. A 'Submit' button is located at the bottom of the form.



A screenshot of a web browser showing the 'Add DVD Success (JSP)' page. The browser's address bar displays 'localhost:8080/DVDLibrary/add_dvd.do'. The page content states: 'You have add the following DVD: Title: Love, Year Release: 2024, Genre of film: Sci-Fi'. A link labeled 'Home' is provided at the bottom.



A screenshot of a web browser showing the 'Add DVD' form. The browser's address bar displays 'localhost:8080/DVDLibrary/add_dvd.jsp'. The form includes three input fields: 'Title' with the value 'Love', 'Year' with the value '202s', and 'Genre' with a dropdown menu set to 'Sci-Fi' and a text input for 'or new genre:'. A 'Submit' button is located at the bottom of the form.

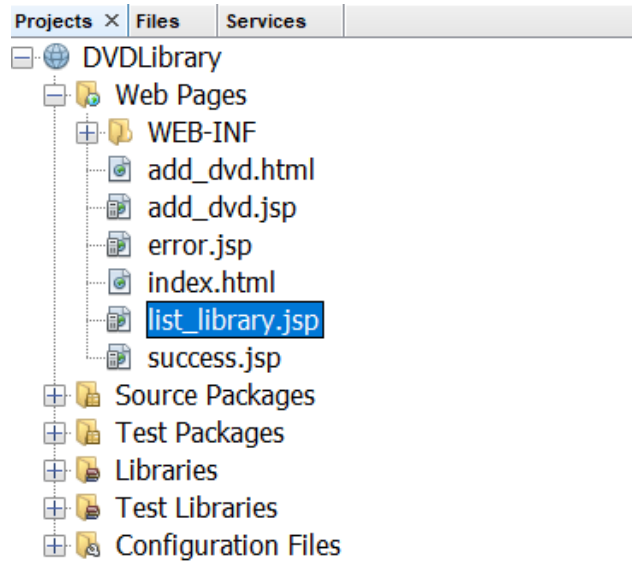


A screenshot of a web browser showing the 'Add DVD Error (JSP)' page. The browser's address bar displays 'localhost:8080/DVDLibrary/add_dvd.do'. The page content states: 'Please correct the following errors:'. A red bullet point indicates the error: 'Please enter a valid year:'. Below this, the form fields are shown: 'Title' with 'Love', 'Year' with '202s', and 'Genre' with 'Sci-Fi' selected. A 'Submit' button is at the bottom.

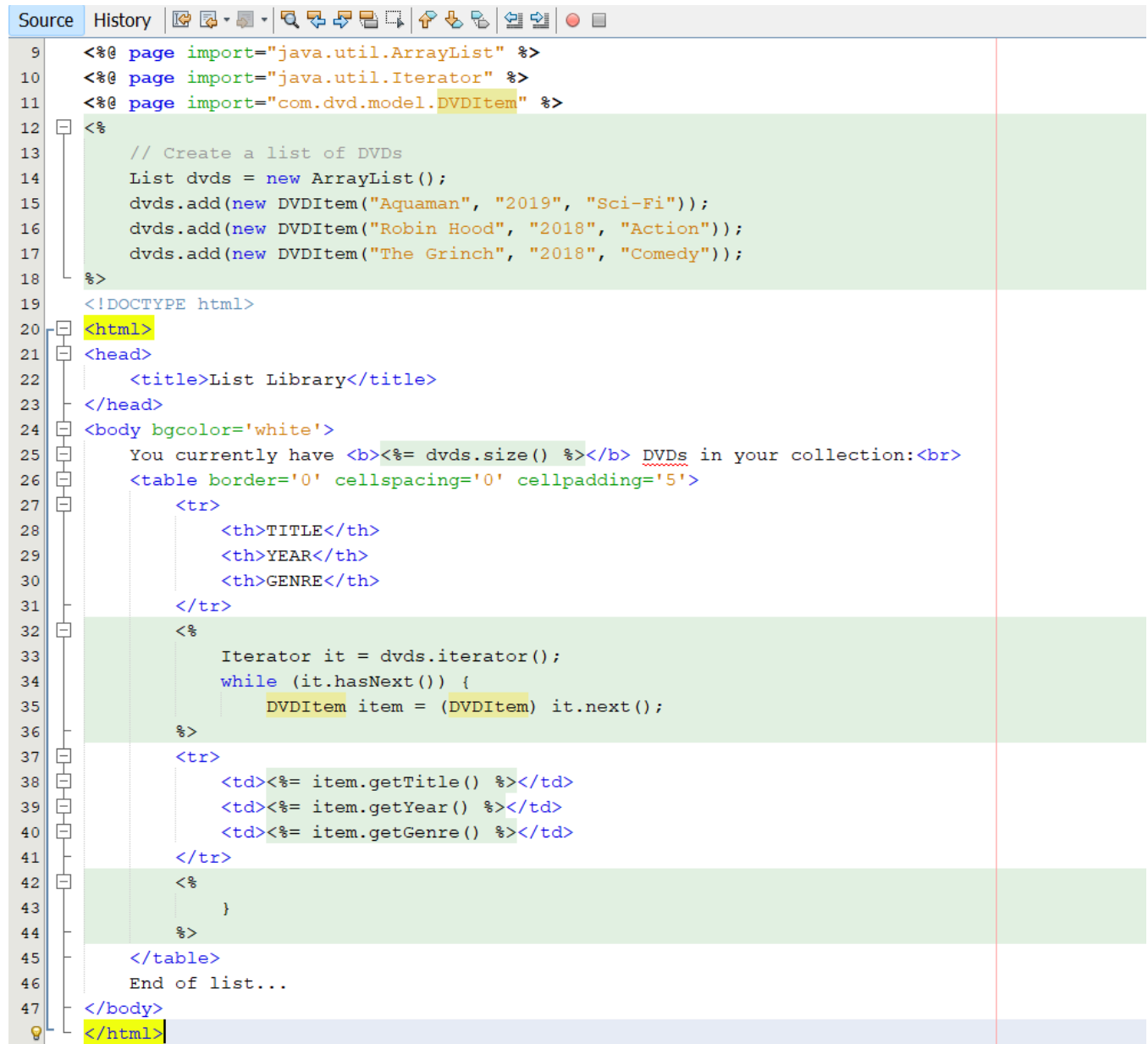
Exercise 3: Converting the List Library View Component to a JSP Page

Task 1: Convert the List Library Servlet

1. Create a JSP page file with the following characteristics:

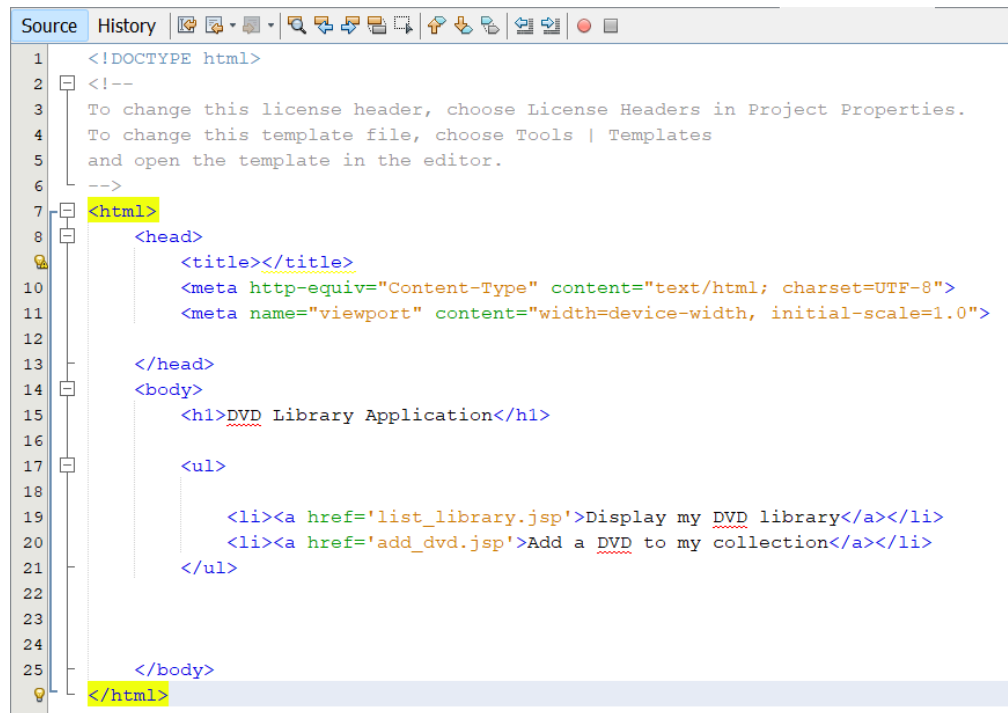


2. Using the ListLibraryServlet servlet class as a guide, convert the servlet code into JSP code.



```
9  <%@ page import="java.util.ArrayList" %>
10 <%@ page import="java.util.Iterator" %>
11 <%@ page import="com.dvd.model.DVDItem" %>
12 <%
13     // Create a list of DVDs
14     List dvds = new ArrayList();
15     dvds.add(new DVDItem("Aquaman", "2019", "Sci-Fi"));
16     dvds.add(new DVDItem("Robin Hood", "2018", "Action"));
17     dvds.add(new DVDItem("The Grinch", "2018", "Comedy"));
18 %>
19 <!DOCTYPE html>
20 <html>
21 <head>
22     <title>List Library</title>
23 </head>
24 <body bgcolor='white'>
25     You currently have <b><%= dvds.size() %></b> DVDs in your collection:<br>
26     <table border='0' cellspacing='0' cellpadding='5'>
27         <tr>
28             <th>TITLE</th>
29             <th>YEAR</th>
30             <th>GENRE</th>
31         </tr>
32         <%
33             Iterator it = dvds.iterator();
34             while (it.hasNext()) {
35                 DVDItem item = (DVDItem) it.next();
36             %>
37         <tr>
38             <td><%= item.getTitle() %></td>
39             <td><%= item.getYear() %></td>
40             <td><%= item.getGenre() %></td>
41         </tr>
42         <%
43             }
44         %>
45     </table>
46     End of list...
47 </body>
48 </html>
```

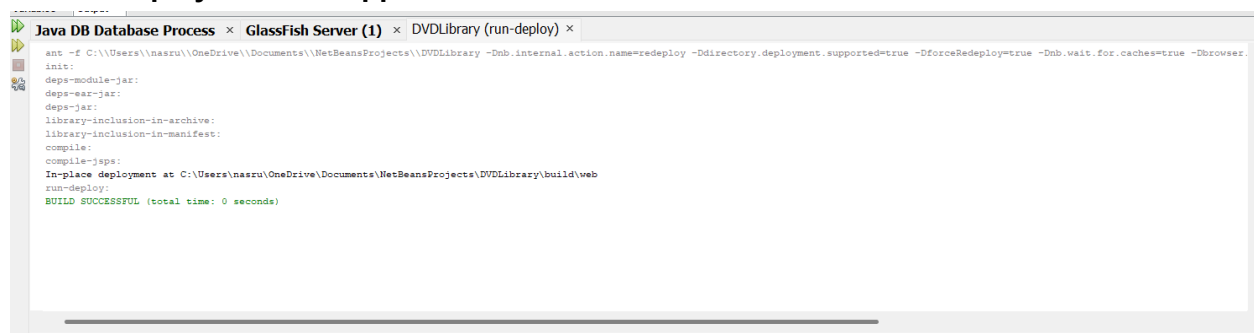
3. Modify the index.html home page to change the link to the new List Library JSP page.



```
1 <!DOCTYPE html>
2 <!--
3 To change this license header, choose License Headers in Project Properties.
4 To change this template file, choose Tools | Templates
5 and open the template in the editor.
6 -->
7 <html>
8 <head>
9 <title></title>
10 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
11 <meta name="viewport" content="width=device-width, initial-scale=1.0">
12
13 </head>
14 <body>
15 <h1>DVD Library Application</h1>
16
17 <ul>
18
19 <li><a href='list_library.jsp'>Display my DVD library</a></li>
20 <li><a href='add_dvd.jsp'>Add a DVD to my collection</a></li>
21 </ul>
22
23
24
25 </body>
26 </html>
```

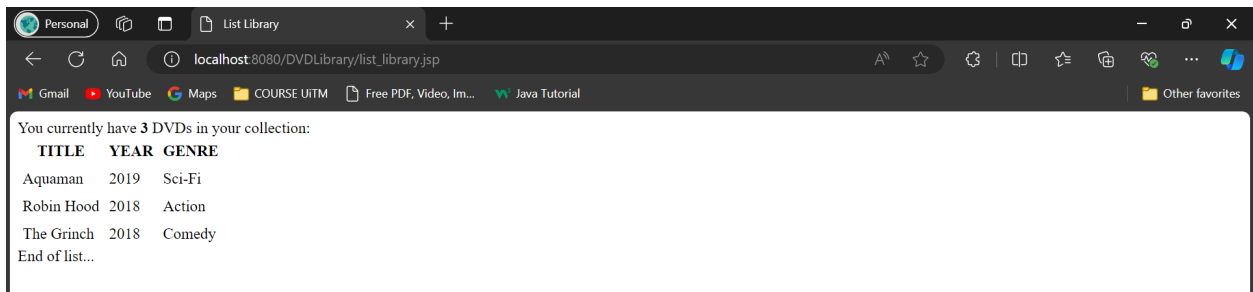
Task 2: Remove the Old Servlet Code (optional)

Task 3: Deploy the Web Application



```
Java DB Database Process x GlassFish Server (1) x DVDLibrary (run-deploy) x
ant -f C:\Users\nasru\OneDrive\Documents\NetBeansProjects\DVDLibrary -Dnb.internal.action.name=redeploy -Ddirectory.deployment.supported=true -Dforce.redeploy=true -Dnb.wait.for.caches=true -Dbrowser.
init:
deps-module-jar:
deps-war-jar:
deps-jar:
library-inclusion-in-archive:
library-inclusion-in-manifest:
compile:
compile-jsp:
In-place deployment at C:\Users\nasru\OneDrive\Documents\NetBeansProjects\DVDLibrary\build\web
run-deploy:
BUILD SUCCESSFUL (total time: 0 seconds)
```

Task 4: Test the Web Application



Post Lab Exercise

