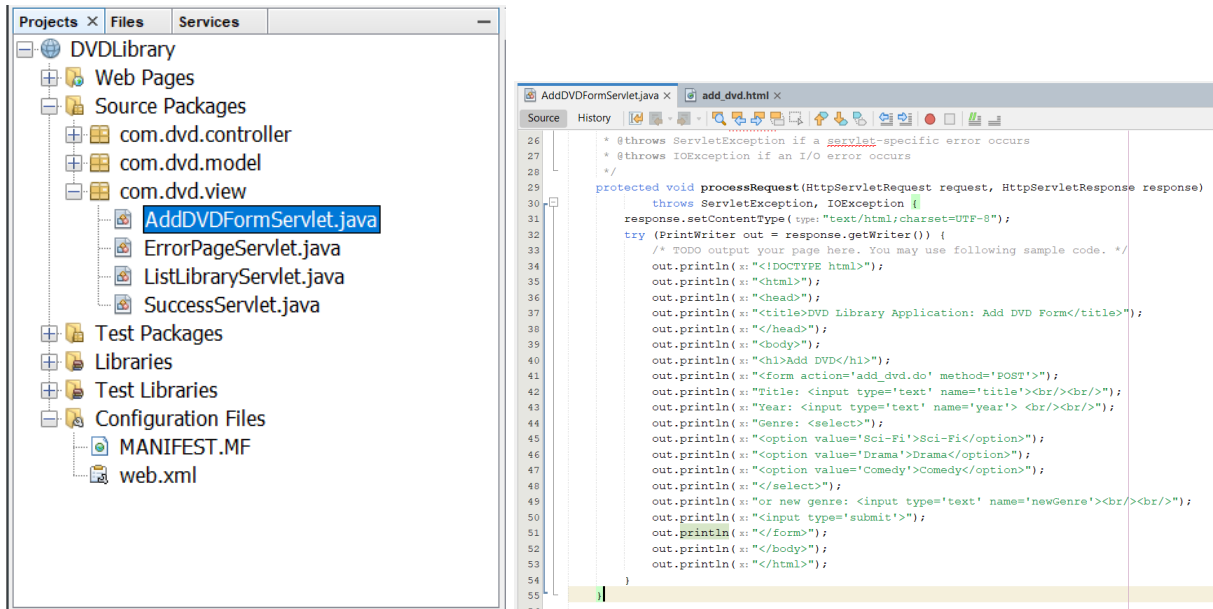


# LAB ASSIGNMENT 1: SERVLET -3 - CSC584

## 1. Developing the Add Form View Servlet

Create a java servlet using following characteristic:



The screenshot displays an IDE with two main windows. On the left is the 'Projects' view showing a project named 'DVDLibrary'. Under 'Source Packages', there are three packages: 'com.dvd.controller', 'com.dvd.model', and 'com.dvd.view'. The 'com.dvd.view' package is expanded, showing four files: 'AddDVDFormServlet.java' (highlighted), 'ErrorPageServlet.java', 'ListLibraryServlet.java', and 'SuccessServlet.java'. On the right is the 'Source' editor showing the code for 'AddDVDFormServlet.java'. The code is as follows:

```
26  * @throws ServletException if a servlet-specific error occurs
27  * @throws IOException if an I/O error occurs
28  */
29
30  protected void processRequest(HttpServletRequest request, HttpServletResponse response)
31      throws ServletException, IOException {
32      response.setContentType("text/html;charset=UTF-8");
33      try (PrintWriter out = response.getWriter()) {
34          /* TODO output your page here. You may use following sample code. */
35          out.println("<doctype html>");
36          out.println("<html>");
37          out.println("<head>");
38          out.println("<title>DVD Library Application: Add DVD Form</title>");
39          out.println("</head>");
40          out.println("<body>");
41          out.println("<h1>Add DVD</h1>");
42          out.println("<form action='add_dvd.do' method='POST'>");
43          out.println("<div>Title: <input type='text' name='title'><br/></div>");
44          out.println("<div>Year: <input type='text' name='year'> <br/></div>");
45          out.println("<div>Genre: <select>");
46          out.println("<option value='Sci-Fi'>Sci-Fi</option>");
47          out.println("<option value='Drama'>Drama</option>");
48          out.println("<option value='Comedy'>Comedy</option>");
49          out.println("</select>");
50          out.println("<div>Or new genre: <input type='text' name='newGenre'><br/></div>");
51          out.println("<input type='submit' value='Add DVD'>");
52          out.println("</div>");
53          out.println("</body>");
54          out.println("</html>");
55      }
```

### Add DVD to Library

Title:

Year:

Genre:

Or new genre:

## 2. Modify the AddDVDServlet Servlet & 3. Remove the ErrorPageServlet Servlet

```
AddDVDFormServlet.java x
Source History
protected void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    processRequest(request, response);
    List errorMsg = (List) request.getAttribute( name: "errorMsg");

    response.setContentType( type: "text/html;charset=UTF-8");
    try (PrintWriter out = response.getWriter()) {

        //Generate the HTML response
        out.println( x: "<!DOCTYPE html>");
        out.println( x: "<html>");
        out.println( x: "<head>");
        out.println( x: "<title>DVD Library Application: Error Page</title>");
        out.println( x: "</head>");
        out.println( x: "<body bgcolor='white'>");
        out.println( x: "<h2>Error Report</h2>");
        out.println( x: "<font color='red'>Please correct the following errors:</font>");
        out.println( x: "<ul>");
        Iterator items = errorMsg.iterator();
        while(items.hasNext()){
            String message = (String) items.next();
            out.println("<li>" + message + "</li>");
        }
        out.println( x: "</ul>");
        out.println( x: "</body>");
        out.println( x: "</html>");
        out.close();
    }
}
```

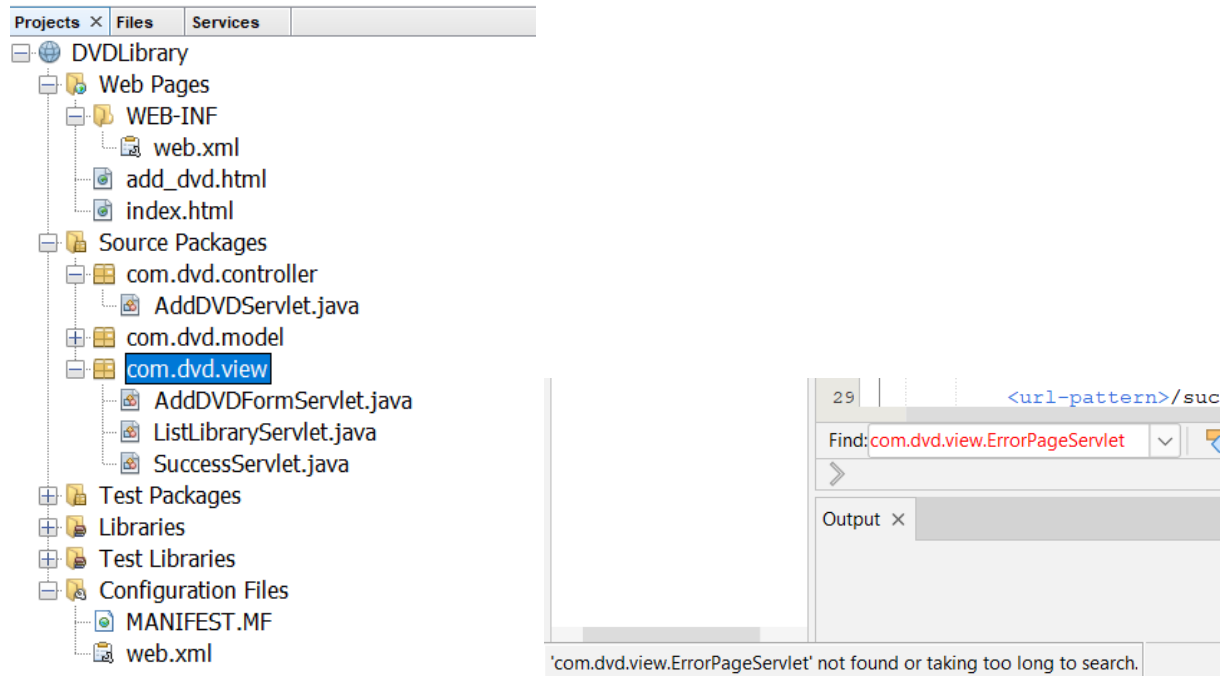
```
AddDVDServlet.java x
Source History
} else if(!year.trim().matches( regex: "\\d\\d\\d\\d\\d")){
    errorMsg.add( e: "Please enter valid year");
}
if (!errorMsg.isEmpty()){
    request.setAttribute( name: "errorMsg", o: errorMsg);
    RequestDispatcher view = request.getRequestDispatcher( path: "/add_dvd.view");
    view.forward(request, response);
    return;
}

//Business logic
DVDItem item = new DVDItem(title,year,genre);

//Store the item on the request-scope
request.setAttribute( name: "dvditem", o:item);

//Dispatch to Success View
RequestDispatcher view = request.getRequestDispatcher( path: "/success.view");
view.forward(request, response);

//Handle any unexpected exceptions
} catch(RuntimeException e){
    errorMsg.add("An unexpected error: " + e.getMessage());
    request.setAttribute( name: "errorMsg", o:errorMsg);
    RequestDispatcher view = request.getRequestDispatcher( path: "/add_dvd.view");
    view.forward(request, response);
}
}
```



#### 4. Deploy and test the web application

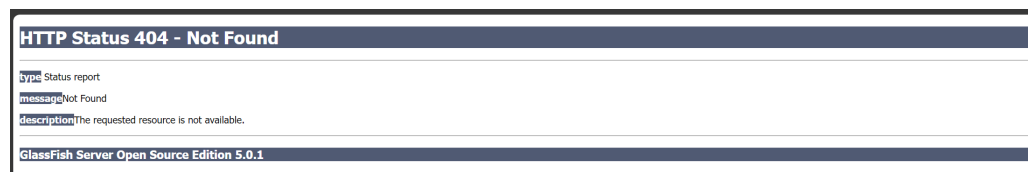
### Add DVD to Library

Title:

Year:

Genre:

Or new genre:



### Task 3: Repopulating Form Data (this task is to redisplay entered data by if errors occur in data entry)

Repopulate

```
AddDVDFormServlet.java x
Source History
31 protected void processRequest(HttpServletRequest request, HttpServletResponse response)
32     throws ServletException, IOException {
33     response.setContentType("text/html;charset=UTF-8");
34     try (PrintWriter out = response.getWriter()) {
35         /* TODO output your page here. You may use following sample code. */
36         out.println(x:"<!DOCTYPE html>");
37         out.println(x:"<html>");
38         out.println(x:"<head>");
39         out.println(x:"<title>DVD Library Application: Add DVD Form</title>");
40         out.println(x:"</head>");
41         out.println(x:"<body>");
42         out.println(x:"<h1>Add DVD</h1>");
43         out.println(x:"<form action='add_dvd.do' method='POST'>");
44         String title = request.getParameter( name: "title");
45         // Display the title field
46         out.print(s:" Title: <input type='text' name='title' ");
47         if(title == null) {
48             title = "";
49         }
50         out.println("value = '" + title + "' /> <br/>");
51         String year = request.getParameter( name: "year");
52         // Display the year field
53         out.print(s:" Year: <input type='text' name='year' ");
54         if(year == null) {
55             year = "";
56         }
57         out.println("value = '" + year + "' /> <br/>");
```

```
AddDVDFormServlet.java x
Source History
58 String genre = request.getParameter( name: "genre");
59 String genre_list = "Sci-Fi,Drama,Comedy";
60 String [] genres = null;
61 genres = genre_list.split( regex: ",");
62 //Repopulate the Genre drop-down menu
63 out.println(x:" Genre: <select name='genre'>");
64 for ( int i = 0; i < genres.length; i++ ) {
65     out.print("<option value='" + genres[i] + "'");
66     if( genre.equals(genres[i])) {
67         out.print(s:" selected");
68     }
69     out.println("> " + genres[i] + "</option>");
70 }
71 out.println(x:"</select>");
72 String newGenre = request.getParameter( name: "newGenre");
73 out.println(x:" or new genre: <input type='text' name='newGenre' ");
74 if(newGenre == null) {
75     newGenre = "";
76 }
77 out.println("value = '" + newGenre + "' /> <br/>");
78 out.println(x:"<input type='submit'>");
79 out.println(x:"</form>");
80 out.println(x:"</body>");
81 out.println(x:"</html>");
82 }
83 }
```

Deploy and test the web application

## Add DVD to Library

Title:

Year:

Genre:

Or new genre:

### HTTP Status 404 - Not Found

**type** Status report

**message** Not Found

**description** The requested resource is not available.

**GlassFish Server Open Source Edition 5.0.1**